

Appendix C: Microprobe data

In this appendix, results of electron microprobe analysis of detrital chromian spinel, garnet and clinopyroxene are listed in Tables C-1 to 5.

*: the sample was collected by heavy liquid separation.

**: total iron as FeO.

n.d. : not determined.

Alm: almandine.

Pyr: pyrope.

Sps: spessartine.

Grs: grossular.

And: andradite.

Uvr: uvarovite.

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (1)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|-------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|---------------------|-------|-------|
| Mineoka Gr. | *00021202 | S1 | 0.01 | 13.66 | 0.02 | 54.06 | 17.77 | 0.10 | 0.26 | 11.32 | 0.02 | 0.00 | 0.00 | n. d. | 97.21 | 0.558 | 0.726 | 0.028 | 0.266 | 0.706 |
| Haccho Fm. | *00021202 | S2 | 0.00 | 27.26 | 0.07 | 38.82 | 17.26 | 0.16 | 0.17 | 13.25 | 0.03 | 0.00 | 0.00 | n. d. | 97.01 | 0.610 | 0.489 | 0.029 | 0.497 | 0.474 |
| sandstone | *00021202 | S3 | 0.02 | 11.10 | 0.30 | 54.23 | 17.02 | 0.11 | 0.29 | 13.25 | 0.05 | 0.00 | 0.00 | n. d. | 96.37 | 0.660 | 0.766 | 0.065 | 0.219 | 0.717 |
| | *00021202 | S4 | 0.04 | 28.01 | 0.41 | 37.08 | 16.12 | 0.16 | 0.17 | 16.50 | 0.03 | 0.00 | 0.01 | n. d. | 98.53 | 0.738 | 0.470 | 0.065 | 0.496 | 0.440 |
| | *00021202 | S5 | 0.08 | 14.63 | 1.45 | 46.12 | 18.55 | 0.29 | 0.13 | 15.27 | 0.04 | 0.06 | 0.00 | n. d. | 96.62 | 0.759 | 0.679 | 0.104 | 0.288 | 0.608 |
| | *00021202 | S6 | 0.00 | 21.21 | 0.03 | 44.62 | 18.78 | 0.11 | 0.26 | 12.11 | 0.02 | 0.00 | 0.00 | n. d. | 97.12 | 0.575 | 0.585 | 0.040 | 0.398 | 0.562 |
| | *00021202 | S7 | 0.00 | 33.24 | 0.07 | 32.55 | 17.26 | 0.12 | 0.21 | 14.65 | 0.01 | 0.00 | 0.00 | n. d. | 98.12 | 0.647 | 0.396 | 0.038 | 0.580 | 0.381 |
| | *00021202 | S8 | 0.01 | 18.51 | 0.04 | 49.21 | 16.59 | 0.03 | 0.30 | 11.65 | 0.00 | 0.00 | 0.00 | n. d. | 96.35 | 0.565 | 0.641 | 0.012 | 0.355 | 0.633 |
| | *00021202 | S9 | 0.01 | 12.14 | 0.08 | 48.90 | 25.77 | 0.04 | 0.38 | 8.90 | 0.03 | 0.01 | 0.00 | n. d. | 96.25 | 0.452 | 0.730 | 0.097 | 0.244 | 0.659 |
| | *00021202 | S10 | 0.00 | 20.30 | 0.21 | 42.99 | 22.10 | 0.08 | 0.31 | 10.33 | 0.00 | 0.00 | 0.01 | n. d. | 96.33 | 0.503 | 0.587 | 0.053 | 0.391 | 0.556 |
| | *00021202 | S11 | 0.09 | 25.43 | 0.32 | 39.07 | 16.21 | 0.25 | 0.16 | 15.58 | 0.01 | 0.00 | 0.02 | n. d. | 97.12 | 0.716 | 0.508 | 0.062 | 0.462 | 0.476 |
| | *00021202 | S12 | 0.05 | 18.91 | 0.09 | 44.56 | 20.69 | 0.06 | 0.22 | 11.56 | 0.01 | 0.00 | 0.00 | n. d. | 96.16 | 0.561 | 0.612 | 0.063 | 0.363 | 0.574 |
| | *00021202 | S13 | 0.10 | 26.57 | 0.44 | 36.13 | 20.20 | 0.15 | 0.21 | 13.19 | 0.03 | 0.00 | 0.01 | n. d. | 97.01 | 0.615 | 0.477 | 0.064 | 0.490 | 0.447 |
| | *00021202 | S14 | 0.01 | 9.62 | 0.22 | 53.81 | 22.06 | 0.07 | 0.32 | 10.09 | 0.04 | 0.01 | 0.02 | n. d. | 96.26 | 0.517 | 0.790 | 0.074 | 0.195 | 0.731 |
| | *00021202 | S15 | 0.00 | 18.71 | 0.00 | 50.42 | 15.21 | 0.07 | 0.17 | 12.56 | 0.02 | 0.00 | 0.01 | n. d. | 97.18 | 0.601 | 0.644 | 0.007 | 0.354 | 0.640 |
| | *00021202 | S16 | 0.07 | 26.39 | 0.54 | 37.58 | 16.74 | 0.21 | 0.14 | 15.94 | 0.02 | 0.00 | 0.00 | n. d. | 97.64 | 0.728 | 0.489 | 0.068 | 0.477 | 0.455 |
| | *00021202 | S17 | 0.00 | 8.01 | 0.06 | 58.85 | 18.36 | 0.04 | 0.34 | 9.76 | 0.02 | 0.00 | 0.00 | n. d. | 95.45 | 0.507 | 0.831 | 0.025 | 0.164 | 0.811 |
| | *00021202 | S18 | 0.03 | 35.85 | 0.07 | 30.99 | 15.58 | 0.15 | 0.17 | 14.83 | 0.03 | 0.00 | 0.01 | n. d. | 97.71 | 0.651 | 0.367 | 0.018 | 0.622 | 0.361 |
| | *00021202 | S19 | 0.02 | 7.47 | 0.07 | 58.28 | 24.67 | 0.00 | 0.52 | 6.84 | 0.03 | 0.00 | 0.01 | 0.28 | 98.20 | 0.354 | 0.840 | 0.046 | 0.153 | 0.801 |
| | *00021202 | S20 | 0.02 | 9.77 | 0.00 | 58.83 | 19.11 | 0.02 | 0.62 | 8.99 | 0.03 | 0.01 | 0.00 | 0.25 | 97.65 | 0.456 | 0.802 | 0.013 | 0.196 | 0.792 |
| | *00021202 | S21 | 0.00 | 28.21 | 0.04 | 38.89 | 16.69 | 0.04 | 0.17 | 13.16 | 0.02 | 0.02 | 0.00 | n. d. | 97.24 | 0.603 | 0.480 | 0.017 | 0.511 | 0.472 |
| | *00021202 | S22 | 0.00 | 30.18 | 0.09 | 36.78 | 14.54 | 0.09 | 0.12 | 15.35 | 0.02 | 0.03 | 0.00 | n. d. | 97.20 | 0.689 | 0.450 | 0.027 | 0.535 | 0.438 |
| | *00021202 | S23 | 0.01 | 27.56 | 0.05 | 37.46 | 20.56 | 0.13 | 0.28 | 11.06 | 0.00 | 0.00 | 0.00 | n. d. | 97.10 | 0.516 | 0.477 | 0.029 | 0.508 | 0.463 |
| | *00021202 | S24 | 0.02 | 19.11 | 0.07 | 45.80 | 18.70 | 0.05 | 0.68 | 12.51 | 0.00 | 0.01 | 0.01 | 0.79 | 97.75 | 0.594 | 0.617 | 0.064 | 0.359 | 0.577 |
| | *00021202 | S25 | 0.00 | 19.60 | 0.03 | 50.59 | 13.96 | 0.09 | 0.25 | 13.55 | 0.02 | 0.00 | 0.01 | n. d. | 98.09 | 0.637 | 0.634 | 0.005 | 0.364 | 0.631 |
| | *00021202 | S26 | 0.00 | 36.66 | 0.05 | 26.53 | 18.11 | 0.19 | 0.20 | 14.72 | 0.01 | 0.00 | 0.00 | n. d. | 96.47 | 0.649 | 0.327 | 0.050 | 0.639 | 0.310 |
| | *00021202 | S27 | 0.00 | 17.93 | 0.03 | 46.97 | 22.99 | 0.07 | 0.41 | 7.57 | 0.02 | 0.00 | 0.00 | n. d. | 95.97 | 0.380 | 0.637 | 0.019 | 0.356 | 0.625 |
| | *00021202 | S28 | 0.02 | 18.18 | 0.06 | 47.92 | 22.49 | 0.06 | 0.55 | 7.75 | 0.00 | 0.01 | 0.00 | 0.21 | 97.23 | 0.384 | 0.639 | 0.014 | 0.356 | 0.630 |
| | *00021202 | S29 | 0.00 | 18.24 | 0.07 | 47.21 | 22.09 | 0.01 | 0.30 | 10.51 | 0.03 | 0.00 | 0.00 | n. d. | 98.46 | 0.505 | 0.634 | 0.052 | 0.346 | 0.601 |
| | *00021202 | S30 | 0.16 | 23.44 | 0.42 | 41.91 | 16.47 | 0.17 | 0.25 | 15.47 | 0.04 | 0.00 | 0.00 | 0.02 | 98.35 | 0.711 | 0.545 | 0.064 | 0.426 | 0.511 |
| | *00021202 | S31 | 0.07 | 14.35 | 2.28 | 45.03 | 23.54 | 0.22 | 0.30 | 12.25 | 0.01 | 0.00 | 0.00 | 0.05 | 98.08 | 0.626 | 0.678 | 0.100 | 0.290 | 0.610 |
| | *00021202 | S32 | 0.00 | 11.25 | 0.08 | 56.76 | 19.90 | 0.03 | 0.30 | 9.83 | 0.05 | 0.00 | 0.01 | n. d. | 98.20 | 0.491 | 0.772 | 0.026 | 0.222 | 0.752 |
| | *00021202 | S33 | 0.03 | 16.06 | 0.11 | 49.73 | 21.68 | 0.09 | 0.33 | 9.59 | 0.06 | 0.07 | 0.01 | n. d. | 97.75 | 0.472 | 0.675 | 0.038 | 0.313 | 0.650 |
| | *00021202 | S34 | 0.00 | 11.94 | 0.13 | 55.00 | 22.09 | 0.01 | 0.38 | 8.81 | 0.03 | 0.02 | 0.00 | n. d. | 98.39 | 0.441 | 0.755 | 0.033 | 0.236 | 0.731 |
| | *00021202 | S35 | 0.02 | 32.00 | 0.15 | 35.04 | 17.54 | 0.11 | 0.26 | 13.73 | 0.02 | 0.03 | 0.00 | n. d. | 98.88 | 0.611 | 0.423 | 0.024 | 0.563 | 0.413 |
| | *00021202 | S36 | 0.10 | 13.52 | 1.30 | 45.53 | 25.53 | 0.22 | 0.26 | 10.36 | 0.02 | 0.00 | 0.00 | n. d. | 96.83 | 0.533 | 0.693 | 0.104 | 0.275 | 0.621 |
| | *00021202 | S37 | 0.02 | 8.47 | 0.17 | 53.84 | 25.86 | 0.04 | 0.49 | 8.06 | 0.03 | 0.00 | 0.00 | 0.16 | 97.13 | 0.417 | 0.810 | 0.089 | 0.173 | 0.738 |
| | *00021202 | S38 | 0.00 | 25.97 | 0.07 | 41.68 | 17.60 | 0.06 | 0.19 | 13.60 | 0.02 | 0.00 | 0.01 | n. d. | 99.20 | 0.617 | 0.518 | 0.033 | 0.466 | 0.501 |
| | *00021202 | S39 | 0.02 | 22.09 | 0.36 | 47.46 | 15.72 | 0.13 | 0.24 | 13.05 | 0.01 | 0.00 | 0.00 | n. d. | 99.06 | 0.609 | 0.590 | 0.005 | 0.408 | 0.587 |
| | *00021202 | S40 | 0.00 | 35.37 | 0.11 | 30.42 | 17.31 | 0.13 | 0.25 | 14.97 | 0.04 | 0.01 | 0.02 | n. d. | 98.61 | 0.653 | 0.366 | 0.039 | 0.610 | 0.352 |
| | *00021202 | S41 | 0.05 | 11.63 | 0.02 | 53.86 | 22.89 | 0.06 | 0.52 | 7.19 | 0.04 | 0.03 | 0.00 | 0.36 | 96.63 | 0.370 | 0.757 | 0.028 | 0.237 | 0.735 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (2)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|-------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|---------------------|-------|-------|
| Mineoka Gr. | *00021202 | S42 | 0.01 | 33.72 | 0.06 | 32.19 | 18.29 | 0.10 | 0.24 | 13.86 | 0.02 | 0.00 | 0.01 | n. d. | 98.49 | 0.612 | 0.390 | 0.034 | 0.589 | 0.377 |
| Haccho Fm. | *00021202 | S43 | 0.05 | 8.14 | 0.35 | 46.47 | 32.40 | 0.14 | 0.55 | 7.57 | 0.02 | 0.03 | 0.01 | 0.43 | 96.14 | 0.398 | 0.793 | 0.183 | 0.169 | 0.648 |
| sandstone | *00021202 | S44 | 0.02 | 13.02 | 0.50 | 49.20 | 24.21 | 0.03 | 0.37 | 9.76 | 0.00 | 0.08 | 0.01 | 0.19 | 97.38 | 0.492 | 0.717 | 0.083 | 0.259 | 0.657 |
| | *00021202 | S45 | 0.09 | 5.55 | 0.02 | 54.02 | 26.41 | 0.11 | 0.44 | 8.13 | 0.03 | 0.00 | 0.03 | 0.28 | 95.13 | 0.432 | 0.867 | 0.122 | 0.117 | 0.762 |
| | *00021202 | S46 | 0.06 | 12.35 | 0.37 | 46.68 | 30.66 | 0.12 | 0.71 | 4.65 | 0.00 | 0.05 | 0.00 | 0.60 | 96.25 | 0.246 | 0.717 | 0.088 | 0.258 | 0.654 |
| | *00021202 | S47 | 0.00 | 25.54 | 1.13 | 37.02 | 21.37 | 0.08 | 0.27 | 12.08 | 0.04 | 0.00 | 0.01 | n. d. | 97.54 | 0.576 | 0.493 | 0.050 | 0.482 | 0.468 |
| | *00021202 | S48 | 0.03 | 16.33 | 3.09 | 35.49 | 31.17 | 0.16 | 0.30 | 10.37 | 0.05 | 0.01 | 0.00 | n. d. | 96.99 | 0.549 | 0.593 | 0.160 | 0.342 | 0.499 |
| | *00021202 | S49 | 0.04 | 8.64 | 0.26 | 56.66 | 19.97 | 0.07 | 0.64 | 9.57 | 0.01 | 0.00 | 0.00 | 0.16 | 96.02 | 0.496 | 0.815 | 0.044 | 0.177 | 0.779 |
| | *00021202 | S50 | 0.02 | 23.44 | 0.08 | 43.93 | 18.54 | 0.12 | 0.21 | 12.70 | 0.01 | 0.02 | 0.00 | n. d. | 99.07 | 0.586 | 0.557 | 0.034 | 0.428 | 0.538 |
| | *00021202 | S51 | 0.00 | 3.60 | 0.34 | 61.63 | 24.91 | 0.05 | 0.50 | 7.12 | 0.00 | 0.03 | 0.02 | n. d. | 98.20 | 0.378 | 0.920 | 0.058 | 0.076 | 0.867 |
| | *00021202 | S52 | 0.02 | 19.44 | 0.09 | 47.14 | 22.94 | 0.08 | 0.40 | 8.33 | 0.01 | 0.02 | 0.00 | 0.54 | 99.00 | 0.403 | 0.619 | 0.024 | 0.372 | 0.605 |
| | *00021202 | S53 | 0.03 | 23.12 | 0.37 | 37.98 | 24.37 | 0.06 | 0.27 | 10.80 | 0.02 | 0.00 | 0.00 | n. d. | 97.01 | 0.517 | 0.524 | 0.080 | 0.438 | 0.482 |
| | *00021202 | S54 | 0.90 | 15.68 | 1.35 | 43.07 | 22.04 | 0.20 | 0.26 | 13.22 | 0.08 | 0.12 | 0.00 | n. d. | 96.92 | 0.666 | 0.648 | 0.113 | 0.312 | 0.575 |
| | *00021202 | S55 | 0.00 | 23.70 | 0.04 | 41.30 | 20.69 | 0.12 | 0.28 | 11.31 | 0.01 | 0.01 | 0.00 | n. d. | 97.47 | 0.533 | 0.539 | 0.043 | 0.441 | 0.516 |
| | *00021202 | S56 | 0.01 | 19.53 | 0.06 | 50.17 | 15.95 | 0.08 | 0.33 | 12.21 | 0.02 | 0.01 | 0.00 | n. d. | 98.38 | 0.578 | 0.633 | 0.004 | 0.366 | 0.630 |
| | *00121002 | S1 | 0.07 | 18.06 | 2.08 | 41.35 | 22.19 | 0.24 | 0.19 | 12.59 | 0.03 | 0.03 | 0.00 | n. d. | 96.82 | 0.636 | 0.606 | 0.085 | 0.361 | 0.554 |
| | *00121002 | S2 | 0.04 | 26.81 | 1.15 | 31.11 | 22.55 | 0.11 | 0.24 | 15.41 | 0.03 | 0.06 | 0.00 | n. d. | 97.51 | 0.713 | 0.438 | 0.127 | 0.491 | 0.382 |
| | *00121002 | S3 | 0.00 | 11.09 | 0.24 | 53.84 | 24.13 | 0.06 | 0.49 | 7.37 | 0.06 | 0.03 | 0.01 | 0.34 | 97.66 | 0.378 | 0.765 | 0.043 | 0.225 | 0.733 |
| | *00121002 | S4 | 0.00 | 29.46 | 0.15 | 35.83 | 19.20 | 0.10 | 0.21 | 13.78 | 0.06 | 0.00 | 0.00 | n. d. | 98.80 | 0.618 | 0.449 | 0.051 | 0.523 | 0.426 |
| | *00121002 | S5 | 0.00 | 19.88 | 0.16 | 43.80 | 22.12 | 0.11 | 0.23 | 12.03 | 0.07 | 0.00 | 0.02 | n. d. | 98.42 | 0.569 | 0.596 | 0.079 | 0.372 | 0.550 |
| | *00121002 | S6 | 0.07 | 30.27 | 0.54 | 31.65 | 17.45 | 0.17 | 0.16 | 15.67 | 0.07 | 0.00 | 0.01 | n. d. | 96.06 | 0.714 | 0.412 | 0.072 | 0.545 | 0.383 |
| | *00121002 | S7 | 0.00 | 6.60 | 0.14 | 58.88 | 21.84 | 0.06 | 0.55 | 8.67 | 0.07 | 0.03 | 0.00 | 0.28 | 97.12 | 0.450 | 0.857 | 0.053 | 0.136 | 0.812 |
| | *00121002 | S8 | 0.07 | 23.61 | 0.40 | 37.01 | 26.86 | 0.17 | 0.76 | 9.00 | 0.10 | 0.00 | 0.01 | 0.26 | 98.22 | 0.431 | 0.513 | 0.083 | 0.447 | 0.470 |
| | *00121002 | S9 | 0.01 | 21.07 | 0.01 | 45.55 | 17.90 | 0.00 | 0.33 | 11.38 | 0.05 | 0.01 | 0.00 | n. d. | 96.30 | 0.547 | 0.592 | 0.019 | 0.400 | 0.581 |
| | *00121002 | S10 | 0.00 | 21.63 | 0.00 | 42.40 | 23.87 | 0.08 | 0.36 | 7.98 | 0.04 | 0.00 | 0.00 | n. d. | 96.37 | 0.391 | 0.568 | 0.030 | 0.419 | 0.551 |
| | *00121002 | S11 | 0.03 | 13.38 | 0.46 | 45.93 | 28.27 | 0.11 | 0.33 | 8.41 | 0.01 | 0.07 | 0.01 | 0.14 | 97.14 | 0.427 | 0.697 | 0.113 | 0.269 | 0.619 |
| | *00121002 | S12 | 0.00 | 22.28 | 0.25 | 41.57 | 21.51 | 0.10 | 0.34 | 11.87 | 0.04 | 0.01 | 0.00 | n. d. | 97.96 | 0.560 | 0.556 | 0.064 | 0.416 | 0.520 |
| | *00121002 | S13 | 0.00 | 18.06 | 0.19 | 47.85 | 20.37 | 0.11 | 0.40 | 10.09 | 0.06 | 0.00 | 0.00 | n. d. | 97.14 | 0.494 | 0.640 | 0.029 | 0.350 | 0.621 |
| | *00121002 | S14 | 0.06 | 9.46 | 0.03 | 60.42 | 13.91 | 0.05 | 0.40 | 12.41 | 0.04 | 0.03 | 0.01 | 0.24 | 97.05 | 0.619 | 0.811 | 0.013 | 0.187 | 0.800 |
| | *00121002 | S15 | 0.01 | 10.32 | 0.24 | 55.48 | 19.39 | 0.05 | 0.30 | 11.69 | 0.03 | 0.00 | 0.02 | n. d. | 97.54 | 0.583 | 0.783 | 0.062 | 0.204 | 0.734 |
| | *00121002 | S16 | 0.00 | 25.57 | 0.00 | 39.13 | 19.59 | 0.02 | 0.27 | 12.45 | 0.02 | 0.00 | 0.00 | n. d. | 97.04 | 0.578 | 0.507 | 0.048 | 0.470 | 0.482 |
| | *00121002 | S17 | 0.01 | 8.55 | 0.01 | 59.84 | 22.22 | 0.02 | 0.42 | 7.70 | 0.00 | 0.00 | 0.00 | 0.22 | 98.98 | 0.391 | 0.824 | 0.021 | 0.172 | 0.807 |
| | *00121002 | S18 | 0.05 | 24.69 | 0.39 | 38.01 | 17.79 | 0.22 | 0.19 | 15.65 | 0.00 | 0.02 | 0.00 | n. d. | 97.01 | 0.721 | 0.508 | 0.086 | 0.450 | 0.464 |
| | *00121002 | S19 | 0.05 | 13.76 | 0.47 | 49.49 | 23.48 | 0.13 | 0.35 | 10.97 | 0.01 | 0.03 | 0.01 | n. d. | 98.74 | 0.539 | 0.707 | 0.088 | 0.267 | 0.645 |
| | *00121002 | S20 | 0.04 | 26.79 | 0.20 | 33.98 | 26.17 | 0.07 | 0.37 | 10.93 | 0.00 | 0.03 | 0.00 | 0.23 | 98.81 | 0.505 | 0.460 | 0.095 | 0.489 | 0.416 |
| | *00121002 | S21 | 0.06 | 36.55 | 1.10 | 23.60 | 19.01 | 0.16 | 0.13 | 15.72 | 0.02 | 0.00 | 0.02 | 0.11 | 96.47 | 0.705 | 0.302 | 0.071 | 0.648 | 0.281 |
| | *00121002 | S22 | 0.02 | 16.02 | 0.29 | 43.41 | 28.19 | 0.09 | 0.36 | 9.51 | 0.02 | 0.00 | 0.00 | 0.15 | 98.06 | 0.467 | 0.645 | 0.123 | 0.311 | 0.566 |
| | *00121002 | S23 | 0.04 | 5.43 | 0.20 | 54.61 | 30.38 | 0.00 | 0.50 | 6.29 | 0.04 | 0.03 | 0.00 | 0.23 | 97.75 | 0.332 | 0.871 | 0.122 | 0.113 | 0.765 |
| | *00121002 | S24 | 0.00 | 14.69 | 0.13 | 48.16 | 24.98 | 0.09 | 0.38 | 9.45 | 0.05 | 0.00 | 0.01 | n. d. | 97.94 | 0.467 | 0.687 | 0.083 | 0.287 | 0.631 |
| | *00121002 | S25 | 0.00 | 9.72 | 0.15 | 52.40 | 25.55 | 0.08 | 0.39 | 9.01 | 0.03 | 0.00 | 0.02 | n. d. | 97.37 | 0.459 | 0.783 | 0.097 | 0.196 | 0.707 |
| | *00121002 | S26 | 0.00 | 18.14 | 0.34 | 41.32 | 28.40 | 0.09 | 0.40 | 9.71 | 0.00 | 0.02 | 0.00 | n. d. | 98.43 | 0.471 | 0.604 | 0.120 | 0.348 | 0.532 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (3)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|-------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|--------------------|-------|-------|
| Mineoka Gr. | *00121002 | S27 | 0.02 | 29.98 | 0.17 | 32.46 | 20.45 | 0.05 | 0.28 | 12.32 | 0.06 | 0.03 | 0.01 | n. d. | 95.82 | 0.571 | 0.421 | 0.052 | 0.549 | 0.399 |
| Haccho Fm. | *00121002 | S28 | 0.05 | 20.08 | 1.30 | 42.39 | 21.21 | 0.12 | 0.16 | 13.14 | 0.04 | 0.00 | 0.00 | n. d. | 98.48 | 0.633 | 0.586 | 0.076 | 0.383 | 0.542 |
| sandstone | *00121002 | S29 | 0.00 | 16.00 | 0.03 | 51.92 | 18.68 | 0.05 | 0.38 | 10.30 | 0.02 | 0.00 | 0.00 | n. d. | 97.37 | 0.505 | 0.685 | 0.015 | 0.310 | 0.675 |
| | *00121002 | S30 | 0.05 | 29.19 | 0.39 | 33.93 | 18.28 | 0.22 | 0.22 | 15.09 | 0.03 | 0.00 | 0.02 | n. d. | 97.41 | 0.683 | 0.438 | 0.070 | 0.522 | 0.407 |
| | *00121002 | S31 | 0.04 | 6.31 | 0.00 | 59.36 | 24.08 | 0.04 | 0.46 | 7.77 | 0.00 | 0.01 | 0.02 | 0.18 | 98.26 | 0.401 | 0.863 | 0.059 | 0.129 | 0.812 |
| | *00121002 | S32 | 0.08 | 8.88 | 0.26 | 53.08 | 29.74 | 0.05 | 0.64 | 3.56 | 0.04 | 0.04 | 0.00 | 0.57 | 96.94 | 0.191 | 0.800 | 0.055 | 0.189 | 0.756 |
| | *00121002 | S33 | 0.01 | 6.85 | 0.08 | 59.94 | 21.49 | 0.07 | 0.40 | 9.01 | 0.02 | 0.03 | 0.01 | n. d. | 97.91 | 0.462 | 0.854 | 0.045 | 0.139 | 0.816 |
| | *00121002 | S34 | 0.00 | 6.22 | 0.16 | 56.06 | 28.72 | 0.05 | 0.40 | 4.31 | 0.00 | 0.03 | 0.00 | n. d. | 95.94 | 0.234 | 0.858 | 0.058 | 0.134 | 0.808 |
| | *00121002 | S35 | 0.11 | 25.78 | 0.20 | 37.12 | 21.60 | 0.19 | 0.32 | 12.67 | 0.01 | 0.02 | 0.01 | n. d. | 98.03 | 0.585 | 0.491 | 0.074 | 0.471 | 0.455 |
| | *00121002 | S36 | 0.12 | 22.45 | 0.33 | 40.30 | 18.57 | 0.12 | 0.19 | 14.57 | 0.06 | 0.00 | 0.00 | n. d. | 96.69 | 0.684 | 0.546 | 0.082 | 0.416 | 0.501 |
| | *00121002 | S37 | 0.03 | 12.44 | 0.37 | 43.09 | 34.74 | 0.08 | 0.57 | 4.35 | 0.06 | 0.04 | 0.00 | 0.36 | 96.13 | 0.230 | 0.699 | 0.135 | 0.260 | 0.605 |
| | *00121002 | S38 | 0.08 | 30.92 | 0.77 | 26.40 | 25.27 | 0.10 | 0.26 | 14.05 | 0.06 | 0.04 | 0.00 | n. d. | 97.95 | 0.638 | 0.364 | 0.128 | 0.555 | 0.318 |
| | *00121002 | S39 | 0.00 | 10.36 | 0.00 | 48.45 | 30.06 | 0.08 | 0.52 | 7.00 | 0.03 | 0.04 | 0.00 | n. d. | 96.54 | 0.362 | 0.758 | 0.125 | 0.211 | 0.664 |
| | *00121002 | S40 | 0.01 | 22.47 | 0.06 | 43.42 | 18.54 | 0.08 | 0.32 | 12.24 | 0.03 | 0.00 | 0.00 | n. d. | 97.15 | 0.577 | 0.565 | 0.038 | 0.419 | 0.543 |
| | *00121002 | S41 | 0.02 | 25.28 | 0.63 | 33.13 | 23.67 | 0.15 | 0.28 | 12.62 | 0.03 | 0.00 | 0.00 | n. d. | 95.80 | 0.600 | 0.468 | 0.107 | 0.475 | 0.418 |
| | *00121002 | S42 | 0.01 | 12.83 | 0.15 | 48.17 | 26.70 | 0.00 | 0.37 | 8.74 | 0.04 | 0.00 | 0.00 | n. d. | 97.02 | 0.441 | 0.716 | 0.100 | 0.256 | 0.644 |
| | *00121002 | S43 | 0.02 | 11.76 | 0.01 | 54.93 | 20.42 | 0.03 | 0.39 | 9.30 | 0.03 | 0.00 | 0.01 | n. d. | 96.89 | 0.470 | 0.758 | 0.030 | 0.235 | 0.736 |
| | *00121002 | S44 | 0.01 | 10.95 | 0.04 | 58.67 | 13.67 | 0.04 | 0.29 | 13.51 | 0.02 | 0.02 | 0.01 | n. d. | 97.21 | 0.664 | 0.782 | 0.024 | 0.213 | 0.764 |
| | *00121002 | S45 | 0.05 | 15.37 | 2.08 | 42.43 | 23.51 | 0.18 | 0.21 | 13.83 | 0.01 | 0.00 | 0.00 | n. d. | 97.68 | 0.694 | 0.649 | 0.131 | 0.305 | 0.565 |
| | *00121002 | S46 | 0.00 | 19.68 | 0.22 | 44.19 | 22.62 | 0.02 | 0.35 | 9.81 | 0.05 | 0.00 | 0.01 | n. d. | 96.96 | 0.479 | 0.601 | 0.049 | 0.380 | 0.572 |
| | *00121002 | S47 | 0.00 | 16.54 | 0.20 | 43.29 | 27.05 | 0.05 | 0.40 | 8.73 | 0.06 | 0.00 | 0.01 | n. d. | 96.32 | 0.437 | 0.637 | 0.099 | 0.327 | 0.574 |
| | *00121002 | S48 | 0.05 | 16.00 | 1.79 | 42.08 | 24.67 | 0.25 | 0.26 | 12.43 | 0.06 | 0.00 | 0.01 | n. d. | 97.59 | 0.624 | 0.638 | 0.122 | 0.318 | 0.561 |
| | *00121002 | S49 | 0.06 | 23.73 | 0.56 | 35.71 | 24.07 | 0.19 | 0.28 | 12.00 | 0.05 | 0.00 | 0.01 | n. d. | 96.66 | 0.572 | 0.502 | 0.101 | 0.447 | 0.452 |
| | *00121002 | S50 | 0.00 | 34.52 | 0.01 | 31.86 | 16.28 | 0.10 | 0.19 | 14.80 | 0.01 | 0.00 | 0.02 | n. d. | 97.78 | 0.650 | 0.382 | 0.029 | 0.600 | 0.371 |
| | *00121002 | S51 | 0.02 | 35.11 | 0.32 | 30.47 | 17.92 | 0.10 | 0.31 | 14.48 | 0.02 | 0.00 | 0.00 | n. d. | 98.75 | 0.635 | 0.368 | 0.036 | 0.609 | 0.355 |
| | *00121002 | S52 | 0.03 | 11.71 | 0.08 | 56.66 | 19.93 | 0.02 | 0.45 | 9.17 | 0.06 | 0.00 | 0.00 | 0.34 | 98.43 | 0.458 | 0.765 | 0.017 | 0.231 | 0.751 |
| | *00121002 | S53 | 0.00 | 21.78 | 0.45 | 38.45 | 25.18 | 0.10 | 0.34 | 10.84 | 0.01 | 0.00 | 0.00 | n. d. | 97.16 | 0.522 | 0.542 | 0.095 | 0.414 | 0.490 |
| | *00121002 | S54 | 0.02 | 22.15 | 0.07 | 45.58 | 16.93 | 0.08 | 0.29 | 12.89 | 0.05 | 0.04 | 0.00 | n. d. | 98.09 | 0.602 | 0.580 | 0.026 | 0.409 | 0.565 |
| | *00121002 | S55 | 0.00 | 11.48 | 0.05 | 54.31 | 22.02 | 0.08 | 0.35 | 9.88 | 0.03 | 0.02 | 0.02 | n. d. | 98.24 | 0.492 | 0.760 | 0.058 | 0.226 | 0.716 |
| | *00121002 | S56 | 0.00 | 26.35 | 0.01 | 42.07 | 15.79 | 0.12 | 0.27 | 13.73 | 0.02 | 0.00 | 0.00 | n. d. | 98.36 | 0.625 | 0.517 | 0.019 | 0.474 | 0.508 |
| | *00121002 | S57 | 0.07 | 15.41 | 0.41 | 46.38 | 26.50 | 0.12 | 0.35 | 8.91 | 0.06 | 0.09 | 0.02 | 0.03 | 98.35 | 0.443 | 0.669 | 0.087 | 0.303 | 0.611 |
| | *00121002 | S58 | 0.08 | 21.21 | 0.46 | 41.17 | 22.35 | 0.17 | 0.26 | 11.46 | 0.03 | 0.00 | 0.01 | n. d. | 97.20 | 0.551 | 0.566 | 0.072 | 0.403 | 0.525 |
| | *00121002 | S59 | 0.03 | 9.68 | 0.39 | 50.14 | 29.88 | 0.03 | 0.62 | 5.17 | 0.01 | 0.00 | 0.01 | 0.31 | 96.26 | 0.275 | 0.776 | 0.088 | 0.204 | 0.708 |
| | *00121002 | S60 | 0.03 | 6.44 | 0.18 | 59.69 | 20.22 | 0.05 | 0.74 | 9.22 | 0.03 | 0.03 | 0.00 | 0.36 | 96.99 | 0.479 | 0.862 | 0.046 | 0.132 | 0.822 |
| | *00121002 | S61 | 0.03 | 5.51 | 0.07 | 55.10 | 27.95 | 0.00 | 0.60 | 5.97 | 0.03 | 0.00 | 0.00 | 0.36 | 95.62 | 0.322 | 0.870 | 0.095 | 0.117 | 0.787 |
| | *00121002 | S62 | 0.02 | 12.76 | 0.12 | 53.96 | 21.51 | 0.03 | 0.34 | 9.28 | 0.07 | 0.00 | 0.00 | 0.18 | 98.27 | 0.462 | 0.739 | 0.036 | 0.251 | 0.713 |
| | *00121002 | S63 | 0.05 | 11.40 | 0.24 | 53.41 | 19.05 | 0.11 | 0.39 | 12.85 | 0.05 | 0.00 | 0.00 | n. d. | 97.57 | 0.633 | 0.759 | 0.081 | 0.222 | 0.698 |
| | *00121002 | S64 | 0.03 | 18.41 | 0.04 | 49.90 | 18.03 | 0.05 | 0.32 | 11.75 | 0.04 | 0.00 | 0.00 | n. d. | 98.56 | 0.559 | 0.645 | 0.024 | 0.346 | 0.630 |
| | *00121002 | S65 | 0.00 | 18.81 | 0.07 | 49.24 | 18.72 | 0.04 | 0.27 | 11.73 | 0.01 | 0.00 | 0.00 | n. d. | 98.88 | 0.556 | 0.637 | 0.029 | 0.352 | 0.619 |
| | *00121002 | S66 | 0.04 | 14.71 | 0.18 | 48.85 | 23.16 | 0.05 | 0.34 | 10.13 | 0.06 | 0.01 | 0.01 | n. d. | 97.53 | 0.501 | 0.690 | 0.072 | 0.287 | 0.640 |
| | *00121002 | S67 | 0.00 | 13.60 | 0.14 | 52.62 | 20.98 | 0.05 | 0.39 | 9.56 | 0.00 | 0.02 | 0.02 | n. d. | 97.36 | 0.477 | 0.722 | 0.035 | 0.268 | 0.697 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (4)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|-------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|---------------------|-------|-------|
| Mineoka Gr. | *00121002 | S68 | 0.01 | 25.19 | 0.23 | 36.72 | 24.15 | 0.14 | 0.31 | 11.42 | 0.03 | 0.01 | 0.00 | n. d. | 98.20 | 0.532 | 0.494 | 0.082 | 0.464 | 0.454 |
| Haccho Fm. | *00121002 | S69 | 0.03 | 10.36 | 0.34 | 53.45 | 25.89 | 0.05 | 0.43 | 8.25 | 0.03 | 0.00 | 0.00 | 0.18 | 99.00 | 0.417 | 0.776 | 0.076 | 0.207 | 0.717 |
| sandstone | *00121002 | S70 | 0.09 | 20.42 | 0.27 | 44.44 | 17.59 | 0.22 | 0.18 | 14.65 | 0.02 | 0.02 | 0.00 | n. d. | 97.90 | 0.685 | 0.594 | 0.072 | 0.377 | 0.551 |
| | *00121002 | S71 | 0.06 | 6.73 | 0.05 | 55.13 | 29.64 | 0.07 | 0.20 | 4.67 | 0.03 | 0.04 | 0.00 | n. d. | 96.63 | 0.250 | 0.846 | 0.074 | 0.143 | 0.784 |
| | *00121002 | S72 | 0.01 | 26.06 | 0.01 | 42.67 | 15.97 | 0.05 | 0.27 | 13.43 | 0.04 | 0.00 | 0.01 | n. d. | 98.50 | 0.612 | 0.523 | 0.014 | 0.470 | 0.516 |
| | *00121002 | S73 | 0.06 | 5.92 | 0.08 | 53.54 | 28.56 | 0.08 | 0.46 | 7.32 | 0.03 | 0.00 | 0.00 | 0.17 | 96.21 | 0.387 | 0.858 | 0.125 | 0.124 | 0.751 |
| | *00121002 | S74 | 0.00 | 23.56 | 0.30 | 39.92 | 23.14 | 0.04 | 0.36 | 9.82 | 0.02 | 0.00 | 0.03 | n. d. | 97.18 | 0.471 | 0.532 | 0.045 | 0.447 | 0.508 |
| | *00121002 | S75 | 0.02 | 11.22 | 0.50 | 43.25 | 31.10 | 0.14 | 0.41 | 9.30 | 0.04 | 0.00 | 0.01 | 0.10 | 96.08 | 0.478 | 0.721 | 0.183 | 0.228 | 0.589 |
| | *00121002 | S76 | 0.02 | 29.19 | 0.02 | 39.11 | 16.46 | 0.08 | 0.32 | 13.41 | 0.02 | 0.01 | 0.02 | n. d. | 98.65 | 0.603 | 0.473 | 0.014 | 0.519 | 0.467 |
| | *00121002 | S77 | 0.00 | 29.18 | 0.05 | 38.45 | 16.33 | 0.03 | 0.23 | 13.21 | 0.03 | 0.06 | 0.00 | 0.27 | 97.84 | 0.600 | 0.469 | 0.013 | 0.524 | 0.463 |
| | *00121002 | S78 | 0.00 | 24.30 | 0.05 | 43.60 | 17.40 | 0.06 | 0.28 | 12.62 | 0.01 | 0.02 | 0.00 | n. d. | 98.34 | 0.584 | 0.546 | 0.021 | 0.444 | 0.535 |
| | *00121002 | S79 | 0.06 | 9.82 | 0.14 | 45.86 | 31.66 | 0.13 | 0.37 | 8.24 | 0.05 | 0.00 | 0.00 | n. d. | 96.33 | 0.425 | 0.758 | 0.173 | 0.200 | 0.627 |
| | *00121002 | S80 | 0.02 | 7.19 | 0.19 | 57.03 | 23.28 | 0.11 | 0.41 | 7.84 | 0.05 | 0.09 | 0.01 | 0.26 | 96.49 | 0.412 | 0.842 | 0.055 | 0.150 | 0.795 |
| | *01042101 | S1 | 0.05 | 13.97 | 1.57 | 44.69 | 24.90 | 0.15 | 0.33 | 11.30 | 0.08 | 0.00 | 0.00 | n. d. | 97.02 | 0.577 | 0.682 | 0.112 | 0.282 | 0.606 |
| | *01042101 | S2 | 0.05 | 8.41 | 0.23 | 57.35 | 21.62 | 0.05 | 0.36 | 9.97 | 0.03 | 0.03 | 0.01 | 0.13 | 98.24 | 0.505 | 0.821 | 0.061 | 0.168 | 0.770 |
| | *01042101 | S3 | 0.00 | 6.49 | 0.08 | 59.12 | 21.85 | 0.09 | 0.40 | 8.81 | 0.10 | 0.02 | 0.00 | n. d. | 96.95 | 0.458 | 0.859 | 0.052 | 0.133 | 0.814 |
| | *01042101 | S4 | 0.00 | 11.89 | 0.06 | 57.07 | 19.28 | 0.02 | 0.40 | 10.35 | 0.02 | 0.00 | 0.00 | n. d. | 99.10 | 0.509 | 0.763 | 0.025 | 0.231 | 0.744 |
| | *01042101 | S5 | 0.00 | 19.10 | 0.27 | 45.36 | 23.07 | 0.05 | 0.50 | 8.73 | 0.05 | 0.07 | 0.03 | n. d. | 97.22 | 0.431 | 0.614 | 0.035 | 0.372 | 0.593 |
| | *01042101 | S6 | 0.04 | 14.03 | 0.57 | 45.26 | 28.60 | 0.09 | 0.54 | 6.95 | 0.05 | 0.00 | 0.00 | 0.18 | 96.31 | 0.360 | 0.684 | 0.092 | 0.287 | 0.621 |
| | *01042101 | S7 | 0.08 | 24.44 | 1.28 | 38.60 | 21.61 | 0.15 | 0.21 | 13.49 | 0.02 | 0.00 | 0.00 | n. d. | 99.89 | 0.629 | 0.514 | 0.072 | 0.451 | 0.477 |
| | *01042101 | S8 | 0.00 | 24.33 | 0.03 | 44.56 | 15.79 | 0.03 | 0.31 | 13.96 | 0.05 | 0.02 | 0.03 | n. d. | 99.12 | 0.636 | 0.551 | 0.023 | 0.438 | 0.538 |
| | *01042101 | S9 | 0.01 | 19.45 | 0.06 | 38.70 | 30.77 | 0.05 | 0.44 | 7.88 | 0.02 | 0.00 | 0.00 | 0.47 | 97.84 | 0.384 | 0.572 | 0.124 | 0.375 | 0.501 |
| | *01042101 | S10 | 0.00 | 21.15 | 0.00 | 45.67 | 20.85 | 0.03 | 0.38 | 10.78 | 0.04 | 0.04 | 0.02 | n. d. | 98.95 | 0.508 | 0.592 | 0.035 | 0.394 | 0.571 |
| | *01042101 | S11 | 0.04 | 18.19 | 0.31 | 44.64 | 25.55 | 0.07 | 0.32 | 9.59 | 0.00 | 0.02 | 0.03 | n. d. | 98.75 | 0.465 | 0.622 | 0.078 | 0.349 | 0.574 |
| | *01042101 | S12 | 0.06 | 8.76 | 0.23 | 57.39 | 16.10 | 0.07 | 0.29 | 14.81 | 0.04 | 0.00 | 0.02 | n. d. | 97.78 | 0.726 | 0.815 | 0.084 | 0.170 | 0.746 |
| | *01042101 | S13 | 0.00 | 15.84 | 0.11 | 48.25 | 22.80 | 0.05 | 0.35 | 10.40 | 0.03 | 0.00 | 0.00 | n. d. | 97.81 | 0.508 | 0.671 | 0.069 | 0.306 | 0.625 |
| | *01042101 | S14 | 0.00 | 28.94 | 0.05 | 37.06 | 20.98 | 0.14 | 0.27 | 12.93 | 0.03 | 0.00 | 0.00 | n. d. | 100.40 | 0.575 | 0.462 | 0.054 | 0.509 | 0.437 |
| | *01042101 | S15 | 0.00 | 30.79 | 0.00 | 34.68 | 16.47 | 0.14 | 0.29 | 14.80 | 0.03 | 0.00 | 0.00 | n. d. | 97.21 | 0.663 | 0.430 | 0.043 | 0.545 | 0.412 |
| | *01042101 | S16 | 0.00 | 21.57 | 0.08 | 47.08 | 17.74 | 0.02 | 0.23 | 12.10 | 0.00 | 0.03 | 0.00 | n. d. | 98.84 | 0.566 | 0.594 | 0.017 | 0.399 | 0.584 |
| | *01042101 | S17 | 0.00 | 16.11 | 0.25 | 45.12 | 28.04 | 0.11 | 0.39 | 7.59 | 0.03 | 0.00 | 0.01 | n. d. | 97.63 | 0.379 | 0.653 | 0.083 | 0.318 | 0.598 |
| | *01042101 | S18 | 0.05 | 8.81 | 0.35 | 54.09 | 22.05 | 0.03 | 0.31 | 11.18 | 0.09 | 0.00 | 0.01 | n. d. | 96.97 | 0.568 | 0.805 | 0.094 | 0.177 | 0.729 |
| | *01042101 | S19 | 0.02 | 19.14 | 0.17 | 43.39 | 31.73 | 0.03 | 2.04 | 0.61 | 0.02 | 0.02 | 0.00 | 1.65 | 98.83 | 0.031 | 0.603 | 0.020 | 0.389 | 0.591 |
| | *01042101 | S20 | 0.01 | 12.64 | 0.07 | 56.92 | 15.38 | 0.00 | 0.35 | 12.75 | 0.01 | 0.04 | 0.00 | n. d. | 98.17 | 0.620 | 0.751 | 0.023 | 0.243 | 0.734 |
| | *01042101 | S21 | 0.00 | 19.99 | 0.05 | 46.59 | 18.78 | 0.05 | 0.29 | 11.93 | 0.04 | 0.00 | 0.01 | n. d. | 97.72 | 0.567 | 0.610 | 0.037 | 0.376 | 0.587 |
| | *01042101 | S22 | 0.00 | 16.03 | 0.05 | 48.96 | 23.61 | 0.04 | 0.31 | 9.69 | 0.03 | 0.00 | 0.00 | n. d. | 98.71 | 0.471 | 0.672 | 0.061 | 0.308 | 0.631 |
| | *01042101 | S23 | 0.10 | 20.27 | 0.69 | 37.56 | 26.27 | 0.06 | 0.27 | 12.27 | 0.04 | 0.00 | 0.03 | n. d. | 97.57 | 0.590 | 0.554 | 0.137 | 0.385 | 0.479 |
| | *01042101 | S24 | 0.03 | 19.77 | 0.01 | 49.21 | 20.65 | 0.05 | 0.41 | 8.46 | 0.03 | 0.03 | 0.02 | n. d. | 98.66 | 0.409 | 0.625 | 0.000 | 0.375 | 0.625 |
| | *01042101 | S25 | 0.00 | 22.74 | 0.12 | 45.65 | 16.67 | 0.09 | 0.27 | 13.49 | 0.00 | 0.00 | 0.00 | n. d. | 99.02 | 0.621 | 0.574 | 0.028 | 0.414 | 0.558 |
| | *01042101 | S26 | 0.00 | 16.79 | 0.08 | 49.39 | 22.50 | 0.02 | 0.37 | 9.06 | 0.05 | 0.00 | 0.01 | n. d. | 98.27 | 0.443 | 0.664 | 0.034 | 0.325 | 0.641 |
| | *01042101 | S27 | 0.00 | 24.61 | 0.00 | 44.57 | 17.42 | 0.01 | 0.31 | 11.81 | 0.01 | 0.00 | 0.00 | n. d. | 98.75 | 0.546 | 0.548 | 0.003 | 0.450 | 0.547 |
| | *01042101 | S28 | 0.01 | 26.20 | 0.00 | 42.43 | 16.57 | 0.05 | 0.22 | 13.71 | 0.05 | 0.00 | 0.00 | n. d. | 99.23 | 0.620 | 0.521 | 0.023 | 0.468 | 0.509 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (5)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|--------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|--------------------|-------|-------|
| Mineoka Gr. | *01042101 | S29 | 0.02 | 39.01 | 0.07 | 26.47 | 15.39 | 0.18 | 0.20 | 16.15 | 0.00 | 0.00 | 0.00 | n. d. | 97.50 | 0.694 | 0.313 | 0.036 | 0.663 | 0.302 |
| Haccho Fm. | *01042101 | S30 | 0.00 | 7.26 | 0.10 | 59.16 | 23.68 | 0.05 | 0.49 | 7.17 | 0.00 | 0.00 | 0.03 | n. d. | 97.95 | 0.372 | 0.845 | 0.036 | 0.149 | 0.815 |
| sandstone | *01042101 | S31 | 0.02 | 19.68 | 0.04 | 48.88 | 19.19 | 0.00 | 0.42 | 10.56 | 0.04 | 0.03 | 0.00 | n. d. | 98.85 | 0.503 | 0.625 | 0.012 | 0.370 | 0.617 |
| | *01042101 | S32 | 0.00 | 29.19 | 0.13 | 36.05 | 18.22 | 0.13 | 0.26 | 14.00 | 0.02 | 0.02 | 0.00 | n. d. | 98.02 | 0.631 | 0.453 | 0.048 | 0.521 | 0.431 |
| | *01042101 | S33 | 0.04 | 38.28 | 0.08 | 28.77 | 14.36 | 0.15 | 0.23 | 16.33 | 0.00 | 0.00 | 0.01 | n. d. | 98.25 | 0.699 | 0.335 | 0.025 | 0.648 | 0.327 |
| | *01042101 | S34 | 0.01 | 20.20 | 0.31 | 41.17 | 27.43 | 0.07 | 0.40 | 8.77 | 0.02 | 0.03 | 0.00 | n. d. | 98.40 | 0.425 | 0.578 | 0.084 | 0.387 | 0.529 |
| | *01042101 | S35 | 0.00 | 11.03 | 0.08 | 56.94 | 19.61 | 0.08 | 0.55 | 10.10 | 0.05 | 0.00 | 0.01 | 0.12 | 98.56 | 0.502 | 0.776 | 0.033 | 0.217 | 0.751 |
| | *01042101 | S36 | 0.00 | 20.65 | 0.03 | 41.64 | 25.14 | 0.00 | 0.44 | 9.46 | 0.02 | 0.06 | 0.01 | n. d. | 97.46 | 0.456 | 0.575 | 0.074 | 0.394 | 0.533 |
| | *01042101 | S37 | 0.03 | 13.05 | 1.02 | 38.73 | 33.52 | 0.10 | 0.44 | 9.41 | 0.02 | 0.01 | 0.00 | n. d. | 96.33 | 0.484 | 0.666 | 0.207 | 0.265 | 0.528 |
| | *01042101 | S38 | 0.07 | 7.51 | 0.10 | 58.73 | 20.89 | 0.08 | 0.32 | 10.24 | 0.05 | 0.02 | 0.01 | n. d. | 98.03 | 0.519 | 0.840 | 0.060 | 0.151 | 0.790 |
| | *01042101 | S39 | 0.00 | 5.89 | 0.30 | 54.40 | 30.54 | 0.10 | 0.45 | 5.47 | 0.03 | 0.06 | 0.00 | n. d. | 97.25 | 0.293 | 0.861 | 0.104 | 0.125 | 0.771 |
| | *01042101 | S40 | 0.00 | 27.73 | 0.03 | 37.43 | 20.80 | 0.13 | 0.24 | 11.79 | 0.00 | 0.04 | 0.00 | n. d. | 98.19 | 0.541 | 0.475 | 0.042 | 0.503 | 0.455 |
| | *01042101 | S41 | 0.05 | 25.17 | 0.10 | 40.07 | 20.65 | 0.07 | 0.30 | 12.45 | 0.03 | 0.00 | 0.00 | 0.20 | 99.09 | 0.571 | 0.516 | 0.056 | 0.456 | 0.487 |
| | *01042101 | S42 | 0.00 | 16.45 | 0.03 | 52.85 | 17.13 | 0.02 | 0.29 | 12.05 | 0.02 | 0.03 | 0.01 | n. d. | 98.87 | 0.575 | 0.683 | 0.020 | 0.310 | 0.669 |
| Mineoka Gr. | 99122403 | S1 | 0.01 | 17.80 | 0.26 | 48.82 | 23.68 | 0.05 | 0.37 | 8.53 | 0.02 | 0.00 | 0.00 | n. d. | 99.54 | 0.415 | 0.648 | 0.029 | 0.342 | 0.629 |
| Haccho Fm. | 99122403 | S2 | 0.00 | 17.01 | 0.46 | 45.96 | 25.26 | 0.05 | 0.32 | 10.30 | 0.01 | 0.00 | 0.01 | n. d. | 99.38 | 0.498 | 0.644 | 0.085 | 0.325 | 0.590 |
| conglomerate | 99122403 | S3 | 0.00 | 15.45 | 0.26 | 49.36 | 23.92 | 0.07 | 0.30 | 9.98 | 0.01 | 0.00 | 0.01 | n. d. | 99.36 | 0.485 | 0.682 | 0.067 | 0.297 | 0.637 |
| (Fusada) | 99122403 | S4 | 0.03 | 28.04 | 0.15 | 37.67 | 20.49 | 0.12 | 0.26 | 13.23 | 0.02 | 0.03 | 0.00 | n. d. | 100.03 | 0.594 | 0.474 | 0.055 | 0.497 | 0.448 |
| | 99122403 | S5 | 0.00 | 9.85 | 0.21 | 53.39 | 25.89 | 0.07 | 0.31 | 9.12 | 0.00 | 0.00 | 0.00 | n. d. | 98.83 | 0.458 | 0.784 | 0.093 | 0.196 | 0.711 |
| | 99122403 | S6 | 0.00 | 15.89 | 0.31 | 48.83 | 23.86 | 0.10 | 0.35 | 10.09 | 0.00 | 0.00 | 0.00 | n. d. | 99.43 | 0.490 | 0.673 | 0.067 | 0.305 | 0.628 |
| | 99122403 | S7 | 0.00 | 14.55 | 0.28 | 44.18 | 33.85 | 0.12 | 0.62 | 5.99 | 0.01 | 0.01 | 0.01 | n. d. | 99.61 | 0.299 | 0.671 | 0.126 | 0.288 | 0.586 |
| | 99122403 | S8 | 0.00 | 18.90 | 0.25 | 44.43 | 25.69 | 0.11 | 0.34 | 9.82 | 0.01 | 0.00 | 0.01 | n. d. | 99.57 | 0.470 | 0.612 | 0.078 | 0.358 | 0.564 |
| | 99122403 | S9 | 0.03 | 14.91 | 0.26 | 48.27 | 27.77 | 0.14 | 0.47 | 8.79 | 0.01 | 0.03 | 0.01 | n. d. | 100.69 | 0.427 | 0.685 | 0.092 | 0.286 | 0.622 |
| | 99122403 | S10 | 0.00 | 13.01 | 0.28 | 48.91 | 26.64 | 0.09 | 0.36 | 9.51 | 0.00 | 0.00 | 0.00 | n. d. | 98.81 | 0.471 | 0.716 | 0.103 | 0.255 | 0.642 |
| | 99122403 | S11 | 0.00 | 26.36 | 0.44 | 36.99 | 23.46 | 0.15 | 0.25 | 12.56 | 0.00 | 0.00 | 0.00 | n. d. | 100.21 | 0.572 | 0.485 | 0.079 | 0.474 | 0.447 |
| | 99122403 | S12 | 0.00 | 40.39 | 0.06 | 28.07 | 15.82 | 0.09 | 0.12 | 16.12 | 0.00 | 0.00 | 0.01 | n. d. | 100.69 | 0.673 | 0.318 | 0.022 | 0.667 | 0.311 |
| | 99122403 | S13 | 0.00 | 10.74 | 0.21 | 51.67 | 28.83 | 0.10 | 0.43 | 7.05 | 0.03 | 0.00 | 0.01 | n. d. | 99.06 | 0.358 | 0.763 | 0.090 | 0.215 | 0.695 |
| | 99122403 | S14 | 0.00 | 11.74 | 0.25 | 52.27 | 26.52 | 0.12 | 0.38 | 9.01 | 0.00 | 0.00 | 0.00 | n. d. | 100.29 | 0.444 | 0.749 | 0.088 | 0.229 | 0.683 |
| | 99122403 | S15 | 0.04 | 9.20 | 0.15 | 58.18 | 20.47 | 0.04 | 0.35 | 9.79 | 0.00 | 0.00 | 0.00 | n. d. | 98.22 | 0.494 | 0.809 | 0.038 | 0.184 | 0.778 |
| | 99122403 | S16 | 0.00 | 23.34 | 0.32 | 39.34 | 24.07 | 0.15 | 0.30 | 12.01 | 0.00 | 0.06 | 0.01 | n. d. | 99.61 | 0.557 | 0.531 | 0.088 | 0.428 | 0.484 |
| | 99122403 | S17 | 0.03 | 32.42 | 0.16 | 33.20 | 21.31 | 0.22 | 0.21 | 13.23 | 0.03 | 0.02 | 0.00 | n. d. | 100.83 | 0.580 | 0.407 | 0.051 | 0.562 | 0.386 |
| | 99122403 | S18 | 0.01 | 21.48 | 0.16 | 40.43 | 30.50 | 0.09 | 0.46 | 6.24 | 0.00 | 0.02 | 0.00 | n. d. | 99.40 | 0.303 | 0.558 | 0.068 | 0.412 | 0.520 |
| | 99122403 | S19 | 0.00 | 23.81 | 0.17 | 44.09 | 19.38 | 0.08 | 0.29 | 12.36 | 0.00 | 0.01 | 0.00 | n. d. | 100.19 | 0.567 | 0.554 | 0.032 | 0.432 | 0.536 |
| | 99122403 | S20 | 0.00 | 25.37 | 0.16 | 37.80 | 22.63 | 0.11 | 0.30 | 10.46 | 0.02 | 0.00 | 0.00 | n. d. | 96.86 | 0.496 | 0.500 | 0.049 | 0.476 | 0.475 |
| | 99122403 | S21 | 0.02 | 10.07 | 0.20 | 52.21 | 27.01 | 0.01 | 0.47 | 8.37 | 0.00 | 0.00 | 0.01 | n. d. | 98.38 | 0.424 | 0.777 | 0.097 | 0.202 | 0.701 |
| | 99122403 | S22 | 0.00 | 9.37 | 0.25 | 53.83 | 26.28 | 0.07 | 0.39 | 8.76 | 0.00 | 0.00 | 0.01 | n. d. | 98.95 | 0.442 | 0.794 | 0.092 | 0.187 | 0.721 |
| | 99122403 | S23 | 0.00 | 28.39 | 0.36 | 35.94 | 19.46 | 0.10 | 0.29 | 13.42 | 0.03 | 0.01 | 0.00 | n. d. | 98.00 | 0.613 | 0.459 | 0.052 | 0.513 | 0.436 |
| | 99122403 | S24 | 0.00 | 22.82 | 0.21 | 37.14 | 25.13 | 0.13 | 0.32 | 11.19 | 0.00 | 0.05 | 0.00 | n. d. | 96.99 | 0.533 | 0.522 | 0.101 | 0.430 | 0.469 |
| | 99122403 | S25 | 0.00 | 2.44 | 0.39 | 37.44 | 50.90 | 0.15 | 0.56 | 2.89 | 0.02 | 0.00 | 0.01 | n. d. | 94.80 | 0.163 | 0.911 | 0.385 | 0.054 | 0.560 |
| | 99122403 | S26 | 0.00 | 16.52 | 0.32 | 45.17 | 25.48 | 0.08 | 0.37 | 10.00 | 0.01 | 0.00 | 0.00 | n. d. | 97.95 | 0.490 | 0.647 | 0.093 | 0.320 | 0.587 |
| | 99122403 | S27 | 0.00 | 16.24 | 0.23 | 46.13 | 24.53 | 0.07 | 0.47 | 9.11 | 0.01 | 0.00 | 0.00 | n. d. | 96.79 | 0.454 | 0.656 | 0.071 | 0.320 | 0.609 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (6)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|--------------|----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|---------------------|-------|-------|
| Mineoka Gr. | 99122403 | S28 | 0.00 | 15.95 | 0.25 | 48.31 | 23.05 | 0.08 | 0.37 | 10.37 | 0.00 | 0.00 | 0.00 | n. d. | 98.37 | 0.506 | 0.670 | 0.067 | 0.308 | 0.625 |
| Haccho Fm. | 99122403 | S29 | 0.00 | 21.38 | 0.23 | 40.17 | 26.25 | 0.10 | 0.30 | 9.86 | 0.00 | 0.04 | 0.00 | n. d. | 98.32 | 0.472 | 0.558 | 0.086 | 0.404 | 0.509 |
| conglomerate | 99122403 | S30 | 0.02 | 12.04 | 0.21 | 46.63 | 29.32 | 0.07 | 0.38 | 8.12 | 0.00 | 0.07 | 0.00 | n. d. | 96.86 | 0.414 | 0.722 | 0.127 | 0.243 | 0.631 |
| (Fusada) | 99122403 | S31 | 0.00 | 20.92 | 0.28 | 40.32 | 27.31 | 0.11 | 0.51 | 9.00 | 0.02 | 0.01 | 0.00 | n. d. | 98.48 | 0.434 | 0.564 | 0.086 | 0.399 | 0.515 |
| | 99122403 | S32 | 0.00 | 13.09 | 0.23 | 46.52 | 30.88 | 0.02 | 0.56 | 6.02 | 0.00 | 0.02 | 0.01 | n. d. | 97.34 | 0.309 | 0.705 | 0.101 | 0.266 | 0.633 |
| | 99122403 | S33 | 0.00 | 28.59 | 0.12 | 31.79 | 26.44 | 0.21 | 0.34 | 11.00 | 0.00 | 0.02 | 0.01 | n. d. | 98.53 | 0.505 | 0.427 | 0.094 | 0.519 | 0.387 |
| | 99122403 | S34 | 0.05 | 19.77 | 0.24 | 41.38 | 26.86 | 0.13 | 0.28 | 9.20 | 0.00 | 0.00 | 0.00 | n. d. | 97.90 | 0.447 | 0.584 | 0.087 | 0.380 | 0.533 |
| | 99122403 | S35 | 0.02 | 37.29 | 0.12 | 28.67 | 17.92 | 0.14 | 0.21 | 15.38 | 0.01 | 0.06 | 0.02 | n. d. | 99.84 | 0.658 | 0.340 | 0.044 | 0.631 | 0.325 |
| | 99122403 | S36 | 0.01 | 21.67 | 0.40 | 37.48 | 29.16 | 0.13 | 0.35 | 7.36 | 0.00 | 0.06 | 0.00 | n. d. | 96.62 | 0.365 | 0.537 | 0.083 | 0.425 | 0.493 |
| | 99122403 | S37 | 0.03 | 31.15 | 0.24 | 30.71 | 23.34 | 0.22 | 0.23 | 13.29 | 0.01 | 0.00 | 0.00 | n. d. | 99.20 | 0.593 | 0.398 | 0.087 | 0.550 | 0.364 |
| | 99122403 | S38 | 0.01 | 27.16 | 0.28 | 34.55 | 23.98 | 0.11 | 0.26 | 11.92 | 0.00 | 0.02 | 0.00 | n. d. | 98.30 | 0.550 | 0.460 | 0.082 | 0.495 | 0.423 |
| | 99122403 | S39 | 0.01 | 25.50 | 0.20 | 39.09 | 20.43 | 0.13 | 0.25 | 13.91 | 0.00 | 0.04 | 0.01 | n. d. | 99.58 | 0.630 | 0.507 | 0.073 | 0.457 | 0.470 |
| | 99122403 | S40 | 0.00 | 14.14 | 0.17 | 50.52 | 23.94 | 0.00 | 0.38 | 9.16 | 0.00 | 0.05 | 0.02 | n. d. | 98.39 | 0.453 | 0.706 | 0.060 | 0.277 | 0.663 |
| | 99122403 | S41 | 0.00 | 24.85 | 0.22 | 35.50 | 26.64 | 0.17 | 0.38 | 10.60 | 0.02 | 0.00 | 0.00 | n. d. | 98.39 | 0.497 | 0.489 | 0.098 | 0.460 | 0.441 |
| | 99122403 | S42 | 0.06 | 25.83 | 0.31 | 36.86 | 22.18 | 0.19 | 0.17 | 12.89 | 0.01 | 0.00 | 0.01 | n. d. | 98.51 | 0.594 | 0.489 | 0.079 | 0.471 | 0.451 |
| | 99122403 | S43 | 0.00 | 27.93 | 0.24 | 36.63 | 21.03 | 0.13 | 0.23 | 12.42 | 0.00 | 0.00 | 0.00 | n. d. | 98.60 | 0.568 | 0.468 | 0.051 | 0.505 | 0.444 |
| | 99122403 | S44 | 0.00 | 21.38 | 0.10 | 44.15 | 20.65 | 0.04 | 0.29 | 11.49 | 0.00 | 0.00 | 0.01 | n. d. | 98.12 | 0.543 | 0.581 | 0.047 | 0.400 | 0.553 |
| | 99122403 | S45 | 0.00 | 25.84 | 0.24 | 39.80 | 20.57 | 0.13 | 0.28 | 12.41 | 0.00 | 0.01 | 0.01 | n. d. | 99.29 | 0.569 | 0.508 | 0.047 | 0.469 | 0.484 |
| | 99122403 | S46 | 0.00 | 14.62 | 0.21 | 47.43 | 25.69 | 0.11 | 0.39 | 8.53 | 0.00 | 0.08 | 0.00 | n. d. | 97.06 | 0.429 | 0.685 | 0.077 | 0.291 | 0.632 |
| | 99122403 | S47 | 0.00 | 23.63 | 0.34 | 36.25 | 26.42 | 0.13 | 0.27 | 10.44 | 0.02 | 0.01 | 0.00 | n. d. | 97.52 | 0.497 | 0.507 | 0.097 | 0.445 | 0.458 |
| | 99122403 | S48 | 0.03 | 33.30 | 0.17 | 31.54 | 20.27 | 0.11 | 0.28 | 13.47 | 0.00 | 0.01 | 0.00 | n. d. | 99.17 | 0.595 | 0.389 | 0.049 | 0.582 | 0.370 |
| | 99122403 | S49 | 0.01 | 11.53 | 0.24 | 49.98 | 26.69 | 0.03 | 0.51 | 8.63 | 0.00 | 0.00 | 0.00 | n. d. | 97.60 | 0.437 | 0.744 | 0.098 | 0.231 | 0.671 |
| | 99122403 | S50 | 0.01 | 28.44 | 0.21 | 33.96 | 24.20 | 0.13 | 0.41 | 12.21 | 0.01 | 0.02 | 0.00 | n. d. | 99.58 | 0.552 | 0.445 | 0.084 | 0.509 | 0.408 |
| | 99122403 | S51 | 0.00 | 26.37 | 0.11 | 35.12 | 26.51 | 0.11 | 0.33 | 11.00 | 0.00 | 0.00 | 0.00 | n. d. | 99.54 | 0.504 | 0.472 | 0.095 | 0.478 | 0.427 |
| | 99122403 | S52 | 0.02 | 13.53 | 0.29 | 49.14 | 23.48 | 0.12 | 0.29 | 10.68 | 0.00 | 0.00 | 0.00 | n. d. | 97.55 | 0.530 | 0.709 | 0.088 | 0.265 | 0.647 |
| | 99122403 | S53 | 0.00 | 13.14 | 0.25 | 53.54 | 13.97 | 0.14 | 0.23 | 15.73 | 0.02 | 0.00 | 0.01 | n. d. | 97.03 | 0.758 | 0.732 | 0.065 | 0.250 | 0.685 |
| | 99122403 | S54 | 0.00 | 31.19 | 0.17 | 34.92 | 19.67 | 0.13 | 0.24 | 13.68 | 0.01 | 0.00 | 0.01 | n. d. | 100.02 | 0.605 | 0.429 | 0.045 | 0.545 | 0.409 |
| | 99122403 | S55 | 0.00 | 11.47 | 0.21 | 47.27 | 30.71 | 0.06 | 0.45 | 7.24 | 0.00 | 0.00 | 0.02 | n. d. | 97.44 | 0.370 | 0.734 | 0.127 | 0.232 | 0.641 |
| | 99122403 | S56 | 0.01 | 25.28 | 0.53 | 37.00 | 24.40 | 0.13 | 0.30 | 10.98 | 0.00 | 0.00 | 0.02 | n. d. | 98.65 | 0.515 | 0.495 | 0.070 | 0.469 | 0.461 |
| | 99122403 | S57 | 0.08 | 18.26 | 0.29 | 50.03 | 14.54 | 0.12 | 0.25 | 15.50 | 0.00 | 0.00 | 0.00 | n. d. | 99.06 | 0.721 | 0.648 | 0.047 | 0.336 | 0.617 |
| | 99122403 | S58 | 0.01 | 26.22 | 0.17 | 34.30 | 26.78 | 0.07 | 0.48 | 8.03 | 0.04 | 0.07 | 0.01 | n. d. | 96.16 | 0.388 | 0.467 | 0.059 | 0.501 | 0.440 |
| | 99122403 | S59 | 0.04 | 20.87 | 0.44 | 41.91 | 22.49 | 0.20 | 0.29 | 11.58 | 0.01 | 0.02 | 0.00 | n. d. | 97.84 | 0.555 | 0.574 | 0.073 | 0.395 | 0.532 |
| | 99122403 | S60 | 0.00 | 25.47 | 0.05 | 40.14 | 22.09 | 0.09 | 0.37 | 11.16 | 0.00 | 0.00 | 0.00 | n. d. | 99.38 | 0.514 | 0.514 | 0.046 | 0.464 | 0.490 |
| | 99122403 | S61 | 0.22 | 24.32 | 0.09 | 38.58 | 21.13 | 0.08 | 0.23 | 11.50 | 0.05 | 0.00 | 0.02 | n. d. | 96.23 | 0.547 | 0.516 | 0.056 | 0.457 | 0.487 |
| | 99122403 | S62 | 0.00 | 31.99 | 0.13 | 31.63 | 21.41 | 0.11 | 0.25 | 12.60 | 0.01 | 0.02 | 0.00 | n. d. | 98.15 | 0.567 | 0.399 | 0.054 | 0.569 | 0.377 |
| | 99122403 | S63 | 0.01 | 34.77 | 0.09 | 30.47 | 20.52 | 0.14 | 0.26 | 13.64 | 0.00 | 0.00 | 0.00 | n. d. | 99.91 | 0.594 | 0.370 | 0.049 | 0.599 | 0.352 |
| | 99122403 | S64 | 0.00 | 34.51 | 0.20 | 32.55 | 17.32 | 0.17 | 0.22 | 14.94 | 0.02 | 0.04 | 0.00 | n. d. | 99.96 | 0.648 | 0.388 | 0.033 | 0.592 | 0.375 |
| | 99122403 | S65 | 0.00 | 11.75 | 0.22 | 48.71 | 29.75 | 0.07 | 0.30 | 7.55 | 0.00 | 0.07 | 0.00 | n. d. | 98.43 | 0.382 | 0.736 | 0.112 | 0.235 | 0.653 |
| | 99122403 | S66 | 0.00 | 26.82 | 0.18 | 39.15 | 20.49 | 0.12 | 0.24 | 12.17 | 0.00 | 0.00 | 0.00 | n. d. | 99.17 | 0.556 | 0.495 | 0.040 | 0.485 | 0.475 |
| | 99122403 | S67 | 0.04 | 12.53 | 0.34 | 50.37 | 26.19 | 0.07 | 0.38 | 8.44 | 0.03 | 0.00 | 0.01 | n. d. | 98.40 | 0.425 | 0.729 | 0.079 | 0.249 | 0.672 |
| | 99122403 | S68 | 0.06 | 12.04 | 0.21 | 52.43 | 25.69 | 0.04 | 0.42 | 8.15 | 0.00 | 0.00 | 0.01 | n. d. | 99.05 | 0.408 | 0.745 | 0.066 | 0.238 | 0.696 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (7)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|--------------------------|----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|---------------------|-------|-------|
| Mineoka Gr. | 99122403 | S69 | 0.02 | 23.87 | 0.31 | 33.60 | 27.73 | 0.17 | 0.41 | 10.65 | 0.02 | 0.01 | 0.01 | n. d. | 96.79 | 0.508 | 0.486 | 0.125 | 0.450 | 0.425 |
| Haccho Fm. | 99122403 | S70 | 0.00 | 18.51 | 0.32 | 43.48 | 25.82 | 0.16 | 0.33 | 9.67 | 0.00 | 0.04 | 0.01 | n. d. | 98.33 | 0.470 | 0.612 | 0.085 | 0.355 | 0.560 |
| conglomerate (Fusada) | 99122403 | S71 | 0.00 | 10.33 | 0.25 | 48.79 | 30.76 | 0.07 | 0.39 | 7.21 | 0.01 | 0.02 | 0.00 | n. d. | 97.83 | 0.370 | 0.760 | 0.127 | 0.209 | 0.663 |
| | 99122403 | S72 | 0.00 | 11.17 | 0.24 | 50.08 | 27.88 | 0.10 | 0.39 | 8.37 | 0.02 | 0.00 | 0.00 | n. d. | 98.25 | 0.423 | 0.751 | 0.106 | 0.223 | 0.671 |
| | 99122403 | S73 | 0.02 | 34.15 | 0.19 | 30.22 | 18.32 | 0.16 | 0.22 | 12.94 | 0.01 | 0.00 | 0.00 | n. d. | 96.22 | 0.586 | 0.372 | 0.025 | 0.612 | 0.363 |
| | 99122403 | S74 | 0.02 | 23.70 | 0.31 | 36.25 | 28.82 | 0.06 | 0.42 | 8.84 | 0.02 | 0.00 | 0.00 | n. d. | 98.43 | 0.422 | 0.506 | 0.095 | 0.447 | 0.459 |
| | 99122403 | S75 | 1.29 | 28.03 | 0.50 | 29.61 | 26.26 | 0.14 | 0.32 | 10.52 | 0.05 | 0.00 | 0.02 | n. d. | 96.74 | 0.503 | 0.415 | 0.096 | 0.529 | 0.375 |
| | 99122403 | S76 | 0.00 | 28.67 | 0.32 | 33.82 | 22.53 | 0.18 | 0.24 | 12.94 | 0.02 | 0.03 | 0.01 | n. d. | 98.75 | 0.588 | 0.442 | 0.077 | 0.515 | 0.408 |
| | 99122403 | S77 | 0.00 | 12.23 | 0.26 | 51.22 | 26.62 | 0.05 | 0.39 | 7.71 | 0.02 | 0.00 | 0.00 | n. d. | 98.50 | 0.389 | 0.738 | 0.070 | 0.244 | 0.686 |
| | 99122403 | S78 | 0.02 | 30.29 | 0.38 | 32.95 | 21.11 | 0.20 | 0.25 | 13.93 | 0.00 | 0.00 | 0.00 | n. d. | 99.12 | 0.624 | 0.422 | 0.072 | 0.537 | 0.391 |
| | 99122403 | S79 | 0.00 | 30.89 | 0.40 | 31.95 | 21.82 | 0.20 | 0.25 | 14.08 | 0.04 | 0.04 | 0.00 | n. d. | 99.67 | 0.626 | 0.410 | 0.080 | 0.543 | 0.377 |
| | 99122403 | S80 | 0.25 | 30.11 | 0.33 | 31.03 | 23.54 | 0.18 | 0.54 | 12.98 | 0.04 | 0.01 | 0.01 | n. d. | 99.01 | 0.586 | 0.409 | 0.091 | 0.538 | 0.372 |
| | 99122403 | S81 | 0.00 | 30.53 | 0.38 | 32.68 | 20.92 | 0.20 | 0.21 | 14.18 | 0.00 | 0.00 | 0.00 | n. d. | 99.10 | 0.634 | 0.418 | 0.073 | 0.539 | 0.387 |
| | 99122403 | S82 | 0.03 | 11.07 | 0.21 | 53.44 | 22.75 | 0.05 | 0.32 | 9.20 | 0.00 | 0.00 | 0.00 | n. d. | 97.06 | 0.468 | 0.764 | 0.057 | 0.222 | 0.720 |
| | 99122403 | S83 | 0.00 | 25.34 | 0.38 | 42.13 | 16.88 | 0.16 | 0.21 | 14.80 | 0.00 | 0.00 | 0.00 | n. d. | 99.89 | 0.669 | 0.527 | 0.042 | 0.453 | 0.505 |
| | 99122403 | S84 | 0.00 | 14.51 | 0.26 | 47.58 | 23.59 | 0.13 | 0.36 | 10.83 | 0.00 | 0.00 | 0.00 | n. d. | 97.25 | 0.535 | 0.887 | 0.093 | 0.293 | 0.623 |
| | 99122403 | S85 | 0.08 | 16.34 | 0.24 | 46.97 | 23.85 | 0.04 | 0.33 | 10.07 | 0.01 | 0.02 | 0.00 | n. d. | 97.94 | 0.493 | 0.659 | 0.073 | 0.316 | 0.610 |
| | 99122403 | S86 | 0.00 | 8.95 | 0.14 | 56.05 | 22.77 | 0.07 | 0.42 | 9.61 | 0.01 | 0.05 | 0.00 | n. d. | 98.06 | 0.486 | 0.808 | 0.069 | 0.179 | 0.752 |
| | 99122403 | S87 | 0.01 | 4.26 | 0.37 | 55.23 | 29.91 | 0.09 | 0.52 | 5.10 | 0.00 | 0.05 | 0.00 | n. d. | 95.54 | 0.281 | 0.897 | 0.101 | 0.093 | 0.807 |
| | 99122403 | S88 | 0.00 | 11.16 | 0.25 | 45.48 | 32.35 | 0.16 | 0.49 | 7.61 | 0.01 | 0.00 | 0.00 | n. d. | 97.51 | 0.389 | 0.732 | 0.159 | 0.225 | 0.616 |
| | 99122403 | S89 | 0.02 | 17.74 | 0.30 | 40.27 | 29.96 | 0.20 | 0.45 | 9.58 | 0.00 | 0.00 | 0.00 | n. d. | 98.52 | 0.466 | 0.604 | 0.140 | 0.341 | 0.519 |
| | 99122403 | S90 | 0.03 | 18.87 | 0.28 | 39.85 | 27.35 | 0.13 | 0.37 | 9.35 | 0.08 | 0.02 | 0.00 | n. d. | 96.33 | 0.462 | 0.586 | 0.109 | 0.369 | 0.522 |
| | 99122403 | S91 | 0.01 | 22.02 | 0.66 | 36.34 | 31.06 | 0.17 | 0.66 | 7.24 | 0.00 | 0.00 | 0.01 | n. d. | 98.16 | 0.355 | 0.525 | 0.099 | 0.428 | 0.474 |
| | 99122403 | S92 | 0.01 | 17.16 | 0.34 | 41.97 | 27.18 | 0.23 | 0.38 | 9.92 | 0.01 | 0.03 | 0.00 | n. d. | 97.23 | 0.489 | 0.621 | 0.117 | 0.334 | 0.549 |
| | 99122403 | S93 | 0.01 | 18.47 | 0.12 | 44.15 | 24.16 | 0.08 | 0.36 | 10.86 | 0.02 | 0.01 | 0.01 | n. d. | 98.24 | 0.521 | 0.616 | 0.088 | 0.350 | 0.562 |
| | 99122403 | S94 | 0.00 | 26.10 | 0.17 | 37.89 | 21.59 | 0.13 | 0.25 | 11.87 | 0.01 | 0.04 | 0.00 | n. d. | 98.06 | 0.550 | 0.493 | 0.055 | 0.479 | 0.466 |
| | 99122403 | S95 | 0.00 | 15.66 | 0.50 | 41.00 | 31.93 | 0.06 | 0.39 | 6.68 | 0.01 | 0.02 | 0.03 | n. d. | 96.26 | 0.343 | 0.637 | 0.124 | 0.318 | 0.558 |
| | 99122403 | S96 | 0.00 | 21.06 | 0.44 | 43.25 | 18.70 | 0.08 | 0.26 | 13.58 | 0.00 | 0.00 | 0.00 | n. d. | 97.37 | 0.643 | 0.579 | 0.063 | 0.394 | 0.543 |
| | 99122403 | S97 | 0.01 | 18.79 | 0.18 | 43.95 | 24.39 | 0.10 | 0.33 | 9.81 | 0.00 | 0.01 | 0.00 | n. d. | 97.56 | 0.477 | 0.611 | 0.072 | 0.361 | 0.567 |
| | 99122403 | S98 | 0.00 | 10.22 | 0.26 | 49.87 | 28.55 | 0.02 | 0.49 | 6.83 | 0.02 | 0.04 | 0.00 | n. d. | 96.29 | 0.357 | 0.766 | 0.097 | 0.211 | 0.691 |
| | 99122403 | S99 | 0.00 | 13.02 | 0.30 | 46.48 | 28.59 | 0.07 | 0.48 | 8.40 | 0.03 | 0.02 | 0.00 | n. d. | 97.40 | 0.425 | 0.705 | 0.117 | 0.260 | 0.623 |
| | 99122403 | S100 | 0.01 | 25.77 | 0.06 | 37.03 | 23.72 | 0.16 | 0.24 | 11.40 | 0.11 | 0.06 | 0.00 | n. d. | 98.55 | 0.528 | 0.491 | 0.074 | 0.472 | 0.455 |
| | 99122403 | S101 | 0.01 | 23.74 | 0.23 | 36.84 | 26.55 | 0.14 | 0.41 | 10.29 | 0.04 | 0.03 | 0.00 | n. d. | 98.28 | 0.486 | 0.510 | 0.095 | 0.443 | 0.462 |
| | 99122403 | S102 | 0.03 | 14.91 | 0.27 | 46.56 | 26.90 | 0.08 | 0.45 | 8.08 | 0.00 | 0.00 | 0.01 | n. d. | 97.30 | 0.406 | 0.677 | 0.082 | 0.297 | 0.621 |
| | 99122403 | S103 | 0.00 | 14.42 | 0.27 | 46.36 | 28.00 | 0.10 | 0.41 | 7.93 | 0.02 | 0.00 | 0.01 | n. d. | 97.51 | 0.399 | 0.683 | 0.094 | 0.287 | 0.619 |
| | 99122403 | S104 | 0.02 | 10.91 | 0.33 | 49.38 | 27.41 | 0.04 | 0.45 | 8.61 | 0.00 | 0.00 | 0.01 | n. d. | 97.16 | 0.440 | 0.752 | 0.111 | 0.220 | 0.669 |
| | 99122403 | S105 | 0.03 | 29.73 | 0.17 | 31.43 | 24.42 | 0.16 | 0.25 | 11.06 | 0.02 | 0.03 | 0.00 | n. d. | 97.30 | 0.511 | 0.415 | 0.072 | 0.543 | 0.385 |
| | 99122403 | S106 | 0.01 | 14.08 | 0.20 | 45.28 | 27.58 | 0.08 | 0.34 | 8.90 | 0.03 | 0.02 | 0.02 | n. d. | 96.53 | 0.449 | 0.683 | 0.114 | 0.281 | 0.605 |
| | 99122403 | S107 | 0.04 | 21.94 | 0.19 | 41.08 | 21.49 | 0.15 | 0.34 | 11.06 | 0.01 | 0.01 | 0.01 | n. d. | 96.30 | 0.533 | 0.557 | 0.057 | 0.418 | 0.525 |
| | 99122403 | S108 | 0.04 | 11.97 | 0.26 | 50.22 | 23.91 | 0.11 | 0.38 | 9.82 | 0.01 | 0.00 | 0.00 | n. d. | 96.70 | 0.497 | 0.738 | 0.087 | 0.239 | 0.674 |
| | 99122403 | S109 | 0.03 | 34.61 | 0.11 | 29.87 | 17.63 | 0.15 | 0.17 | 13.63 | 0.08 | 0.00 | 0.00 | n. d. | 96.29 | 0.613 | 0.367 | 0.029 | 0.615 | 0.356 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (8)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|--------------|----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|--------------------|-------|-------|
| Mineoka Gr. | 99122403 | S110 | 0.01 | 20.49 | 0.21 | 46.05 | 15.53 | 0.13 | 0.21 | 14.74 | 0.03 | 0.00 | 0.01 | n. d. | 97.42 | 0.691 | 0.601 | 0.048 | 0.380 | 0.573 |
| Haccho Fm. | 99122403 | S111 | 0.00 | 20.46 | 0.22 | 45.96 | 16.15 | 0.05 | 0.23 | 14.40 | 0.00 | 0.00 | 0.01 | n. d. | 97.48 | 0.676 | 0.601 | 0.048 | 0.380 | 0.572 |
| conglomerate | 99122403 | S112 | 0.02 | 30.07 | 0.18 | 30.90 | 24.48 | 0.13 | 0.27 | 12.84 | 0.05 | 0.00 | 0.01 | n. d. | 98.93 | 0.577 | 0.408 | 0.097 | 0.535 | 0.369 |
| (Fusada) | 99122403 | S113 | 0.00 | 27.95 | 0.13 | 40.09 | 12.11 | 0.13 | 0.15 | 17.68 | 0.12 | 0.03 | 0.01 | n. d. | 98.40 | 0.782 | 0.490 | 0.041 | 0.489 | 0.470 |
| Mineoka Gr. | 00051407 | S1 | 0.00 | 34.66 | 0.18 | 31.10 | 17.74 | 0.16 | 0.24 | 14.67 | 0.03 | 0.04 | 0.00 | n. d. | 98.82 | 0.643 | 0.376 | 0.038 | 0.600 | 0.361 |
| Haccho Fm. | 00051407 | S2 | 0.01 | 14.03 | 0.46 | 50.80 | 17.38 | 0.14 | 0.30 | 15.66 | 0.11 | 0.02 | 0.00 | n. d. | 98.91 | 0.744 | 0.708 | 0.097 | 0.263 | 0.640 |
| conglomerate | 00051407 | S3 | 0.01 | 35.93 | 0.13 | 30.47 | 16.68 | 0.15 | 0.28 | 15.49 | 0.06 | 0.03 | 0.00 | n. d. | 99.22 | 0.669 | 0.363 | 0.037 | 0.614 | 0.349 |
| (Motona) | 00051407 | S4 | 0.03 | 17.02 | 0.31 | 49.22 | 14.55 | 0.19 | 0.23 | 15.41 | 0.04 | 0.00 | 0.00 | n. d. | 97.02 | 0.734 | 0.660 | 0.057 | 0.321 | 0.622 |
| | 00051407 | S5 | 0.00 | 12.27 | 0.32 | 41.19 | 37.50 | 0.05 | 0.66 | 4.24 | 0.05 | 0.00 | 0.00 | n. d. | 96.28 | 0.223 | 0.692 | 0.168 | 0.256 | 0.576 |
| | 00051407 | S6 | 0.01 | 20.30 | 0.19 | 27.70 | 39.93 | 0.32 | 0.36 | 8.21 | 0.00 | 0.00 | 0.02 | n. d. | 97.05 | 0.401 | 0.478 | 0.249 | 0.392 | 0.359 |
| | 00051407 | S7 | 0.00 | 37.95 | 0.18 | 27.44 | 17.54 | 0.14 | 0.24 | 14.87 | 0.04 | 0.00 | 0.00 | n. d. | 98.41 | 0.644 | 0.327 | 0.034 | 0.650 | 0.315 |
| | 00051407 | S8 | 0.02 | 18.45 | 0.23 | 43.73 | 24.74 | 0.08 | 0.41 | 10.67 | 0.02 | 0.00 | 0.01 | n. d. | 98.36 | 0.514 | 0.614 | 0.091 | 0.351 | 0.558 |
| | 00051407 | S9 | 0.00 | 38.76 | 0.15 | 26.31 | 17.94 | 0.16 | 0.24 | 15.23 | 0.08 | 0.00 | 0.00 | n. d. | 98.87 | 0.654 | 0.313 | 0.043 | 0.658 | 0.300 |
| | 00051407 | S10 | 0.01 | 16.68 | 0.21 | 42.39 | 27.47 | 0.06 | 0.32 | 9.55 | 0.02 | 0.00 | 0.02 | n. d. | 96.72 | 0.473 | 0.630 | 0.117 | 0.326 | 0.557 |
| | 00051407 | S11 | 0.00 | 27.02 | 0.12 | 35.74 | 22.64 | 0.09 | 0.27 | 11.76 | 0.04 | 0.01 | 0.00 | n. d. | 97.68 | 0.544 | 0.470 | 0.067 | 0.494 | 0.439 |
| | 00051407 | S12 | 0.02 | 29.40 | 0.06 | 37.66 | 16.68 | 0.06 | 0.30 | 14.97 | 0.06 | 0.00 | 0.00 | n. d. | 99.20 | 0.664 | 0.462 | 0.042 | 0.515 | 0.443 |
| | 00051407 | S13 | 0.02 | 21.32 | 0.30 | 40.54 | 25.47 | 0.13 | 0.33 | 9.72 | 0.08 | 0.01 | 0.00 | n. d. | 97.93 | 0.469 | 0.561 | 0.076 | 0.406 | 0.518 |
| | 00051407 | S14 | 0.00 | 15.04 | 0.35 | 45.36 | 27.24 | 0.06 | 0.39 | 8.84 | 0.06 | 0.00 | 0.00 | n. d. | 97.33 | 0.443 | 0.669 | 0.100 | 0.298 | 0.602 |
| | 00051407 | S15 | 0.00 | 18.98 | 0.49 | 44.28 | 21.74 | 0.14 | 0.30 | 12.27 | 0.02 | 0.00 | 0.00 | n. d. | 98.23 | 0.588 | 0.610 | 0.078 | 0.359 | 0.563 |
| | 00051407 | S16 | 0.00 | 10.67 | 0.18 | 56.93 | 13.99 | 0.13 | 0.21 | 15.03 | 0.07 | 0.00 | 0.00 | n. d. | 97.20 | 0.734 | 0.782 | 0.057 | 0.206 | 0.737 |
| | 00051407 | S17 | 0.00 | 23.50 | 0.09 | 43.17 | 18.13 | 0.07 | 0.28 | 12.87 | 0.09 | 0.01 | 0.01 | n. d. | 98.22 | 0.598 | 0.552 | 0.037 | 0.431 | 0.532 |
| | 00051407 | S18 | 0.01 | 26.80 | 0.13 | 40.49 | 20.54 | 0.01 | 0.36 | 13.73 | 0.09 | 0.00 | 0.01 | n. d. | 102.16 | 0.606 | 0.503 | 0.059 | 0.468 | 0.474 |
| | 00051407 | S19 | 0.47 | 30.79 | 0.07 | 38.65 | 15.68 | 0.10 | 0.24 | 17.63 | 0.26 | 0.12 | 0.01 | n. d. | 104.02 | 0.741 | 0.457 | 0.057 | 0.512 | 0.431 |
| | 00051407 | S20 | 0.00 | 25.42 | 0.34 | 42.01 | 18.27 | 0.06 | 0.19 | 18.14 | 0.16 | 0.00 | 0.00 | n. d. | 104.58 | 0.771 | 0.526 | 0.099 | 0.427 | 0.474 |
| | 00051407 | S21 | 0.00 | 35.89 | 0.40 | 30.02 | 14.21 | 0.24 | 0.22 | 18.11 | 0.02 | 0.02 | 0.00 | n. d. | 99.12 | 0.775 | 0.359 | 0.052 | 0.607 | 0.341 |
| | 00051407 | S22 | 0.00 | 29.03 | 0.32 | 34.09 | 23.90 | 0.13 | 0.29 | 11.88 | 0.08 | 0.00 | 0.00 | n. d. | 99.69 | 0.539 | 0.441 | 0.070 | 0.520 | 0.410 |
| | 00051407 | S23 | 0.05 | 14.95 | 0.29 | 49.83 | 19.60 | 0.13 | 0.26 | 12.40 | 0.07 | 0.00 | 0.00 | n. d. | 97.57 | 0.605 | 0.691 | 0.067 | 0.288 | 0.645 |
| | 00051407 | S24 | 0.01 | 21.48 | 0.12 | 41.30 | 23.17 | 0.14 | 0.24 | 10.47 | 0.05 | 0.02 | 0.00 | n. d. | 97.01 | 0.504 | 0.563 | 0.065 | 0.408 | 0.527 |
| | 00051407 | S25 | 0.01 | 33.75 | 0.16 | 31.46 | 18.66 | 0.14 | 0.27 | 13.90 | 0.06 | 0.00 | 0.00 | n. d. | 98.40 | 0.616 | 0.385 | 0.040 | 0.591 | 0.369 |
| | 00051407 | S26 | 0.01 | 26.23 | 0.11 | 34.85 | 23.91 | 0.09 | 0.26 | 11.83 | 0.09 | 0.00 | 0.00 | n. d. | 97.37 | 0.550 | 0.471 | 0.088 | 0.482 | 0.430 |
| | 00051407 | S27 | 0.01 | 39.01 | 0.10 | 25.92 | 15.50 | 0.16 | 0.21 | 15.48 | 0.06 | 0.00 | 0.00 | n. d. | 96.45 | 0.675 | 0.308 | 0.027 | 0.673 | 0.300 |
| | 00051407 | S28 | 0.00 | 29.99 | 0.06 | 36.66 | 23.24 | 0.13 | 0.29 | 13.09 | 0.05 | 0.00 | 0.00 | n. d. | 103.51 | 0.566 | 0.451 | 0.067 | 0.513 | 0.420 |
| | 00051407 | S29 | 0.00 | 30.00 | 0.09 | 36.84 | 16.01 | 0.10 | 0.15 | 13.53 | 0.07 | 0.00 | 0.01 | n. d. | 96.79 | 0.617 | 0.452 | 0.013 | 0.541 | 0.446 |
| | 00051407 | S30 | 0.02 | 30.93 | 0.11 | 35.69 | 17.88 | 0.13 | 0.26 | 13.04 | 0.06 | 0.00 | 0.01 | n. d. | 98.10 | 0.588 | 0.436 | 0.021 | 0.552 | 0.427 |
| | 00051407 | S31 | 0.04 | 26.94 | 0.30 | 34.86 | 23.57 | 0.11 | 0.28 | 12.06 | 0.03 | 0.00 | 0.00 | n. d. | 98.19 | 0.557 | 0.465 | 0.081 | 0.492 | 0.427 |
| | 00051407 | S32 | 0.01 | 13.75 | 0.33 | 48.43 | 25.45 | 0.00 | 0.49 | 7.77 | 0.17 | 0.01 | 0.00 | n. d. | 96.40 | 0.398 | 0.703 | 0.063 | 0.279 | 0.658 |
| | 00051407 | S33 | 0.05 | 31.58 | 0.12 | 32.83 | 18.75 | 0.09 | 0.22 | 13.57 | 0.04 | 0.05 | 0.03 | n. d. | 97.31 | 0.612 | 0.411 | 0.044 | 0.563 | 0.393 |
| | 00051407 | S34 | 0.01 | 14.48 | 0.19 | 46.67 | 25.22 | 0.03 | 0.38 | 9.47 | 0.09 | 0.00 | 0.00 | n. d. | 96.54 | 0.475 | 0.684 | 0.000 | 0.316 | 0.684 |
| | 00051407 | S35 | 0.01 | 34.35 | 0.28 | 26.93 | 20.14 | 0.13 | 0.20 | 13.77 | 0.05 | 0.00 | 0.01 | n. d. | 98.85 | 0.622 | 0.345 | 0.063 | 0.614 | 0.323 |
| | 00051407 | S36 | 0.12 | 21.34 | 0.36 | 41.73 | 18.68 | 0.13 | 0.24 | 14.89 | 0.12 | 0.00 | 0.00 | n. d. | 97.60 | 0.696 | 0.567 | 0.088 | 0.395 | 0.518 |
| | 00051407 | S37 | 0.07 | 18.70 | 0.48 | 44.59 | 18.41 | 0.16 | 0.18 | 14.25 | 0.11 | 0.00 | 0.00 | n. d. | 96.96 | 0.682 | 0.615 | 0.079 | 0.354 | 0.566 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (9)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|--------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|--------------------|-------|-------|
| Mineoka Gr. | 00051407 | S38 | 0.00 | 24.22 | 0.29 | 38.81 | 23.25 | 0.09 | 0.32 | 11.10 | 0.05 | 0.00 | 0.00 | n. d. | 98.12 | 0.522 | 0.518 | 0.065 | 0.450 | 0.484 |
| Haccho Fm. | 00051407 | S39 | 0.00 | 11.77 | 0.21 | 51.40 | 23.13 | 0.07 | 0.41 | 9.49 | 0.09 | 0.03 | 0.00 | n. d. | 96.58 | 0.482 | 0.745 | 0.071 | 0.236 | 0.692 |
| conglomerate | 00051407 | S40 | 0.00 | 39.01 | 0.02 | 26.61 | 16.89 | 0.10 | 0.23 | 14.83 | 0.06 | 0.00 | 0.02 | n. d. | 97.77 | 0.641 | 0.314 | 0.028 | 0.667 | 0.305 |
| (Motona) | 00051407 | S41 | 0.00 | 22.84 | 0.17 | 39.46 | 23.43 | 0.03 | 0.37 | 10.67 | 0.05 | 0.08 | 0.00 | n. d. | 97.10 | 0.509 | 0.537 | 0.069 | 0.431 | 0.500 |
| | 00051407 | S42 | 0.05 | 34.70 | 0.12 | 33.01 | 20.03 | 0.15 | 0.26 | 15.49 | 0.03 | 0.01 | 0.00 | n. d. | 103.86 | 0.648 | 0.390 | 0.060 | 0.574 | 0.366 |
| | 00051407 | S43 | 0.00 | 28.44 | 0.16 | 35.82 | 20.68 | 0.06 | 0.21 | 12.70 | 0.02 | 0.00 | 0.01 | n. d. | 98.10 | 0.579 | 0.458 | 0.053 | 0.513 | 0.433 |
| | 00051407 | S44 | 0.00 | 33.82 | 0.12 | 30.83 | 17.66 | 0.14 | 0.24 | 14.07 | 0.01 | 0.01 | 0.00 | n. d. | 96.90 | 0.629 | 0.379 | 0.036 | 0.598 | 0.366 |
| Hota Gr. | *00040908 | S1 | 0.00 | 19.66 | 0.06 | 46.48 | 19.54 | 0.01 | 0.22 | 10.80 | 0.02 | 0.00 | 0.00 | n. d. | 96.79 | 0.522 | 0.613 | 0.028 | 0.376 | 0.596 |
| Fukawa Fm. | *00040908 | S2 | 0.00 | 29.49 | 0.23 | 34.78 | 20.65 | 0.09 | 0.26 | 11.69 | 0.00 | 0.00 | 0.00 | n. d. | 97.19 | 0.540 | 0.442 | 0.035 | 0.539 | 0.426 |
| | *00040908 | S3 | 0.00 | 15.78 | 0.14 | 47.45 | 22.49 | 0.02 | 0.37 | 10.10 | 0.04 | 0.00 | 0.01 | n. d. | 96.38 | 0.501 | 0.669 | 0.066 | 0.310 | 0.625 |
| | *00040908 | S4 | 0.00 | 35.40 | 0.16 | 30.92 | 16.57 | 0.10 | 0.17 | 15.11 | 0.01 | 0.00 | 0.00 | n. d. | 98.45 | 0.659 | 0.369 | 0.031 | 0.611 | 0.358 |
| | *00040908 | S5 | 0.00 | 8.27 | 0.74 | 56.03 | 18.71 | 0.09 | 0.24 | 11.80 | 0.00 | 0.04 | 0.00 | n. d. | 95.93 | 0.611 | 0.820 | 0.061 | 0.169 | 0.769 |
| | *00040908 | S6 | 0.04 | 36.91 | 0.05 | 27.57 | 16.09 | 0.13 | 0.21 | 15.27 | 0.00 | 0.00 | 0.00 | n. d. | 96.28 | 0.672 | 0.334 | 0.036 | 0.642 | 0.322 |
| | *00040908 | S7 | 0.00 | 18.58 | 0.03 | 46.87 | 21.01 | 0.06 | 0.31 | 9.95 | 0.00 | 0.00 | 0.00 | n. d. | 96.80 | 0.486 | 0.628 | 0.034 | 0.359 | 0.607 |
| | *00040908 | S8 | 0.04 | 13.68 | 0.44 | 48.73 | 19.97 | 0.10 | 0.25 | 12.83 | 0.05 | 0.02 | 0.00 | n. d. | 96.08 | 0.638 | 0.705 | 0.089 | 0.269 | 0.642 |
| | *00040908 | S9 | 0.01 | 28.15 | 1.36 | 32.30 | 21.43 | 0.19 | 0.20 | 13.86 | 0.03 | 0.03 | 0.01 | n. d. | 97.56 | 0.650 | 0.435 | 0.077 | 0.521 | 0.401 |
| | *00040908 | S10 | 0.00 | 34.80 | 0.50 | 22.28 | 27.30 | 0.14 | 0.26 | 11.71 | 0.06 | 0.02 | 0.01 | n. d. | 97.08 | 0.532 | 0.300 | 0.106 | 0.625 | 0.269 |
| | *00040908 | S11 | 0.00 | 14.19 | 0.80 | 44.47 | 23.86 | 0.22 | 0.21 | 13.28 | 0.06 | 0.00 | 0.01 | n. d. | 97.10 | 0.655 | 0.678 | 0.141 | 0.277 | 0.582 |
| | *00040908 | S12 | 0.02 | 34.47 | 0.46 | 30.33 | 16.10 | 0.24 | 0.21 | 16.68 | 0.01 | 0.04 | 0.00 | n. d. | 98.55 | 0.728 | 0.371 | 0.054 | 0.595 | 0.351 |
| | *00040908 | S13 | 0.00 | 16.05 | 0.07 | 48.69 | 21.64 | 0.06 | 0.40 | 10.72 | 0.02 | 0.02 | 0.01 | n. d. | 97.68 | 0.522 | 0.671 | 0.061 | 0.309 | 0.630 |
| | *00040908 | S14 | 0.04 | 10.10 | 0.07 | 55.95 | 22.88 | 0.03 | 0.42 | 8.35 | 0.00 | 0.00 | 0.00 | n. d. | 97.83 | 0.425 | 0.788 | 0.043 | 0.203 | 0.754 |
| | *00040908 | S15 | 0.00 | 11.03 | 0.63 | 53.22 | 18.01 | 0.17 | 0.23 | 12.45 | 0.04 | 0.00 | 0.00 | n. d. | 95.77 | 0.633 | 0.764 | 0.061 | 0.222 | 0.718 |
| | *99072212 | S1 | 0.01 | 19.72 | 0.30 | 40.65 | 26.50 | 0.07 | 0.46 | 9.57 | 0.00 | 0.09 | 0.00 | n. d. | 97.36 | 0.466 | 0.580 | 0.094 | 0.380 | 0.526 |
| Hota Gr. | *02092301 | S1 | 0.04 | 36.31 | 0.09 | 32.48 | 14.09 | 0.18 | 0.19 | 16.49 | 0.01 | 0.00 | 0.00 | 0.12 | 99.99 | 0.702 | 0.375 | 0.023 | 0.611 | 0.366 |
| Kanigawa Fm. | *02092301 | S2 | 0.10 | 27.56 | 0.45 | 37.62 | 17.85 | 0.21 | 0.27 | 15.66 | 0.01 | 0.01 | 0.01 | 0.08 | 99.81 | 0.698 | 0.478 | 0.069 | 0.486 | 0.445 |
| | *02092301 | S3 | 0.00 | 12.09 | 0.28 | 49.44 | 26.84 | 0.02 | 0.71 | 7.73 | 0.02 | 0.05 | 0.00 | 1.04 | 98.22 | 0.392 | 0.733 | 0.094 | 0.242 | 0.664 |
| | *02092301 | S4 | 0.00 | 19.82 | 0.22 | 43.27 | 26.19 | 0.03 | 0.42 | 8.44 | 0.01 | 0.05 | 0.01 | 0.52 | 98.98 | 0.408 | 0.594 | 0.066 | 0.379 | 0.555 |
| | *02092301 | S5 | 0.00 | 24.94 | 0.15 | 39.48 | 22.25 | 0.03 | 0.39 | 12.70 | 0.01 | 0.00 | 0.01 | 0.08 | 100.02 | 0.578 | 0.515 | 0.075 | 0.448 | 0.476 |
| | *02092301 | S6 | 0.00 | 12.59 | 1.43 | 38.13 | 40.21 | 0.18 | 0.43 | 5.50 | 0.01 | 0.00 | 0.00 | 0.13 | 98.61 | 0.288 | 0.670 | 0.209 | 0.261 | 0.530 |
| | *02092301 | S7 | 0.00 | 26.61 | 0.15 | 35.91 | 24.11 | 0.14 | 0.32 | 11.86 | 0.02 | 0.00 | 0.00 | 0.17 | 99.27 | 0.542 | 0.475 | 0.084 | 0.481 | 0.435 |
| | *02092301 | S8 | 0.00 | 46.74 | 0.13 | 21.70 | 13.03 | 0.28 | 0.08 | 18.59 | 0.01 | 0.00 | 0.01 | 0.09 | 100.66 | 0.749 | 0.237 | 0.024 | 0.744 | 0.232 |
| | *02092301 | S9 | 0.00 | 10.38 | 0.10 | 52.21 | 27.94 | 0.04 | 0.51 | 5.64 | 0.01 | 0.00 | 0.00 | 0.47 | 97.30 | 0.293 | 0.771 | 0.066 | 0.213 | 0.720 |
| | *02092301 | S10 | 0.00 | 15.69 | 0.16 | 51.60 | 20.38 | 0.12 | 0.35 | 10.56 | 0.03 | 0.00 | 0.00 | 0.12 | 99.01 | 0.511 | 0.688 | 0.037 | 0.300 | 0.663 |
| | *02092301 | S11 | 0.01 | 28.21 | 0.09 | 38.46 | 19.45 | 0.08 | 0.26 | 12.98 | 0.05 | 0.00 | 0.01 | 0.28 | 99.88 | 0.582 | 0.478 | 0.042 | 0.501 | 0.458 |
| | *02092301 | S12 | 0.00 | 12.67 | 0.21 | 50.32 | 25.83 | 0.07 | 0.52 | 7.43 | 0.04 | 0.00 | 0.00 | 0.22 | 97.30 | 0.379 | 0.727 | 0.065 | 0.255 | 0.680 |
| | *02092301 | S13 | 0.00 | 15.51 | 0.04 | 52.44 | 20.65 | 0.05 | 0.49 | 9.07 | 0.01 | 0.00 | 0.01 | 0.22 | 98.49 | 0.445 | 0.694 | 0.016 | 0.301 | 0.683 |
| | *02092301 | S14 | 0.16 | 27.65 | 0.64 | 37.03 | 16.58 | 0.16 | 0.18 | 16.96 | 0.02 | 0.04 | 0.01 | 0.03 | 99.46 | 0.756 | 0.473 | 0.075 | 0.487 | 0.438 |
| | *02092301 | S15 | 0.01 | 22.25 | 0.19 | 43.86 | 20.41 | 0.11 | 0.39 | 11.61 | 0.02 | 0.00 | 0.00 | 0.22 | 99.08 | 0.543 | 0.569 | 0.044 | 0.412 | 0.544 |
| | *02092301 | S16 | 0.00 | 14.15 | 0.26 | 46.63 | 27.94 | 0.09 | 0.43 | 8.40 | 0.01 | 0.11 | 0.00 | 0.18 | 98.20 | 0.419 | 0.689 | 0.104 | 0.279 | 0.617 |
| | *02092301 | S17 | 0.02 | 7.68 | 0.31 | 57.40 | 24.79 | 0.07 | 0.44 | 7.96 | 0.02 | 0.00 | 0.01 | 0.19 | 98.87 | 0.408 | 0.834 | 0.063 | 0.156 | 0.781 |
| | *02092301 | S18 | 0.00 | 29.66 | 0.22 | 37.70 | 17.27 | 0.17 | 0.17 | 14.22 | 0.01 | 0.00 | 0.01 | 0.09 | 99.53 | 0.633 | 0.460 | 0.033 | 0.522 | 0.445 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (10)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|--------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|---------------------|-------|-------|
| Hota Gr. | *02092301 | S19 | 0.00 | 13.73 | 0.13 | 48.75 | 27.92 | 0.00 | 0.50 | 6.55 | 0.03 | 0.05 | 0.00 | 0.46 | 98.11 | 0.331 | 0.704 | 0.071 | 0.275 | 0.654 |
| Kanigawa Fm. | *02092301 | S20 | 0.09 | 6.31 | 0.36 | 55.11 | 25.89 | 0.11 | 0.31 | 9.53 | 0.01 | 0.05 | 0.00 | 0.02 | 97.78 | 0.491 | 0.854 | 0.117 | 0.129 | 0.754 |
| | *02092301 | S21 | 0.00 | 22.86 | 0.41 | 43.21 | 19.57 | 0.06 | 0.34 | 11.77 | 0.04 | 0.00 | 0.00 | 0.17 | 98.43 | 0.555 | 0.559 | 0.034 | 0.426 | 0.540 |
| | *02092301 | S22 | 0.00 | 26.55 | 0.12 | 38.63 | 19.58 | 0.09 | 0.28 | 13.36 | 0.04 | 0.00 | 0.02 | 0.14 | 98.81 | 0.607 | 0.494 | 0.057 | 0.477 | 0.466 |
| | *02092301 | S23 | 0.03 | 44.46 | 0.04 | 22.55 | 14.19 | 0.23 | 0.17 | 17.88 | 0.02 | 0.00 | 0.01 | 0.21 | 99.79 | 0.732 | 0.254 | 0.035 | 0.720 | 0.245 |
| | *02092301 | S24 | 0.00 | 10.77 | 0.36 | 51.55 | 28.40 | 0.05 | 0.50 | 6.63 | 0.01 | 0.04 | 0.00 | 0.36 | 98.67 | 0.340 | 0.762 | 0.081 | 0.218 | 0.701 |
| | *02092301 | S25 | 0.00 | 16.09 | 0.12 | 50.52 | 19.17 | 0.05 | 0.36 | 12.00 | 0.03 | 0.00 | 0.00 | 0.10 | 98.45 | 0.577 | 0.678 | 0.050 | 0.306 | 0.644 |
| | *02092301 | S26 | 0.01 | 31.71 | 0.12 | 34.68 | 17.87 | 0.15 | 0.21 | 13.70 | 0.02 | 0.00 | 0.00 | 0.23 | 98.69 | 0.610 | 0.423 | 0.032 | 0.558 | 0.409 |
| | *02092301 | S27 | 0.03 | 8.27 | 0.24 | 55.45 | 25.19 | 0.03 | 0.48 | 8.47 | 0.04 | 0.00 | 0.02 | 0.15 | 98.37 | 0.433 | 0.818 | 0.081 | 0.167 | 0.752 |
| | *02092301 | S28 | 0.17 | 36.35 | 0.40 | 26.46 | 16.69 | 0.23 | 0.19 | 16.92 | 0.02 | 0.01 | 0.01 | 0.05 | 97.49 | 0.737 | 0.328 | 0.069 | 0.626 | 0.305 |
| | *02092301 | S29 | 0.03 | 12.53 | 0.17 | 51.37 | 25.96 | 0.04 | 0.44 | 7.86 | 0.04 | 0.00 | 0.00 | 0.41 | 98.83 | 0.394 | 0.733 | 0.069 | 0.248 | 0.683 |
| | *02092301 | S30 | 0.00 | 25.45 | 0.07 | 42.66 | 16.82 | 0.03 | 0.28 | 13.12 | 0.00 | 0.01 | 0.00 | 0.20 | 98.66 | 0.601 | 0.529 | 0.021 | 0.461 | 0.518 |
| | *02092301 | S31 | 0.15 | 23.20 | 0.35 | 44.00 | 13.47 | 0.25 | 0.20 | 17.96 | 0.01 | 0.02 | 0.01 | 0.02 | 99.62 | 0.803 | 0.560 | 0.068 | 0.410 | 0.522 |
| | *02092301 | S32 | 0.01 | 32.38 | 0.50 | 36.52 | 15.59 | 0.10 | 0.20 | 14.48 | 0.00 | 0.03 | 0.01 | 0.24 | 100.06 | 0.639 | 0.431 | 0.008 | 0.565 | 0.427 |
| | *02092301 | S33 | 0.02 | 6.82 | 0.10 | 63.09 | 17.92 | 0.07 | 0.37 | 9.67 | 0.02 | 0.00 | 0.00 | 0.09 | 98.17 | 0.494 | 0.861 | 0.008 | 0.138 | 0.854 |
| | *02092301 | S34 | 0.01 | 20.53 | 0.06 | 48.91 | 17.29 | 0.02 | 0.31 | 12.38 | 0.00 | 0.00 | 0.00 | 0.13 | 99.63 | 0.576 | 0.615 | 0.018 | 0.378 | 0.604 |
| | *02092301 | S35 | 0.00 | 23.09 | 0.19 | 44.85 | 17.39 | 0.08 | 0.28 | 12.61 | 0.02 | 0.04 | 0.01 | 0.18 | 98.72 | 0.587 | 0.566 | 0.022 | 0.425 | 0.553 |
| | *02092301 | S36 | 0.02 | 23.59 | 0.16 | 43.52 | 19.22 | 0.06 | 0.36 | 11.88 | 0.02 | 0.01 | 0.01 | 0.19 | 99.02 | 0.552 | 0.553 | 0.030 | 0.433 | 0.536 |
| | *02092301 | S37 | 0.00 | 24.19 | 0.29 | 36.99 | 23.21 | 0.17 | 0.28 | 12.53 | 0.02 | 0.04 | 0.00 | 0.15 | 97.88 | 0.584 | 0.506 | 0.097 | 0.446 | 0.457 |
| | *02092301 | S38 | 0.05 | 20.59 | 0.60 | 42.45 | 21.21 | 0.11 | 0.27 | 13.63 | 0.00 | 0.00 | 0.00 | 0.09 | 99.00 | 0.639 | 0.580 | 0.090 | 0.382 | 0.528 |
| | *02092301 | S39 | 0.08 | 25.50 | 0.43 | 37.95 | 20.28 | 0.21 | 0.31 | 14.15 | 0.01 | 0.03 | 0.00 | 0.14 | 99.08 | 0.646 | 0.500 | 0.081 | 0.460 | 0.459 |
| | *02092301 | S40 | 0.00 | 22.97 | 0.22 | 44.15 | 19.09 | 0.06 | 0.29 | 12.27 | 0.03 | 0.00 | 0.01 | 0.22 | 99.30 | 0.569 | 0.563 | 0.035 | 0.421 | 0.543 |
| | *02092301 | S41 | 0.06 | 10.66 | 0.42 | 53.52 | 21.49 | 0.00 | 0.40 | 11.95 | 0.02 | 0.05 | 0.00 | 0.10 | 98.67 | 0.591 | 0.771 | 0.090 | 0.208 | 0.702 |
| | *02092301 | S42 | 0.13 | 19.97 | 0.56 | 43.85 | 15.86 | 0.21 | 0.20 | 16.72 | 0.02 | 0.00 | 0.00 | 0.00 | 97.52 | 0.780 | 0.596 | 0.089 | 0.368 | 0.542 |
| | *02092301 | S43 | 0.01 | 27.11 | 0.25 | 39.84 | 17.43 | 0.04 | 0.24 | 13.91 | 0.03 | 0.00 | 0.00 | 0.12 | 98.96 | 0.630 | 0.496 | 0.036 | 0.486 | 0.479 |
| | *02092301 | S44 | 0.01 | 29.42 | 0.04 | 38.40 | 15.64 | 0.07 | 0.16 | 13.95 | 0.00 | 0.02 | 0.00 | 0.21 | 97.92 | 0.629 | 0.467 | 0.017 | 0.524 | 0.459 |
| | *02092301 | S45 | 0.00 | 12.98 | 0.48 | 48.23 | 28.56 | 0.02 | 0.45 | 7.24 | 0.00 | 0.01 | 0.00 | 0.32 | 98.30 | 0.368 | 0.714 | 0.089 | 0.261 | 0.650 |
| | *02092301 | S46 | 0.02 | 9.14 | 0.05 | 58.62 | 21.91 | 0.00 | 0.33 | 7.89 | 0.03 | 0.00 | 0.00 | 0.33 | 98.31 | 0.402 | 0.811 | 0.023 | 0.184 | 0.793 |
| | *02092301 | S47 | 0.00 | 30.19 | 0.00 | 38.74 | 13.69 | 0.09 | 0.23 | 15.22 | 0.01 | 0.01 | 0.01 | 0.20 | 98.38 | 0.675 | 0.463 | 0.014 | 0.530 | 0.456 |
| | *02092301 | S48 | 0.01 | 25.89 | 0.16 | 41.51 | 18.17 | 0.10 | 0.21 | 12.88 | 0.00 | 0.00 | 0.00 | 0.17 | 99.09 | 0.589 | 0.518 | 0.029 | 0.468 | 0.503 |
| | *02092301 | S49 | 0.00 | 19.89 | 0.07 | 47.94 | 19.24 | 0.00 | 0.37 | 12.01 | 0.01 | 0.01 | 0.01 | 0.25 | 99.80 | 0.561 | 0.618 | 0.039 | 0.367 | 0.594 |
| | *02092301 | S50 | 0.03 | 15.87 | 2.21 | 39.21 | 29.21 | 0.13 | 0.34 | 10.01 | 0.02 | 0.00 | 0.00 | 0.11 | 97.14 | 0.519 | 0.624 | 0.135 | 0.326 | 0.540 |
| | *02092301 | S51 | 0.06 | 28.41 | 0.04 | 37.54 | 16.21 | 0.08 | 0.26 | 14.88 | 0.01 | 0.04 | 0.00 | 0.11 | 97.64 | 0.671 | 0.470 | 0.045 | 0.506 | 0.449 |
| Hota Gr. | *99072114 | S1 | 0.09 | 12.89 | 0.29 | 49.04 | 25.19 | 0.12 | 0.27 | 8.78 | 0.08 | 0.00 | 0.00 | n. d. | 96.75 | 0.447 | 0.719 | 0.079 | 0.259 | 0.662 |
| Aokiyama Fm. | *99072114 | S2 | 0.00 | 9.21 | 0.49 | 53.09 | 22.68 | 0.03 | 0.37 | 9.67 | 0.01 | 0.00 | 0.02 | n. d. | 95.56 | 0.504 | 0.794 | 0.076 | 0.190 | 0.734 |
| | *99072114 | S3 | 0.06 | 9.82 | 0.43 | 48.59 | 16.85 | 0.11 | 0.82 | 18.72 | 0.02 | 0.01 | 0.02 | n. d. | 95.46 | 0.910 | 0.768 | 0.185 | 0.189 | 0.626 |
| | *99072114 | S4 | 0.03 | 44.14 | 0.29 | 19.11 | 16.44 | 0.23 | 0.13 | 17.44 | 0.04 | 0.00 | 0.00 | n. d. | 97.84 | 0.732 | 0.225 | 0.055 | 0.732 | 0.213 |
| Hota Gr. | *99122601 | S1 | 0.04 | 14.52 | 0.22 | 48.65 | 25.88 | 0.03 | 0.39 | 8.90 | 0.05 | 0.00 | 0.04 | n. d. | 98.72 | 0.440 | 0.692 | 0.079 | 0.284 | 0.638 |
| Maejima Fm. | *99122601 | S2 | 0.00 | 26.08 | 0.40 | 36.61 | 23.26 | 0.15 | 0.42 | 11.86 | 0.02 | 0.02 | 0.00 | n. d. | 98.80 | 0.549 | 0.485 | 0.073 | 0.477 | 0.450 |
| Sakuma Gr. | *00080702 | S1 | 0.00 | 30.65 | 0.11 | 31.21 | 21.41 | 0.18 | 0.21 | 12.88 | 0.03 | 0.06 | 0.01 | n. d. | 96.74 | 0.588 | 0.406 | 0.069 | 0.553 | 0.378 |
| Okuyama Fm. | *00080702 | S2 | 0.03 | 31.86 | 0.14 | 29.59 | 20.45 | 0.12 | 0.16 | 15.14 | 0.02 | 0.00 | 0.00 | n. d. | 97.49 | 0.673 | 0.384 | 0.091 | 0.560 | 0.349 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (11)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|---|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|---------------------|-------|-------|
| Sakuma Gr. | *00080702 | S3 | 0.00 | 24.45 | 0.12 | 41.85 | 16.43 | 0.15 | 0.23 | 14.84 | 0.05 | 0.00 | 0.00 | n. d. | 98.12 | 0.679 | 0.534 | 0.050 | 0.442 | 0.508 |
| Okuyama Fm. | *00080702 | S4 | 0.00 | 25.63 | 0.12 | 39.35 | 17.91 | 0.09 | 0.23 | 14.19 | 0.02 | 0.02 | 0.00 | n. d. | 97.56 | 0.651 | 0.507 | 0.056 | 0.465 | 0.479 |
| | *00080702 | S5 | 0.01 | 13.62 | 0.00 | 54.66 | 18.87 | 0.02 | 0.27 | 10.52 | 0.04 | 0.00 | 0.00 | n. d. | 98.01 | 0.517 | 0.729 | 0.023 | 0.265 | 0.713 |
| | *00080702 | S6 | 0.09 | 23.63 | 0.26 | 42.33 | 13.20 | 0.25 | 0.15 | 17.14 | 0.05 | 0.00 | 0.01 | n. d. | 97.11 | 0.785 | 0.546 | 0.058 | 0.428 | 0.514 |
| | *00080702 | S7 | 0.02 | 19.35 | 0.02 | 48.63 | 16.74 | 0.01 | 0.27 | 11.89 | 0.00 | 0.00 | 0.01 | n. d. | 96.93 | 0.571 | 0.628 | 0.014 | 0.367 | 0.619 |
| | *00080702 | S8 | 0.00 | 26.66 | 0.18 | 35.68 | 20.73 | 0.17 | 0.21 | 13.59 | 0.00 | 0.00 | 0.00 | n. d. | 97.23 | 0.626 | 0.473 | 0.079 | 0.485 | 0.436 |
| | *00080702 | S9 | 0.02 | 14.89 | 0.01 | 51.99 | 19.33 | 0.04 | 0.24 | 10.42 | 0.02 | 0.00 | 0.00 | n. d. | 96.96 | 0.515 | 0.701 | 0.028 | 0.291 | 0.681 |
| | *00080702 | S10 | 0.03 | 30.98 | 0.06 | 35.81 | 15.97 | 0.06 | 0.21 | 14.31 | 0.03 | 0.02 | 0.01 | n. d. | 97.49 | 0.642 | 0.437 | 0.024 | 0.550 | 0.426 |
| | *00080702 | S11 | 0.01 | 34.05 | 0.04 | 33.48 | 14.24 | 0.08 | 0.13 | 16.08 | 0.00 | 0.00 | 0.01 | n. d. | 98.11 | 0.701 | 0.397 | 0.026 | 0.587 | 0.387 |
| | *00080702 | S12 | 0.00 | 8.22 | 0.20 | 58.84 | 19.85 | 0.08 | 0.33 | 9.71 | 0.02 | 0.00 | 0.00 | n. d. | 97.23 | 0.497 | 0.828 | 0.034 | 0.167 | 0.800 |
| | *00080702 | S13 | 0.02 | 14.71 | 1.59 | 46.47 | 21.00 | 0.19 | 0.18 | 14.15 | 0.01 | 0.00 | 0.00 | n. d. | 98.32 | 0.699 | 0.679 | 0.104 | 0.287 | 0.609 |
| | *00080702 | S14 | 0.09 | 14.29 | 1.68 | 43.98 | 24.80 | 0.17 | 0.24 | 12.19 | 0.02 | 0.00 | 0.01 | n. d. | 97.46 | 0.618 | 0.674 | 0.122 | 0.286 | 0.591 |
| | *00080702 | S15 | 0.10 | 17.44 | 2.23 | 43.58 | 22.33 | 0.19 | 0.21 | 12.69 | 0.04 | 0.00 | 0.01 | 0.12 | 98.92 | 0.633 | 0.626 | 0.080 | 0.344 | 0.576 |
| | *00080702 | S16 | 0.01 | 12.22 | 0.18 | 50.97 | 23.62 | 0.07 | 0.33 | 9.12 | 0.00 | 0.00 | 0.01 | n. d. | 96.53 | 0.463 | 0.737 | 0.068 | 0.245 | 0.686 |
| | *00080702 | S17 | 0.00 | 26.07 | 0.68 | 38.81 | 17.77 | 0.18 | 0.20 | 14.09 | 0.03 | 0.00 | 0.00 | n. d. | 97.84 | 0.654 | 0.500 | 0.045 | 0.478 | 0.477 |
| | *00080702 | S18 | 0.08 | 15.22 | 1.77 | 43.55 | 22.94 | 0.28 | 0.30 | 13.10 | 0.03 | 0.01 | 0.01 | n. d. | 97.28 | 0.661 | 0.657 | 0.114 | 0.303 | 0.582 |
| | *00080702 | S19 | 0.05 | 20.06 | 0.59 | 39.31 | 25.46 | 0.16 | 0.29 | 11.22 | 0.03 | 0.01 | 0.00 | n. d. | 97.18 | 0.545 | 0.568 | 0.109 | 0.385 | 0.506 |
| | *00080702 | S20 | 0.03 | 27.48 | 0.10 | 38.97 | 19.14 | 0.09 | 0.32 | 12.97 | 0.04 | 0.00 | 0.00 | n. d. | 99.13 | 0.588 | 0.487 | 0.039 | 0.493 | 0.468 |
| | *00080702 | S21 | 0.08 | 21.88 | 0.33 | 45.20 | 14.88 | 0.15 | 0.18 | 16.22 | 0.01 | 0.00 | 0.00 | n. d. | 98.94 | 0.742 | 0.581 | 0.056 | 0.396 | 0.548 |
| | *00080702 | S22 | 0.02 | 24.37 | 0.31 | 40.96 | 18.32 | 0.18 | 0.31 | 13.64 | 0.06 | 0.00 | 0.00 | n. d. | 98.16 | 0.632 | 0.530 | 0.051 | 0.446 | 0.503 |
| | *00080702 | S23 | 0.00 | 23.48 | 0.20 | 38.14 | 23.37 | 0.13 | 0.33 | 11.18 | 0.03 | 0.00 | 0.00 | n. d. | 96.86 | 0.532 | 0.521 | 0.077 | 0.442 | 0.481 |
| | *00080702 | S24 | 0.32 | 20.61 | 0.37 | 41.38 | 20.16 | 0.16 | 0.21 | 13.32 | 0.04 | 0.00 | 0.00 | 0.08 | 96.64 | 0.637 | 0.574 | 0.086 | 0.390 | 0.525 |
| | *00080702 | S25 | 0.00 | 16.73 | 3.11 | 36.45 | 28.44 | 0.22 | 0.30 | 11.23 | 0.03 | 0.00 | 0.01 | n. d. | 96.51 | 0.593 | 0.594 | 0.140 | 0.350 | 0.511 |
| | *00080702 | S26 | 0.00 | 19.46 | 0.04 | 44.14 | 23.62 | 0.01 | 0.35 | 9.55 | 0.00 | 0.04 | 0.00 | n. d. | 97.19 | 0.464 | 0.603 | 0.058 | 0.374 | 0.569 |
| | *00080702 | S27 | 0.04 | 11.19 | 0.07 | 50.20 | 28.31 | 0.14 | 0.48 | 6.73 | 0.06 | 0.00 | 0.00 | 0.29 | 97.50 | 0.345 | 0.751 | 0.091 | 0.227 | 0.683 |
| | *00080702 | S28 | 0.01 | 23.22 | 0.15 | 41.18 | 19.09 | 0.16 | 0.22 | 13.49 | 0.03 | 0.00 | 0.00 | n. d. | 97.56 | 0.629 | 0.543 | 0.063 | 0.428 | 0.509 |
| | *00080702 | S29 | 0.11 | 10.46 | 0.66 | 48.42 | 29.95 | 0.04 | 0.53 | 7.69 | 0.04 | 0.00 | 0.02 | 0.29 | 98.21 | 0.396 | 0.756 | 0.125 | 0.213 | 0.661 |
| | *00080702 | S30 | 0.00 | 21.82 | 0.45 | 42.73 | 21.65 | 0.13 | 0.28 | 11.93 | 0.04 | 0.01 | 0.01 | n. d. | 99.05 | 0.562 | 0.568 | 0.060 | 0.406 | 0.534 |
| | *00080702 | S31 | 0.04 | 16.48 | 0.66 | 45.28 | 22.78 | 0.11 | 0.32 | 12.90 | 0.10 | 0.00 | 0.01 | n. d. | 98.68 | 0.622 | 0.648 | 0.107 | 0.314 | 0.579 |
| | *00080702 | S32 | 0.12 | 23.27 | 0.56 | 33.85 | 24.21 | 0.26 | 0.21 | 15.00 | 0.09 | 0.00 | 0.00 | n. d. | 97.56 | 0.698 | 0.494 | 0.154 | 0.428 | 0.418 |
| | *00080702 | S33 | 0.04 | 11.36 | 0.64 | 49.67 | 24.39 | 0.07 | 0.33 | 9.92 | 0.09 | 0.00 | 0.00 | n. d. | 96.51 | 0.509 | 0.746 | 0.094 | 0.230 | 0.676 |
| | *00080702 | S34 | 0.02 | 21.00 | 0.83 | 40.80 | 22.01 | 0.14 | 0.31 | 13.15 | 0.10 | 0.00 | 0.00 | n. d. | 98.35 | 0.625 | 0.566 | 0.091 | 0.395 | 0.515 |
| | *00080702 | S35 | 0.05 | 7.84 | 0.34 | 50.48 | 30.30 | 0.09 | 0.49 | 6.29 | 0.07 | 0.00 | 0.00 | 0.22 | 96.18 | 0.335 | 0.812 | 0.122 | 0.165 | 0.713 |
| | *00080702 | S36 | 0.00 | 19.47 | 0.44 | 41.83 | 25.53 | 0.03 | 0.43 | 10.36 | 0.02 | 0.07 | 0.00 | 0.17 | 98.34 | 0.500 | 0.590 | 0.093 | 0.372 | 0.535 |
| | *00080702 | S37 | 0.11 | 25.82 | 0.35 | 38.99 | 16.80 | 0.33 | 0.19 | 14.97 | 0.01 | 0.00 | 0.00 | n. d. | 97.56 | 0.689 | 0.503 | 0.055 | 0.469 | 0.475 |
| | *00080702 | S38 | 0.03 | 18.76 | 0.12 | 44.30 | 23.20 | 0.11 | 0.22 | 11.53 | 0.02 | 0.03 | 0.00 | n. d. | 98.32 | 0.550 | 0.613 | 0.086 | 0.354 | 0.560 |
| | *00080702 | S39 | 0.10 | 16.21 | 0.99 | 40.73 | 25.25 | 0.07 | 0.32 | 11.50 | 0.04 | 0.00 | 0.00 | n. d. | 95.19 | 0.582 | 0.628 | 0.129 | 0.324 | 0.547 |
| Sakuma Gr. | 00082105 | S1 | 0.08 | 11.61 | 1.54 | 48.64 | 21.31 | 0.18 | 0.20 | 12.58 | 0.02 | 0.00 | 0.00 | n. d. | 96.18 | 0.650 | 0.738 | 0.097 | 0.237 | 0.666 |
| basaltic clast of the Okuyama Fm. | 00082105 | S2 | 0.07 | 13.08 | 1.88 | 47.55 | 18.13 | 0.18 | 0.19 | 14.95 | 0.00 | 0.00 | 0.02 | n. d. | 96.03 | 0.762 | 0.709 | 0.094 | 0.263 | 0.642 |
| | 00082105 | S3 | 0.03 | 15.00 | 2.30 | 40.49 | 25.59 | 0.27 | 0.17 | 12.52 | 0.06 | 0.01 | 0.00 | n. d. | 96.42 | 0.648 | 0.644 | 0.138 | 0.307 | 0.556 |
| | 00082105 | S4 | 0.03 | 14.03 | 1.98 | 44.46 | 21.61 | 0.23 | 0.24 | 14.43 | 0.08 | 0.03 | 0.00 | n. d. | 97.13 | 0.729 | 0.680 | 0.124 | 0.280 | 0.596 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (12)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|----------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|--------------------|-------|-------|
| Sakuma Gr. | 00082105 | S5 | 0.08 | 13.41 | 1.74 | 47.21 | 20.33 | 0.28 | 0.26 | 14.16 | 0.00 | 0.01 | 0.00 | n. d. | 97.47 | 0.713 | 0.703 | 0.103 | 0.267 | 0.630 |
| basaltic clast | 00082105 | S6 | 0.02 | 14.21 | 1.90 | 44.88 | 24.29 | 0.26 | 0.23 | 12.13 | 0.04 | 0.00 | 0.02 | n. d. | 97.97 | 0.617 | 0.679 | 0.109 | 0.286 | 0.605 |
| of the | 00082105 | S7 | 0.05 | 14.42 | 1.97 | 44.02 | 23.00 | 0.22 | 0.23 | 13.22 | 0.01 | 0.02 | 0.01 | n. d. | 97.16 | 0.672 | 0.672 | 0.117 | 0.290 | 0.593 |
| Okuyama Fm. | 00082105 | S8 | 0.04 | 14.43 | 2.05 | 45.44 | 20.22 | 0.26 | 0.20 | 14.76 | 0.02 | 0.00 | 0.00 | n. d. | 97.42 | 0.742 | 0.679 | 0.107 | 0.287 | 0.606 |
| | 00082105 | S9 | 0.00 | 13.27 | 1.96 | 43.50 | 26.06 | 0.20 | 0.18 | 12.89 | 0.00 | 0.04 | 0.01 | n. d. | 98.13 | 0.653 | 0.687 | 0.149 | 0.266 | 0.585 |
| | 00082105 | S10 | 0.01 | 16.26 | 2.53 | 39.04 | 24.95 | 0.26 | 0.21 | 12.91 | 0.03 | 0.00 | 0.02 | n. d. | 96.21 | 0.667 | 0.617 | 0.133 | 0.332 | 0.535 |
| | 00082105 | S11 | 0.02 | 14.75 | 1.79 | 44.38 | 21.02 | 0.24 | 0.24 | 14.78 | 0.03 | 0.00 | 0.00 | n. d. | 97.23 | 0.738 | 0.669 | 0.121 | 0.291 | 0.588 |
| | 00082105 | S12 | 0.03 | 13.36 | 1.42 | 47.46 | 22.79 | 0.18 | 0.27 | 12.47 | 0.06 | 0.00 | 0.00 | n. d. | 98.04 | 0.627 | 0.704 | 0.102 | 0.265 | 0.632 |
| | 00082105 | S13 | 0.06 | 13.33 | 1.41 | 46.78 | 22.29 | 0.15 | 0.25 | 12.07 | 0.02 | 0.02 | 0.00 | n. d. | 96.38 | 0.617 | 0.702 | 0.096 | 0.270 | 0.635 |
| | 00082105 | S14 | 0.06 | 13.40 | 1.65 | 48.85 | 18.15 | 0.19 | 0.23 | 15.79 | 0.01 | 0.00 | 0.01 | n. d. | 98.33 | 0.777 | 0.710 | 0.101 | 0.261 | 0.638 |
| | 00082105 | S15 | 0.04 | 13.28 | 1.60 | 47.92 | 18.01 | 0.16 | 0.16 | 15.01 | 0.02 | 0.02 | 0.00 | n. d. | 96.21 | 0.757 | 0.708 | 0.095 | 0.265 | 0.641 |
| | 00082105 | S16 | 0.06 | 13.31 | 1.66 | 48.77 | 19.00 | 0.19 | 0.22 | 14.28 | 0.01 | 0.00 | 0.01 | n. d. | 97.52 | 0.717 | 0.711 | 0.087 | 0.264 | 0.649 |
| Sakuma Gr. | *00040902 | S1 | 0.01 | 33.96 | 0.07 | 33.16 | 17.72 | 0.17 | 0.21 | 14.00 | 0.03 | 0.00 | 0.02 | n. d. | 99.36 | 0.614 | 0.396 | 0.026 | 0.589 | 0.386 |
| Nakaobara Fm. | *00040902 | S2 | 0.09 | 23.88 | 0.39 | 40.58 | 15.42 | 0.26 | 0.20 | 17.32 | 0.01 | 0.00 | 0.00 | n. d. | 98.14 | 0.786 | 0.533 | 0.083 | 0.429 | 0.489 |
| | *00040902 | S3 | 0.08 | 26.49 | 0.35 | 39.27 | 17.48 | 0.17 | 0.25 | 14.69 | 0.04 | 0.01 | 0.00 | n. d. | 98.84 | 0.667 | 0.499 | 0.051 | 0.476 | 0.473 |
| | *00040902 | S5 | 0.00 | 8.96 | 0.22 | 53.36 | 28.35 | 0.00 | 0.51 | 6.93 | 0.00 | 0.05 | 0.01 | 0.31 | 98.69 | 0.355 | 0.800 | 0.092 | 0.182 | 0.726 |
| Serpentine | 99072206 | S1 | 0.00 | 21.19 | 0.13 | 47.38 | 16.02 | 0.08 | 0.17 | 13.84 | 0.00 | 0.05 | 0.01 | n. d. | 98.86 | 0.642 | 0.600 | 0.029 | 0.389 | 0.583 |
| sandstone | 99072206 | S2 | 0.01 | 43.92 | 0.11 | 20.34 | 13.21 | 0.20 | 0.18 | 18.06 | 0.01 | 0.05 | 0.00 | n. d. | 96.09 | 0.763 | 0.237 | 0.038 | 0.734 | 0.228 |
| (Mineoka- | 99072206 | S3 | 0.00 | 34.40 | 0.09 | 33.20 | 16.70 | 0.21 | 0.28 | 15.22 | 0.08 | 0.00 | 0.02 | n. d. | 100.19 | 0.657 | 0.393 | 0.032 | 0.587 | 0.380 |
| sengen) | 99072206 | S4 | 0.00 | 37.02 | 0.09 | 30.99 | 13.83 | 0.12 | 0.15 | 16.57 | 0.06 | 0.00 | 0.01 | n. d. | 98.83 | 0.710 | 0.360 | 0.021 | 0.627 | 0.352 |
| | 99072206 | S5 | 0.05 | 27.03 | 0.05 | 38.30 | 19.11 | 0.10 | 0.32 | 12.43 | 0.03 | 0.00 | 0.00 | n. d. | 97.42 | 0.574 | 0.487 | 0.037 | 0.494 | 0.469 |
| | 99072206 | S6 | 0.00 | 33.03 | 0.07 | 33.96 | 16.55 | 0.14 | 0.27 | 14.82 | 0.01 | 0.08 | 0.00 | n. d. | 98.94 | 0.651 | 0.408 | 0.031 | 0.573 | 0.395 |
| | 99072206 | S7 | 0.02 | 50.88 | 0.06 | 16.96 | 12.03 | 0.28 | 0.10 | 19.18 | 0.00 | 0.00 | 0.00 | n. d. | 99.51 | 0.766 | 0.183 | 0.018 | 0.803 | 0.180 |
| | 99072206 | S8 | 0.01 | 31.25 | 0.06 | 36.58 | 15.52 | 0.12 | 0.21 | 15.15 | 0.04 | 0.00 | 0.02 | n. d. | 98.96 | 0.668 | 0.440 | 0.027 | 0.545 | 0.428 |
| | 99072206 | S9 | 0.02 | 20.35 | 0.12 | 47.21 | 18.69 | 0.12 | 0.32 | 12.54 | 0.01 | 0.01 | 0.00 | n. d. | 99.38 | 0.586 | 0.609 | 0.039 | 0.376 | 0.585 |
| | 99072206 | S10 | 0.05 | 31.11 | 0.04 | 36.08 | 15.14 | 0.18 | 0.19 | 15.40 | 0.07 | 0.00 | 0.00 | n. d. | 98.26 | 0.682 | 0.438 | 0.031 | 0.545 | 0.424 |
| | 99072206 | S11 | 0.00 | 33.79 | 0.13 | 31.92 | 16.94 | 0.17 | 0.29 | 15.00 | 0.02 | 0.00 | 0.01 | n. d. | 98.25 | 0.660 | 0.388 | 0.040 | 0.588 | 0.372 |
| | 99072206 | S12 | 0.12 | 35.61 | 0.14 | 32.42 | 17.09 | 0.14 | 0.20 | 15.85 | 0.10 | 0.04 | 0.01 | n. d. | 101.71 | 0.672 | 0.379 | 0.039 | 0.597 | 0.365 |
| | 99072206 | S13 | 0.00 | 36.32 | 0.07 | 31.85 | 14.44 | 0.12 | 0.25 | 15.98 | 0.01 | 0.00 | 0.00 | n. d. | 99.05 | 0.687 | 0.370 | 0.019 | 0.617 | 0.363 |
| | 99072206 | S14 | 0.52 | 33.90 | 0.08 | 32.54 | 16.78 | 0.18 | 0.31 | 15.57 | 0.00 | 0.00 | 0.02 | n. d. | 99.89 | 0.675 | 0.392 | 0.044 | 0.582 | 0.374 |
| | 99072206 | S15 | 0.01 | 37.38 | 0.08 | 30.74 | 14.28 | 0.13 | 0.30 | 16.23 | 0.05 | 0.00 | 0.00 | n. d. | 99.21 | 0.694 | 0.355 | 0.020 | 0.632 | 0.348 |
| | 99072206 | S16 | 0.03 | 37.62 | 0.08 | 29.30 | 14.53 | 0.12 | 0.23 | 15.90 | 0.04 | 0.02 | 0.00 | n. d. | 97.87 | 0.687 | 0.343 | 0.021 | 0.643 | 0.336 |
| | 99072206 | S17 | 0.01 | 37.76 | 0.05 | 29.37 | 14.34 | 0.15 | 0.17 | 16.27 | 0.04 | 0.01 | 0.01 | n. d. | 99.17 | 0.699 | 0.343 | 0.024 | 0.642 | 0.335 |
| | 99072206 | S18 | 0.02 | 36.32 | 0.06 | 31.46 | 16.10 | 0.14 | 0.20 | 15.45 | 0.03 | 0.03 | 0.00 | n. d. | 99.80 | 0.663 | 0.368 | 0.026 | 0.616 | 0.358 |
| | 99072206 | S19 | 0.02 | 37.72 | 0.06 | 31.17 | 15.49 | 0.11 | 0.20 | 16.23 | 0.03 | 0.00 | 0.00 | n. d. | 101.03 | 0.683 | 0.357 | 0.025 | 0.627 | 0.348 |
| | 99072206 | S20 | 0.00 | 40.33 | 0.06 | 28.30 | 14.44 | 0.16 | 0.20 | 16.63 | 0.02 | 0.02 | 0.01 | n. d. | 100.17 | 0.696 | 0.320 | 0.019 | 0.667 | 0.314 |
| | 99072206 | S21 | 0.01 | 35.49 | 0.08 | 32.10 | 16.54 | 0.13 | 0.22 | 15.21 | 0.03 | 0.00 | 0.01 | n. d. | 99.81 | 0.655 | 0.378 | 0.029 | 0.605 | 0.367 |
| | 99072206 | S22 | 0.00 | 39.32 | 0.07 | 28.35 | 14.64 | 0.10 | 0.16 | 15.79 | 0.10 | 0.00 | 0.01 | n. d. | 98.52 | 0.675 | 0.326 | 0.014 | 0.665 | 0.321 |
| | 99072206 | S23 | 0.02 | 40.32 | 0.02 | 28.91 | 13.87 | 0.18 | 0.18 | 16.72 | 0.07 | 0.00 | 0.02 | n. d. | 100.29 | 0.698 | 0.325 | 0.014 | 0.666 | 0.320 |
| | 99072206 | S24 | 0.00 | 40.72 | 0.04 | 27.41 | 14.82 | 0.13 | 0.14 | 16.04 | 0.00 | 0.00 | 0.00 | n. d. | 99.30 | 0.677 | 0.311 | 0.015 | 0.679 | 0.307 |
| | 99072206 | S25 | 0.02 | 38.13 | 0.09 | 29.25 | 14.83 | 0.13 | 0.24 | 15.82 | 0.06 | 0.00 | 0.00 | n. d. | 98.56 | 0.679 | 0.340 | 0.019 | 0.648 | 0.333 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (13)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|--|----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|---------------------|-------|-------|
| | 99072206 | S26 | 0.00 | 35.70 | 0.05 | 30.29 | 15.07 | 0.11 | 0.20 | 15.62 | 0.00 | 0.00 | 0.00 | n. d. | 97.04 | 0.685 | 0.363 | 0.029 | 0.619 | 0.352 |
| | 99072206 | S27 | 0.03 | 36.11 | 0.09 | 31.44 | 13.49 | 0.18 | 0.24 | 16.14 | 0.01 | 0.00 | 0.00 | n. d. | 97.72 | 0.702 | 0.369 | 0.017 | 0.621 | 0.363 |
| | 99072206 | S28 | 0.07 | 42.39 | 0.07 | 24.26 | 14.15 | 0.12 | 0.25 | 16.84 | 0.06 | 0.02 | 0.00 | n. d. | 98.22 | 0.709 | 0.277 | 0.023 | 0.706 | 0.271 |
| Serpentine sandstone (Eastern Mineoka- sengen) | 00081811 | S1 | 0.11 | 40.85 | 0.04 | 26.79 | 16.08 | 0.19 | 0.17 | 16.07 | 0.04 | 0.00 | 0.00 | n. d. | 100.34 | 0.673 | 0.306 | 0.026 | 0.676 | 0.297 |
| | 00081811 | S2 | 0.00 | 43.46 | 0.08 | 25.68 | 14.84 | 0.18 | 0.11 | 17.05 | 0.04 | 0.00 | 0.02 | n. d. | 101.45 | 0.697 | 0.284 | 0.019 | 0.703 | 0.279 |
| | 00081811 | S3 | 0.02 | 20.14 | 0.13 | 51.97 | 16.27 | 0.01 | 0.23 | 12.38 | 0.02 | 0.00 | 0.00 | n. d. | 101.16 | 0.572 | 0.634 | 0.000 | 0.366 | 0.634 |
| | 00081811 | S4 | 0.05 | 36.39 | 0.13 | 34.08 | 13.77 | 0.16 | 0.23 | 15.36 | 0.05 | 0.00 | 0.01 | n. d. | 100.22 | 0.659 | 0.386 | 0.000 | 0.614 | 0.386 |
| | 00081811 | S5 | 0.00 | 27.79 | 0.09 | 41.70 | 16.43 | 0.11 | 0.27 | 14.77 | 0.00 | 0.04 | 0.00 | n. d. | 101.20 | 0.650 | 0.502 | 0.029 | 0.484 | 0.487 |
| | 00081811 | S6 | 0.03 | 27.01 | 0.08 | 42.36 | 16.17 | 0.02 | 0.15 | 14.24 | 0.02 | 0.05 | 0.00 | n. d. | 100.14 | 0.636 | 0.513 | 0.021 | 0.477 | 0.502 |
| | 00081811 | S7 | 0.00 | 10.31 | 0.08 | 58.95 | 19.19 | 0.03 | 0.32 | 10.04 | 0.00 | 0.00 | 0.00 | n. d. | 98.91 | 0.499 | 0.793 | 0.020 | 0.203 | 0.777 |
| | 00081811 | S8 | 0.06 | 29.34 | 0.09 | 41.24 | 14.68 | 0.14 | 0.22 | 15.27 | 0.03 | 0.00 | 0.01 | n. d. | 101.08 | 0.668 | 0.485 | 0.015 | 0.507 | 0.478 |
| | 00081811 | S9 | 0.00 | 36.37 | 0.12 | 33.44 | 14.23 | 0.15 | 0.16 | 16.30 | 0.00 | 0.01 | 0.00 | n. d. | 100.78 | 0.691 | 0.382 | 0.014 | 0.610 | 0.376 |
| | 00081811 | S10 | 0.00 | 50.01 | 0.05 | 20.47 | 11.63 | 0.23 | 0.13 | 19.00 | 0.01 | 0.01 | 0.00 | n. d. | 101.56 | 0.750 | 0.215 | 0.000 | 0.785 | 0.215 |
| | 00081811 | S11 | 0.00 | 31.67 | 0.06 | 36.19 | 16.69 | 0.12 | 0.19 | 14.88 | 0.01 | 0.00 | 0.00 | n. d. | 99.81 | 0.652 | 0.434 | 0.032 | 0.548 | 0.420 |
| | 00081811 | S12 | 0.02 | 28.16 | 0.16 | 39.32 | 18.27 | 0.14 | 0.19 | 13.77 | 0.02 | 0.02 | 0.00 | n. d. | 100.06 | 0.616 | 0.484 | 0.036 | 0.498 | 0.466 |
| | 00081811 | S13 | 0.02 | 33.59 | 0.11 | 35.30 | 16.24 | 0.16 | 0.20 | 15.30 | 0.00 | 0.00 | 0.00 | n. d. | 100.92 | 0.658 | 0.413 | 0.025 | 0.572 | 0.403 |
| | 00081811 | S14 | 0.03 | 36.99 | 0.25 | 30.33 | 16.36 | 0.15 | 0.17 | 16.32 | 0.01 | 0.02 | 0.00 | n. d. | 100.63 | 0.693 | 0.355 | 0.038 | 0.621 | 0.341 |
| | 00081811 | S15 | 0.01 | 27.67 | 0.08 | 41.44 | 16.80 | 0.13 | 0.23 | 14.52 | 0.03 | 0.00 | 0.00 | n. d. | 100.92 | 0.642 | 0.501 | 0.030 | 0.484 | 0.486 |
| | 00081811 | S16 | 0.00 | 35.10 | 0.10 | 34.95 | 15.18 | 0.17 | 0.21 | 15.65 | 0.01 | 0.00 | 0.01 | n. d. | 101.37 | 0.666 | 0.400 | 0.015 | 0.591 | 0.395 |
| | 00081811 | S17 | 0.00 | 38.62 | 0.22 | 29.64 | 14.71 | 0.22 | 0.23 | 15.75 | 0.01 | 0.00 | 0.00 | n. d. | 99.40 | 0.673 | 0.340 | 0.011 | 0.653 | 0.336 |
| | 00081811 | S18 | 0.00 | 12.42 | 0.08 | 54.33 | 18.55 | 0.02 | 0.37 | 9.90 | 0.03 | 0.00 | 0.02 | n. d. | 95.71 | 0.503 | 0.746 | 0.019 | 0.249 | 0.732 |
| | 00081811 | S19 | 0.00 | 41.37 | 0.05 | 25.87 | 13.21 | 0.24 | 0.16 | 17.00 | 0.00 | 0.00 | 0.00 | n. d. | 97.89 | 0.719 | 0.295 | 0.017 | 0.692 | 0.290 |
| | 00081811 | S20 | 0.00 | 35.96 | 0.10 | 31.46 | 13.97 | 0.20 | 0.19 | 15.88 | 0.00 | 0.00 | 0.00 | n. d. | 97.76 | 0.692 | 0.370 | 0.017 | 0.619 | 0.364 |
| | 00081811 | S21 | 0.00 | 29.35 | 0.15 | 37.10 | 16.34 | 0.14 | 0.27 | 14.41 | 0.05 | 0.00 | 0.01 | n. d. | 97.81 | 0.650 | 0.459 | 0.032 | 0.524 | 0.444 |
| | 00081811 | S22 | 0.02 | 38.95 | 0.03 | 27.58 | 13.96 | 0.17 | 0.18 | 16.29 | 0.00 | 0.00 | 0.00 | n. d. | 97.17 | 0.702 | 0.322 | 0.021 | 0.664 | 0.315 |
| | 00081811 | S23 | 0.01 | 25.06 | 0.12 | 41.41 | 16.19 | 0.10 | 0.20 | 13.58 | 0.01 | 0.00 | 0.01 | n. d. | 96.68 | 0.632 | 0.526 | 0.027 | 0.461 | 0.511 |
| | 00081811 | S24 | 0.00 | 30.37 | 0.06 | 36.30 | 14.23 | 0.18 | 0.27 | 15.49 | 0.00 | 0.00 | 0.01 | n. d. | 96.91 | 0.695 | 0.445 | 0.029 | 0.539 | 0.432 |
| | 00081811 | S25 | 0.00 | 42.25 | 0.05 | 24.63 | 13.93 | 0.18 | 0.19 | 16.98 | 0.00 | 0.01 | 0.00 | n. d. | 98.22 | 0.714 | 0.281 | 0.023 | 0.703 | 0.275 |
| | 00081811 | S26 | 0.00 | 23.22 | 0.06 | 45.26 | 16.37 | 0.08 | 0.23 | 13.15 | 0.00 | 0.00 | 0.00 | n. d. | 98.37 | 0.609 | 0.567 | 0.019 | 0.425 | 0.556 |
| | 00081811 | S27 | 0.02 | 33.52 | 0.11 | 32.62 | 16.15 | 0.15 | 0.17 | 14.94 | 0.02 | 0.00 | 0.00 | n. d. | 97.69 | 0.661 | 0.395 | 0.031 | 0.587 | 0.383 |
| | 00081811 | S28 | 0.02 | 48.06 | 0.07 | 18.91 | 11.98 | 0.24 | 0.19 | 18.61 | 0.01 | 0.03 | 0.01 | n. d. | 98.13 | 0.761 | 0.209 | 0.019 | 0.777 | 0.205 |
| | 00081811 | S29 | 0.00 | 25.11 | 0.12 | 41.51 | 16.84 | 0.08 | 0.25 | 13.22 | 0.02 | 0.00 | 0.00 | n. d. | 97.15 | 0.614 | 0.526 | 0.027 | 0.461 | 0.512 |
| | 00081811 | S30 | 0.03 | 13.21 | 0.15 | 52.48 | 17.22 | 0.10 | 0.35 | 11.14 | 0.02 | 0.01 | 0.00 | n. d. | 94.70 | 0.565 | 0.727 | 0.029 | 0.265 | 0.706 |
| | 00081811 | S31 | 0.00 | 35.61 | 0.05 | 31.92 | 14.37 | 0.13 | 0.21 | 15.78 | 0.01 | 0.01 | 0.00 | n. d. | 98.09 | 0.686 | 0.376 | 0.020 | 0.612 | 0.368 |
| | 00081811 | S32 | 0.06 | 35.23 | 0.11 | 31.35 | 15.95 | 0.14 | 0.28 | 15.18 | 0.00 | 0.00 | 0.01 | n. d. | 98.30 | 0.663 | 0.374 | 0.028 | 0.609 | 0.363 |
| | 00081811 | S33 | 0.04 | 17.30 | 0.00 | 43.99 | 25.41 | 0.08 | 0.32 | 9.60 | 0.04 | 0.01 | 0.00 | n. d. | 96.78 | 0.472 | 0.630 | 0.091 | 0.336 | 0.573 |
| | 00081811 | S34 | 0.00 | 38.35 | 0.07 | 27.86 | 14.95 | 0.17 | 0.16 | 16.08 | 0.02 | 0.00 | 0.00 | n. d. | 97.66 | 0.693 | 0.328 | 0.028 | 0.654 | 0.318 |
| | 00081811 | S35 | 0.00 | 27.94 | 0.13 | 38.59 | 16.72 | 0.12 | 0.23 | 13.81 | 0.00 | 0.00 | 0.00 | n. d. | 97.54 | 0.630 | 0.481 | 0.029 | 0.504 | 0.467 |
| | 00081811 | S36 | 0.00 | 39.04 | 0.04 | 26.44 | 15.96 | 0.14 | 0.25 | 15.52 | 0.02 | 0.00 | 0.02 | n. d. | 97.42 | 0.670 | 0.312 | 0.031 | 0.667 | 0.303 |
| | 00081811 | S37 | 0.00 | 42.81 | 0.05 | 23.93 | 15.38 | 0.18 | 0.25 | 16.37 | 0.03 | 0.00 | 0.02 | n. d. | 99.02 | 0.686 | 0.273 | 0.025 | 0.709 | 0.266 |
| | 00081811 | S38 | 0.01 | 32.23 | 0.07 | 34.97 | 15.10 | 0.10 | 0.28 | 14.31 | 0.01 | 0.00 | 0.00 | n. d. | 97.08 | 0.642 | 0.421 | 0.013 | 0.571 | 0.416 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (14)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|--|----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|-------|-------------|-------|-------|--------------------|-------|-------|
| Serpentine sandstone (Eastern Mineoka- sengen) | 00081811 | S39 | 0.00 | 39.87 | 0.05 | 26.87 | 15.03 | 0.21 | 0.11 | 16.08 | 0.02 | 0.00 | 0.01 | n. d. | 98.24 | 0.686 | 0.311 | 0.023 | 0.673 | 0.304 |
| | 00081811 | S40 | 0.00 | 30.02 | 0.07 | 36.64 | 15.66 | 0.15 | 0.20 | 14.25 | 0.01 | 0.03 | 0.00 | n. d. | 97.04 | 0.645 | 0.450 | 0.023 | 0.537 | 0.440 |
| | 00081811 | S41 | 0.01 | 47.42 | 0.05 | 19.54 | 13.25 | 0.25 | 0.13 | 17.50 | 0.02 | 0.00 | 0.01 | n. d. | 98.17 | 0.721 | 0.217 | 0.014 | 0.772 | 0.213 |
| | 00081811 | S42 | 0.00 | 29.89 | 0.07 | 38.09 | 13.91 | 0.14 | 0.25 | 14.94 | 0.02 | 0.00 | 0.00 | n. d. | 97.32 | 0.673 | 0.461 | 0.013 | 0.532 | 0.455 |
| | 00081811 | S43 | 0.02 | 34.05 | 0.16 | 29.41 | 18.35 | 0.14 | 0.22 | 14.84 | 0.01 | 0.04 | 0.02 | n. d. | 97.27 | 0.658 | 0.367 | 0.057 | 0.597 | 0.346 |
| | 00081811 | S44 | 0.00 | 19.71 | 0.04 | 46.66 | 18.19 | 0.03 | 0.25 | 12.18 | 0.02 | 0.00 | 0.03 | n. d. | 97.10 | 0.582 | 0.614 | 0.037 | 0.372 | 0.591 |
| | 00081811 | S45 | 0.00 | 22.33 | 0.16 | 42.25 | 18.63 | 0.05 | 0.35 | 12.44 | 0.04 | 0.05 | 0.00 | n. d. | 96.29 | 0.592 | 0.559 | 0.046 | 0.420 | 0.534 |
| | 00081811 | S46 | 0.00 | 23.03 | 0.05 | 43.40 | 17.49 | 0.07 | 0.30 | 12.47 | 0.02 | 0.05 | 0.01 | n. d. | 96.90 | 0.588 | 0.558 | 0.028 | 0.429 | 0.543 |
| | 00081811 | S47 | 0.13 | 22.85 | 0.05 | 42.96 | 17.46 | 0.05 | 0.23 | 13.20 | 0.04 | 0.05 | 0.00 | n. d. | 97.02 | 0.619 | 0.558 | 0.041 | 0.424 | 0.535 |
| | 00081811 | S48 | 0.02 | 18.97 | 0.03 | 48.10 | 17.44 | 0.04 | 0.34 | 11.93 | 0.02 | 0.00 | 0.01 | n. d. | 96.88 | 0.574 | 0.630 | 0.026 | 0.361 | 0.613 |
| | 00081811 | S49 | 0.00 | 40.50 | 0.10 | 25.89 | 14.50 | 0.15 | 0.15 | 16.25 | 0.00 | 0.05 | 0.00 | n. d. | 97.58 | 0.695 | 0.300 | 0.021 | 0.685 | 0.294 |
| | 00081811 | S50 | 0.00 | 24.26 | 0.07 | 43.21 | 14.91 | 0.12 | 0.31 | 14.52 | 0.03 | 0.00 | 0.01 | n. d. | 97.43 | 0.669 | 0.544 | 0.030 | 0.442 | 0.528 |
| | 00081811 | S51 | 0.00 | 19.81 | 0.11 | 45.04 | 19.02 | 0.12 | 0.23 | 11.89 | 0.01 | 0.00 | 0.01 | n. d. | 96.24 | 0.574 | 0.604 | 0.045 | 0.378 | 0.577 |
| | 00081811 | S52 | 0.00 | 24.92 | 0.19 | 38.38 | 20.06 | 0.07 | 0.27 | 12.72 | 0.05 | 0.00 | 0.01 | n. d. | 96.67 | 0.596 | 0.508 | 0.061 | 0.462 | 0.477 |
| | 00081811 | S53 | 0.01 | 30.73 | 0.11 | 37.67 | 14.49 | 0.07 | 0.24 | 14.95 | 0.02 | 0.01 | 0.01 | n. d. | 98.30 | 0.665 | 0.451 | 0.014 | 0.541 | 0.445 |
| | 00081811 | S54 | 0.00 | 25.43 | 0.10 | 41.59 | 17.41 | 0.07 | 0.26 | 13.69 | 0.00 | 0.00 | 0.02 | n. d. | 98.57 | 0.625 | 0.523 | 0.037 | 0.459 | 0.504 |
| | 00081811 | S55 | 0.00 | 44.16 | 0.11 | 22.16 | 13.55 | 0.20 | 0.19 | 17.36 | 0.00 | 0.04 | 0.00 | n. d. | 97.77 | 0.727 | 0.252 | 0.023 | 0.731 | 0.246 |
| | 00081811 | S56 | 0.00 | 40.52 | 0.08 | 25.59 | 13.25 | 0.16 | 0.19 | 16.78 | 0.00 | 0.04 | 0.00 | n. d. | 96.61 | 0.721 | 0.298 | 0.020 | 0.688 | 0.291 |
| | 00081811 | S57 | 0.02 | 21.06 | 0.05 | 48.70 | 14.36 | 0.00 | 0.20 | 13.59 | 0.02 | 0.00 | 0.00 | n. d. | 98.00 | 0.635 | 0.608 | 0.007 | 0.389 | 0.604 |
| | 00081811 | S58 | 0.00 | 28.75 | 0.05 | 39.77 | 15.06 | 0.08 | 0.15 | 14.66 | 0.03 | 0.03 | 0.00 | n. d. | 98.58 | 0.657 | 0.481 | 0.018 | 0.509 | 0.472 |
| 00081811 | S59 | 0.00 | 48.95 | 0.09 | 19.29 | 12.23 | 0.29 | 0.06 | 18.41 | 0.00 | 0.02 | 0.00 | n. d. | 99.33 | 0.745 | 0.209 | 0.010 | 0.783 | 0.207 | |
| 00081811 | S60 | 0.00 | 18.86 | 0.02 | 50.23 | 15.07 | 0.08 | 0.34 | 13.13 | 0.03 | 0.00 | 0.00 | n. d. | 97.76 | 0.622 | 0.641 | 0.016 | 0.353 | 0.631 | |
| 00081811 | S61 | 0.01 | 21.65 | 0.11 | 44.42 | 18.95 | 0.12 | 0.23 | 13.17 | 0.01 | 0.01 | 0.00 | n. d. | 98.67 | 0.613 | 0.579 | 0.054 | 0.398 | 0.548 | |
| 00081811 | S62 | 0.00 | 33.21 | 0.11 | 32.30 | 17.00 | 0.08 | 0.19 | 15.06 | 0.00 | 0.00 | 0.00 | n. d. | 97.94 | 0.664 | 0.395 | 0.043 | 0.579 | 0.378 | |
| Serpentine sandstone (Yohka Beach) | 00081802 | S1 | 0.08 | 28.98 | 0.08 | 37.72 | 15.87 | 0.06 | 0.21 | 14.62 | 0.02 | 0.00 | 0.00 | n. d. | 97.64 | 0.507 | 0.598 | 0.026 | 0.392 | 0.582 |
| | 00081802 | S2 | 0.59 | 30.51 | 0.08 | 33.55 | 20.96 | 0.10 | 0.27 | 14.46 | 0.06 | 0.05 | 0.04 | n. d. | 100.63 | 0.680 | 0.418 | 0.049 | 0.554 | 0.397 |
| | 00081802 | S3 | 0.19 | 27.16 | 0.04 | 40.04 | 18.23 | 0.10 | 0.27 | 14.46 | 0.06 | 0.05 | 0.04 | n. d. | 100.63 | 0.660 | 0.466 | 0.032 | 0.517 | 0.451 |
| | 00081802 | S4 | 0.11 | 33.94 | 0.06 | 33.84 | 15.50 | 0.12 | 0.19 | 16.00 | 0.04 | 0.00 | 0.01 | n. d. | 99.81 | 0.636 | 0.424 | 0.078 | 0.531 | 0.391 |
| | 00081802 | S5 | 0.04 | 21.64 | 0.07 | 45.43 | 19.61 | 0.06 | 0.21 | 12.77 | 0.03 | 0.00 | 0.00 | n. d. | 99.86 | 0.642 | 0.497 | 0.051 | 0.477 | 0.472 |
| | 00081802 | S6 | 0.40 | 31.55 | 0.01 | 36.57 | 16.89 | 0.10 | 0.28 | 16.09 | 0.05 | 0.09 | 0.00 | n. d. | 102.04 | 0.690 | 0.401 | 0.034 | 0.579 | 0.387 |
| | 00081802 | S7 | 0.04 | 33.26 | 0.06 | 34.08 | 16.80 | 0.07 | 0.26 | 14.25 | 0.03 | 0.01 | 0.02 | n. d. | 98.88 | 0.589 | 0.585 | 0.049 | 0.395 | 0.556 |
| | 00081802 | S8 | 0.04 | 31.85 | 0.03 | 36.43 | 16.43 | 0.18 | 0.22 | 15.39 | 0.05 | 0.03 | 0.01 | n. d. | 100.65 | 0.689 | 0.437 | 0.051 | 0.534 | 0.415 |
| | 00081802 | S9 | 0.00 | 35.86 | 0.02 | 32.72 | 16.20 | 0.10 | 0.14 | 16.27 | 0.02 | 0.02 | 0.01 | n. d. | 101.37 | 0.627 | 0.407 | 0.023 | 0.579 | 0.398 |
| | 00081802 | S10 | 0.84 | 14.11 | 0.33 | 48.07 | 22.05 | 0.06 | 0.27 | 12.50 | 0.06 | 0.00 | 0.01 | n. d. | 98.10 | 0.667 | 0.434 | 0.035 | 0.546 | 0.419 |
| | 00081802 | S11 | 0.03 | 25.93 | 0.06 | 42.35 | 17.27 | 0.10 | 0.22 | 13.73 | 0.05 | 0.00 | 0.01 | n. d. | 99.73 | 0.686 | 0.380 | 0.036 | 0.598 | 0.366 |
| | 00081802 | S12 | 0.01 | 35.32 | 0.10 | 34.00 | 14.56 | 0.08 | 0.16 | 16.84 | 0.02 | 0.02 | 0.00 | n. d. | 101.11 | 0.611 | 0.696 | 0.104 | 0.273 | 0.623 |
| | 00081802 | S13 | 0.06 | 32.82 | 0.11 | 36.90 | 15.24 | 0.13 | 0.15 | 16.13 | 0.07 | 0.00 | 0.01 | n. d. | 101.61 | 0.620 | 0.523 | 0.030 | 0.463 | 0.507 |
| | 00081802 | S14 | 0.06 | 14.64 | 0.36 | 49.32 | 21.26 | 0.06 | 0.25 | 13.17 | 0.03 | 0.00 | 0.02 | n. d. | 99.18 | 0.712 | 0.392 | 0.028 | 0.590 | 0.381 |
| | 00081802 | S15 | 0.10 | 18.52 | 0.03 | 46.44 | 21.46 | 0.00 | 0.34 | 11.12 | 0.11 | 0.00 | 0.02 | n. d. | 98.11 | 0.689 | 0.430 | 0.027 | 0.555 | 0.418 |
| | 00081802 | S16 | 0.09 | 25.81 | 0.08 | 41.42 | 20.37 | 0.10 | 0.31 | 13.60 | 0.11 | 0.07 | 0.03 | n. d. | 101.98 | 0.631 | 0.693 | 0.096 | 0.277 | 0.627 |
| | 00081802 | S17 | 0.09 | 30.81 | 0.07 | 35.38 | 17.37 | 0.11 | 0.29 | 15.08 | 0.04 | 0.00 | 0.00 | n. d. | 99.22 | 0.533 | 0.627 | 0.059 | 0.351 | 0.590 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (15)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|--|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|--------|-------------|-------|-------|---------------------|-------|-------|
| Serpentine sandstone (Yohka Beach) | 00081802 | S18 | 0.00 | 25.02 | 0.04 | 41.69 | 19.65 | 0.07 | 0.28 | 12.74 | 0.04 | 0.00 | 0.01 | n. d. | 99.53 | 0.604 | 0.518 | 0.058 | 0.454 | 0.488 |
| | 00081802 | S19 | 0.04 | 32.67 | 0.06 | 33.86 | 17.81 | 0.22 | 0.23 | 14.40 | 0.08 | 0.00 | 0.00 | n. d. | 99.37 | 0.665 | 0.435 | 0.049 | 0.537 | 0.414 |
| | 00081802 | S20 | 0.08 | 29.54 | 0.09 | 37.22 | 15.80 | 0.15 | 0.17 | 15.15 | 0.06 | 0.01 | 0.02 | n. d. | 98.29 | 0.581 | 0.528 | 0.045 | 0.451 | 0.504 |
| | 00081802 | S21 | 0.07 | 13.71 | 0.34 | 50.89 | 20.09 | 0.11 | 0.23 | 12.84 | 0.02 | 0.00 | 0.00 | n. d. | 98.29 | 0.633 | 0.410 | 0.038 | 0.568 | 0.395 |
| | 00081802 | S22 | 0.00 | 24.55 | 0.08 | 42.15 | 17.67 | 0.05 | 0.28 | 13.64 | 0.03 | 0.03 | 0.00 | n. d. | 98.49 | 0.677 | 0.458 | 0.037 | 0.522 | 0.441 |
| | 00081802 | S23 | 0.04 | 36.52 | 0.08 | 31.68 | 14.59 | 0.15 | 0.19 | 16.57 | 0.02 | 0.00 | 0.00 | n. d. | 99.82 | 0.624 | 0.713 | 0.081 | 0.263 | 0.656 |
| | 00081802 | S24 | 0.00 | 9.94 | 0.15 | 57.30 | 21.91 | 0.04 | 0.38 | 8.61 | 0.02 | 0.01 | 0.02 | n. d. | 98.37 | 0.626 | 0.535 | 0.042 | 0.445 | 0.513 |
| | 00081802 | S25 | 0.02 | 33.95 | 0.05 | 30.21 | 15.83 | 0.12 | 0.23 | 16.22 | 0.02 | 0.00 | 0.01 | n. d. | 96.66 | 0.705 | 0.368 | 0.028 | 0.615 | 0.358 |
| | 00081802 | S26 | 0.05 | 27.11 | 0.12 | 39.04 | 16.04 | 0.09 | 0.25 | 14.27 | 0.02 | 0.00 | 0.00 | n. d. | 96.98 | 0.436 | 0.795 | 0.031 | 0.199 | 0.770 |
| | 00081802 | S27 | 0.00 | 40.44 | 0.01 | 26.71 | 14.49 | 0.15 | 0.21 | 17.41 | 0.04 | 0.00 | 0.00 | n. d. | 99.46 | 0.715 | 0.374 | 0.055 | 0.592 | 0.353 |
| | 00081802 | S28 | 0.00 | 36.22 | 0.07 | 30.02 | 17.51 | 0.19 | 0.21 | 15.90 | 0.01 | 0.00 | 0.02 | n. d. | 100.14 | 0.654 | 0.491 | 0.034 | 0.491 | 0.475 |
| | 00081802 | S29 | 0.00 | 29.14 | 0.14 | 38.49 | 15.57 | 0.17 | 0.12 | 14.95 | 0.02 | 0.01 | 0.00 | n. d. | 98.61 | 0.728 | 0.307 | 0.036 | 0.668 | 0.296 |
| | 00081802 | S30 | 0.04 | 27.49 | 0.09 | 39.37 | 15.93 | 0.12 | 0.19 | 14.68 | 0.01 | 0.00 | 0.02 | n. d. | 97.94 | 0.678 | 0.357 | 0.050 | 0.611 | 0.340 |
| | 00081802 | S31 | 0.00 | 25.82 | 0.06 | 42.03 | 15.87 | 0.12 | 0.21 | 14.27 | 0.03 | 0.00 | 0.00 | n. d. | 98.41 | 0.669 | 0.470 | 0.028 | 0.515 | 0.457 |
| | 00081802 | S32 | 0.01 | 25.43 | 0.11 | 39.16 | 20.71 | 0.09 | 0.30 | 12.59 | 0.08 | 0.00 | 0.01 | n. d. | 98.49 | 0.665 | 0.490 | 0.035 | 0.492 | 0.473 |
| | 00081802 | S33 | 0.00 | 25.58 | 0.10 | 39.69 | 17.69 | 0.13 | 0.21 | 14.22 | 0.00 | 0.00 | 0.00 | n. d. | 97.62 | 0.649 | 0.522 | 0.028 | 0.464 | 0.507 |
| | 00081802 | S34 | 0.01 | 31.25 | 0.04 | 35.35 | 16.87 | 0.19 | 0.24 | 15.42 | 0.03 | 0.05 | 0.00 | n. d. | 99.45 | 0.580 | 0.508 | 0.059 | 0.463 | 0.478 |
| | 00081802 | S35 | 0.02 | 25.09 | 0.10 | 41.43 | 16.92 | 0.13 | 0.18 | 14.69 | 0.02 | 0.01 | 0.01 | n. d. | 98.60 | 0.652 | 0.510 | 0.054 | 0.464 | 0.482 |
| | 00081802 | S36 | 0.01 | 39.78 | 0.07 | 25.94 | 13.83 | 0.22 | 0.19 | 17.92 | 0.03 | 0.01 | 0.00 | n. d. | 97.99 | 0.676 | 0.431 | 0.047 | 0.542 | 0.411 |
| | 00081802 | S37 | 0.04 | 20.40 | 0.16 | 46.70 | 18.25 | 0.12 | 0.31 | 12.66 | 0.03 | 0.00 | 0.01 | n. d. | 98.68 | 0.668 | 0.526 | 0.050 | 0.451 | 0.499 |
| 00081802 | S38 | 0.00 | 26.97 | 0.12 | 40.09 | 15.86 | 0.10 | 0.15 | 14.63 | 0.02 | 0.00 | 0.02 | n. d. | 97.94 | 0.758 | 0.304 | 0.044 | 0.665 | 0.291 | |
| 00081802 | S39 | 0.04 | 14.08 | 0.17 | 51.24 | 17.87 | 0.12 | 0.31 | 12.02 | 0.05 | 0.01 | 0.00 | n. d. | 95.90 | 0.595 | 0.606 | 0.039 | 0.379 | 0.582 | |
| 00081802 | S40 | 0.00 | 29.51 | 0.08 | 36.91 | 18.29 | 0.12 | 0.19 | 14.15 | 0.00 | 0.00 | 0.01 | n. d. | 99.25 | 0.664 | 0.499 | 0.033 | 0.484 | 0.483 | |
| 00081803 | S1 | 0.03 | 23.88 | 0.11 | 44.76 | 16.75 | 0.13 | 0.24 | 13.67 | 0.04 | 0.03 | 0.02 | n. d. | 99.66 | 0.597 | 0.709 | 0.048 | 0.277 | 0.675 | |
| 00081803 | S2 | 0.06 | 20.97 | 0.21 | 46.47 | 20.64 | 0.03 | 0.27 | 10.72 | 0.00 | 0.04 | 0.00 | n. d. | 99.40 | 0.630 | 0.456 | 0.044 | 0.520 | 0.436 | |
| 00081803 | S3 | 0.02 | 32.72 | 0.15 | 35.01 | 17.55 | 0.13 | 0.15 | 15.89 | 0.02 | 0.00 | 0.00 | n. d. | 101.64 | 0.624 | 0.557 | 0.027 | 0.431 | 0.542 | |
| Leucocratic sandstone (Hegurinaka) | 00051303 | S1 | 0.03 | 31.74 | 0.08 | 34.55 | 18.00 | 0.10 | 0.29 | 14.19 | 0.03 | 0.00 | 0.00 | n. d. | 99.00 | 0.628 | 0.422 | 0.039 | 0.555 | 0.405 |
| | *00051303 | S2 | 0.00 | 23.11 | 0.16 | 41.64 | 18.75 | 0.05 | 0.29 | 12.49 | 0.00 | 0.00 | 0.01 | n. d. | 96.50 | 0.591 | 0.547 | 0.045 | 0.432 | 0.523 |
| | *00051303 | S3 | 0.00 | 26.11 | 0.07 | 40.43 | 15.92 | 0.09 | 0.18 | 14.18 | 0.02 | 0.00 | 0.00 | n. d. | 97.00 | 0.652 | 0.510 | 0.032 | 0.475 | 0.493 |
| | *00051303 | S4 | 0.01 | 28.04 | 0.57 | 34.75 | 20.09 | 0.14 | 0.26 | 13.28 | 0.06 | 0.03 | 0.00 | n. d. | 97.22 | 0.616 | 0.454 | 0.059 | 0.514 | 0.427 |
| | *00051303 | S5 | 0.00 | 37.81 | 0.15 | 29.08 | 14.97 | 0.25 | 0.18 | 15.57 | 0.02 | 0.03 | 0.00 | n. d. | 98.05 | 0.674 | 0.340 | 0.018 | 0.648 | 0.334 |
| | *00051303 | S6 | 0.00 | 36.04 | 0.12 | 29.47 | 16.46 | 0.14 | 0.23 | 14.84 | 0.02 | 0.03 | 0.00 | n. d. | 97.34 | 0.653 | 0.354 | 0.030 | 0.627 | 0.344 |
| | *00051303 | S7 | 0.00 | 19.31 | 0.04 | 49.72 | 15.07 | 0.01 | 0.24 | 13.25 | 0.03 | 0.00 | 0.00 | n. d. | 97.67 | 0.627 | 0.633 | 0.015 | 0.361 | 0.624 |
| | *00051303 | S8 | 0.00 | 30.59 | 0.16 | 33.56 | 18.94 | 0.11 | 0.27 | 12.49 | 0.03 | 0.02 | 0.00 | n. d. | 96.16 | 0.575 | 0.424 | 0.032 | 0.557 | 0.410 |
| | *00051303 | S9 | 0.04 | 29.23 | 0.07 | 38.39 | 14.27 | 0.08 | 0.17 | 14.60 | 0.00 | 0.04 | 0.00 | n. d. | 96.88 | 0.663 | 0.468 | 0.014 | 0.524 | 0.462 |
| | *00051303 | S10 | 0.03 | 37.23 | 0.04 | 31.38 | 14.52 | 0.12 | 0.16 | 16.81 | 0.02 | 0.00 | 0.00 | n. d. | 100.30 | 0.709 | 0.361 | 0.028 | 0.621 | 0.351 |
| | *00051303 | S11 | 0.00 | 25.37 | 0.50 | 38.33 | 20.48 | 0.18 | 0.28 | 12.26 | 0.00 | 0.00 | 0.01 | n. d. | 97.39 | 0.576 | 0.503 | 0.050 | 0.472 | 0.478 |
| | *00051303 | S12 | 0.00 | 34.28 | 0.19 | 30.41 | 18.93 | 0.09 | 0.19 | 13.30 | 0.02 | 0.00 | 0.01 | n. d. | 97.41 | 0.595 | 0.373 | 0.033 | 0.606 | 0.361 |
| | *00051303 | S13 | 0.07 | 31.59 | 0.08 | 34.53 | 19.67 | 0.13 | 0.25 | 13.99 | 0.02 | 0.00 | 0.00 | n. d. | 100.32 | 0.614 | 0.423 | 0.050 | 0.548 | 0.402 |
| | *00051303 | S14 | 0.00 | 24.09 | 0.11 | 41.70 | 18.37 | 0.10 | 0.28 | 13.07 | 0.03 | 0.04 | 0.00 | n. d. | 97.77 | 0.607 | 0.537 | 0.044 | 0.442 | 0.514 |
| | *00051303 | S15 | 0.19 | 32.12 | 0.32 | 33.14 | 21.62 | 0.07 | 0.18 | 12.69 | 0.02 | 0.07 | 0.00 | n. d. | 100.42 | 0.563 | 0.409 | 0.046 | 0.564 | 0.390 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (16)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|--|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|-------|-------------|-------|-------|--------------------|-------|-------|
| Leucocratic sandstone (Hegurinaka) | *00051303 | S16 | 0.00 | 14.74 | 0.36 | 43.65 | 29.08 | 0.07 | 0.43 | 7.77 | 0.07 | 0.00 | 0.01 | n. d. | 96.17 | 0.397 | 0.665 | 0.111 | 0.298 | 0.591 |
| | *00051303 | S17 | 0.00 | 9.67 | 0.25 | 55.29 | 21.66 | 0.03 | 0.30 | 9.93 | 0.01 | 0.08 | 0.00 | n. d. | 97.23 | 0.505 | 0.793 | 0.059 | 0.194 | 0.746 |
| | *00051303 | S18 | 0.00 | 25.65 | 0.17 | 40.21 | 19.97 | 0.11 | 0.26 | 12.46 | 0.03 | 0.00 | 0.00 | n. d. | 98.85 | 0.573 | 0.513 | 0.043 | 0.466 | 0.490 |
| | *00051303 | S19 | 0.07 | 4.92 | 0.42 | 59.08 | 21.51 | 0.00 | 0.61 | 9.89 | 0.05 | 0.00 | 0.02 | n. d. | 96.58 | 0.520 | 0.890 | 0.075 | 0.102 | 0.823 |
| | *00051303 | S20 | 0.01 | 22.21 | 0.23 | 43.57 | 20.53 | 0.05 | 0.37 | 10.94 | 0.02 | 0.00 | 0.00 | n. d. | 97.93 | 0.520 | 0.568 | 0.033 | 0.417 | 0.549 |
| | *00051303 | S21 | 0.02 | 25.27 | 0.15 | 40.88 | 18.62 | 0.12 | 0.20 | 12.54 | 0.01 | 0.00 | 0.01 | n. d. | 97.62 | 0.583 | 0.519 | 0.034 | 0.465 | 0.502 |
| | *00051303 | S22 | 0.00 | 25.57 | 0.13 | 40.13 | 18.51 | 0.10 | 0.31 | 13.16 | 0.01 | 0.00 | 0.00 | n. d. | 97.89 | 0.606 | 0.513 | 0.044 | 0.466 | 0.490 |
| | *00051303 | S23 | 0.03 | 28.10 | 0.18 | 39.34 | 16.18 | 0.07 | 0.23 | 14.68 | 0.04 | 0.00 | 0.01 | n. d. | 98.86 | 0.659 | 0.484 | 0.032 | 0.499 | 0.469 |
| | *00051303 | S24 | 0.00 | 13.77 | 0.36 | 49.09 | 24.45 | 0.09 | 0.35 | 9.74 | 0.01 | 0.05 | 0.01 | n. d. | 97.91 | 0.485 | 0.705 | 0.080 | 0.271 | 0.649 |
| | *00051303 | S25 | 0.06 | 25.82 | 0.04 | 41.21 | 17.27 | 0.06 | 0.28 | 13.31 | 0.02 | 0.08 | 0.01 | n. d. | 98.16 | 0.611 | 0.517 | 0.030 | 0.468 | 0.501 |
| | *00051303 | S26 | 0.03 | 29.84 | 0.21 | 35.61 | 19.05 | 0.16 | 0.20 | 13.60 | 0.02 | 0.00 | 0.01 | n. d. | 98.72 | 0.612 | 0.445 | 0.044 | 0.531 | 0.425 |
| | *00051303 | S27 | 0.02 | 7.77 | 0.27 | 57.77 | 16.86 | 0.04 | 0.23 | 13.87 | 0.01 | 0.04 | 0.00 | n. d. | 96.89 | 0.694 | 0.833 | 0.080 | 0.154 | 0.766 |
| | *00051303 | S28 | 0.02 | 16.47 | 0.45 | 46.96 | 23.86 | 0.09 | 0.37 | 9.99 | 0.08 | 0.00 | 0.01 | n. d. | 98.29 | 0.491 | 0.657 | 0.068 | 0.320 | 0.612 |
| | *00051303 | S29 | 0.00 | 25.83 | 0.25 | 40.23 | 17.99 | 0.11 | 0.28 | 13.96 | 0.00 | 0.00 | 0.00 | n. d. | 98.65 | 0.637 | 0.511 | 0.047 | 0.466 | 0.487 |
| | *00051303 | S30 | 0.01 | 17.38 | 0.30 | 46.12 | 24.32 | 0.06 | 0.28 | 9.53 | 0.00 | 0.00 | 0.01 | n. d. | 98.02 | 0.467 | 0.640 | 0.064 | 0.337 | 0.599 |
| | *00051303 | S31 | 0.00 | 38.77 | 0.06 | 27.17 | 18.00 | 0.19 | 0.22 | 14.77 | 0.00 | 0.02 | 0.00 | n. d. | 99.21 | 0.633 | 0.320 | 0.034 | 0.657 | 0.309 |
| | *00051303 | S32 | 0.00 | 35.30 | 0.10 | 30.82 | 17.13 | 0.19 | 0.27 | 14.67 | 0.02 | 0.00 | 0.00 | n. d. | 98.48 | 0.641 | 0.369 | 0.032 | 0.610 | 0.357 |
| | *00051303 | S33 | 0.00 | 9.57 | 0.17 | 55.77 | 20.94 | 0.07 | 0.40 | 11.27 | 0.02 | 0.00 | 0.02 | n. d. | 98.21 | 0.561 | 0.796 | 0.075 | 0.188 | 0.737 |
| | *00051303 | S34 | 0.00 | 33.85 | 0.02 | 33.76 | 14.64 | 0.12 | 0.22 | 16.13 | 0.00 | 0.00 | 0.00 | n. d. | 98.74 | 0.700 | 0.401 | 0.030 | 0.581 | 0.389 |
| | *00051303 | S35 | 0.05 | 18.27 | 0.08 | 56.52 | 10.24 | 0.11 | 0.23 | 11.83 | 0.01 | 0.00 | 0.00 | n. d. | 97.34 | 0.572 | 0.675 | 0.000 | 0.325 | 0.675 |
| *00051303 | S36 | 0.00 | 26.03 | 0.26 | 39.03 | 22.08 | 0.09 | 0.26 | 11.85 | 0.05 | 0.00 | 0.01 | n. d. | 99.63 | 0.543 | 0.501 | 0.053 | 0.472 | 0.475 | |
| *00051303 | S37 | 0.05 | 23.59 | 0.27 | 38.42 | 25.16 | 0.18 | 0.24 | 11.36 | 0.05 | 0.02 | 0.00 | n. d. | 99.33 | 0.529 | 0.522 | 0.090 | 0.435 | 0.475 | |
| *00051303 | S38 | 0.12 | 23.25 | 1.23 | 42.33 | 21.10 | 0.20 | 0.21 | 10.90 | 0.06 | 0.01 | 0.00 | n. d. | 99.41 | 0.524 | 0.550 | 0.019 | 0.441 | 0.539 | |
| *00051303 | S39 | 0.13 | 17.41 | 0.91 | 48.25 | 17.99 | 0.20 | 0.24 | 13.55 | 0.04 | 0.00 | 0.00 | n. d. | 98.72 | 0.653 | 0.650 | 0.051 | 0.332 | 0.617 | |
| *00051303 | S40 | 0.00 | 18.09 | 0.22 | 45.37 | 25.50 | 0.00 | 0.35 | 8.69 | 0.02 | 0.00 | 0.00 | n. d. | 98.24 | 0.425 | 0.627 | 0.062 | 0.350 | 0.588 | |
| *00051303 | S41 | 0.01 | 19.18 | 0.34 | 44.94 | 23.18 | 0.00 | 0.30 | 11.06 | 0.01 | 0.00 | 0.00 | n. d. | 99.02 | 0.528 | 0.611 | 0.070 | 0.362 | 0.569 | |
| *00051303 | S42 | 0.03 | 31.74 | 0.08 | 34.55 | 18.00 | 0.10 | 0.29 | 14.19 | 0.03 | 0.00 | 0.00 | n. d. | 99.00 | 0.628 | 0.422 | 0.039 | 0.555 | 0.405 | |
| Leucocratic sandstone (Mineoka-sengen) | *00081817 | S1 | 0.00 | 6.74 | 0.19 | 57.11 | 26.04 | 0.12 | 0.40 | 7.96 | 0.03 | 0.00 | 0.00 | n. d. | 98.61 | 0.410 | 0.850 | 0.083 | 0.137 | 0.779 |
| | *00081817 | S2 | 0.00 | 22.73 | 0.17 | 43.02 | 21.91 | 0.19 | 0.36 | 11.21 | 0.03 | 0.02 | 0.01 | n. d. | 99.64 | 0.522 | 0.559 | 0.050 | 0.418 | 0.531 |
| | *00081817 | S3 | 0.00 | 21.03 | 0.09 | 46.30 | 19.54 | 0.11 | 0.32 | 11.92 | 0.02 | 0.00 | 0.00 | n. d. | 99.32 | 0.557 | 0.596 | 0.038 | 0.388 | 0.574 |
| | *00081817 | S4 | 0.00 | 40.89 | 0.05 | 26.80 | 14.65 | 0.14 | 0.18 | 16.80 | 0.03 | 0.00 | 0.00 | n. d. | 99.54 | 0.703 | 0.305 | 0.026 | 0.677 | 0.297 |
| | *00081817 | S5 | 0.00 | 35.19 | 0.13 | 32.16 | 17.81 | 0.09 | 0.22 | 14.46 | 0.03 | 0.00 | 0.00 | n. d. | 100.10 | 0.625 | 0.380 | 0.030 | 0.602 | 0.369 |
| | *00081817 | S6 | 0.00 | 32.69 | 0.19 | 33.27 | 18.35 | 0.12 | 0.19 | 13.89 | 0.00 | 0.04 | 0.01 | n. d. | 98.75 | 0.616 | 0.406 | 0.036 | 0.573 | 0.391 |
| | *00081817 | S7 | 0.00 | 24.37 | 0.18 | 43.43 | 17.79 | 0.07 | 0.26 | 12.97 | 0.06 | 0.00 | 0.00 | n. d. | 99.14 | 0.596 | 0.544 | 0.028 | 0.443 | 0.529 |
| | *00081817 | S8 | 0.01 | 21.32 | 0.30 | 45.00 | 18.21 | 0.09 | 0.31 | 13.38 | 0.01 | 0.04 | 0.00 | n. d. | 98.66 | 0.625 | 0.586 | 0.049 | 0.394 | 0.557 |
| | *00081817 | S9 | 0.00 | 24.06 | 0.24 | 39.84 | 23.34 | 0.11 | 0.24 | 10.62 | 0.02 | 0.05 | 0.01 | n. d. | 98.52 | 0.499 | 0.526 | 0.056 | 0.447 | 0.497 |
| | *00081817 | S10 | 0.00 | 26.70 | 0.08 | 41.01 | 15.89 | 0.11 | 0.32 | 14.14 | 0.05 | 0.04 | 0.00 | n. d. | 98.34 | 0.642 | 0.507 | 0.027 | 0.479 | 0.494 |
| | *00081817 | S11 | 0.04 | 10.89 | 0.24 | 52.38 | 25.34 | 0.03 | 0.34 | 8.83 | 0.05 | 0.06 | 0.00 | n. d. | 98.19 | 0.446 | 0.763 | 0.081 | 0.217 | 0.702 |
| | *00081817 | S12 | 0.00 | 26.12 | 0.21 | 38.52 | 19.76 | 0.12 | 0.27 | 12.95 | 0.07 | 0.02 | 0.01 | n. d. | 98.06 | 0.597 | 0.497 | 0.054 | 0.476 | 0.471 |
| | *00081817 | S13 | 0.01 | 16.88 | 0.14 | 52.31 | 16.30 | 0.04 | 0.25 | 12.55 | 0.03 | 0.00 | 0.00 | n. d. | 98.51 | 0.599 | 0.675 | 0.019 | 0.319 | 0.663 |
| | *00081817 | S14 | 0.00 | 36.59 | 0.14 | 30.85 | 15.02 | 0.15 | 0.24 | 16.56 | 0.03 | 0.00 | 0.00 | n. d. | 99.57 | 0.706 | 0.361 | 0.034 | 0.617 | 0.349 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (17)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|--|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|-------|-------------|-------|-------|---------------------|-------|-------|
| Leucocratic sandstone (Mineoka-sengen) | *00081817 | S15 | 0.00 | 16.38 | 0.11 | 52.40 | 16.21 | 0.08 | 0.28 | 12.45 | 0.06 | 0.07 | 0.00 | n. d. | 98.04 | 0.599 | 0.682 | 0.020 | 0.311 | 0.668 |
| | *00081817 | S16 | 0.06 | 14.46 | 1.13 | 47.03 | 22.55 | 0.18 | 0.28 | 12.82 | 0.01 | 0.01 | 0.00 | n. d. | 98.53 | 0.631 | 0.686 | 0.105 | 0.281 | 0.614 |
| | *00081817 | S17 | 0.02 | 29.70 | 0.26 | 33.54 | 21.62 | 0.11 | 0.23 | 12.57 | 0.01 | 0.04 | 0.01 | n. d. | 98.10 | 0.572 | 0.431 | 0.061 | 0.535 | 0.405 |
| | *00081817 | S18 | 0.00 | 17.26 | 0.13 | 50.64 | 19.10 | 0.03 | 0.36 | 10.98 | 0.00 | 0.00 | 0.00 | n. d. | 98.50 | 0.529 | 0.663 | 0.024 | 0.329 | 0.647 |
| | *00081817 | S19 | 0.02 | 26.02 | 0.17 | 39.79 | 20.48 | 0.10 | 0.25 | 11.88 | 0.03 | 0.00 | 0.00 | n. d. | 98.74 | 0.548 | 0.506 | 0.039 | 0.474 | 0.486 |
| | *00081817 | S20 | 0.00 | 31.57 | 0.10 | 35.93 | 15.70 | 0.14 | 0.17 | 15.78 | 0.00 | 0.00 | 0.00 | n. d. | 99.38 | 0.689 | 0.433 | 0.039 | 0.545 | 0.416 |
| | *00081817 | S21 | 0.09 | 19.77 | 0.35 | 43.54 | 21.43 | 0.17 | 0.32 | 12.11 | 0.06 | 0.03 | 0.00 | n. d. | 97.88 | 0.579 | 0.596 | 0.075 | 0.373 | 0.552 |
| | *00081817 | S22 | 0.00 | 25.53 | 0.27 | 35.89 | 24.50 | 0.12 | 0.40 | 10.86 | 0.00 | 0.00 | 0.00 | n. d. | 97.57 | 0.510 | 0.485 | 0.078 | 0.474 | 0.447 |
| | *00081817 | S23 | 0.00 | 34.22 | 0.18 | 30.26 | 18.79 | 0.15 | 0.23 | 14.37 | 0.01 | 0.00 | 0.00 | n. d. | 98.21 | 0.633 | 0.372 | 0.050 | 0.596 | 0.354 |
| | *00081817 | S24 | 0.04 | 17.18 | 0.39 | 49.47 | 20.22 | 0.03 | 0.44 | 11.69 | 0.02 | 0.00 | 0.00 | n. d. | 99.48 | 0.559 | 0.659 | 0.048 | 0.325 | 0.627 |
| | *00081817 | S25 | 0.10 | 14.89 | 0.26 | 52.63 | 16.75 | 0.14 | 0.28 | 14.01 | 0.07 | 0.01 | 0.02 | n. d. | 99.15 | 0.666 | 0.703 | 0.056 | 0.280 | 0.664 |
| | *00081817 | S26 | 0.01 | 28.85 | 0.18 | 39.25 | 15.64 | 0.13 | 0.25 | 14.77 | 0.01 | 0.00 | 0.01 | n. d. | 99.12 | 0.659 | 0.477 | 0.026 | 0.509 | 0.465 |
| | *00081817 | S27 | 0.00 | 21.09 | 0.07 | 48.39 | 17.56 | 0.04 | 0.35 | 11.17 | 0.04 | 0.04 | 0.00 | n. d. | 98.74 | 0.528 | 0.606 | 0.000 | 0.394 | 0.606 |
| | *00081817 | S28 | 0.00 | 24.91 | 0.31 | 38.40 | 21.20 | 0.19 | 0.29 | 13.36 | 0.00 | 0.02 | 0.00 | n. d. | 98.67 | 0.614 | 0.508 | 0.079 | 0.453 | 0.468 |
| | *00081817 | S29 | 0.05 | 8.49 | 0.18 | 60.85 | 16.40 | 0.04 | 2.49 | 8.84 | 0.04 | 0.00 | 0.00 | n. d. | 97.37 | 0.455 | 0.828 | 0.000 | 0.172 | 0.828 |
| | *00081817 | S30 | 0.04 | 22.53 | 0.27 | 35.78 | 29.39 | 0.12 | 0.37 | 8.41 | 0.00 | 0.03 | 0.01 | n. d. | 96.95 | 0.409 | 0.516 | 0.105 | 0.433 | 0.461 |
| | *00081817 | S31 | 0.00 | 40.14 | 0.08 | 28.67 | 11.16 | 0.24 | 0.17 | 17.63 | 0.04 | 0.00 | 0.00 | n. d. | 98.12 | 0.745 | 0.324 | 0.008 | 0.671 | 0.321 |
| | *00081817 | S32 | 0.02 | 24.86 | 0.14 | 43.33 | 15.98 | 0.12 | 0.15 | 14.49 | 0.00 | 0.00 | 0.00 | n. d. | 99.07 | 0.657 | 0.539 | 0.032 | 0.446 | 0.522 |
| | *00081817 | S33 | 0.00 | 26.56 | 0.09 | 36.63 | 22.01 | 0.12 | 0.23 | 11.94 | 0.02 | 0.04 | 0.00 | n. d. | 97.62 | 0.553 | 0.481 | 0.064 | 0.486 | 0.450 |
| | *00081817 | S34 | 0.00 | 21.59 | 0.14 | 40.25 | 24.29 | 0.13 | 0.32 | 11.23 | 0.03 | 0.00 | 0.00 | n. d. | 97.97 | 0.532 | 0.556 | 0.091 | 0.404 | 0.505 |
| | *00081817 | S35 | 0.04 | 6.04 | 0.09 | 64.91 | 13.97 | 0.03 | 0.33 | 12.96 | 0.00 | 0.00 | 0.00 | n. d. | 98.39 | 0.647 | 0.878 | 0.022 | 0.119 | 0.859 |
| | *00081817 | S36 | 0.01 | 30.27 | 0.15 | 35.40 | 19.00 | 0.07 | 0.23 | 13.45 | 0.02 | 0.06 | 0.00 | n. d. | 98.66 | 0.604 | 0.440 | 0.041 | 0.537 | 0.421 |
| | *00081817 | S37 | 0.02 | 39.86 | 0.09 | 24.24 | 18.32 | 0.23 | 0.25 | 16.16 | 0.01 | 0.00 | 0.01 | n. d. | 99.21 | 0.683 | 0.290 | 0.062 | 0.666 | 0.272 |
| | *00081817 | S38 | 0.01 | 28.28 | 0.28 | 35.30 | 22.85 | 0.13 | 0.25 | 12.10 | 0.00 | 0.02 | 0.00 | n. d. | 99.21 | 0.551 | 0.456 | 0.065 | 0.509 | 0.426 |
| *00081817 | S39 | 0.04 | 10.03 | 0.29 | 52.35 | 23.86 | 0.07 | 0.27 | 11.32 | 0.02 | 0.05 | 0.00 | n. d. | 98.31 | 0.563 | 0.778 | 0.112 | 0.197 | 0.691 | |
| *00081817 | S40 | 0.05 | 13.43 | 0.33 | 50.30 | 22.95 | 0.03 | 0.32 | 10.53 | 0.07 | 0.02 | 0.01 | n. d. | 98.02 | 0.522 | 0.715 | 0.076 | 0.263 | 0.661 | |
| *00081817 | S41 | 0.00 | 28.03 | 0.07 | 39.13 | 17.43 | 0.10 | 0.21 | 12.52 | 0.00 | 0.00 | 0.01 | n. d. | 97.51 | 0.575 | 0.484 | 0.014 | 0.509 | 0.477 | |
| *00081817 | S42 | 0.00 | 25.68 | 0.21 | 41.21 | 18.50 | 0.03 | 0.28 | 12.60 | 0.01 | 0.02 | 0.01 | n. d. | 98.55 | 0.581 | 0.518 | 0.029 | 0.468 | 0.504 | |
| Leucocratic sandstone (Yohka Beach) | *00081806 | S1 | 0.01 | 32.04 | 0.31 | 32.62 | 18.29 | 0.17 | 0.29 | 13.90 | 0.09 | 0.00 | 0.03 | n. d. | 97.73 | 0.625 | 0.406 | 0.042 | 0.569 | 0.389 |
| | *00081806 | S2 | 0.00 | 23.49 | 0.36 | 41.62 | 19.00 | 0.19 | 0.24 | 13.73 | 0.06 | 0.00 | 0.00 | n. d. | 98.68 | 0.634 | 0.543 | 0.061 | 0.429 | 0.510 |
| | *00081806 | S3 | 0.02 | 14.25 | 2.29 | 47.56 | 14.35 | 0.21 | 0.31 | 18.25 | 0.08 | 0.00 | 0.00 | n. d. | 97.32 | 0.901 | 0.691 | 0.099 | 0.278 | 0.623 |
| | *00081806 | S4 | 0.00 | 27.31 | 0.24 | 36.64 | 19.30 | 0.13 | 0.22 | 13.13 | 0.08 | 0.03 | 0.00 | n. d. | 97.07 | 0.606 | 0.474 | 0.052 | 0.499 | 0.449 |
| | *00081806 | S5 | 0.04 | 15.04 | 0.15 | 50.21 | 17.32 | 0.04 | 0.27 | 13.73 | 0.09 | 0.02 | 0.00 | n. d. | 96.89 | 0.664 | 0.691 | 0.068 | 0.288 | 0.644 |
| | *00081806 | S6 | 0.11 | 15.21 | 0.84 | 44.23 | 27.32 | 0.17 | 0.32 | 9.22 | 0.07 | 0.01 | 0.00 | n. d. | 97.49 | 0.465 | 0.661 | 0.105 | 0.303 | 0.592 |
| | *00081806 | S7 | 0.03 | 31.64 | 0.20 | 30.08 | 22.48 | 0.21 | 0.22 | 12.47 | 0.03 | 0.00 | 0.00 | n. d. | 97.36 | 0.566 | 0.389 | 0.070 | 0.568 | 0.362 |
| | *00081806 | S8 | 0.07 | 13.51 | 1.92 | 44.74 | 24.80 | 0.22 | 0.29 | 9.48 | 0.06 | 0.01 | 0.00 | n. d. | 95.10 | 0.507 | 0.690 | 0.081 | 0.285 | 0.634 |
| | *00081806 | S9 | 0.10 | 20.46 | 1.42 | 36.13 | 25.35 | 0.19 | 0.19 | 12.90 | 0.07 | 0.00 | 0.01 | n. d. | 96.80 | 0.632 | 0.542 | 0.134 | 0.396 | 0.469 |
| | *00081806 | S10 | 0.03 | 27.62 | 0.10 | 38.97 | 16.33 | 0.14 | 0.11 | 15.04 | 0.02 | 0.00 | 0.00 | n. d. | 98.37 | 0.676 | 0.486 | 0.045 | 0.491 | 0.464 |
| | *00081806 | S11 | 0.00 | 6.97 | 0.57 | 54.42 | 24.73 | 0.06 | 0.32 | 9.99 | 0.07 | 0.00 | 0.00 | n. d. | 97.13 | 0.518 | 0.840 | 0.109 | 0.143 | 0.748 |
| | *00081806 | S12 | 0.02 | 14.43 | 0.25 | 56.19 | 13.01 | 0.04 | 1.33 | 9.58 | 0.13 | 0.08 | 0.03 | 2.19 | 97.25 | 0.481 | 0.723 | 0.000 | 0.277 | 0.723 |
| | *00081806 | S13 | 0.02 | 17.39 | 0.17 | 49.26 | 17.96 | 0.15 | 0.34 | 12.61 | 0.06 | 0.01 | 0.00 | n. d. | 97.96 | 0.604 | 0.655 | 0.046 | 0.329 | 0.625 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (18)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|-------------------------------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|---------------------|-------|-------|
| Leucocratic sandstone (Yohka Beach) | *00081806 | S14 | 0.01 | 38.76 | 0.15 | 27.96 | 16.64 | 0.13 | 0.20 | 15.06 | 0.07 | 0.00 | 0.00 | n. d. | 98.99 | 0.646 | 0.326 | 0.024 | 0.658 | 0.318 |
| | *00081806 | S15 | 0.04 | 13.85 | 0.37 | 51.05 | 17.91 | 0.11 | 0.28 | 13.74 | 0.08 | 0.00 | 0.03 | n. d. | 97.26 | 0.670 | 0.715 | 0.076 | 0.263 | 0.660 |
| | *00081806 | S16 | 0.10 | 7.12 | 0.07 | 63.12 | 10.62 | 0.00 | 1.61 | 10.18 | 0.15 | 0.20 | 0.02 | 3.84 | 97.03 | 0.527 | 0.856 | 0.000 | 0.144 | 0.856 |
| | *00081806 | S17 | 0.06 | 17.94 | 1.99 | 43.88 | 20.84 | 0.18 | 0.26 | 10.81 | 0.13 | 0.00 | 0.01 | 0.11 | 96.20 | 0.557 | 0.621 | 0.035 | 0.365 | 0.599 |
| | *00081806 | S18 | 0.00 | 30.00 | 0.67 | 32.65 | 19.61 | 0.18 | 0.17 | 13.30 | 0.10 | 0.00 | 0.02 | n. d. | 96.70 | 0.615 | 0.422 | 0.051 | 0.549 | 0.401 |
| | *00081806 | S19 | 0.04 | 7.95 | 0.28 | 54.18 | 22.00 | 0.08 | 0.34 | 10.81 | 0.11 | 0.01 | 0.00 | n. d. | 95.79 | 0.558 | 0.820 | 0.096 | 0.162 | 0.742 |
| | *00081806 | S20 | 0.06 | 18.19 | 1.94 | 39.85 | 22.67 | 0.15 | 0.26 | 14.27 | 0.09 | 0.00 | 0.01 | n. d. | 97.47 | 0.704 | 0.595 | 0.123 | 0.355 | 0.522 |
| | *00081806 | S21 | 0.08 | 12.90 | 0.64 | 46.87 | 25.39 | 0.17 | 0.33 | 10.67 | 0.08 | 0.02 | 0.01 | n. d. | 97.15 | 0.537 | 0.709 | 0.118 | 0.257 | 0.626 |
| | *00081806 | S22 | 0.09 | 18.09 | 0.57 | 47.57 | 15.37 | 0.25 | 0.22 | 14.91 | 0.11 | 0.00 | 0.01 | n. d. | 97.18 | 0.713 | 0.638 | 0.055 | 0.342 | 0.603 |
| | *00081806 | S23 | 0.00 | 25.08 | 0.69 | 37.94 | 22.28 | 0.06 | 0.28 | 11.04 | 0.01 | 0.01 | 0.00 | n. d. | 97.39 | 0.526 | 0.504 | 0.049 | 0.472 | 0.479 |
| | *00081806 | S24 | 0.07 | 25.28 | 0.89 | 39.88 | 20.30 | 0.11 | 0.29 | 12.55 | 0.02 | 0.00 | 0.00 | n. d. | 99.39 | 0.584 | 0.514 | 0.042 | 0.466 | 0.493 |
| | *00081806 | S25 | 0.00 | 7.88 | 0.28 | 61.96 | 17.51 | 0.05 | 0.46 | 11.02 | 0.08 | 0.00 | 0.00 | n. d. | 99.23 | 0.552 | 0.841 | 0.022 | 0.156 | 0.822 |
| | *00081806 | S26 | 0.04 | 31.37 | 0.12 | 37.11 | 13.90 | 0.15 | 0.24 | 15.21 | 0.05 | 0.06 | 0.00 | n. d. | 98.26 | 0.675 | 0.442 | 0.013 | 0.551 | 0.437 |
| | *00081806 | S27 | 0.05 | 10.23 | 0.24 | 56.76 | 18.83 | 0.04 | 0.33 | 10.98 | 0.05 | 0.00 | 0.00 | n. d. | 97.50 | 0.552 | 0.788 | 0.040 | 0.203 | 0.756 |
| | *00081806 | S28 | 0.00 | 33.19 | 0.10 | 34.74 | 13.19 | 0.15 | 0.21 | 16.16 | 0.04 | 0.05 | 0.00 | n. d. | 97.84 | 0.709 | 0.412 | 0.019 | 0.576 | 0.405 |
| | *00081806 | S29 | 0.02 | 26.91 | 0.29 | 38.83 | 16.97 | 0.06 | 0.23 | 15.13 | 0.10 | 0.00 | 0.00 | n. d. | 98.52 | 0.684 | 0.492 | 0.054 | 0.481 | 0.465 |
| | *00081806 | S30 | 0.04 | 27.05 | 0.30 | 37.35 | 23.20 | 0.07 | 0.34 | 10.84 | 0.02 | 0.00 | 0.01 | 0.30 | 99.52 | 0.499 | 0.481 | 0.051 | 0.492 | 0.456 |
| | *00081806 | S31 | 0.00 | 18.67 | 0.15 | 47.33 | 19.09 | 0.09 | 0.26 | 12.23 | 0.08 | 0.02 | 0.01 | 0.11 | 98.05 | 0.583 | 0.630 | 0.049 | 0.352 | 0.599 |
| | *00081806 | S32 | 0.02 | 23.07 | 0.04 | 45.04 | 16.84 | 0.05 | 0.32 | 12.32 | 0.04 | 0.01 | 0.02 | 0.17 | 97.92 | 0.576 | 0.567 | 0.015 | 0.426 | 0.559 |
| | *00081806 | S33 | 0.04 | 30.67 | 0.19 | 36.77 | 14.96 | 0.15 | 0.25 | 14.49 | 0.07 | 0.00 | 0.01 | 0.16 | 97.75 | 0.651 | 0.446 | 0.017 | 0.545 | 0.438 |
| | *00081806 | S34 | 0.05 | 23.02 | 0.10 | 47.75 | 12.91 | 0.07 | 0.29 | 14.32 | 0.03 | 0.04 | 0.02 | 0.15 | 98.74 | 0.658 | 0.582 | 0.000 | 0.418 | 0.582 |
| | *00081806 | S35 | 0.05 | 35.05 | 0.29 | 32.10 | 17.25 | 0.04 | 0.19 | 14.86 | 0.01 | 0.06 | 0.01 | 0.20 | 100.12 | 0.644 | 0.381 | 0.031 | 0.600 | 0.369 |
| | *00081806 | S36 | 0.01 | 41.83 | 0.16 | 25.96 | 12.62 | 0.15 | 0.13 | 17.22 | 0.06 | 0.10 | 0.00 | 0.23 | 98.45 | 0.725 | 0.294 | 0.014 | 0.696 | 0.290 |
| | *00081806 | S37 | 0.02 | 19.48 | 0.23 | 50.29 | 15.73 | 0.08 | 0.42 | 12.25 | 0.07 | 0.00 | 0.00 | 0.16 | 98.73 | 0.581 | 0.634 | 0.003 | 0.365 | 0.632 |
| | *00081806 | S38 | 0.01 | 24.81 | 0.56 | 37.70 | 22.50 | 0.09 | 0.33 | 11.30 | 0.01 | 0.00 | 0.00 | 0.20 | 97.51 | 0.535 | 0.505 | 0.061 | 0.465 | 0.474 |
| | *00081806 | S39 | 0.07 | 22.18 | 0.53 | 39.58 | 22.16 | 0.20 | 0.25 | 12.08 | 0.04 | 0.02 | 0.00 | 0.08 | 97.20 | 0.577 | 0.545 | 0.080 | 0.419 | 0.501 |
| | *00081806 | S40 | 0.10 | 24.09 | 1.18 | 33.44 | 27.34 | 0.12 | 0.28 | 11.52 | 0.07 | 0.00 | 0.01 | 0.10 | 98.24 | 0.551 | 0.482 | 0.120 | 0.455 | 0.424 |
| | *00081806 | S41 | 0.05 | 28.99 | 0.01 | 38.93 | 15.87 | 0.08 | 0.23 | 14.36 | 0.04 | 0.00 | 0.00 | 0.13 | 98.68 | 0.642 | 0.474 | 0.026 | 0.513 | 0.462 |
| | *00081806 | S42 | 0.06 | 27.38 | 0.04 | 40.49 | 14.96 | 0.07 | 0.27 | 13.62 | 0.06 | 0.02 | 0.00 | 0.26 | 97.22 | 0.624 | 0.498 | 0.011 | 0.496 | 0.492 |
| | *00081806 | S43 | 0.07 | 36.59 | 0.27 | 26.67 | 18.57 | 0.10 | 0.19 | 14.54 | 0.02 | 0.00 | 0.00 | 0.23 | 97.24 | 0.641 | 0.328 | 0.050 | 0.638 | 0.312 |
| | *00081806 | S44 | 0.06 | 10.01 | 2.16 | 45.69 | 28.01 | 0.15 | 0.32 | 9.82 | 0.08 | 0.03 | 0.01 | 0.05 | 96.38 | 0.528 | 0.754 | 0.136 | 0.213 | 0.652 |
| | *00081806 | S45 | 0.02 | 20.39 | 0.45 | 45.36 | 21.86 | 0.04 | 0.36 | 9.94 | 0.05 | 0.00 | 0.00 | 0.29 | 98.77 | 0.479 | 0.599 | 0.033 | 0.388 | 0.579 |
| | *00081806 | S46 | 0.00 | 20.68 | 0.19 | 47.35 | 17.54 | 0.08 | 0.26 | 12.22 | 0.00 | 0.07 | 0.01 | 0.06 | 98.45 | 0.577 | 0.606 | 0.021 | 0.386 | 0.593 |
| | *00081806 | S47 | 0.00 | 31.30 | 0.24 | 38.39 | 15.06 | 0.13 | 0.27 | 15.24 | 0.02 | 0.03 | 0.01 | 0.13 | 100.81 | 0.664 | 0.451 | 0.017 | 0.539 | 0.444 |
| | *00081806 | S48 | 0.01 | 28.77 | 0.12 | 36.92 | 18.66 | 0.15 | 0.28 | 14.33 | 0.01 | 0.00 | 0.00 | 0.11 | 99.36 | 0.639 | 0.463 | 0.057 | 0.507 | 0.436 |
| | *00081806 | S49 | 0.01 | 42.61 | 0.13 | 24.55 | 12.92 | 0.13 | 0.12 | 17.12 | 0.04 | 0.06 | 0.00 | 0.16 | 97.86 | 0.722 | 0.279 | 0.015 | 0.710 | 0.274 |
| | *00081806 | S50 | 0.04 | 40.07 | 0.12 | 25.98 | 15.18 | 0.20 | 0.09 | 16.51 | 0.03 | 0.00 | 0.00 | 0.07 | 98.30 | 0.702 | 0.303 | 0.034 | 0.673 | 0.293 |
| | *00081806 | S51 | 0.11 | 16.14 | 0.19 | 51.38 | 17.14 | 0.11 | 0.21 | 10.45 | 0.05 | 0.02 | 0.02 | 1.24 | 97.04 | 0.516 | 0.681 | 0.011 | 0.315 | 0.674 |
| | *00081806 | S52 | 0.03 | 4.64 | 0.00 | 60.77 | 15.74 | 0.00 | 0.71 | 3.59 | 0.05 | 0.40 | 0.01 | 12.44 | 98.38 | 0.196 | 0.898 | 0.020 | 0.100 | 0.880 |
| | *00081806 | S53 | 0.03 | 28.07 | 0.25 | 39.94 | 14.50 | 0.05 | 0.22 | 14.77 | 0.03 | 0.01 | 0.01 | 0.22 | 98.09 | 0.668 | 0.488 | 0.019 | 0.502 | 0.479 |
| | *00081806 | S54 | 0.07 | 23.57 | 0.01 | 45.76 | 14.89 | 0.07 | 0.31 | 13.45 | 0.00 | 0.07 | 0.01 | 0.20 | 98.40 | 0.621 | 0.566 | 0.010 | 0.430 | 0.560 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (19)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | *FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|---------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|--------------------|-------|-------|
| (Yokka Beach) | *00081806 | S55 | 0.07 | 27.77 | 0.45 | 37.69 | 18.32 | 0.14 | 0.20 | 13.69 | 0.04 | 0.00 | 0.00 | 0.13 | 98.48 | 0.625 | 0.477 | 0.043 | 0.501 | 0.456 |
| Mikura Gr. | *02122701 | S1 | 0.02 | 8.82 | 0.17 | 53.94 | 29.54 | 0.02 | 0.55 | 2.41 | 0.13 | 0.06 | 0.03 | 0.58 | 96.27 | 0.132 | 0.804 | 0.030 | 0.190 | 0.780 |
| | *02122701 | S2 | 0.16 | 16.79 | 0.05 | 49.85 | 17.92 | 0.04 | 0.32 | 10.88 | 0.11 | 0.00 | 0.00 | 0.13 | 96.26 | 0.536 | 0.666 | 0.021 | 0.327 | 0.652 |
| | *02122701 | S3 | 0.00 | 12.37 | 0.14 | 50.13 | 26.98 | 0.03 | 0.49 | 6.75 | 0.07 | 0.00 | 0.02 | 0.35 | 97.33 | 0.346 | 0.731 | 0.069 | 0.250 | 0.681 |
| | *02122701 | S4 | 0.00 | 22.16 | 0.02 | 45.58 | 16.88 | 0.09 | 0.25 | 13.05 | 0.04 | 0.03 | 0.00 | 0.25 | 98.34 | 0.607 | 0.580 | 0.030 | 0.407 | 0.562 |
| | *02122701 | S5 | 0.00 | 23.55 | 1.23 | 35.22 | 28.88 | 0.14 | 0.34 | 8.30 | 0.05 | 0.04 | 0.00 | 0.30 | 98.06 | 0.408 | 0.501 | 0.083 | 0.458 | 0.460 |
| | *02122701 | S6 | 0.00 | 8.57 | 0.34 | 54.35 | 26.63 | 0.07 | 0.52 | 6.55 | 0.02 | 0.02 | 0.00 | 0.17 | 97.23 | 0.344 | 0.810 | 0.066 | 0.178 | 0.756 |
| | *02122701 | S7 | 0.06 | 10.91 | 0.08 | 55.14 | 20.35 | 0.03 | 0.46 | 8.69 | 0.10 | 0.00 | 0.02 | 0.24 | 96.07 | 0.447 | 0.772 | 0.025 | 0.222 | 0.753 |
| | *02122701 | S8 | 0.00 | 34.19 | 0.05 | 32.44 | 16.10 | 0.05 | 0.19 | 14.61 | 0.06 | 0.00 | 0.01 | 0.34 | 98.06 | 0.643 | 0.389 | 0.026 | 0.595 | 0.379 |
| | *02122701 | S9 | 0.05 | 20.41 | 0.05 | 47.33 | 18.18 | 0.00 | 0.31 | 11.99 | 0.07 | 0.07 | 0.02 | 0.20 | 98.67 | 0.565 | 0.609 | 0.028 | 0.380 | 0.592 |
| | *02122701 | S10 | 0.00 | 9.39 | 0.42 | 50.36 | 30.98 | 0.01 | 0.87 | 1.57 | 0.10 | 0.06 | 0.00 | 1.88 | 95.63 | 0.087 | 0.782 | 0.054 | 0.206 | 0.741 |
| | *02122701 | S11 | 0.03 | 18.86 | 0.06 | 49.70 | 16.36 | 0.10 | 0.43 | 12.21 | 0.02 | 0.00 | 0.00 | 0.14 | 97.91 | 0.582 | 0.639 | 0.017 | 0.355 | 0.628 |
| | *02122701 | S12 | 0.03 | 14.71 | 0.11 | 53.76 | 15.65 | 0.05 | 0.41 | 12.17 | 0.04 | 0.01 | 0.01 | 0.12 | 97.07 | 0.595 | 0.710 | 0.018 | 0.285 | 0.698 |
| | *02122701 | S13 | 0.03 | 18.85 | 0.01 | 48.74 | 18.98 | 0.00 | 0.34 | 10.96 | 0.02 | 0.00 | 0.00 | 0.21 | 98.13 | 0.525 | 0.634 | 0.024 | 0.357 | 0.619 |
| | *02122701 | S14 | 0.05 | 5.33 | 0.10 | 55.73 | 29.68 | 0.05 | 0.62 | 4.44 | 0.06 | 0.00 | 0.00 | 0.21 | 96.27 | 0.241 | 0.875 | 0.083 | 0.114 | 0.803 |
| | *02122701 | S15 | 0.05 | 10.95 | 0.13 | 56.61 | 20.08 | 0.00 | 0.46 | 8.77 | 0.06 | 0.02 | 0.00 | 0.26 | 97.39 | 0.446 | 0.776 | 0.016 | 0.220 | 0.764 |
| | *02122701 | S16 | 0.01 | 19.60 | 0.07 | 47.50 | 19.13 | 0.04 | 0.36 | 11.00 | 0.03 | 0.01 | 0.02 | 0.20 | 97.97 | 0.526 | 0.619 | 0.026 | 0.371 | 0.603 |
| | *02122701 | S17 | 0.00 | 6.97 | 0.08 | 55.52 | 25.52 | 0.00 | 0.39 | 7.15 | 0.11 | 0.00 | 0.00 | 0.15 | 95.90 | 0.379 | 0.842 | 0.074 | 0.146 | 0.780 |
| | *02122701 | S18 | 0.00 | 20.59 | 0.09 | 42.95 | 23.08 | 0.00 | 0.47 | 9.30 | 0.06 | 0.07 | 0.01 | 0.41 | 97.04 | 0.452 | 0.583 | 0.050 | 0.396 | 0.554 |
| | *02122701 | S19 | 0.06 | 14.05 | 0.05 | 54.28 | 18.25 | 0.09 | 0.39 | 10.61 | 0.06 | 0.01 | 0.01 | 0.17 | 98.01 | 0.521 | 0.722 | 0.020 | 0.273 | 0.707 |
| | *02122701 | S20 | 0.00 | 19.21 | 0.01 | 48.28 | 21.41 | 0.06 | 0.47 | 9.15 | 0.01 | 0.03 | 0.01 | 0.37 | 99.00 | 0.440 | 0.628 | 0.020 | 0.365 | 0.615 |
| | *02122701 | S21 | 0.04 | 19.20 | 0.01 | 45.48 | 22.98 | 0.03 | 0.46 | 7.37 | 0.06 | 0.04 | 0.01 | 0.65 | 96.31 | 0.368 | 0.614 | 0.020 | 0.379 | 0.601 |
| | *02122701 | S22 | 0.04 | 20.03 | 0.01 | 43.06 | 24.96 | 0.01 | 0.55 | 7.43 | 0.02 | 0.00 | 0.00 | 0.76 | 96.88 | 0.367 | 0.591 | 0.046 | 0.391 | 0.563 |
| | *02122701 | S23 | 0.01 | 8.72 | 0.00 | 59.11 | 19.30 | 0.03 | 0.40 | 9.38 | 0.01 | 0.00 | 0.01 | 0.13 | 97.10 | 0.479 | 0.820 | 0.024 | 0.176 | 0.800 |
| | *02122701 | S24 | 0.06 | 17.29 | 0.05 | 52.26 | 15.78 | 0.06 | 0.33 | 12.94 | 0.02 | 0.00 | 0.00 | 0.14 | 98.91 | 0.612 | 0.670 | 0.021 | 0.323 | 0.656 |
| | *02122701 | S25 | 0.03 | 24.44 | 0.09 | 41.31 | 19.16 | 0.09 | 0.31 | 12.34 | 0.04 | 0.00 | 0.01 | 0.32 | 98.13 | 0.573 | 0.531 | 0.043 | 0.449 | 0.509 |
| | *02082401 | S1 | 0.00 | 20.36 | 0.00 | 45.19 | 20.43 | 0.03 | 0.34 | 10.36 | 0.03 | 0.04 | 0.00 | 0.34 | 97.11 | 0.499 | 0.598 | 0.035 | 0.388 | 0.577 |
| | *02082401 | S2 | 0.04 | 6.42 | 0.05 | 56.40 | 21.35 | 0.03 | 0.30 | 10.49 | 0.12 | 0.00 | 0.00 | 0.00 | 95.19 | 0.546 | 0.855 | 0.089 | 0.132 | 0.779 |
| | *02082401 | S3 | 0.01 | 18.48 | 0.00 | 48.33 | 20.12 | 0.02 | 0.32 | 9.20 | 0.02 | 0.00 | 0.00 | 0.33 | 96.84 | 0.452 | 0.637 | 0.012 | 0.359 | 0.629 |
| | *02082401 | S4 | 0.06 | 27.09 | 0.00 | 38.93 | 19.35 | 0.04 | 0.34 | 12.14 | 0.05 | 0.01 | 0.01 | 0.27 | 98.29 | 0.557 | 0.491 | 0.035 | 0.491 | 0.473 |
| | *02082401 | S5 | 0.10 | 12.48 | 1.40 | 44.26 | 27.73 | 0.13 | 0.29 | 9.78 | 0.10 | 0.00 | 0.01 | 0.06 | 96.34 | 0.510 | 0.704 | 0.131 | 0.257 | 0.612 |
| | *02082401 | S6 | 0.00 | 10.56 | 0.12 | 55.63 | 19.81 | 0.04 | 0.84 | 8.92 | 0.08 | 0.03 | 0.00 | 1.38 | 97.42 | 0.454 | 0.779 | 0.037 | 0.212 | 0.751 |
| | *02082401 | S7 | 0.04 | 12.28 | 0.09 | 55.08 | 19.16 | 0.00 | 0.42 | 10.77 | 0.06 | 0.03 | 0.03 | 0.09 | 98.05 | 0.533 | 0.751 | 0.037 | 0.240 | 0.723 |
| | *02082401 | S8 | 0.02 | 15.55 | 0.15 | 50.90 | 18.87 | 0.01 | 0.31 | 10.69 | 0.07 | 0.03 | 0.00 | 0.12 | 96.51 | 0.530 | 0.687 | 0.027 | 0.305 | 0.669 |
| | *02082401 | S9 | 0.01 | 15.24 | 0.06 | 51.92 | 17.83 | 0.05 | 0.34 | 10.60 | 0.10 | 0.00 | 0.00 | 0.10 | 96.26 | 0.526 | 0.696 | 0.017 | 0.299 | 0.684 |
| | *02082401 | S10 | 0.02 | 15.66 | 0.03 | 48.33 | 21.21 | 0.08 | 0.32 | 10.55 | 0.05 | 0.00 | 0.01 | 0.25 | 96.51 | 0.521 | 0.674 | 0.062 | 0.306 | 0.633 |
| | *02082401 | S11 | 0.00 | 17.94 | 0.31 | 45.05 | 21.56 | 0.03 | 0.49 | 11.05 | 0.02 | 0.00 | 0.00 | 0.25 | 96.69 | 0.540 | 0.627 | 0.069 | 0.347 | 0.584 |
| | *02082401 | S12 | 0.18 | 21.88 | 0.25 | 43.51 | 16.12 | 0.18 | 0.20 | 14.87 | 0.08 | 0.00 | 0.00 | 0.04 | 97.31 | 0.694 | 0.572 | 0.058 | 0.404 | 0.539 |
| | *02082401 | S13 | 0.13 | 9.43 | 0.23 | 54.07 | 19.43 | 0.14 | 0.20 | 11.60 | 0.05 | 0.00 | 0.02 | 0.08 | 95.37 | 0.593 | 0.794 | 0.075 | 0.191 | 0.734 |
| | *02082401 | S14 | 0.04 | 9.79 | 0.08 | 53.02 | 24.17 | 0.00 | 0.45 | 7.87 | 0.07 | 0.02 | 0.00 | 0.13 | 95.66 | 0.410 | 0.784 | 0.065 | 0.202 | 0.733 |
| | *02082401 | S15 | 0.06 | 31.51 | 0.30 | 31.67 | 19.82 | 0.13 | 0.26 | 14.07 | 0.05 | 0.01 | 0.02 | 0.15 | 98.03 | 0.631 | 0.403 | 0.065 | 0.559 | 0.377 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (20)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|--------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|---------------------|-------|-------|
| Mikura Gr. | *02082401 | S16 | 0.01 | 16.17 | 0.00 | 42.85 | 29.41 | 0.05 | 0.44 | 7.04 | 0.07 | 0.00 | 0.01 | 0.40 | 96.44 | 0.355 | 0.640 | 0.105 | 0.322 | 0.573 |
| | *02082401 | S17 | 0.01 | 21.89 | 0.00 | 46.81 | 16.48 | 0.01 | 0.37 | 12.30 | 0.08 | 0.00 | 0.03 | 0.17 | 98.15 | 0.577 | 0.589 | 0.012 | 0.406 | 0.582 |
| | *02082401 | S18 | 0.01 | 9.75 | 0.07 | 52.72 | 24.77 | 0.05 | 0.40 | 7.81 | 0.08 | 0.02 | 0.00 | 0.21 | 95.89 | 0.406 | 0.784 | 0.072 | 0.200 | 0.727 |
| | *02092902 | S1 | 0.01 | 6.59 | 0.18 | 56.43 | 24.29 | 0.04 | 0.54 | 8.43 | 0.14 | 0.03 | 0.02 | 0.19 | 96.88 | 0.440 | 0.852 | 0.082 | 0.136 | 0.782 |
| | *02092902 | S2 | 0.00 | 10.33 | 0.21 | 48.71 | 28.29 | 0.05 | 0.56 | 6.86 | 0.04 | 0.00 | 0.00 | 0.56 | 95.60 | 0.360 | 0.760 | 0.107 | 0.214 | 0.678 |
| | *02092902 | S3 | 0.00 | 16.31 | 0.09 | 49.37 | 20.90 | 0.00 | 0.39 | 10.03 | 0.06 | 0.00 | 0.00 | 0.15 | 97.31 | 0.493 | 0.670 | 0.040 | 0.317 | 0.643 |
| Setogawa Gr. | *03081201 | S1 | 0.04 | 19.45 | 0.74 | 39.71 | 28.84 | 0.21 | 0.28 | 10.07 | 0.00 | 0.00 | 0.00 | 0.04 | 99.36 | 0.485 | 0.578 | 0.122 | 0.371 | 0.508 |
| Odake | *03081201 | S2 | 0.01 | 16.93 | 0.14 | 47.02 | 25.34 | 0.11 | 0.43 | 9.88 | 0.02 | 0.00 | 0.02 | 0.25 | 100.14 | 0.473 | 0.651 | 0.083 | 0.320 | 0.597 |
| Thrust Sheet | *03081201 | S3 | 0.04 | 13.82 | 0.09 | 53.61 | 24.86 | 0.04 | 0.44 | 7.67 | 0.03 | 0.01 | 0.01 | 0.28 | 100.90 | 0.375 | 0.722 | 0.037 | 0.267 | 0.696 |
| (sandstone) | *03081201 | S4 | 0.08 | 24.70 | 1.64 | 35.35 | 23.83 | 0.19 | 0.23 | 13.60 | 0.05 | 0.01 | 0.00 | 0.09 | 99.77 | 0.639 | 0.490 | 0.101 | 0.459 | 0.440 |
| | *03081201 | S5 | 0.11 | 18.94 | 0.44 | 38.28 | 34.42 | 0.06 | 0.43 | 5.67 | 0.04 | 0.02 | 0.01 | 0.64 | 99.06 | 0.282 | 0.576 | 0.124 | 0.372 | 0.504 |
| | *03081201 | S6 | 0.06 | 19.27 | 1.31 | 38.75 | 25.42 | 0.23 | 0.25 | 13.55 | 0.12 | 0.00 | 0.01 | 0.04 | 98.99 | 0.650 | 0.574 | 0.142 | 0.365 | 0.493 |
| | *03081201 | S7 | 0.10 | 23.98 | 0.60 | 40.42 | 18.51 | 0.23 | 0.23 | 15.91 | 0.03 | 0.00 | 0.00 | 0.05 | 100.06 | 0.719 | 0.531 | 0.087 | 0.428 | 0.485 |
| | *03081201 | S8 | 0.00 | 19.41 | 0.65 | 43.50 | 21.70 | 0.14 | 0.27 | 13.45 | 0.10 | 0.03 | 0.00 | 0.05 | 99.30 | 0.634 | 0.601 | 0.095 | 0.362 | 0.544 |
| | *03081201 | S9 | 0.00 | 32.63 | 0.13 | 34.65 | 18.01 | 0.06 | 0.22 | 14.76 | 0.05 | 0.00 | 0.02 | 0.22 | 100.74 | 0.640 | 0.416 | 0.042 | 0.560 | 0.398 |
| | *03081201 | S10 | 0.01 | 26.78 | 0.07 | 40.51 | 19.24 | 0.10 | 0.26 | 13.74 | 0.07 | 0.00 | 0.00 | 0.31 | 101.09 | 0.611 | 0.504 | 0.052 | 0.471 | 0.478 |
| | *03081201 | S11 | 0.04 | 15.21 | 0.30 | 48.85 | 24.73 | 0.07 | 0.46 | 9.06 | 0.07 | 0.03 | 0.00 | 0.23 | 99.05 | 0.446 | 0.683 | 0.067 | 0.296 | 0.637 |
| | *03081201 | S12 | 0.00 | 8.15 | 0.11 | 56.09 | 26.46 | 0.05 | 0.58 | 6.32 | 0.06 | 0.00 | 0.00 | 0.28 | 98.09 | 0.328 | 0.822 | 0.060 | 0.167 | 0.773 |
| | *03081201 | S13 | 0.08 | 15.23 | 0.17 | 50.45 | 21.10 | 0.04 | 0.31 | 12.20 | 0.06 | 0.04 | 0.00 | 0.03 | 99.73 | 0.582 | 0.690 | 0.075 | 0.287 | 0.638 |
| | *03081201 | S14 | 0.00 | 10.71 | 0.09 | 53.02 | 26.61 | 0.08 | 0.39 | 8.41 | 0.03 | 0.03 | 0.03 | 0.20 | 99.59 | 0.419 | 0.769 | 0.088 | 0.211 | 0.701 |
| | *03081201 | S15 | 0.00 | 25.17 | 0.08 | 41.34 | 20.97 | 0.10 | 0.24 | 11.85 | 0.05 | 0.00 | 0.00 | 0.31 | 100.11 | 0.541 | 0.524 | 0.045 | 0.454 | 0.501 |
| | *03081201 | S16 | 0.04 | 17.62 | 0.10 | 47.57 | 24.57 | 0.05 | 0.42 | 9.50 | 0.07 | 0.08 | 0.01 | 0.24 | 100.26 | 0.454 | 0.644 | 0.063 | 0.333 | 0.603 |
| | *03081201 | S17 | 0.03 | 12.03 | 0.17 | 50.18 | 29.36 | 0.07 | 0.54 | 6.16 | 0.09 | 0.00 | 0.03 | 0.48 | 99.14 | 0.312 | 0.737 | 0.084 | 0.241 | 0.675 |
| | *03081201 | S18 | 0.04 | 4.95 | 0.18 | 56.47 | 30.15 | 0.00 | 0.69 | 4.60 | 0.12 | 0.06 | 0.00 | 0.40 | 97.65 | 0.247 | 0.884 | 0.090 | 0.105 | 0.805 |
| | *03081201 | S19 | 0.09 | 18.75 | 0.75 | 40.83 | 23.82 | 0.19 | 0.27 | 13.29 | 0.04 | 0.04 | 0.02 | 0.05 | 98.13 | 0.636 | 0.594 | 0.127 | 0.355 | 0.518 |
| | *03081201 | S20 | 0.03 | 28.12 | 0.42 | 38.90 | 16.65 | 0.16 | 0.20 | 15.27 | 0.01 | 0.00 | 0.01 | 0.13 | 99.89 | 0.681 | 0.481 | 0.045 | 0.495 | 0.460 |
| | *03081201 | S21 | 0.02 | 11.05 | 0.21 | 53.92 | 25.51 | 0.06 | 0.47 | 8.15 | 0.06 | 0.00 | 0.00 | 0.22 | 99.65 | 0.407 | 0.766 | 0.067 | 0.218 | 0.715 |
| | *03081201 | S22 | 0.01 | 33.15 | 0.29 | 32.42 | 18.33 | 0.11 | 0.20 | 15.01 | 0.07 | 0.00 | 0.02 | 0.10 | 99.71 | 0.656 | 0.396 | 0.051 | 0.573 | 0.376 |
| | *03081201 | S23 | 0.05 | 32.07 | 0.13 | 36.71 | 15.75 | 0.15 | 0.20 | 15.20 | 0.11 | 0.00 | 0.02 | 0.21 | 100.59 | 0.660 | 0.434 | 0.026 | 0.551 | 0.423 |
| | *03081201 | S24 | 0.02 | 7.13 | 0.13 | 59.33 | 21.73 | 0.08 | 0.42 | 10.13 | 0.01 | 0.00 | 0.01 | 0.08 | 99.07 | 0.510 | 0.848 | 0.066 | 0.142 | 0.792 |
| | *03081201 | S25 | 0.02 | 35.41 | 0.36 | 27.94 | 22.02 | 0.13 | 0.30 | 12.83 | 0.03 | 0.00 | 0.00 | 0.14 | 99.18 | 0.566 | 0.346 | 0.055 | 0.618 | 0.327 |
| | *03081201 | S26 | 0.05 | 29.90 | 0.04 | 37.48 | 16.55 | 0.09 | 0.24 | 14.38 | 0.07 | 0.04 | 0.02 | 0.29 | 99.14 | 0.639 | 0.457 | 0.033 | 0.526 | 0.442 |
| | *03081201 | S27 | 0.09 | 31.02 | 0.46 | 34.53 | 17.75 | 0.12 | 0.18 | 15.98 | 0.04 | 0.00 | 0.00 | 0.07 | 100.23 | 0.700 | 0.427 | 0.062 | 0.537 | 0.401 |
| | *03081201 | S28 | 0.00 | 10.03 | 0.34 | 54.15 | 26.36 | 0.09 | 0.43 | 7.05 | 0.00 | 0.00 | 0.00 | 0.30 | 98.75 | 0.361 | 0.784 | 0.062 | 0.203 | 0.735 |
| | *03081201 | S29 | 0.05 | 24.73 | 0.00 | 44.24 | 19.07 | 0.09 | 0.29 | 12.80 | 0.06 | 0.01 | 0.00 | 0.23 | 101.55 | 0.574 | 0.546 | 0.035 | 0.439 | 0.527 |
| | *03081201 | S30 | 0.04 | 25.70 | 0.04 | 41.84 | 19.99 | 0.10 | 0.36 | 11.32 | 0.05 | 0.07 | 0.00 | 0.33 | 99.85 | 0.519 | 0.522 | 0.025 | 0.466 | 0.509 |
| | *03081201 | S31 | 0.03 | 7.71 | 0.21 | 57.46 | 23.56 | 0.02 | 0.41 | 9.68 | 0.02 | 0.00 | 0.01 | 0.17 | 99.27 | 0.487 | 0.833 | 0.079 | 0.153 | 0.767 |
| | *03081201 | S32 | 0.05 | 32.71 | 0.08 | 34.98 | 16.55 | 0.10 | 0.22 | 14.13 | 0.04 | 0.02 | 0.00 | 0.29 | 99.15 | 0.623 | 0.418 | 0.021 | 0.570 | 0.409 |
| | *03081201 | S33 | 0.01 | 9.79 | 0.05 | 54.10 | 26.03 | 0.04 | 0.40 | 8.27 | 0.04 | 0.00 | 0.01 | 0.22 | 98.95 | 0.416 | 0.788 | 0.083 | 0.195 | 0.722 |
| | *03081201 | S34 | 0.02 | 22.26 | 0.18 | 45.52 | 19.35 | 0.04 | 0.33 | 11.87 | 0.00 | 0.01 | 0.00 | 0.16 | 99.72 | 0.551 | 0.578 | 0.030 | 0.409 | 0.561 |
| | *03081201 | S35 | 0.07 | 19.45 | 0.85 | 43.12 | 20.74 | 0.24 | 0.19 | 14.54 | 0.04 | 0.00 | 0.00 | 0.01 | 99.25 | 0.683 | 0.598 | 0.101 | 0.362 | 0.538 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (21)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|----------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|---------------------|-------|-------|
| (sandstone) | *03081201 | S36 | 0.17 | 20.17 | 0.38 | 46.71 | 13.91 | 0.30 | 0.20 | 17.81 | 0.05 | 0.00 | 0.01 | 0.00 | 99.72 | 0.807 | 0.608 | 0.078 | 0.361 | 0.561 |
| Setogawa Gr. | 02061401 | S1 | 0.01 | 23.34 | 0.51 | 36.35 | 27.83 | 0.14 | 0.28 | 9.89 | 0.00 | 0.00 | 0.00 | 0.23 | 98.36 | 0.471 | 0.511 | 0.101 | 0.440 | 0.459 |
| Odake | 02061401 | S2 | 0.00 | 11.84 | 0.20 | 53.47 | 20.78 | 0.04 | 0.34 | 9.80 | 0.00 | 0.00 | 0.00 | 0.07 | 96.53 | 0.497 | 0.752 | 0.045 | 0.237 | 0.718 |
| Thrust Sheet | 02061401 | S3 | 0.00 | 10.19 | 0.17 | 52.97 | 26.00 | 0.06 | 0.42 | 7.94 | 0.00 | 0.01 | 0.00 | 0.22 | 97.97 | 0.405 | 0.777 | 0.079 | 0.205 | 0.716 |
| (conglomerate) | 02061401 | S4 | 0.29 | 37.76 | 0.19 | 27.35 | 18.38 | 0.18 | 0.19 | 14.70 | 0.01 | 0.00 | 0.00 | 0.29 | 99.33 | 0.634 | 0.327 | 0.043 | 0.644 | 0.313 |
| | 02061401 | S5 | 0.17 | 10.43 | 0.19 | 52.00 | 24.20 | 0.05 | 0.53 | 8.85 | 0.02 | 0.03 | 0.01 | 0.23 | 96.70 | 0.454 | 0.770 | 0.082 | 0.211 | 0.707 |
| | 02061401 | S6 | 0.59 | 33.89 | 0.11 | 27.64 | 20.22 | 0.15 | 0.24 | 14.18 | 0.04 | 0.02 | 0.00 | 0.25 | 97.33 | 0.633 | 0.354 | 0.075 | 0.598 | 0.327 |
| | 02061401 | S7 | 0.03 | 25.87 | 0.17 | 35.59 | 24.21 | 0.09 | 0.38 | 11.74 | 0.01 | 0.01 | 0.02 | 0.17 | 98.29 | 0.543 | 0.480 | 0.090 | 0.473 | 0.437 |
| | 02061401 | S8 | 0.09 | 39.11 | 0.13 | 27.09 | 17.02 | 0.11 | 0.18 | 15.38 | 0.02 | 0.02 | 0.00 | 0.15 | 99.30 | 0.656 | 0.317 | 0.034 | 0.660 | 0.306 |
| | 02061401 | S9 | 0.00 | 30.86 | 0.30 | 31.06 | 21.69 | 0.06 | 0.21 | 12.75 | 0.04 | 0.03 | 0.00 | 0.26 | 97.25 | 0.581 | 0.403 | 0.068 | 0.557 | 0.376 |
| | 02061401 | S10 | 0.02 | 26.06 | 0.33 | 33.28 | 27.27 | 0.20 | 0.29 | 10.00 | 0.00 | 0.00 | 0.01 | 0.16 | 97.64 | 0.472 | 0.461 | 0.097 | 0.486 | 0.416 |
| | 02061401 | S11 | 0.02 | 31.56 | 0.19 | 30.87 | 22.40 | 0.19 | 0.27 | 12.85 | 0.00 | 0.00 | 0.00 | 0.24 | 98.58 | 0.576 | 0.396 | 0.074 | 0.559 | 0.367 |
| | 02061401 | S12 | 0.01 | 33.27 | 0.26 | 32.72 | 15.82 | 0.18 | 0.26 | 15.11 | 0.00 | 0.00 | 0.00 | 0.04 | 97.66 | 0.670 | 0.397 | 0.032 | 0.583 | 0.385 |
| | 02061401 | S13 | 0.00 | 19.20 | 0.79 | 35.92 | 32.77 | 0.16 | 0.40 | 7.45 | 0.02 | 0.00 | 0.00 | 0.24 | 96.94 | 0.374 | 0.557 | 0.140 | 0.381 | 0.479 |
| | 02061401 | S14 | 0.08 | 18.97 | 0.37 | 44.28 | 19.95 | 0.10 | 0.25 | 12.82 | 0.02 | 0.00 | 0.01 | 0.02 | 96.87 | 0.617 | 0.610 | 0.074 | 0.361 | 0.565 |
| | 02061401 | S15 | 0.02 | 20.79 | 0.29 | 44.43 | 17.62 | 0.07 | 0.24 | 14.11 | 0.00 | 0.00 | 0.00 | 0.03 | 97.60 | 0.662 | 0.589 | 0.061 | 0.386 | 0.553 |
| | 02061401 | S16 | 0.01 | 20.81 | 0.25 | 44.35 | 18.23 | 0.08 | 0.20 | 13.63 | 0.03 | 0.00 | 0.01 | 0.04 | 97.63 | 0.641 | 0.588 | 0.059 | 0.387 | 0.553 |
| | 02061401 | S17 | 0.06 | 19.10 | 0.54 | 41.51 | 25.39 | 0.08 | 0.42 | 9.58 | 0.04 | 0.00 | 0.00 | 0.05 | 96.77 | 0.474 | 0.593 | 0.083 | 0.373 | 0.544 |
| | 02061401 | S18 | 0.00 | 32.34 | 0.28 | 29.98 | 24.00 | 0.15 | 0.27 | 11.23 | 0.01 | 0.00 | 0.00 | 0.40 | 98.66 | 0.508 | 0.383 | 0.062 | 0.578 | 0.360 |
| | 02061401 | S19 | 0.00 | 39.10 | 0.12 | 24.67 | 18.45 | 0.22 | 0.23 | 15.81 | 0.01 | 0.00 | 0.00 | 0.19 | 98.80 | 0.674 | 0.297 | 0.062 | 0.659 | 0.279 |
| | 02061401 | S20 | 0.05 | 17.65 | 0.37 | 46.85 | 17.89 | 0.06 | 0.29 | 13.33 | 0.01 | 0.01 | 0.00 | 0.10 | 96.61 | 0.644 | 0.640 | 0.062 | 0.337 | 0.601 |
| | 02061401 | S21 | 0.00 | 20.68 | 0.17 | 44.30 | 22.45 | 0.14 | 0.34 | 10.85 | 0.01 | 0.01 | 0.01 | 0.18 | 99.14 | 0.513 | 0.590 | 0.058 | 0.386 | 0.555 |
| | 02061401 | S22 | 0.09 | 15.64 | 0.33 | 50.15 | 17.80 | 0.13 | 0.32 | 13.16 | 0.02 | 0.01 | 0.00 | 0.05 | 97.71 | 0.636 | 0.683 | 0.058 | 0.299 | 0.643 |
| | 02061401 | S23 | 0.00 | 34.49 | 0.20 | 29.55 | 20.10 | 0.13 | 0.16 | 13.43 | 0.00 | 0.00 | 0.01 | 0.21 | 98.27 | 0.595 | 0.365 | 0.049 | 0.604 | 0.347 |
| | 02061401 | S24 | 0.04 | 25.23 | 0.45 | 34.79 | 24.77 | 0.10 | 0.30 | 10.52 | 0.00 | 0.00 | 0.01 | 0.33 | 96.54 | 0.503 | 0.481 | 0.082 | 0.477 | 0.441 |
| | 02061401 | S25 | 0.03 | 27.28 | 0.34 | 34.96 | 23.95 | 0.08 | 0.30 | 11.18 | 0.01 | 0.02 | 0.00 | 0.35 | 98.48 | 0.518 | 0.462 | 0.071 | 0.500 | 0.429 |
| | 02061401 | S26 | 0.00 | 40.23 | 0.10 | 23.98 | 18.02 | 0.19 | 0.17 | 15.27 | 0.00 | 0.00 | 0.01 | 0.25 | 98.22 | 0.653 | 0.286 | 0.048 | 0.680 | 0.272 |
| | 02061401 | S27 | 0.08 | 30.70 | 0.34 | 30.44 | 24.07 | 0.17 | 0.19 | 11.16 | 0.01 | 0.04 | 0.01 | 0.26 | 97.46 | 0.515 | 0.399 | 0.068 | 0.560 | 0.372 |
| | 02061401 | S28 | 0.12 | 19.46 | 0.74 | 42.14 | 20.06 | 0.11 | 0.25 | 13.14 | 0.00 | 0.01 | 0.01 | 0.13 | 96.17 | 0.640 | 0.592 | 0.082 | 0.374 | 0.544 |
| | 02061401 | S29 | 0.03 | 39.28 | 0.16 | 24.48 | 18.00 | 0.14 | 0.21 | 14.73 | 0.00 | 0.00 | 0.01 | 0.31 | 97.34 | 0.640 | 0.295 | 0.044 | 0.674 | 0.282 |
| | 02061401 | S30 | 0.05 | 37.77 | 0.11 | 25.56 | 18.40 | 0.15 | 0.23 | 14.64 | 0.00 | 0.00 | 0.00 | 0.26 | 97.18 | 0.640 | 0.312 | 0.051 | 0.653 | 0.296 |
| | 02061401 | S31 | 0.07 | 17.77 | 0.64 | 41.55 | 27.91 | 0.03 | 0.46 | 8.28 | 0.01 | 0.00 | 0.00 | 0.27 | 96.99 | 0.415 | 0.611 | 0.095 | 0.353 | 0.553 |
| | 02061401 | S32 | 0.02 | 29.12 | 0.56 | 32.31 | 22.85 | 0.15 | 0.28 | 12.38 | 0.00 | 0.00 | 0.00 | 0.26 | 97.91 | 0.570 | 0.427 | 0.076 | 0.530 | 0.394 |
| | 02061401 | S33 | 0.23 | 30.18 | 0.55 | 28.53 | 27.62 | 0.21 | 0.28 | 11.05 | 0.03 | 0.00 | 0.03 | 0.27 | 98.98 | 0.507 | 0.388 | 0.106 | 0.547 | 0.347 |
| | 02061401 | S34 | 0.01 | 29.81 | 0.46 | 29.28 | 27.44 | 0.11 | 0.34 | 10.75 | 0.01 | 0.00 | 0.00 | 0.34 | 98.55 | 0.495 | 0.397 | 0.101 | 0.542 | 0.357 |
| | 02061401 | S35 | 0.05 | 18.55 | 0.66 | 43.70 | 19.92 | 0.16 | 0.25 | 13.49 | 0.04 | 0.00 | 0.00 | 0.04 | 96.86 | 0.652 | 0.612 | 0.086 | 0.354 | 0.560 |
| | 02061401 | S36 | 0.02 | 22.76 | 0.33 | 38.51 | 25.02 | 0.05 | 0.26 | 10.32 | 0.00 | 0.03 | 0.01 | 0.20 | 97.51 | 0.494 | 0.532 | 0.081 | 0.430 | 0.489 |
| | 02061401 | S37 | 0.03 | 29.33 | 0.60 | 32.78 | 22.85 | 0.20 | 0.28 | 12.54 | 0.01 | 0.00 | 0.00 | 0.21 | 98.82 | 0.572 | 0.428 | 0.074 | 0.529 | 0.397 |
| | 02061401 | S38 | 0.04 | 25.55 | 0.24 | 35.86 | 23.69 | 0.13 | 0.23 | 11.39 | 0.01 | 0.01 | 0.00 | 0.19 | 97.34 | 0.534 | 0.485 | 0.080 | 0.474 | 0.446 |
| | 02061401 | S39 | 0.01 | 30.06 | 0.15 | 33.48 | 21.82 | 0.14 | 0.22 | 12.53 | 0.01 | 0.00 | 0.00 | 0.25 | 98.65 | 0.566 | 0.428 | 0.063 | 0.536 | 0.401 |
| | 02061401 | S40 | 0.02 | 11.62 | 0.21 | 53.94 | 16.78 | 0.11 | 0.26 | 13.65 | 0.00 | 0.00 | 0.00 | 0.11 | 96.69 | 0.672 | 0.757 | 0.069 | 0.226 | 0.704 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (22)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|----------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|---------------------|-------|-------|
| Odake | 02061401 | S41 | 0.01 | 34.88 | 0.13 | 27.12 | 19.05 | 0.22 | 0.18 | 14.48 | 0.03 | 0.00 | 0.00 | 0.27 | 96.37 | 0.645 | 0.343 | 0.065 | 0.614 | 0.320 |
| Thrust Sheet | 02061401 | S42 | 0.01 | 34.88 | 0.13 | 27.12 | 19.05 | 0.22 | 0.18 | 14.48 | 0.03 | 0.00 | 0.00 | 0.27 | 96.37 | 0.645 | 0.343 | 0.065 | 0.614 | 0.320 |
| (conglomerate) | 02061401 | S43 | 0.03 | 32.52 | 0.27 | 30.93 | 20.78 | 0.20 | 0.24 | 13.03 | 0.02 | 0.03 | 0.00 | 0.19 | 98.26 | 0.585 | 0.390 | 0.055 | 0.577 | 0.368 |
| Setogawa Gr. | *02092604 | S1 | 0.01 | 20.83 | 0.02 | 42.27 | 24.15 | 0.10 | 0.38 | 9.09 | 0.02 | 0.09 | 0.00 | 0.38 | 97.34 | 0.440 | 0.577 | 0.059 | 0.399 | 0.543 |
| Takayama | *02092604 | S2 | 0.00 | 8.18 | 0.13 | 54.80 | 23.89 | 0.04 | 0.43 | 7.52 | 0.02 | 0.00 | 0.00 | 0.19 | 95.20 | 0.398 | 0.818 | 0.060 | 0.171 | 0.769 |
| Thrust Sheet | *02092604 | S3 | 0.04 | 7.03 | 0.15 | 56.85 | 20.48 | 0.05 | 0.31 | 10.39 | 0.05 | 0.02 | 0.01 | 0.28 | 95.65 | 0.540 | 0.844 | 0.073 | 0.144 | 0.783 |
| | *02092604 | S4 | 0.10 | 8.27 | 0.10 | 57.09 | 21.90 | 0.06 | 0.49 | 7.50 | 0.03 | 0.00 | 0.00 | 0.54 | 96.09 | 0.394 | 0.822 | 0.033 | 0.172 | 0.796 |
| | *02092604 | S5 | 0.00 | 25.74 | 0.10 | 35.82 | 24.36 | 0.08 | 0.34 | 10.48 | 0.03 | 0.00 | 0.01 | 0.26 | 97.22 | 0.493 | 0.483 | 0.074 | 0.479 | 0.447 |
| | *02092604 | S6 | 0.03 | 20.15 | 0.03 | 47.30 | 17.10 | 0.02 | 0.22 | 12.32 | 0.02 | 0.01 | 0.00 | 0.12 | 97.33 | 0.586 | 0.612 | 0.025 | 0.379 | 0.596 |
| | *02092604 | S7 | 0.00 | 32.90 | 0.30 | 30.60 | 21.68 | 0.16 | 0.46 | 12.08 | 0.00 | 0.02 | 0.00 | 0.16 | 98.38 | 0.544 | 0.384 | 0.049 | 0.586 | 0.365 |
| | *02092604 | S8 | 0.04 | 8.24 | 3.93 | 44.86 | 25.74 | 0.20 | 0.24 | 12.19 | 0.02 | 0.01 | 0.02 | 0.00 | 95.49 | 0.687 | 0.785 | 0.146 | 0.184 | 0.671 |
| | *02092604 | S9 | 0.00 | 14.31 | 0.44 | 46.79 | 26.33 | 0.03 | 0.43 | 7.97 | 0.04 | 0.00 | 0.00 | 0.20 | 96.54 | 0.407 | 0.687 | 0.078 | 0.289 | 0.633 |
| | *02092604 | S10 | 0.09 | 18.00 | 0.44 | 45.09 | 16.93 | 0.18 | 0.23 | 15.60 | 0.07 | 0.00 | 0.00 | 0.02 | 96.66 | 0.742 | 0.627 | 0.092 | 0.339 | 0.569 |
| | *02092604 | S11 | 0.00 | 20.21 | 0.21 | 42.31 | 24.76 | 0.15 | 0.31 | 10.01 | 0.02 | 0.00 | 0.00 | 0.32 | 98.29 | 0.480 | 0.584 | 0.078 | 0.383 | 0.538 |
| | *02092604 | S12 | 0.05 | 2.71 | 0.00 | 63.80 | 21.07 | 0.07 | 0.36 | 7.84 | 0.03 | 0.00 | 0.02 | 0.13 | 96.08 | 0.420 | 0.940 | 0.035 | 0.057 | 0.907 |
| | *02092604 | S13 | 0.04 | 14.49 | 0.10 | 50.61 | 23.32 | 0.04 | 0.41 | 9.14 | 0.05 | 0.00 | 0.00 | 0.19 | 98.37 | 0.451 | 0.701 | 0.055 | 0.283 | 0.663 |
| | *02092604 | S14 | 0.03 | 21.31 | 1.36 | 40.02 | 17.79 | 0.17 | 0.17 | 15.19 | 0.02 | 0.00 | 0.00 | 0.09 | 96.14 | 0.734 | 0.557 | 0.080 | 0.407 | 0.513 |
| | *02092604 | S15 | 0.01 | 10.71 | 0.42 | 51.92 | 25.34 | 0.02 | 0.40 | 7.93 | 0.06 | 0.00 | 0.00 | 0.21 | 97.01 | 0.409 | 0.765 | 0.070 | 0.219 | 0.711 |
| | *02092604 | S16 | 0.05 | 23.33 | 0.09 | 41.02 | 22.11 | 0.02 | 0.35 | 10.44 | 0.03 | 0.00 | 0.00 | 0.67 | 98.12 | 0.493 | 0.541 | 0.051 | 0.436 | 0.514 |
| | *02092604 | S17 | 0.01 | 25.41 | 0.20 | 39.16 | 18.91 | 0.06 | 0.28 | 13.04 | 0.02 | 0.04 | 0.00 | 0.16 | 97.28 | 0.606 | 0.508 | 0.051 | 0.467 | 0.482 |
| | *02092604 | S18 | 0.01 | 36.22 | 0.07 | 30.79 | 17.71 | 0.18 | 0.25 | 15.01 | 0.03 | 0.04 | 0.03 | 0.24 | 100.58 | 0.641 | 0.363 | 0.039 | 0.612 | 0.349 |
| | *02092604 | S19 | 0.08 | 10.04 | 0.30 | 53.56 | 25.33 | 0.02 | 0.45 | 7.56 | 0.04 | 0.00 | 0.00 | 0.30 | 97.67 | 0.389 | 0.782 | 0.064 | 0.205 | 0.732 |
| | *02092604 | S20 | 0.01 | 11.58 | 0.21 | 49.65 | 28.95 | 0.08 | 0.53 | 5.35 | 0.05 | 0.00 | 0.00 | 0.46 | 96.86 | 0.279 | 0.742 | 0.073 | 0.239 | 0.688 |
| | *02092604 | S21 | 0.00 | 8.18 | 0.18 | 60.90 | 14.75 | 0.08 | 0.23 | 14.01 | 0.03 | 0.05 | 0.02 | 0.08 | 98.51 | 0.688 | 0.833 | 0.048 | 0.159 | 0.793 |
| | *02092604 | S22 | 0.02 | 4.89 | 0.06 | 59.95 | 23.82 | 0.03 | 0.50 | 7.77 | 0.06 | 0.00 | 0.00 | 0.15 | 97.25 | 0.408 | 0.892 | 0.063 | 0.102 | 0.835 |
| | *02092604 | S23 | 0.00 | 10.97 | 0.14 | 54.93 | 20.04 | 0.03 | 0.30 | 11.36 | 0.04 | 0.01 | 0.03 | 0.16 | 98.01 | 0.563 | 0.771 | 0.063 | 0.215 | 0.722 |
| | *02092604 | S24 | 0.02 | 9.40 | 0.22 | 50.94 | 29.05 | 0.06 | 0.44 | 6.67 | 0.06 | 0.00 | 0.01 | 0.31 | 97.19 | 0.347 | 0.784 | 0.103 | 0.193 | 0.703 |
| | *02092604 | S25 | 0.01 | 16.21 | 4.58 | 30.36 | 33.16 | 0.18 | 0.31 | 12.35 | 0.07 | 0.01 | 0.00 | 0.13 | 97.37 | 0.667 | 0.557 | 0.220 | 0.346 | 0.434 |
| | *02092604 | S26 | 0.12 | 18.96 | 0.60 | 46.14 | 17.13 | 0.29 | 0.22 | 16.44 | 0.04 | 0.00 | 0.00 | 0.09 | 100.02 | 0.756 | 0.620 | 0.093 | 0.345 | 0.563 |
| | *02093005 | S1 | 0.02 | 24.34 | 0.01 | 37.80 | 30.77 | 0.06 | 0.52 | 2.78 | 0.00 | 0.04 | 0.02 | 1.00 | 97.36 | 0.139 | 0.510 | 0.020 | 0.480 | 0.500 |
| | *02093005 | S2 | 0.02 | 28.48 | 0.12 | 33.73 | 20.73 | 0.05 | 0.27 | 12.28 | 0.00 | 0.00 | 0.00 | 0.29 | 95.98 | 0.571 | 0.443 | 0.061 | 0.524 | 0.416 |
| | *02093008 | S1 | 0.00 | 14.18 | 0.25 | 50.45 | 23.38 | 0.12 | 0.30 | 9.27 | 0.00 | 0.00 | 0.00 | 0.23 | 98.18 | 0.460 | 0.705 | 0.058 | 0.278 | 0.664 |
| | *02093008 | S2 | 0.00 | 22.26 | 0.02 | 44.93 | 19.28 | 0.01 | 0.34 | 11.59 | 0.02 | 0.00 | 0.02 | 0.21 | 98.67 | 0.542 | 0.575 | 0.031 | 0.412 | 0.557 |
| | *02093008 | S3 | 0.02 | 9.56 | 0.67 | 47.01 | 31.72 | 0.03 | 0.30 | 5.94 | 0.02 | 0.02 | 0.00 | 0.18 | 95.47 | 0.319 | 0.767 | 0.127 | 0.203 | 0.670 |
| | *02093008 | S4 | 0.00 | 12.72 | 0.11 | 54.15 | 19.83 | 0.06 | 0.40 | 10.41 | 0.00 | 0.00 | 0.01 | 0.25 | 97.93 | 0.515 | 0.741 | 0.040 | 0.249 | 0.711 |
| | *02093008 | S5 | 0.00 | 9.56 | 0.11 | 53.95 | 24.64 | 0.03 | 0.42 | 8.02 | 0.02 | 0.00 | 0.00 | 0.12 | 96.85 | 0.413 | 0.791 | 0.068 | 0.195 | 0.737 |
| | *02093008 | S6 | 0.01 | 22.49 | 0.12 | 43.64 | 19.07 | 0.03 | 0.29 | 12.15 | 0.03 | 0.02 | 0.02 | 0.20 | 98.07 | 0.570 | 0.566 | 0.040 | 0.417 | 0.543 |
| | *02093008 | S7 | 0.02 | 27.27 | 0.27 | 37.23 | 19.00 | 0.14 | 0.26 | 13.83 | 0.01 | 0.00 | 0.00 | 0.13 | 97.94 | 0.632 | 0.478 | 0.057 | 0.492 | 0.451 |
| | *02093008 | S8 | 0.12 | 26.97 | 0.34 | 38.90 | 15.31 | 0.18 | 0.19 | 16.13 | 0.02 | 0.02 | 0.01 | 0.03 | 98.21 | 0.727 | 0.492 | 0.054 | 0.481 | 0.465 |
| | *02093008 | S9 | 0.03 | 23.41 | 0.04 | 41.60 | 21.20 | 0.06 | 0.33 | 11.73 | 0.02 | 0.00 | 0.01 | 0.15 | 98.59 | 0.546 | 0.544 | 0.056 | 0.431 | 0.514 |
| | *02093008 | S10 | 0.07 | 11.31 | 0.34 | 56.23 | 13.44 | 0.20 | 0.17 | 16.49 | 0.00 | 0.00 | 0.00 | 0.00 | 98.25 | 0.789 | 0.769 | 0.072 | 0.214 | 0.714 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (23)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|--------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|--------------------|-------|-------|
| Setogawa Gr. | *02093008 | S11 | 0.04 | 29.80 | 0.07 | 35.99 | 18.73 | 0.11 | 0.25 | 13.61 | 0.02 | 0.02 | 0.00 | 0.19 | 98.83 | 0.609 | 0.448 | 0.045 | 0.528 | 0.427 |
| Takayama | *02093008 | S12 | 0.01 | 19.33 | 0.11 | 45.95 | 20.47 | 0.11 | 0.33 | 10.87 | 0.00 | 0.00 | 0.00 | 0.22 | 97.38 | 0.524 | 0.615 | 0.044 | 0.368 | 0.587 |
| Thrust Sheet | *02093008 | S13 | 0.00 | 35.22 | 0.21 | 29.73 | 15.88 | 0.10 | 0.24 | 15.63 | 0.02 | 0.02 | 0.02 | 0.27 | 97.33 | 0.687 | 0.362 | 0.042 | 0.612 | 0.346 |
| | *02093008 | S14 | 0.07 | 25.14 | 0.56 | 36.93 | 23.95 | 0.20 | 0.33 | 12.76 | 0.02 | 0.00 | 0.00 | 0.10 | 100.06 | 0.585 | 0.496 | 0.095 | 0.456 | 0.449 |
| | *02093008 | S15 | 0.00 | 11.41 | 0.08 | 54.87 | 18.90 | 0.08 | 0.38 | 11.63 | 0.03 | 0.05 | 0.00 | 0.14 | 97.56 | 0.576 | 0.763 | 0.056 | 0.223 | 0.720 |
| | *02093008 | S16 | 0.18 | 21.32 | 0.53 | 43.45 | 17.19 | 0.15 | 0.26 | 17.24 | 0.02 | 0.04 | 0.02 | 0.11 | 100.50 | 0.777 | 0.578 | 0.100 | 0.380 | 0.520 |
| | *02093008 | S17 | 0.05 | 9.76 | 0.71 | 46.00 | 27.18 | 0.13 | 0.29 | 11.33 | 0.00 | 0.00 | 0.01 | 0.09 | 95.55 | 0.584 | 0.760 | 0.173 | 0.199 | 0.628 |
| Setogawa Gr. | *02071601 | S1 | 0.00 | 18.26 | 0.09 | 45.97 | 24.00 | 0.09 | 0.37 | 8.55 | 0.00 | 0.00 | 0.00 | 0.22 | 98.56 | 0.420 | 0.628 | 0.047 | 0.354 | 0.598 |
| Oigawa | *02071601 | S2 | 0.05 | 16.31 | 0.17 | 49.25 | 16.09 | 0.16 | 0.29 | 14.53 | 0.03 | 0.00 | 0.00 | 0.08 | 96.97 | 0.695 | 0.669 | 0.067 | 0.309 | 0.625 |
| Thrust Sheet | *02071601 | S3 | 0.00 | 10.87 | 0.09 | 57.51 | 16.82 | 0.03 | 0.28 | 11.39 | 0.00 | 0.00 | 0.00 | 0.14 | 97.14 | 0.569 | 0.780 | 0.024 | 0.215 | 0.762 |
| | *02071601 | S4 | 0.06 | 18.02 | 1.08 | 44.91 | 16.17 | 0.28 | 0.19 | 17.79 | 0.02 | 0.00 | 0.00 | 0.12 | 98.85 | 0.832 | 0.626 | 0.110 | 0.333 | 0.557 |
| | *02071601 | S5 | 0.08 | 14.85 | 1.01 | 44.81 | 23.78 | 0.10 | 0.32 | 10.88 | 0.01 | 0.00 | 0.00 | 0.07 | 95.90 | 0.554 | 0.669 | 0.097 | 0.299 | 0.605 |
| | *02071601 | S6 | 0.00 | 19.85 | 1.15 | 39.82 | 26.17 | 0.26 | 0.27 | 12.90 | 0.04 | 0.00 | 0.00 | 0.05 | 100.52 | 0.609 | 0.574 | 0.131 | 0.370 | 0.498 |
| | *02071601 | S7 | 0.00 | 12.41 | 0.42 | 41.23 | 35.48 | 0.19 | 0.18 | 5.58 | 0.00 | 0.00 | 0.00 | 0.21 | 95.71 | 0.293 | 0.690 | 0.167 | 0.258 | 0.575 |
| | *02071601 | S8 | 0.02 | 3.08 | 0.11 | 58.22 | 27.58 | 0.07 | 0.65 | 5.72 | 0.03 | 0.04 | 0.00 | 0.38 | 95.90 | 0.312 | 0.927 | 0.091 | 0.066 | 0.842 |
| | *02071601 | S9 | 0.07 | 24.53 | 0.24 | 39.47 | 17.79 | 0.21 | 0.13 | 15.24 | 0.00 | 0.00 | 0.00 | 0.05 | 97.73 | 0.698 | 0.519 | 0.077 | 0.444 | 0.479 |
| | *02071601 | S10 | 0.00 | 17.30 | 0.03 | 50.45 | 20.95 | 0.00 | 0.32 | 9.49 | 0.02 | 0.00 | 0.01 | 0.13 | 98.69 | 0.460 | 0.662 | 0.020 | 0.332 | 0.649 |
| | *02071601 | S11 | 0.00 | 23.44 | 0.01 | 43.89 | 19.12 | 0.03 | 0.44 | 9.51 | 0.02 | 0.05 | 0.00 | 0.32 | 96.85 | 0.457 | 0.557 | 0.000 | 0.443 | 0.557 |
| | *02071601 | S12 | 0.04 | 18.01 | 0.05 | 49.50 | 19.14 | 0.05 | 0.38 | 9.80 | 0.03 | 0.00 | 0.00 | 0.18 | 97.17 | 0.479 | 0.648 | 0.009 | 0.348 | 0.642 |
| | *02071601 | S13 | 0.00 | 15.81 | 0.03 | 52.38 | 16.69 | 0.00 | 0.21 | 11.28 | 0.01 | 0.01 | 0.00 | 0.16 | 96.57 | 0.554 | 0.690 | 0.011 | 0.307 | 0.682 |
| | *02071601 | S14 | 0.00 | 1.64 | 0.75 | 53.49 | 32.00 | 0.12 | 0.44 | 7.06 | 0.01 | 0.00 | 0.01 | 0.00 | 95.51 | 0.391 | 0.956 | 0.179 | 0.036 | 0.785 |
| | *02071601 | S15 | 0.00 | 25.93 | 0.01 | 40.82 | 17.52 | 0.02 | 0.28 | 12.40 | 0.00 | 0.00 | 0.01 | 0.19 | 97.17 | 0.575 | 0.514 | 0.022 | 0.476 | 0.502 |
| | *02071601 | S16 | 0.00 | 9.60 | 0.29 | 52.12 | 25.04 | 0.03 | 0.45 | 8.22 | 0.04 | 0.01 | 0.02 | 0.28 | 96.09 | 0.428 | 0.785 | 0.083 | 0.198 | 0.720 |
| | *02071601 | S17 | 0.07 | 17.88 | 0.46 | 47.88 | 13.08 | 0.38 | 0.20 | 17.46 | 0.00 | 0.00 | 0.00 | 0.01 | 97.42 | 0.816 | 0.642 | 0.076 | 0.330 | 0.593 |
| | *02071601 | S18 | 0.00 | 24.22 | 0.46 | 39.19 | 22.37 | 0.03 | 0.43 | 10.67 | 0.00 | 0.00 | 0.00 | 0.29 | 97.66 | 0.507 | 0.521 | 0.051 | 0.455 | 0.494 |
| | *02071601 | S19 | 0.03 | 9.41 | 0.41 | 51.35 | 27.52 | 0.00 | 0.49 | 6.69 | 0.03 | 0.08 | 0.01 | 0.10 | 96.10 | 0.354 | 0.785 | 0.083 | 0.197 | 0.720 |
| | *02071601 | S20 | 0.00 | 22.43 | 0.02 | 45.14 | 19.87 | 0.09 | 0.35 | 9.57 | 0.05 | 0.01 | 0.00 | 0.30 | 97.83 | 0.458 | 0.574 | 0.004 | 0.424 | 0.572 |
| | *02071601 | S21 | 0.02 | 14.06 | 0.01 | 53.53 | 19.05 | 0.05 | 0.49 | 10.31 | 0.00 | 0.02 | 0.01 | 0.44 | 98.00 | 0.507 | 0.719 | 0.029 | 0.273 | 0.698 |
| | *02071601 | S22 | 0.08 | 12.77 | 1.50 | 44.46 | 23.68 | 0.16 | 0.24 | 13.79 | 0.05 | 0.04 | 0.00 | 0.08 | 96.85 | 0.695 | 0.700 | 0.151 | 0.255 | 0.594 |
| | *02071601 | S23 | 0.00 | 12.29 | 0.17 | 49.44 | 27.43 | 0.09 | 0.43 | 7.60 | 0.02 | 0.02 | 0.00 | 0.37 | 97.87 | 0.385 | 0.730 | 0.090 | 0.246 | 0.664 |
| | *02122603 | S1 | 0.00 | 25.41 | 0.08 | 39.64 | 21.71 | 0.03 | 0.30 | 10.54 | 0.05 | 0.00 | 0.03 | 0.41 | 98.19 | 0.493 | 0.511 | 0.039 | 0.470 | 0.492 |
| | *02122603 | S2 | 0.15 | 42.28 | 0.34 | 25.41 | 12.53 | 0.28 | 0.14 | 19.69 | 0.00 | 0.00 | 0.00 | 0.07 | 100.88 | 0.803 | 0.287 | 0.043 | 0.682 | 0.275 |
| | *02122603 | S3 | 0.00 | 33.44 | 0.01 | 34.68 | 15.60 | 0.11 | 0.21 | 14.43 | 0.05 | 0.00 | 0.02 | 0.12 | 98.67 | 0.634 | 0.410 | 0.015 | 0.587 | 0.404 |
| | *02122603 | S4 | 0.00 | 13.50 | 0.17 | 49.39 | 26.64 | 0.04 | 0.40 | 7.44 | 0.00 | 0.00 | 0.00 | 0.43 | 98.01 | 0.375 | 0.710 | 0.071 | 0.269 | 0.660 |
| | *02122603 | S5 | 0.01 | 33.68 | 0.13 | 35.00 | 16.92 | 0.05 | 0.21 | 14.15 | 0.04 | 0.03 | 0.01 | 0.12 | 100.36 | 0.616 | 0.411 | 0.016 | 0.580 | 0.404 |
| | *02122603 | S6 | 0.05 | 43.77 | 0.04 | 24.92 | 13.21 | 0.14 | 0.20 | 17.56 | 0.00 | 0.08 | 0.00 | 0.17 | 100.12 | 0.721 | 0.276 | 0.018 | 0.711 | 0.272 |
| | *02122603 | S7 | 0.15 | 24.13 | 0.26 | 41.10 | 15.96 | 0.21 | 0.14 | 16.79 | 0.00 | 0.03 | 0.00 | 0.10 | 98.87 | 0.756 | 0.533 | 0.079 | 0.430 | 0.491 |
| | *02122603 | S8 | 0.00 | 22.50 | 0.03 | 46.09 | 18.32 | 0.05 | 0.26 | 11.74 | 0.01 | 0.05 | 0.00 | 0.21 | 99.26 | 0.546 | 0.579 | 0.018 | 0.414 | 0.568 |
| | *02122603 | S9 | 0.01 | 26.78 | 0.05 | 36.91 | 21.80 | 0.13 | 0.22 | 12.42 | 0.00 | 0.00 | 0.02 | 0.25 | 98.60 | 0.567 | 0.480 | 0.069 | 0.484 | 0.447 |
| | *02122603 | S10 | 0.04 | 21.84 | 0.13 | 44.24 | 18.95 | 0.06 | 0.27 | 11.62 | 0.01 | 0.00 | 0.00 | 0.14 | 97.28 | 0.552 | 0.576 | 0.032 | 0.410 | 0.558 |
| | *02122603 | S11 | 0.00 | 44.98 | 0.13 | 22.82 | 12.39 | 0.25 | 0.14 | 18.52 | 0.00 | 0.00 | 0.01 | 0.12 | 99.36 | 0.758 | 0.254 | 0.024 | 0.728 | 0.248 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (24)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|--------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|--------------------|-------|-------|
| Setogawa Gr. | *02122603 | S12 | 0.03 | 12.71 | 0.05 | 49.20 | 26.81 | 0.07 | 0.39 | 7.76 | 0.01 | 0.02 | 0.02 | 0.21 | 97.27 | 0.393 | 0.722 | 0.085 | 0.254 | 0.661 |
| Oigawa | *02122603 | S13 | 0.06 | 45.65 | 0.26 | 19.47 | 14.53 | 0.24 | 0.15 | 18.78 | 0.02 | 0.00 | 0.00 | 0.00 | 99.17 | 0.768 | 0.222 | 0.050 | 0.739 | 0.211 |
| Thrust Sheet | *02122603 | S14 | 0.01 | 20.79 | 0.13 | 49.42 | 14.94 | 0.03 | 0.20 | 13.19 | 0.00 | 0.01 | 0.00 | 0.13 | 98.85 | 0.615 | 0.615 | 0.005 | 0.384 | 0.612 |
| | *02122603 | S15 | 0.01 | 43.98 | 0.10 | 23.12 | 12.27 | 0.28 | 0.13 | 18.50 | 0.00 | 0.01 | 0.00 | 0.19 | 98.60 | 0.784 | 0.261 | 0.029 | 0.718 | 0.253 |
| | *02122603 | S16 | 0.01 | 19.73 | 0.01 | 46.88 | 19.57 | 0.00 | 0.29 | 10.97 | 0.02 | 0.00 | 0.00 | 0.17 | 97.64 | 0.525 | 0.614 | 0.031 | 0.374 | 0.595 |
| | *02122603 | S17 | 0.00 | 17.72 | 0.01 | 48.51 | 20.64 | 0.07 | 0.30 | 9.92 | 0.03 | 0.00 | 0.01 | 0.22 | 97.44 | 0.483 | 0.647 | 0.031 | 0.341 | 0.627 |
| | *02122603 | S18 | 0.02 | 13.77 | 0.26 | 48.20 | 26.88 | 0.02 | 0.51 | 7.48 | 0.06 | 0.03 | 0.00 | 0.43 | 97.65 | 0.379 | 0.701 | 0.077 | 0.276 | 0.647 |
| | *02122603 | S19 | 0.00 | 19.50 | 0.01 | 49.12 | 17.83 | 0.05 | 0.28 | 11.32 | 0.02 | 0.05 | 0.01 | 0.17 | 98.36 | 0.539 | 0.628 | 0.013 | 0.367 | 0.620 |
| | *02122603 | S20 | 0.00 | 25.86 | 0.20 | 39.17 | 19.74 | 0.09 | 0.31 | 12.18 | 0.02 | 0.00 | 0.00 | 0.15 | 97.71 | 0.566 | 0.504 | 0.042 | 0.475 | 0.483 |
| | *02122603 | S21 | 0.00 | 10.64 | 0.12 | 55.08 | 19.13 | 0.06 | 0.34 | 9.89 | 0.03 | 0.00 | 0.00 | 0.14 | 95.41 | 0.508 | 0.776 | 0.034 | 0.216 | 0.750 |
| | *02122603 | S22 | 0.04 | 26.62 | 0.99 | 33.86 | 22.09 | 0.15 | 0.23 | 14.65 | 0.02 | 0.04 | 0.00 | 0.07 | 98.75 | 0.673 | 0.460 | 0.104 | 0.484 | 0.413 |
| | *02122603 | S23 | 0.02 | 10.50 | 0.12 | 54.89 | 20.95 | 0.08 | 0.42 | 9.81 | 0.02 | 0.00 | 0.01 | 0.19 | 97.01 | 0.497 | 0.778 | 0.053 | 0.210 | 0.737 |
| | *02122603 | S24 | 0.05 | 13.51 | 0.25 | 50.23 | 21.30 | 0.11 | 0.37 | 11.18 | 0.02 | 0.00 | 0.00 | 0.03 | 97.04 | 0.555 | 0.714 | 0.074 | 0.265 | 0.661 |
| | *02122603 | S25 | 0.00 | 11.67 | 0.03 | 53.76 | 20.81 | 0.04 | 0.38 | 9.09 | 0.06 | 0.00 | 0.00 | 0.30 | 96.13 | 0.463 | 0.756 | 0.038 | 0.235 | 0.727 |
| | *02122603 | S26 | 0.00 | 24.87 | 0.17 | 39.15 | 21.86 | 0.11 | 0.28 | 10.67 | 0.03 | 0.05 | 0.04 | 0.46 | 97.48 | 0.504 | 0.514 | 0.045 | 0.464 | 0.490 |
| | *02122603 | S27 | 0.06 | 26.56 | 0.46 | 37.20 | 17.59 | 0.23 | 0.30 | 16.04 | 0.01 | 0.02 | 0.00 | 0.07 | 98.55 | 0.723 | 0.484 | 0.081 | 0.474 | 0.445 |
| | *02122603 | S28 | 0.00 | 22.15 | 0.00 | 46.31 | 16.93 | 0.00 | 0.31 | 12.31 | 0.04 | 0.00 | 0.00 | 0.29 | 98.34 | 0.575 | 0.584 | 0.017 | 0.409 | 0.574 |
| | *02122603 | S29 | 0.03 | 26.60 | 0.05 | 44.78 | 15.78 | 0.11 | 0.25 | 15.02 | 0.04 | 0.00 | 0.01 | 0.13 | 102.80 | 0.654 | 0.530 | 0.025 | 0.458 | 0.517 |
| | *02122603 | S30 | 0.01 | 17.70 | 0.48 | 38.94 | 30.79 | 0.18 | 0.40 | 9.33 | 0.04 | 0.00 | 0.00 | 0.11 | 97.98 | 0.458 | 0.596 | 0.150 | 0.343 | 0.507 |
| | *02122603 | S31 | 0.02 | 18.26 | 0.05 | 48.91 | 18.02 | 0.00 | 0.41 | 11.80 | 0.06 | 0.02 | 0.01 | 0.20 | 97.75 | 0.566 | 0.642 | 0.032 | 0.346 | 0.622 |
| | *02122603 | S32 | 0.02 | 10.80 | 0.32 | 53.23 | 20.68 | 0.03 | 0.43 | 10.80 | 0.02 | 0.00 | 0.00 | 0.06 | 96.38 | 0.548 | 0.768 | 0.067 | 0.217 | 0.716 |
| | *02122603 | S33 | 0.00 | 11.21 | 0.20 | 56.56 | 15.77 | 0.09 | 0.31 | 14.24 | 0.01 | 0.07 | 0.01 | 0.04 | 98.49 | 0.689 | 0.772 | 0.060 | 0.214 | 0.726 |
| | *02122603 | S34 | 0.01 | 3.10 | 0.24 | 55.82 | 31.07 | 0.03 | 0.60 | 4.46 | 0.04 | 0.03 | 0.00 | 0.28 | 95.67 | 0.247 | 0.924 | 0.113 | 0.068 | 0.819 |
| | *02122603 | S35 | 0.00 | 15.08 | 0.12 | 49.18 | 20.66 | 0.05 | 0.32 | 11.68 | 0.04 | 0.00 | 0.00 | 0.09 | 97.21 | 0.570 | 0.686 | 0.072 | 0.291 | 0.637 |
| | *02122603 | S36 | 0.00 | 27.05 | 0.21 | 37.08 | 21.16 | 0.09 | 0.26 | 12.56 | 0.00 | 0.00 | 0.00 | 0.27 | 98.68 | 0.574 | 0.479 | 0.061 | 0.489 | 0.450 |
| | *02122603 | S37 | 0.02 | 11.08 | 0.29 | 51.45 | 25.34 | 0.07 | 0.46 | 8.46 | 0.04 | 0.00 | 0.01 | 0.22 | 97.44 | 0.431 | 0.757 | 0.081 | 0.223 | 0.696 |
| | *02122603 | S38 | 0.08 | 24.03 | 0.47 | 43.46 | 15.61 | 0.17 | 0.15 | 16.37 | 0.05 | 0.03 | 0.01 | 0.00 | 100.42 | 0.734 | 0.548 | 0.057 | 0.426 | 0.517 |
| | *02122603 | S39 | 0.01 | 12.46 | 0.08 | 52.14 | 23.38 | 0.05 | 0.33 | 9.41 | 0.05 | 0.03 | 0.00 | 0.24 | 98.19 | 0.468 | 0.737 | 0.067 | 0.245 | 0.688 |
| | *02122603 | S40 | 0.04 | 12.64 | 0.38 | 48.08 | 28.47 | 0.04 | 0.54 | 7.03 | 0.01 | 0.00 | 0.00 | 0.23 | 97.47 | 0.360 | 0.718 | 0.091 | 0.256 | 0.653 |
| | *02122603 | S41 | 0.01 | 18.56 | 0.00 | 48.42 | 20.92 | 0.07 | 0.33 | 9.45 | 0.02 | 0.08 | 0.02 | 0.22 | 98.10 | 0.458 | 0.636 | 0.022 | 0.356 | 0.623 |
| | *02122603 | S42 | 0.00 | 8.24 | 0.31 | 53.38 | 26.70 | 0.09 | 0.45 | 6.87 | 0.03 | 0.00 | 0.01 | 0.15 | 96.23 | 0.363 | 0.813 | 0.079 | 0.172 | 0.748 |
| | *02122603 | S43 | 0.03 | 25.64 | 0.14 | 40.93 | 14.53 | 0.17 | 0.20 | 17.10 | 0.01 | 0.02 | 0.00 | 0.05 | 98.82 | 0.762 | 0.517 | 0.065 | 0.452 | 0.484 |
| | *02122603 | S44 | 0.01 | 18.51 | 0.40 | 44.81 | 21.48 | 0.06 | 0.37 | 10.65 | 0.01 | 0.06 | 0.02 | 0.19 | 96.56 | 0.523 | 0.619 | 0.056 | 0.360 | 0.584 |
| | *02122603 | S45 | 0.00 | 47.48 | 0.05 | 18.70 | 13.62 | 0.27 | 0.16 | 17.45 | 0.03 | 0.03 | 0.02 | 0.22 | 98.02 | 0.719 | 0.209 | 0.023 | 0.773 | 0.204 |
| | *02122603 | S46 | 0.01 | 9.81 | 0.33 | 49.33 | 29.31 | 0.13 | 0.52 | 7.15 | 0.00 | 0.00 | 0.00 | 0.01 | 96.60 | 0.373 | 0.771 | 0.116 | 0.202 | 0.682 |
| | *02122603 | S47 | 0.00 | 10.89 | 0.17 | 51.64 | 24.76 | 0.03 | 0.44 | 7.40 | 0.00 | 0.00 | 0.01 | 0.26 | 95.60 | 0.386 | 0.761 | 0.061 | 0.225 | 0.714 |
| | *02122603 | S48 | 0.06 | 30.56 | 0.51 | 32.64 | 15.38 | 0.23 | 0.21 | 17.09 | 0.05 | 0.03 | 0.00 | 0.00 | 96.74 | 0.766 | 0.417 | 0.070 | 0.542 | 0.388 |
| | *02122603 | S49 | 0.00 | 9.47 | 0.11 | 52.43 | 26.43 | 0.06 | 0.41 | 8.88 | 0.00 | 0.01 | 0.00 | 0.18 | 97.98 | 0.450 | 0.788 | 0.107 | 0.189 | 0.704 |
| | *02122603 | S50 | 0.09 | 35.35 | 1.11 | 23.22 | 21.40 | 0.21 | 0.20 | 13.90 | 0.01 | 0.04 | 0.01 | 0.11 | 95.64 | 0.638 | 0.306 | 0.075 | 0.642 | 0.283 |
| | *02122603 | S51 | 0.01 | 26.77 | 0.05 | 40.42 | 18.48 | 0.00 | 0.29 | 12.03 | 0.02 | 0.04 | 0.00 | 0.23 | 98.32 | 0.553 | 0.503 | 0.020 | 0.487 | 0.493 |
| | *02122603 | S52 | 0.09 | 21.06 | 0.67 | 45.37 | 16.04 | 0.12 | 0.22 | 14.99 | 0.02 | 0.00 | 0.01 | 0.01 | 98.59 | 0.700 | 0.591 | 0.049 | 0.389 | 0.562 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (25)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|--------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|---------------------|-------|-------|
| Setogawa Gr. | *02122603 | S53 | 0.06 | 15.58 | 0.05 | 48.92 | 21.91 | 0.08 | 0.28 | 10.23 | 0.02 | 0.03 | 0.01 | 0.17 | 97.34 | 0.503 | 0.678 | 0.059 | 0.303 | 0.638 |
| Oigawa | *02122603 | S54 | 0.06 | 23.10 | 0.97 | 37.00 | 21.01 | 0.16 | 0.24 | 13.88 | 0.02 | 0.00 | 0.00 | 0.08 | 96.52 | 0.663 | 0.518 | 0.096 | 0.436 | 0.469 |
| Thrust Sheet | *02122603 | S55 | 0.01 | 20.68 | 0.30 | 42.76 | 22.96 | 0.12 | 0.30 | 10.06 | 0.01 | 0.00 | 0.00 | 0.37 | 97.57 | 0.486 | 0.581 | 0.057 | 0.395 | 0.548 |
| | *02122603 | S56 | 0.01 | 24.35 | 0.06 | 38.19 | 24.16 | 0.04 | 0.36 | 10.58 | 0.03 | 0.00 | 0.00 | 0.24 | 98.02 | 0.497 | 0.513 | 0.073 | 0.452 | 0.475 |
| | *02122603 | S57 | 0.03 | 16.29 | 0.19 | 44.76 | 27.52 | 0.06 | 0.48 | 7.34 | 0.06 | 0.04 | 0.02 | 0.34 | 97.13 | 0.369 | 0.648 | 0.080 | 0.324 | 0.597 |
| | *02122603 | S58 | 0.04 | 11.70 | 0.24 | 54.06 | 19.91 | 0.08 | 0.35 | 10.90 | 0.04 | 0.00 | 0.02 | 0.18 | 97.52 | 0.544 | 0.756 | 0.053 | 0.231 | 0.716 |
| | *02122605 | S1 | 0.05 | 17.45 | 0.03 | 51.06 | 18.26 | 0.00 | 0.36 | 10.31 | 0.04 | 0.02 | 0.00 | 0.25 | 97.82 | 0.501 | 0.663 | 0.007 | 0.335 | 0.658 |
| | *02122605 | S2 | 0.09 | 39.29 | 0.93 | 21.92 | 21.47 | 0.16 | 0.22 | 16.98 | 0.05 | 0.03 | 0.01 | 0.04 | 101.18 | 0.717 | 0.272 | 0.098 | 0.656 | 0.246 |
| | *02122605 | S3 | 0.02 | 34.52 | 0.56 | 27.13 | 25.02 | 0.18 | 0.38 | 11.32 | 0.00 | 0.00 | 0.00 | 0.15 | 99.27 | 0.508 | 0.345 | 0.065 | 0.612 | 0.323 |
| | *02122605 | S4 | 0.03 | 13.06 | 0.15 | 56.32 | 14.65 | 0.01 | 0.28 | 14.99 | 0.01 | 0.02 | 0.00 | 0.06 | 99.58 | 0.709 | 0.743 | 0.050 | 0.244 | 0.706 |
| | *02122605 | S5 | 0.55 | 16.00 | 0.10 | 50.95 | 19.18 | 0.05 | 0.40 | 9.20 | 0.05 | 0.02 | 0.00 | 0.32 | 96.82 | 0.460 | 0.681 | 0.007 | 0.317 | 0.676 |
| | *02122605 | S6 | 0.00 | 21.38 | 3.29 | 25.90 | 36.16 | 0.22 | 0.24 | 10.50 | 0.01 | 0.00 | 0.00 | 0.17 | 97.89 | 0.539 | 0.448 | 0.214 | 0.434 | 0.352 |
| | *02122605 | S7 | 0.12 | 27.92 | 0.53 | 38.50 | 13.17 | 0.23 | 0.18 | 16.95 | 0.03 | 0.00 | 0.00 | 0.04 | 97.66 | 0.764 | 0.481 | 0.042 | 0.498 | 0.460 |
| | *02122605 | S8 | 0.02 | 30.74 | 0.05 | 39.19 | 15.03 | 0.07 | 0.24 | 15.91 | 0.05 | 0.00 | 0.01 | 0.22 | 101.51 | 0.685 | 0.461 | 0.029 | 0.523 | 0.448 |
| | *02122605 | S9 | 0.02 | 22.35 | 0.01 | 47.15 | 16.92 | 0.07 | 0.25 | 13.98 | 0.11 | 0.00 | 0.03 | 0.16 | 101.06 | 0.632 | 0.586 | 0.036 | 0.399 | 0.565 |
| | *02122605 | S10 | 0.07 | 11.67 | 4.07 | 39.45 | 28.37 | 0.21 | 0.26 | 12.48 | 0.05 | 0.00 | 0.01 | 0.04 | 96.67 | 0.684 | 0.694 | 0.173 | 0.253 | 0.574 |
| | *02122605 | S11 | 0.00 | 31.43 | 0.08 | 37.86 | 15.80 | 0.14 | 0.27 | 14.90 | 0.02 | 0.02 | 0.00 | 0.21 | 100.72 | 0.648 | 0.447 | 0.023 | 0.541 | 0.437 |
| | *02122605 | S12 | 0.02 | 36.55 | 0.28 | 29.27 | 13.58 | 0.29 | 0.16 | 19.07 | 0.00 | 0.02 | 0.00 | 0.08 | 99.32 | 0.805 | 0.349 | 0.063 | 0.610 | 0.327 |
| | *02122605 | S13 | 0.01 | 20.79 | 0.07 | 47.58 | 19.40 | 0.03 | 0.35 | 11.67 | 0.10 | 0.00 | 0.00 | 0.18 | 100.18 | 0.543 | 0.605 | 0.030 | 0.383 | 0.587 |
| | *02122605 | S14 | 0.09 | 35.19 | 0.81 | 25.87 | 22.64 | 0.16 | 0.23 | 15.17 | 0.01 | 0.00 | 0.01 | 0.04 | 100.22 | 0.661 | 0.330 | 0.095 | 0.606 | 0.299 |
| | *02122608 | S1 | 0.10 | 12.58 | 0.54 | 53.03 | 20.36 | 0.13 | 0.38 | 11.00 | 0.04 | 0.00 | 0.01 | 0.10 | 98.27 | 0.548 | 0.739 | 0.053 | 0.247 | 0.700 |
| | *02122608 | S2 | 0.05 | 20.31 | 0.66 | 46.53 | 18.00 | 0.09 | 0.38 | 10.32 | 0.02 | 0.06 | 0.02 | 0.39 | 96.85 | 0.508 | 0.606 | 0.000 | 0.394 | 0.606 |
| | *02122608 | S3 | 0.02 | 37.16 | 0.17 | 28.95 | 16.39 | 0.16 | 0.15 | 14.95 | 0.02 | 0.02 | 0.02 | 0.19 | 98.19 | 0.650 | 0.343 | 0.027 | 0.639 | 0.334 |
| | *02122608 | S4 | 0.04 | 18.64 | 0.35 | 46.14 | 17.62 | 0.17 | 0.28 | 14.89 | 0.05 | 0.00 | 0.02 | 0.09 | 98.30 | 0.699 | 0.624 | 0.080 | 0.346 | 0.574 |
| | *02122608 | S5 | 0.00 | 19.86 | 0.02 | 44.82 | 21.14 | 0.06 | 0.37 | 10.89 | 0.00 | 0.04 | 0.01 | 0.22 | 97.42 | 0.522 | 0.602 | 0.053 | 0.376 | 0.570 |
| | *02122608 | S6 | 0.05 | 17.48 | 0.44 | 42.37 | 29.41 | 0.13 | 0.38 | 4.71 | 0.06 | 0.02 | 0.00 | 0.32 | 95.36 | 0.246 | 0.619 | 0.053 | 0.361 | 0.586 |
| | *02122608 | S7 | 0.14 | 18.79 | 0.30 | 46.39 | 15.88 | 0.11 | 0.23 | 16.56 | 0.05 | 0.00 | 0.01 | 0.06 | 98.52 | 0.766 | 0.623 | 0.087 | 0.344 | 0.569 |
| | *02122608 | S8 | 0.04 | 33.53 | 1.68 | 21.88 | 25.37 | 0.14 | 0.21 | 14.63 | 0.00 | 0.01 | 0.00 | 0.12 | 97.60 | 0.670 | 0.304 | 0.127 | 0.607 | 0.266 |
| | *02122608 | S9 | 0.08 | 11.21 | 0.36 | 50.08 | 25.20 | 0.01 | 0.32 | 9.32 | 0.03 | 0.01 | 0.02 | 0.19 | 96.82 | 0.475 | 0.750 | 0.096 | 0.226 | 0.678 |
| | *02122608 | S10 | 0.06 | 10.93 | 3.07 | 41.81 | 33.20 | 0.20 | 0.28 | 7.56 | 0.01 | 0.06 | 0.00 | 0.06 | 97.23 | 0.419 | 0.720 | 0.147 | 0.239 | 0.614 |
| | *02122608 | S11 | 0.01 | 23.72 | 0.01 | 42.13 | 22.39 | 0.06 | 0.17 | 9.11 | 0.02 | 0.00 | 0.03 | 0.18 | 97.82 | 0.434 | 0.544 | 0.021 | 0.447 | 0.532 |
| | *02122608 | S12 | 0.02 | 26.64 | 0.48 | 32.93 | 25.62 | 0.15 | 0.32 | 11.60 | 0.01 | 0.00 | 0.01 | 0.31 | 98.08 | 0.540 | 0.453 | 0.103 | 0.490 | 0.407 |
| | *02122608 | S13 | 0.04 | 31.40 | 0.02 | 36.22 | 13.97 | 0.11 | 0.12 | 14.09 | 0.04 | 0.04 | 0.01 | 0.19 | 96.24 | 0.639 | 0.436 | 0.002 | 0.563 | 0.436 |
| | *02122608 | S14 | 0.08 | 12.99 | 0.33 | 51.00 | 19.69 | 0.05 | 0.33 | 12.69 | 0.02 | 0.01 | 0.03 | 0.01 | 97.21 | 0.625 | 0.725 | 0.082 | 0.253 | 0.666 |
| | *02122608 | S15 | 0.00 | 22.74 | 0.05 | 46.83 | 13.97 | 0.00 | 0.27 | 13.24 | 0.01 | 0.00 | 0.02 | 0.13 | 97.25 | 0.620 | 0.580 | 0.000 | 0.420 | 0.580 |
| | *02122608 | S16 | 0.03 | 43.85 | 0.10 | 21.79 | 15.04 | 0.19 | 0.13 | 17.33 | 0.02 | 0.00 | 0.01 | 0.21 | 98.70 | 0.720 | 0.250 | 0.039 | 0.720 | 0.240 |
| Kurami Gr. | *02122803 | S1 | 0.04 | 18.52 | 0.03 | 48.90 | 19.16 | 0.05 | 0.34 | 11.03 | 0.07 | 0.00 | 0.01 | 0.26 | 98.41 | 0.528 | 0.639 | 0.029 | 0.350 | 0.621 |
| Amakata Ss. | *02122803 | S2 | 0.04 | 16.61 | 2.05 | 40.57 | 25.61 | 0.19 | 0.32 | 12.60 | 0.03 | 0.00 | 0.01 | 0.09 | 98.13 | 0.631 | 0.621 | 0.132 | 0.329 | 0.539 |
| | *02122803 | S3 | 0.01 | 31.26 | 0.24 | 36.18 | 15.76 | 0.09 | 0.15 | 14.48 | 0.06 | 0.00 | 0.00 | 0.14 | 98.37 | 0.646 | 0.437 | 0.020 | 0.552 | 0.428 |
| | *02122803 | S4 | 0.00 | 21.86 | 0.20 | 41.00 | 24.43 | 0.06 | 0.39 | 9.73 | 0.03 | 0.00 | 0.00 | 0.23 | 97.92 | 0.466 | 0.557 | 0.065 | 0.414 | 0.521 |
| | *02122803 | S5 | 0.09 | 19.59 | 1.94 | 40.98 | 20.18 | 0.20 | 0.27 | 14.53 | 0.04 | 0.00 | 0.00 | 0.08 | 97.90 | 0.710 | 0.584 | 0.091 | 0.378 | 0.531 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (26)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|--|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|---------------------|-------|-------|
| Kurami Gr. | *02122803 | S6 | 0.03 | 22.55 | 0.00 | 44.25 | 17.87 | 0.10 | 0.25 | 11.67 | 0.06 | 0.00 | 0.00 | 0.28 | 97.06 | 0.553 | 0.568 | 0.022 | 0.422 | 0.556 |
| Amakata Ss. | *02122803 | S7 | 0.02 | 8.02 | 0.11 | 53.60 | 25.60 | 0.00 | 0.42 | 8.25 | 0.06 | 0.00 | 0.00 | 0.14 | 96.20 | 0.430 | 0.818 | 0.094 | 0.165 | 0.741 |
| | *02122803 | S8 | 0.14 | 24.85 | 0.21 | 41.43 | 14.50 | 0.27 | 0.17 | 16.79 | 0.02 | 0.00 | 0.01 | 0.01 | 98.40 | 0.757 | 0.528 | 0.062 | 0.443 | 0.495 |
| | *02122803 | S9 | 0.03 | 5.63 | 0.11 | 58.97 | 25.19 | 0.05 | 0.36 | 6.40 | 0.05 | 0.04 | 0.00 | 0.33 | 97.17 | 0.340 | 0.875 | 0.052 | 0.118 | 0.830 |
| | *02122803 | S10 | 0.11 | 35.56 | 0.35 | 30.30 | 15.69 | 0.17 | 0.15 | 16.93 | 0.02 | 0.00 | 0.02 | 0.08 | 99.35 | 0.728 | 0.364 | 0.050 | 0.604 | 0.345 |
| | *02122803 | S11 | 0.01 | 35.84 | 0.29 | 30.67 | 13.84 | 0.19 | 0.15 | 18.23 | 0.03 | 0.01 | 0.00 | 0.01 | 99.24 | 0.776 | 0.365 | 0.051 | 0.603 | 0.346 |
| | *02122803 | S12 | 0.00 | 7.10 | 0.42 | 51.32 | 30.48 | 0.07 | 0.37 | 7.84 | 0.07 | 0.00 | 0.00 | 0.05 | 97.73 | 0.408 | 0.829 | 0.145 | 0.146 | 0.708 |
| | *02122803 | S13 | 0.00 | 20.32 | 0.13 | 47.80 | 16.67 | 0.10 | 0.28 | 12.96 | 0.01 | 0.00 | 0.00 | 0.16 | 98.42 | 0.608 | 0.612 | 0.028 | 0.377 | 0.595 |
| | *02122803 | S14 | 0.02 | 19.61 | 0.30 | 45.02 | 16.25 | 0.24 | 0.29 | 15.38 | 0.01 | 0.01 | 0.00 | 0.06 | 97.18 | 0.722 | 0.606 | 0.075 | 0.364 | 0.561 |
| | *02122803 | S15 | 0.00 | 37.33 | 0.03 | 28.77 | 18.66 | 0.09 | 0.19 | 15.73 | 0.02 | 0.02 | 0.00 | 0.20 | 99.03 | 0.673 | 0.341 | 0.042 | 0.632 | 0.327 |
| | *02122803 | S16 | 0.02 | 7.83 | 0.00 | 56.99 | 23.33 | 0.05 | 0.40 | 7.01 | 0.02 | 0.00 | 0.00 | 0.28 | 95.92 | 0.370 | 0.830 | 0.040 | 0.163 | 0.797 |
| | *02122803 | S17 | 0.03 | 9.58 | 0.09 | 50.39 | 22.47 | 0.13 | 0.26 | 12.91 | 0.03 | 0.00 | 0.00 | 0.04 | 95.91 | 0.646 | 0.779 | 0.142 | 0.189 | 0.669 |
| | *02122803 | S18 | 0.02 | 28.43 | 0.13 | 36.83 | 16.14 | 0.13 | 0.19 | 14.06 | 0.02 | 0.02 | 0.00 | 0.18 | 96.15 | 0.646 | 0.465 | 0.034 | 0.517 | 0.449 |
| | *02122803 | S19 | 0.00 | 8.71 | 0.29 | 54.36 | 25.19 | 0.09 | 0.31 | 6.68 | 0.00 | 0.02 | 0.02 | 0.24 | 95.90 | 0.354 | 0.807 | 0.053 | 0.182 | 0.764 |
| | *02122803 | S20 | 0.04 | 21.15 | 0.00 | 46.61 | 18.13 | 0.00 | 0.29 | 10.99 | 0.00 | 0.04 | 0.00 | 0.21 | 97.46 | 0.524 | 0.596 | 0.011 | 0.399 | 0.590 |
| | *02122803 | S21 | 0.01 | 17.79 | 0.11 | 50.47 | 17.00 | 0.02 | 0.35 | 10.31 | 0.01 | 0.01 | 0.01 | 0.17 | 96.24 | 0.508 | 0.656 | 0.000 | 0.344 | 0.656 |
| | *02122803 | S22 | 0.02 | 23.44 | 0.05 | 43.25 | 16.40 | 0.03 | 0.26 | 12.78 | 0.01 | 0.00 | 0.00 | 0.11 | 96.35 | 0.603 | 0.553 | 0.022 | 0.437 | 0.541 |
| | *02122803 | S23 | 0.03 | 11.58 | 0.22 | 55.36 | 17.92 | 0.06 | 0.29 | 11.81 | 0.02 | 0.00 | 0.00 | 0.03 | 97.32 | 0.587 | 0.762 | 0.043 | 0.227 | 0.730 |
| | *02122803 | S24 | 0.14 | 6.89 | 0.07 | 57.90 | 22.36 | 0.03 | 0.49 | 7.42 | 0.00 | 0.00 | 0.01 | 0.33 | 95.63 | 0.394 | 0.849 | 0.040 | 0.145 | 0.815 |
| | *02122803 | S25 | 0.02 | 24.33 | 0.09 | 41.08 | 17.03 | 0.07 | 0.38 | 12.72 | 0.02 | 0.00 | 0.02 | 0.26 | 96.02 | 0.600 | 0.531 | 0.032 | 0.454 | 0.514 |
| | *02122803 | S26 | 0.01 | 7.25 | 0.08 | 56.58 | 26.42 | 0.06 | 0.58 | 5.35 | 0.00 | 0.12 | 0.00 | 0.19 | 96.64 | 0.285 | 0.840 | 0.048 | 0.153 | 0.800 |
| | *02122803 | S27 | 0.01 | 25.68 | 0.06 | 36.49 | 28.49 | 0.04 | 0.38 | 3.11 | 0.00 | 0.00 | 0.00 | 1.46 | 95.73 | 0.156 | 0.488 | 0.003 | 0.511 | 0.487 |
| | *02122803 | S28 | 0.00 | 19.35 | 0.03 | 46.49 | 17.59 | 0.04 | 0.39 | 11.88 | 0.00 | 0.00 | 0.00 | 0.23 | 95.99 | 0.575 | 0.617 | 0.034 | 0.370 | 0.596 |
| | *02122803 | S29 | 0.05 | 6.91 | 0.00 | 53.16 | 31.85 | 0.07 | 1.15 | 1.51 | 0.00 | 0.01 | 0.00 | 0.39 | 95.11 | 0.084 | 0.838 | 0.064 | 0.152 | 0.784 |
| | *02122803 | S30 | 0.00 | 42.88 | 0.12 | 22.70 | 15.18 | 0.17 | 0.15 | 16.47 | 0.00 | 0.00 | 0.01 | 0.13 | 97.81 | 0.695 | 0.262 | 0.030 | 0.716 | 0.254 |
| | *02122803 | S31 | 0.04 | 19.56 | 1.66 | 40.32 | 21.43 | 0.20 | 0.15 | 13.61 | 0.01 | 0.00 | 0.00 | 0.00 | 96.97 | 0.669 | 0.580 | 0.094 | 0.380 | 0.526 |
| | *02122803 | S32 | 0.06 | 26.03 | 0.02 | 41.61 | 16.60 | 0.04 | 0.16 | 12.65 | 0.03 | 0.00 | 0.01 | 0.27 | 97.47 | 0.585 | 0.517 | 0.013 | 0.476 | 0.511 |
| | *02122803 | S33 | 0.00 | 10.88 | 0.34 | 51.09 | 22.33 | 0.05 | 0.28 | 10.43 | 0.03 | 0.03 | 0.00 | 0.06 | 95.51 | 0.535 | 0.759 | 0.085 | 0.220 | 0.694 |
| | *02122803 | S34 | 0.01 | 31.20 | 0.11 | 32.20 | 21.85 | 0.14 | 0.25 | 12.22 | 0.03 | 0.00 | 0.00 | 0.18 | 98.18 | 0.552 | 0.409 | 0.057 | 0.557 | 0.386 |
| | *02122803 | S35 | 0.02 | 14.43 | 0.04 | 51.55 | 20.33 | 0.04 | 0.28 | 9.31 | 0.03 | 0.00 | 0.02 | 0.20 | 96.24 | 0.468 | 0.706 | 0.026 | 0.287 | 0.687 |
| | *02122803 | S36 | 0.03 | 22.69 | 0.00 | 44.88 | 16.00 | 0.05 | 0.23 | 12.49 | 0.00 | 0.00 | 0.00 | 0.15 | 96.53 | 0.590 | 0.570 | 0.013 | 0.424 | 0.563 |
| | *02122803 | S37 | 0.05 | 16.91 | 0.05 | 44.05 | 25.62 | 0.08 | 0.41 | 8.43 | 0.06 | 0.02 | 0.00 | 0.38 | 96.05 | 0.422 | 0.636 | 0.081 | 0.335 | 0.585 |
| Kurami Gr. | *02122810 | S1 | 0.04 | 6.64 | 0.13 | 57.66 | 22.71 | 0.03 | 0.37 | 9.45 | 0.00 | 0.00 | 0.00 | 0.16 | 97.18 | 0.487 | 0.853 | 0.076 | 0.135 | 0.788 |
| Todo | *02122810 | S2 | 0.03 | 17.95 | 0.07 | 47.55 | 23.73 | 0.04 | 0.28 | 8.39 | 0.01 | 0.04 | 0.00 | 0.52 | 98.61 | 0.409 | 0.640 | 0.039 | 0.346 | 0.615 |
| Alternation of Sandstone and Siltstone | *02122810 | S3 | 0.08 | 16.11 | 2.71 | 40.83 | 24.30 | 0.20 | 0.30 | 13.45 | 0.00 | 0.00 | 0.02 | 0.02 | 98.02 | 0.683 | 0.630 | 0.126 | 0.324 | 0.550 |
| | *02122810 | S4 | 0.04 | 12.78 | 0.16 | 51.28 | 22.05 | 0.08 | 0.33 | 9.35 | 0.00 | 0.00 | 0.00 | 0.14 | 96.21 | 0.474 | 0.729 | 0.054 | 0.256 | 0.690 |
| | *02122810 | S5 | 0.00 | 19.61 | 0.03 | 43.11 | 24.03 | 0.04 | 0.47 | 8.90 | 0.02 | 0.03 | 0.02 | 0.41 | 96.65 | 0.436 | 0.596 | 0.060 | 0.380 | 0.560 |
| | *02122810 | S6 | 0.09 | 2.49 | 0.18 | 65.56 | 14.10 | 0.05 | 0.29 | 12.72 | 0.04 | 0.00 | 0.00 | 0.06 | 95.57 | 0.665 | 0.347 | 0.040 | 0.051 | 0.909 |
| | *02122810 | S7 | 0.06 | 3.48 | 0.04 | 62.93 | 14.69 | 0.02 | 0.26 | 13.67 | 0.00 | 0.00 | 0.00 | 0.01 | 95.16 | 0.705 | 0.924 | 0.068 | 0.071 | 0.861 |
| | *02122810 | S8 | 0.09 | 40.00 | 0.36 | 25.73 | 12.16 | 0.16 | 0.19 | 19.22 | 0.01 | 0.02 | 0.00 | 0.00 | 97.93 | 0.810 | 0.301 | 0.046 | 0.667 | 0.288 |
| | *02122810 | S9 | 0.04 | 20.91 | 2.39 | 35.05 | 25.65 | 0.23 | 0.23 | 12.68 | 0.01 | 0.00 | 0.00 | 0.03 | 97.21 | 0.633 | 0.529 | 0.123 | 0.413 | 0.464 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (27)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|---------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|--------------------|-------|-------|
| Kurami Gr. | *02122810 | S10 | 0.02 | 16.11 | 0.15 | 50.62 | 18.61 | 0.05 | 0.34 | 12.42 | 0.02 | 0.00 | 0.00 | 0.17 | 98.51 | 0.595 | 0.678 | 0.052 | 0.305 | 0.643 |
| Todo | *02122810 | S11 | 0.07 | 11.01 | 0.20 | 49.72 | 27.10 | 0.06 | 0.41 | 6.85 | 0.00 | 0.00 | 0.02 | 0.34 | 95.78 | 0.358 | 0.752 | 0.083 | 0.228 | 0.690 |
| Alternation | *02122810 | S12 | 0.02 | 23.29 | 0.02 | 43.83 | 17.62 | 0.00 | 0.24 | 12.00 | 0.02 | 0.00 | 0.00 | 0.26 | 97.29 | 0.564 | 0.558 | 0.020 | 0.433 | 0.547 |
| of Sandstone | *02122810 | S13 | 0.02 | 43.80 | 0.00 | 23.27 | 13.54 | 0.16 | 0.11 | 17.32 | 0.00 | 0.00 | 0.01 | 0.23 | 98.44 | 0.720 | 0.263 | 0.023 | 0.720 | 0.257 |
| and Siltstone | *02122810 | S14 | 0.03 | 16.10 | 0.65 | 42.56 | 24.10 | 0.10 | 0.28 | 12.58 | 0.02 | 0.00 | 0.02 | 0.09 | 96.52 | 0.618 | 0.639 | 0.132 | 0.313 | 0.555 |
| | *02122810 | S15 | 0.05 | 40.74 | 0.04 | 26.46 | 15.74 | 0.10 | 0.20 | 15.82 | 0.00 | 0.00 | 0.01 | 0.18 | 99.34 | 0.667 | 0.303 | 0.024 | 0.680 | 0.296 |
| | *02122810 | S16 | 0.08 | 17.42 | 1.06 | 41.51 | 24.41 | 0.22 | 0.30 | 12.72 | 0.01 | 0.00 | 0.01 | 0.02 | 97.75 | 0.621 | 0.615 | 0.126 | 0.336 | 0.538 |
| | *02122810 | S17 | 0.14 | 24.23 | 0.24 | 40.61 | 14.04 | 0.19 | 0.23 | 16.92 | 0.00 | 0.00 | 0.03 | 0.11 | 96.75 | 0.775 | 0.529 | 0.069 | 0.438 | 0.493 |
| | *02122810 | S18 | 0.13 | 25.92 | 0.07 | 38.89 | 18.08 | 0.19 | 0.31 | 13.56 | 0.00 | 0.00 | 0.02 | 0.13 | 97.29 | 0.625 | 0.502 | 0.052 | 0.472 | 0.475 |
| | *02122810 | S19 | 0.02 | 9.30 | 0.01 | 54.18 | 23.50 | 0.05 | 0.34 | 8.26 | 0.05 | 0.02 | 0.00 | 0.24 | 95.96 | 0.428 | 0.796 | 0.065 | 0.191 | 0.745 |
| | *02122810 | S20 | 0.00 | 15.30 | 0.26 | 42.61 | 28.81 | 0.05 | 0.29 | 7.57 | 0.00 | 0.00 | 0.04 | 0.21 | 95.13 | 0.388 | 0.651 | 0.110 | 0.310 | 0.580 |
| | *02122810 | S21 | 0.01 | 20.14 | 0.01 | 47.02 | 17.54 | 0.07 | 0.28 | 11.94 | 0.03 | 0.00 | 0.00 | 0.10 | 97.15 | 0.570 | 0.610 | 0.025 | 0.380 | 0.595 |
| | *02122810 | S22 | 0.03 | 14.00 | 0.27 | 47.56 | 25.56 | 0.04 | 0.35 | 8.94 | 0.03 | 0.06 | 0.00 | 0.22 | 97.05 | 0.450 | 0.695 | 0.087 | 0.278 | 0.634 |
| | *02122810 | S23 | 0.01 | 25.64 | 0.17 | 38.10 | 19.07 | 0.04 | 0.20 | 12.81 | 0.04 | 0.00 | 0.00 | 0.09 | 96.17 | 0.600 | 0.499 | 0.051 | 0.475 | 0.474 |
| | *02122810 | S24 | 0.00 | 6.21 | 0.16 | 58.05 | 22.77 | 0.06 | 0.37 | 8.87 | 0.03 | 0.00 | 0.00 | 0.12 | 96.63 | 0.463 | 0.863 | 0.068 | 0.128 | 0.804 |
| | *02122810 | S25 | 0.11 | 30.61 | 0.24 | 34.44 | 12.64 | 0.21 | 0.15 | 19.21 | 0.00 | 0.01 | 0.01 | 0.00 | 97.62 | 0.838 | 0.430 | 0.073 | 0.528 | 0.399 |
| | *02122810 | S26 | 0.07 | 27.12 | 0.13 | 37.35 | 18.59 | 0.09 | 0.27 | 12.87 | 0.01 | 0.00 | 0.00 | 0.24 | 96.74 | 0.596 | 0.480 | 0.044 | 0.497 | 0.459 |
| | *02122810 | S27 | 0.02 | 11.26 | 0.04 | 51.57 | 27.50 | 0.00 | 2.31 | 0.74 | 0.01 | 0.06 | 0.01 | 2.25 | 95.76 | 0.040 | 0.754 | 0.008 | 0.244 | 0.748 |
| | *02122810 | S28 | 0.12 | 11.37 | 0.42 | 51.58 | 18.27 | 0.15 | 0.24 | 13.05 | 0.03 | 0.00 | 0.00 | 0.07 | 95.29 | 0.658 | 0.753 | 0.083 | 0.227 | 0.690 |
| | *02122810 | S29 | 0.00 | 16.94 | 0.08 | 49.77 | 18.26 | 0.12 | 0.22 | 11.59 | 0.02 | 0.00 | 0.00 | 0.18 | 97.16 | 0.563 | 0.663 | 0.035 | 0.325 | 0.640 |
| Koma Gr. | *02102504 | S1 | 0.13 | 6.82 | 0.07 | 57.34 | 20.81 | 0.02 | 0.33 | 10.74 | 0.03 | 0.00 | 0.00 | 0.08 | 96.36 | 0.552 | 0.849 | 0.080 | 0.139 | 0.781 |
| Kushigatayama | *02102504 | S2 | 0.05 | 20.40 | 0.82 | 37.66 | 28.05 | 0.06 | 0.35 | 10.51 | 0.02 | 0.03 | 0.00 | 0.12 | 98.08 | 0.510 | 0.553 | 0.124 | 0.391 | 0.485 |
| Subgr. | *02102504 | S3 | 0.01 | 14.87 | 0.88 | 46.10 | 20.97 | 0.22 | 0.28 | 13.66 | 0.00 | 0.00 | 0.01 | 0.07 | 97.08 | 0.671 | 0.675 | 0.110 | 0.289 | 0.601 |
| (sandstone) | *02102504 | S4 | 0.06 | 21.79 | 1.49 | 35.27 | 26.35 | 0.14 | 0.31 | 11.94 | 0.03 | 0.07 | 0.00 | 0.09 | 97.55 | 0.583 | 0.521 | 0.123 | 0.421 | 0.457 |
| | *02102504 | S5 | 0.00 | 22.31 | 0.00 | 44.96 | 17.33 | 0.06 | 0.34 | 11.79 | 0.00 | 0.00 | 0.01 | 0.23 | 97.02 | 0.559 | 0.575 | 0.018 | 0.418 | 0.565 |
| | *02102504 | S6 | 0.03 | 21.09 | 0.03 | 48.52 | 15.79 | 0.03 | 0.37 | 11.56 | 0.00 | 0.02 | 0.00 | 0.18 | 97.61 | 0.549 | 0.607 | 0.000 | 0.393 | 0.607 |
| | *02102504 | S7 | 0.11 | 41.87 | 0.39 | 24.59 | 14.05 | 0.26 | 0.23 | 18.87 | 0.00 | 0.01 | 0.00 | 0.00 | 100.37 | 0.778 | 0.283 | 0.049 | 0.682 | 0.269 |
| | *02102504 | S8 | 0.03 | 7.94 | 0.11 | 53.81 | 27.34 | 0.08 | 0.51 | 6.88 | 0.01 | 0.06 | 0.00 | 0.05 | 96.81 | 0.360 | 0.820 | 0.088 | 0.164 | 0.747 |
| | *02102504 | S9 | 0.00 | 13.10 | 0.15 | 50.25 | 27.20 | 0.06 | 0.49 | 7.12 | 0.10 | 0.00 | 0.03 | 0.34 | 98.83 | 0.357 | 0.720 | 0.070 | 0.260 | 0.670 |
| | *02102504 | S10 | 0.00 | 29.26 | 0.30 | 34.52 | 20.23 | 0.13 | 0.26 | 14.42 | 0.03 | 0.00 | 0.00 | 0.08 | 99.22 | 0.644 | 0.442 | 0.075 | 0.517 | 0.409 |
| | *02102504 | S11 | 0.47 | 21.78 | 1.08 | 38.14 | 21.52 | 0.13 | 0.27 | 13.33 | 0.16 | 0.00 | 0.00 | 0.06 | 96.93 | 0.645 | 0.540 | 0.094 | 0.416 | 0.489 |
| | *02102504 | S12 | 0.03 | 13.53 | 2.87 | 40.71 | 30.30 | 0.25 | 0.25 | 10.71 | 0.05 | 0.00 | 0.00 | 0.14 | 98.84 | 0.559 | 0.669 | 0.157 | 0.279 | 0.564 |
| | *02102504 | S13 | 0.00 | 27.06 | 0.08 | 38.73 | 17.98 | 0.12 | 0.29 | 14.48 | 0.03 | 0.00 | 0.00 | 0.09 | 98.86 | 0.651 | 0.490 | 0.057 | 0.481 | 0.462 |
| | *02102504 | S14 | 0.08 | 22.54 | 0.44 | 42.04 | 19.44 | 0.24 | 0.23 | 14.76 | 0.03 | 0.01 | 0.02 | 0.00 | 99.81 | 0.675 | 0.556 | 0.083 | 0.408 | 0.510 |
| | *02102504 | S15 | 0.00 | 13.34 | 0.01 | 51.27 | 25.17 | 0.03 | 0.42 | 8.10 | 0.03 | 0.01 | 0.00 | 0.31 | 98.69 | 0.402 | 0.720 | 0.062 | 0.262 | 0.676 |
| | *02102504 | S16 | 0.00 | 11.37 | 0.08 | 52.53 | 26.49 | 0.02 | 0.58 | 6.61 | 0.06 | 0.00 | 0.00 | 0.47 | 98.21 | 0.337 | 0.756 | 0.060 | 0.229 | 0.711 |
| | *02102504 | S17 | 0.01 | 14.08 | 0.14 | 49.82 | 23.94 | 0.00 | 0.33 | 9.92 | 0.07 | 0.02 | 0.00 | 0.14 | 98.44 | 0.488 | 0.704 | 0.077 | 0.274 | 0.649 |
| | *02102504 | S18 | 0.11 | 13.57 | 0.30 | 53.78 | 14.13 | 0.21 | 0.24 | 16.27 | 0.06 | 0.00 | 0.00 | 0.06 | 98.72 | 0.769 | 0.727 | 0.072 | 0.254 | 0.675 |
| | *02102504 | S19 | 0.07 | 16.97 | 0.95 | 43.45 | 24.28 | 0.14 | 0.28 | 11.90 | 0.06 | 0.00 | 0.00 | 0.10 | 98.21 | 0.582 | 0.632 | 0.108 | 0.328 | 0.564 |
| | *02102504 | S20 | 0.01 | 28.82 | 0.04 | 37.28 | 16.65 | 0.08 | 0.22 | 13.84 | 0.09 | 0.00 | 0.01 | 0.14 | 97.19 | 0.630 | 0.465 | 0.032 | 0.518 | 0.450 |
| | *02102504 | S21 | 0.03 | 18.59 | 0.02 | 48.00 | 19.70 | 0.07 | 0.23 | 10.91 | 0.09 | 0.00 | 0.01 | 0.13 | 97.77 | 0.525 | 0.634 | 0.034 | 0.354 | 0.613 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (28)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|---------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|---------------------|-------|-------|
| Koma Gr. | *02102504 | S22 | 0.03 | 20.44 | 0.04 | 43.92 | 25.04 | 0.04 | 0.63 | 6.74 | 0.04 | 0.02 | 0.01 | 0.78 | 97.71 | 0.332 | 0.590 | 0.029 | 0.398 | 0.573 |
| Kushigatayama | *02102504 | S23 | 0.00 | 8.87 | 0.27 | 57.64 | 18.12 | 0.07 | 0.37 | 12.69 | 0.05 | 0.05 | 0.01 | 0.07 | 98.20 | 0.630 | 0.813 | 0.067 | 0.174 | 0.759 |
| Subgr. | *02102504 | S24 | 0.08 | 12.52 | 0.83 | 47.94 | 23.79 | 0.03 | 0.25 | 12.86 | 0.09 | 0.01 | 0.00 | 0.01 | 98.40 | 0.634 | 0.720 | 0.129 | 0.244 | 0.627 |
| (sandstone) | *02102504 | S25 | 0.00 | 16.78 | 0.05 | 48.03 | 21.66 | 0.06 | 0.39 | 10.29 | 0.05 | 0.02 | 0.03 | 0.19 | 97.53 | 0.502 | 0.658 | 0.055 | 0.324 | 0.622 |
| | *02102504 | S26 | 0.03 | 25.78 | 0.26 | 40.12 | 16.58 | 0.13 | 0.27 | 13.65 | 0.07 | 0.00 | 0.00 | 0.09 | 96.96 | 0.634 | 0.511 | 0.033 | 0.473 | 0.494 |
| | *02102504 | S27 | 0.10 | 24.74 | 2.16 | 30.66 | 24.51 | 0.19 | 0.28 | 13.26 | 0.07 | 0.00 | 0.00 | 0.09 | 96.07 | 0.652 | 0.454 | 0.119 | 0.481 | 0.400 |
| | *02102504 | S28 | 0.11 | 16.46 | 0.49 | 46.23 | 23.06 | 0.18 | 0.30 | 10.32 | 0.02 | 0.03 | 0.00 | 0.11 | 97.30 | 0.511 | 0.653 | 0.071 | 0.322 | 0.607 |
| | *02102504 | S29 | 0.14 | 24.17 | 0.30 | 38.95 | 16.25 | 0.21 | 0.19 | 16.64 | 0.04 | 0.00 | 0.01 | 0.06 | 96.97 | 0.763 | 0.520 | 0.089 | 0.438 | 0.473 |
| | *02102504 | S30 | 0.01 | 21.65 | 0.02 | 45.36 | 18.19 | 0.05 | 0.28 | 11.13 | 0.04 | 0.00 | 0.00 | 0.25 | 96.98 | 0.532 | 0.584 | 0.017 | 0.409 | 0.575 |
| | *02102504 | S31 | 0.09 | 26.01 | 0.88 | 35.44 | 17.76 | 0.21 | 0.22 | 15.22 | 0.02 | 0.02 | 0.01 | 0.05 | 95.94 | 0.714 | 0.478 | 0.076 | 0.493 | 0.441 |
| | *02102504 | S32 | 0.03 | 13.29 | 0.47 | 48.16 | 19.36 | 0.10 | 0.22 | 14.08 | 0.06 | 0.01 | 0.01 | 0.02 | 95.80 | 0.696 | 0.709 | 0.109 | 0.260 | 0.631 |
| | *02102504 | S33 | 0.02 | 24.76 | 0.48 | 38.32 | 18.35 | 0.14 | 0.29 | 13.39 | 0.03 | 0.06 | 0.01 | 0.02 | 95.88 | 0.634 | 0.509 | 0.055 | 0.464 | 0.481 |
| | *02102504 | S34 | 0.05 | 17.48 | 0.17 | 48.53 | 20.23 | 0.05 | 0.39 | 10.04 | 0.05 | 0.01 | 0.02 | 0.23 | 97.25 | 0.493 | 0.651 | 0.030 | 0.339 | 0.631 |
| | *02102504 | S35 | 0.12 | 7.72 | 0.00 | 56.17 | 19.87 | 0.06 | 0.35 | 11.81 | 0.10 | 0.06 | 0.01 | 0.09 | 96.37 | 0.599 | 0.830 | 0.089 | 0.155 | 0.756 |
| | *02102504 | S36 | 0.09 | 14.22 | 0.49 | 48.46 | 22.35 | 0.18 | 0.33 | 12.43 | 0.05 | 0.02 | 0.00 | 0.00 | 98.63 | 0.604 | 0.696 | 0.102 | 0.273 | 0.625 |
| | *02102504 | S37 | 0.04 | 32.77 | 0.12 | 34.43 | 15.18 | 0.11 | 0.20 | 14.85 | 0.04 | 0.00 | 0.02 | 0.07 | 97.81 | 0.659 | 0.413 | 0.020 | 0.575 | 0.405 |
| | *02102504 | S38 | 0.03 | 35.43 | 0.03 | 31.07 | 16.45 | 0.16 | 0.19 | 15.38 | 0.05 | 0.02 | 0.00 | 0.10 | 98.90 | 0.666 | 0.370 | 0.037 | 0.606 | 0.357 |
| | *02102504 | S39 | 0.01 | 21.83 | 0.31 | 37.48 | 26.31 | 0.15 | 0.36 | 10.73 | 0.01 | 0.00 | 0.01 | 0.27 | 97.46 | 0.513 | 0.535 | 0.112 | 0.413 | 0.475 |
| | *02102504 | S40 | 0.19 | 23.22 | 0.41 | 40.51 | 19.31 | 0.17 | 0.22 | 12.72 | 0.05 | 0.03 | 0.00 | 0.00 | 96.82 | 0.604 | 0.539 | 0.054 | 0.436 | 0.510 |
| | *02102504 | S41 | 0.03 | 18.43 | 0.20 | 48.11 | 13.74 | 0.14 | 0.26 | 15.09 | 0.06 | 0.00 | 0.01 | 0.00 | 96.06 | 0.720 | 0.637 | 0.044 | 0.347 | 0.608 |
| | *02102504 | S42 | 0.09 | 41.41 | 0.36 | 22.62 | 13.29 | 0.22 | 0.17 | 18.64 | 0.02 | 0.02 | 0.01 | 0.11 | 96.96 | 0.791 | 0.268 | 0.051 | 0.694 | 0.254 |
| Koma Gr. | 02102509 | S1 | 0.00 | 26.20 | 0.59 | 35.67 | 22.38 | 0.14 | 0.27 | 12.01 | 0.02 | 0.01 | 0.00 | 0.16 | 97.44 | 0.564 | 0.477 | 0.070 | 0.486 | 0.444 |
| Kushigatayama | 02102509 | S2 | 0.02 | 29.85 | 0.42 | 33.38 | 21.20 | 0.17 | 0.25 | 13.43 | 0.03 | 0.03 | 0.02 | 0.18 | 98.98 | 0.606 | 0.429 | 0.069 | 0.532 | 0.399 |
| Subgr. | 02102509 | S3 | 0.04 | 11.74 | 0.17 | 51.59 | 24.25 | 0.00 | 0.41 | 8.94 | 0.02 | 0.00 | 0.02 | 0.27 | 97.44 | 0.452 | 0.747 | 0.074 | 0.234 | 0.691 |
| (conglomerate | 02102509 | S4 | 0.00 | 27.29 | 0.24 | 32.42 | 27.09 | 0.15 | 0.25 | 10.78 | 0.00 | 0.00 | 0.00 | 0.39 | 98.61 | 0.498 | 0.444 | 0.104 | 0.498 | 0.397 |
| block) | 02102509 | S5 | 0.01 | 20.40 | 0.25 | 41.78 | 25.10 | 0.03 | 0.28 | 9.97 | 0.00 | 0.02 | 0.01 | 0.19 | 98.04 | 0.479 | 0.579 | 0.079 | 0.388 | 0.533 |
| | 02102509 | S6 | 0.00 | 33.74 | 0.17 | 30.28 | 17.58 | 0.17 | 0.24 | 14.56 | 0.01 | 0.01 | 0.00 | 0.33 | 97.07 | 0.648 | 0.376 | 0.049 | 0.594 | 0.358 |
| | 02102509 | S7 | 0.00 | 25.50 | 0.57 | 35.21 | 27.43 | 0.14 | 0.46 | 8.84 | 0.01 | 0.00 | 0.00 | 0.37 | 98.54 | 0.421 | 0.481 | 0.076 | 0.480 | 0.444 |
| | 02102509 | S8 | 0.00 | 33.10 | 0.20 | 31.24 | 17.96 | 0.06 | 0.18 | 13.94 | 0.02 | 0.03 | 0.00 | 0.30 | 97.04 | 0.626 | 0.388 | 0.041 | 0.587 | 0.372 |
| | 02102509 | S9 | 0.00 | 28.67 | 0.31 | 33.18 | 23.51 | 0.12 | 0.18 | 12.14 | 0.00 | 0.00 | 0.00 | 0.26 | 98.38 | 0.555 | 0.437 | 0.079 | 0.518 | 0.403 |
| | 02102509 | S10 | 0.02 | 24.29 | 0.80 | 35.68 | 25.63 | 0.15 | 0.34 | 11.55 | 0.02 | 0.00 | 0.00 | 0.12 | 98.61 | 0.545 | 0.496 | 0.101 | 0.453 | 0.446 |
| | 02102509 | S11 | 0.02 | 32.37 | 0.18 | 32.10 | 19.16 | 0.11 | 0.25 | 13.14 | 0.02 | 0.02 | 0.00 | 0.20 | 97.56 | 0.592 | 0.399 | 0.040 | 0.576 | 0.383 |
| | 02102509 | S12 | 0.01 | 26.75 | 0.19 | 35.60 | 22.84 | 0.04 | 0.26 | 11.23 | 0.01 | 0.00 | 0.04 | 0.27 | 97.24 | 0.525 | 0.472 | 0.065 | 0.494 | 0.441 |
| | 02102509 | S13 | 0.00 | 18.71 | 0.13 | 45.78 | 22.68 | 0.02 | 0.38 | 9.24 | 0.01 | 0.00 | 0.00 | 0.23 | 97.18 | 0.452 | 0.621 | 0.043 | 0.362 | 0.595 |
| | 02102509 | S14 | 0.01 | 14.94 | 0.28 | 48.55 | 24.90 | 0.09 | 0.40 | 9.72 | 0.00 | 0.04 | 0.01 | 0.14 | 97.08 | 0.484 | 0.676 | 0.091 | 0.294 | 0.615 |
| | 02102509 | S15 | 0.02 | 31.48 | 0.24 | 32.96 | 19.90 | 0.15 | 0.22 | 13.67 | 0.01 | 0.04 | 0.01 | 0.23 | 98.92 | 0.610 | 0.413 | 0.055 | 0.555 | 0.390 |
| | 02102509 | S16 | 0.00 | 31.26 | 0.24 | 33.41 | 20.16 | 0.07 | 0.23 | 13.51 | 0.00 | 0.00 | 0.00 | 0.10 | 98.99 | 0.603 | 0.418 | 0.053 | 0.551 | 0.395 |
| | 02102509 | S17 | 0.02 | 9.12 | 0.26 | 54.33 | 25.19 | 0.05 | 0.42 | 8.35 | 0.00 | 0.02 | 0.00 | 0.17 | 97.93 | 0.427 | 0.800 | 0.078 | 0.185 | 0.738 |
| | 02102509 | S18 | 0.01 | 26.89 | 0.14 | 35.47 | 23.20 | 0.16 | 0.38 | 10.62 | 0.02 | 0.00 | 0.00 | 0.38 | 97.27 | 0.497 | 0.469 | 0.062 | 0.498 | 0.441 |
| | 02102509 | S19 | 0.00 | 30.28 | 0.10 | 36.55 | 16.33 | 0.06 | 0.23 | 13.87 | 0.03 | 0.00 | 0.01 | 0.15 | 97.61 | 0.626 | 0.447 | 0.023 | 0.540 | 0.437 |
| | 02102509 | S20 | 0.02 | 28.54 | 0.31 | 32.94 | 21.82 | 0.20 | 0.26 | 13.24 | 0.00 | 0.00 | 0.00 | 0.24 | 97.57 | 0.606 | 0.436 | 0.084 | 0.516 | 0.400 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (29)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|---------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|---------------------|-------|-------|
| Koma Gr. | 02102509 | S21 | 0.00 | 28.06 | 0.17 | 36.97 | 20.21 | 0.13 | 0.27 | 12.80 | 0.00 | 0.02 | 0.01 | 0.14 | 98.77 | 0.581 | 0.469 | 0.051 | 0.504 | 0.445 |
| Kushigatayama | 02102509 | S22 | 0.00 | 40.59 | 0.14 | 24.50 | 16.62 | 0.20 | 0.13 | 16.18 | 0.02 | 0.03 | 0.01 | 0.16 | 98.57 | 0.686 | 0.288 | 0.043 | 0.681 | 0.276 |
| Subgr. | 02102509 | S23 | 0.03 | 19.64 | 1.05 | 36.03 | 29.34 | 0.19 | 0.31 | 10.83 | 0.02 | 0.03 | 0.01 | 0.02 | 97.50 | 0.531 | 0.552 | 0.150 | 0.381 | 0.469 |
| (conglomerate | 02102509 | S24 | 0.04 | 30.08 | 0.14 | 33.62 | 21.36 | 0.11 | 0.31 | 12.27 | 0.02 | 0.01 | 0.02 | 0.18 | 98.16 | 0.557 | 0.428 | 0.055 | 0.540 | 0.405 |
| block) | 02102509 | S25 | 0.05 | 22.46 | 0.44 | 35.65 | 27.67 | 0.07 | 0.43 | 10.45 | 0.02 | 0.01 | 0.00 | 0.16 | 97.39 | 0.501 | 0.516 | 0.121 | 0.426 | 0.453 |
| | 02102509 | S26 | 0.02 | 24.78 | 0.51 | 37.59 | 19.49 | 0.12 | 0.22 | 13.35 | 0.00 | 0.02 | 0.01 | 0.13 | 96.24 | 0.630 | 0.504 | 0.067 | 0.462 | 0.471 |
| | 02102509 | S27 | 0.03 | 28.00 | 0.33 | 33.73 | 20.39 | 0.14 | 0.31 | 12.90 | 0.02 | 0.00 | 0.00 | 0.20 | 96.05 | 0.601 | 0.447 | 0.067 | 0.516 | 0.417 |
| | 02102509 | S28 | 0.00 | 29.70 | 0.17 | 35.06 | 19.22 | 0.10 | 0.25 | 13.40 | 0.02 | 0.00 | 0.01 | 0.23 | 98.14 | 0.605 | 0.442 | 0.049 | 0.530 | 0.420 |
| | 02102509 | S29 | 0.00 | 18.79 | 0.20 | 43.91 | 25.41 | 0.05 | 0.47 | 9.17 | 0.00 | 0.03 | 0.00 | 0.22 | 98.24 | 0.445 | 0.610 | 0.074 | 0.361 | 0.565 |
| | 02102509 | S30 | 0.00 | 25.09 | 0.78 | 36.38 | 24.19 | 0.16 | 0.33 | 11.08 | 0.00 | 0.00 | 0.00 | 0.16 | 98.15 | 0.525 | 0.493 | 0.073 | 0.470 | 0.457 |
| | 02102509 | S31 | 0.02 | 24.70 | 0.37 | 35.45 | 27.64 | 0.10 | 0.44 | 8.22 | 0.02 | 0.03 | 0.00 | 0.52 | 97.52 | 0.396 | 0.490 | 0.076 | 0.471 | 0.453 |
| | 02102509 | S32 | 0.04 | 26.33 | 0.25 | 33.67 | 26.15 | 0.21 | 0.34 | 10.65 | 0.02 | 0.00 | 0.01 | 0.27 | 97.93 | 0.498 | 0.462 | 0.096 | 0.487 | 0.417 |
| | 02102509 | S33 | 0.00 | 25.79 | 0.27 | 34.96 | 25.48 | 0.18 | 0.28 | 11.15 | 0.01 | 0.01 | 0.02 | 0.28 | 98.42 | 0.519 | 0.476 | 0.095 | 0.474 | 0.431 |
| | 02102509 | S34 | 0.03 | 12.84 | 0.27 | 48.51 | 25.15 | 0.15 | 0.33 | 9.98 | 0.01 | 0.00 | 0.00 | 0.11 | 97.38 | 0.499 | 0.717 | 0.103 | 0.254 | 0.643 |
| | 02102509 | S35 | 0.03 | 24.79 | 0.16 | 39.87 | 21.26 | 0.08 | 0.36 | 11.73 | 0.00 | 0.00 | 0.01 | 0.26 | 98.56 | 0.545 | 0.519 | 0.054 | 0.455 | 0.491 |
| | 02102509 | S36 | 0.03 | 19.38 | 0.42 | 46.15 | 13.98 | 0.09 | 0.25 | 16.08 | 0.02 | 0.00 | 0.00 | 0.02 | 96.43 | 0.760 | 0.615 | 0.060 | 0.362 | 0.578 |
| | 02102509 | S37 | 0.03 | 22.25 | 0.31 | 36.45 | 28.08 | 0.14 | 0.37 | 8.79 | 0.00 | 0.01 | 0.02 | 0.26 | 96.68 | 0.428 | 0.524 | 0.100 | 0.429 | 0.471 |
| | 02102509 | S38 | 0.04 | 24.50 | 0.61 | 36.95 | 25.03 | 0.11 | 0.28 | 10.31 | 0.00 | 0.02 | 0.00 | 0.37 | 98.23 | 0.490 | 0.503 | 0.074 | 0.460 | 0.466 |
| | 02102509 | S39 | 0.00 | 22.37 | 0.25 | 39.54 | 24.21 | 0.12 | 0.31 | 11.36 | 0.02 | 0.01 | 0.00 | 0.12 | 98.31 | 0.536 | 0.543 | 0.089 | 0.417 | 0.494 |
| | 02102509 | S40 | 0.04 | 13.86 | 0.22 | 45.42 | 25.09 | 0.14 | 0.36 | 10.39 | 0.01 | 0.02 | 0.00 | 0.15 | 95.70 | 0.523 | 0.687 | 0.119 | 0.276 | 0.606 |
| | 02102509 | S41 | 0.01 | 35.41 | 0.09 | 28.62 | 17.24 | 0.07 | 0.20 | 14.69 | 0.00 | 0.00 | 0.02 | 0.26 | 96.62 | 0.651 | 0.352 | 0.044 | 0.620 | 0.336 |
| | 02102509 | S42 | 0.03 | 22.96 | 0.82 | 36.40 | 28.71 | 0.11 | 0.47 | 7.25 | 0.01 | 0.03 | 0.00 | 0.44 | 97.22 | 0.359 | 0.515 | 0.072 | 0.450 | 0.478 |
| | 02102509 | S43 | 0.05 | 22.09 | 0.27 | 43.46 | 18.45 | 0.13 | 0.28 | 13.90 | 0.06 | 0.00 | 0.00 | 0.05 | 98.73 | 0.644 | 0.569 | 0.061 | 0.405 | 0.534 |
| | 02102509 | S44 | 0.02 | 22.03 | 0.25 | 42.57 | 18.16 | 0.16 | 0.32 | 14.07 | 0.01 | 0.00 | 0.00 | 0.11 | 97.68 | 0.656 | 0.564 | 0.067 | 0.406 | 0.526 |
| | 02102509 | S45 | 0.01 | 30.15 | 0.20 | 33.60 | 20.09 | 0.06 | 0.12 | 13.15 | 0.00 | 0.00 | 0.02 | 0.26 | 97.65 | 0.597 | 0.428 | 0.055 | 0.541 | 0.404 |
| | 02102509 | S46 | 0.02 | 19.30 | 0.19 | 42.25 | 23.33 | 0.09 | 0.40 | 10.85 | 0.02 | 0.00 | 0.00 | 0.14 | 96.58 | 0.527 | 0.595 | 0.085 | 0.371 | 0.544 |
| Kushigatayama | *02102101 | S1 | 0.04 | 13.42 | 0.52 | 50.07 | 20.19 | 0.20 | 0.33 | 12.67 | 0.03 | 0.03 | 0.00 | 0.13 | 97.61 | 0.623 | 0.715 | 0.086 | 0.261 | 0.653 |
| Subgr. | *02102101 | S2 | 0.00 | 13.83 | 1.46 | 40.75 | 28.48 | 0.12 | 0.31 | 10.77 | 0.03 | 0.00 | 0.00 | 0.10 | 95.84 | 0.556 | 0.664 | 0.160 | 0.282 | 0.558 |
| Koma Gr. | *02102101 | S3 | 0.00 | 12.03 | 0.29 | 50.13 | 28.69 | 0.06 | 0.45 | 6.67 | 0.03 | 0.00 | 0.01 | 0.35 | 98.71 | 0.339 | 0.736 | 0.083 | 0.242 | 0.676 |
| Momonoki | *02102101 | S4 | 0.03 | 4.98 | 0.07 | 63.54 | 22.18 | 0.06 | 0.53 | 7.59 | 0.04 | 0.03 | 0.01 | 0.22 | 99.25 | 0.392 | 0.895 | 0.027 | 0.102 | 0.871 |
| Subgr. | *02102101 | S5 | 0.03 | 26.11 | 0.04 | 43.60 | 15.35 | 0.09 | 0.27 | 14.56 | 0.01 | 0.00 | 0.02 | 0.12 | 100.19 | 0.650 | 0.528 | 0.022 | 0.461 | 0.517 |
| | *02102101 | S6 | 0.02 | 13.05 | 0.04 | 54.60 | 21.48 | 0.00 | 0.42 | 8.93 | 0.03 | 0.00 | 0.00 | 0.25 | 98.81 | 0.442 | 0.737 | 0.027 | 0.255 | 0.717 |
| | *02102101 | S7 | 0.04 | 28.75 | 0.23 | 40.27 | 16.34 | 0.00 | 0.29 | 12.90 | 0.02 | 0.00 | 0.02 | 0.22 | 99.07 | 0.584 | 0.484 | 0.001 | 0.515 | 0.484 |
| | *02102101 | S8 | 0.00 | 12.86 | 0.03 | 58.09 | 19.52 | 0.07 | 0.34 | 9.09 | 0.01 | 0.00 | 0.01 | 0.23 | 100.24 | 0.444 | 0.752 | 0.000 | 0.248 | 0.752 |
| | *02102101 | S9 | 0.02 | 25.77 | 0.28 | 43.55 | 15.95 | 0.14 | 0.22 | 14.11 | 0.00 | 0.00 | 0.00 | 0.09 | 100.11 | 0.636 | 0.531 | 0.019 | 0.460 | 0.521 |
| | *02102101 | S10 | 0.03 | 12.65 | 0.03 | 55.11 | 20.91 | 0.00 | 0.37 | 10.16 | 0.02 | 0.00 | 0.00 | 0.09 | 99.38 | 0.497 | 0.745 | 0.041 | 0.245 | 0.715 |
| | *02102101 | S11 | 0.07 | 17.04 | 2.86 | 40.06 | 25.98 | 0.25 | 0.25 | 12.92 | 0.00 | 0.02 | 0.01 | 0.00 | 99.46 | 0.650 | 0.612 | 0.126 | 0.339 | 0.535 |
| | *02102101 | S12 | 0.00 | 12.05 | 0.08 | 53.92 | 23.72 | 0.00 | 0.40 | 7.83 | 0.01 | 0.07 | 0.00 | 0.19 | 98.27 | 0.395 | 0.750 | 0.039 | 0.240 | 0.721 |
| | *02102101 | S13 | 0.01 | 19.03 | 0.07 | 50.50 | 18.07 | 0.05 | 0.33 | 11.81 | 0.01 | 0.04 | 0.00 | 0.25 | 100.17 | 0.553 | 0.640 | 0.020 | 0.352 | 0.627 |
| | *02102101 | S14 | 0.00 | 27.55 | 0.14 | 39.71 | 18.10 | 0.12 | 0.28 | 13.81 | 0.02 | 0.03 | 0.00 | 0.22 | 99.97 | 0.618 | 0.492 | 0.041 | 0.488 | 0.472 |
| | *02102101 | S15 | 0.04 | 20.33 | 0.05 | 49.52 | 19.16 | 0.04 | 0.41 | 9.54 | 0.02 | 0.00 | 0.01 | 0.38 | 99.48 | 0.454 | 0.620 | 0.000 | 0.380 | 0.620 |

Table C-1. Chemical compositions of detrital chromian spinels from the Mineoka and Setogawa areas. (30)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|---------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|---------------------|-------|-------|
| Kushigatayama | *02102101 | S16 | 0.05 | 10.56 | 0.44 | 51.37 | 28.03 | 0.03 | 0.59 | 4.06 | 0.00 | 0.01 | 0.00 | 0.26 | 95.38 | 0.220 | 0.765 | 0.036 | 0.226 | 0.737 |
| Subgr. | *02102101 | S17 | 0.01 | 27.17 | 0.14 | 41.86 | 17.15 | 0.03 | 0.24 | 13.05 | 0.00 | 0.00 | 0.01 | 0.17 | 99.82 | 0.589 | 0.508 | 0.014 | 0.485 | 0.501 |
| Koma Gr. | *02102101 | S18 | 0.00 | 40.04 | 0.08 | 27.70 | 14.65 | 0.16 | 0.19 | 16.32 | 0.00 | 0.00 | 0.00 | 0.12 | 99.26 | 0.689 | 0.317 | 0.022 | 0.668 | 0.310 |
| Momonoki | *02102101 | S19 | 0.03 | 21.85 | 0.27 | 40.55 | 24.06 | 0.15 | 0.42 | 11.50 | 0.01 | 0.00 | 0.00 | 0.17 | 99.02 | 0.540 | 0.554 | 0.090 | 0.406 | 0.505 |
| Subgr. | *02102101 | S20 | 0.01 | 39.86 | 0.05 | 29.15 | 15.37 | 0.12 | 0.20 | 16.06 | 0.00 | 0.00 | 0.01 | 0.20 | 101.01 | 0.670 | 0.329 | 0.020 | 0.658 | 0.323 |
| | *02102101 | S21 | 0.00 | 26.31 | 0.29 | 41.98 | 14.06 | 0.21 | 0.23 | 15.98 | 0.02 | 0.00 | 0.02 | 0.06 | 99.15 | 0.716 | 0.517 | 0.035 | 0.466 | 0.499 |
| | *02102101 | S22 | 0.06 | 23.18 | 1.33 | 36.77 | 22.23 | 0.17 | 0.19 | 13.74 | 0.01 | 0.00 | 0.02 | 0.09 | 97.79 | 0.655 | 0.516 | 0.098 | 0.437 | 0.465 |
| | *02102101 | S23 | 0.21 | 22.62 | 0.83 | 37.33 | 26.95 | 0.09 | 0.43 | 7.76 | 0.07 | 0.07 | 0.02 | 0.32 | 96.70 | 0.387 | 0.525 | 0.061 | 0.446 | 0.493 |
| | *02102101 | S24 | 0.10 | 8.14 | 0.26 | 52.13 | 26.37 | 0.11 | 0.40 | 8.67 | 0.06 | 0.01 | 0.00 | 0.25 | 96.50 | 0.451 | 0.811 | 0.114 | 0.167 | 0.719 |
| | *02102101 | S25 | 0.01 | 6.83 | 0.14 | 55.70 | 25.85 | 0.00 | 0.34 | 7.70 | 0.04 | 0.05 | 0.00 | 0.18 | 96.82 | 0.403 | 0.845 | 0.085 | 0.141 | 0.774 |
| | *02102101 | S26 | 0.07 | 19.45 | 2.36 | 36.17 | 27.06 | 0.28 | 0.17 | 12.74 | 0.03 | 0.00 | 0.00 | 0.02 | 98.35 | 0.633 | 0.555 | 0.141 | 0.382 | 0.477 |
| | *02102101 | S27 | 0.13 | 24.36 | 0.36 | 42.32 | 12.87 | 0.25 | 0.16 | 17.19 | 0.03 | 0.00 | 0.01 | 0.01 | 97.69 | 0.782 | 0.538 | 0.052 | 0.438 | 0.510 |
| | *02102101 | S28 | 0.01 | 24.90 | 0.00 | 43.37 | 17.17 | 0.07 | 0.27 | 11.72 | 0.00 | 0.00 | 0.00 | 0.16 | 97.66 | 0.547 | 0.539 | 0.004 | 0.459 | 0.537 |
| | *02102101 | S29 | 0.05 | 27.74 | 0.09 | 38.61 | 18.17 | 0.09 | 0.25 | 12.98 | 0.03 | 0.00 | 0.00 | 0.19 | 98.19 | 0.592 | 0.483 | 0.033 | 0.500 | 0.467 |
| | *02102101 | S30 | 0.02 | 27.43 | 0.06 | 40.53 | 17.10 | 0.14 | 0.22 | 13.15 | 0.01 | 0.00 | 0.00 | 0.25 | 98.91 | 0.596 | 0.498 | 0.021 | 0.492 | 0.487 |
| | *02102101 | S31 | 0.00 | 10.18 | 0.41 | 57.26 | 15.62 | 0.02 | 0.37 | 13.15 | 0.04 | 0.00 | 0.00 | 0.02 | 97.06 | 0.656 | 0.790 | 0.042 | 0.201 | 0.757 |
| | *02102101 | S32 | 0.07 | 10.58 | 0.33 | 52.73 | 24.49 | 0.09 | 0.37 | 8.08 | 0.00 | 0.01 | 0.00 | 0.28 | 97.02 | 0.416 | 0.770 | 0.064 | 0.216 | 0.721 |
| | *02102101 | S33 | 0.00 | 36.70 | 0.04 | 29.01 | 17.23 | 0.07 | 0.23 | 14.50 | 0.00 | 0.00 | 0.00 | 0.23 | 98.01 | 0.632 | 0.346 | 0.032 | 0.632 | 0.335 |
| | *02102101 | S34 | 0.02 | 17.21 | 0.28 | 48.14 | 18.13 | 0.16 | 0.24 | 13.62 | 0.02 | 0.05 | 0.00 | 0.06 | 97.93 | 0.650 | 0.652 | 0.067 | 0.324 | 0.609 |
| | *02102101 | S35 | 0.02 | 24.51 | 0.05 | 39.89 | 20.11 | 0.10 | 0.23 | 13.23 | 0.01 | 0.00 | 0.02 | 0.20 | 98.37 | 0.608 | 0.522 | 0.069 | 0.445 | 0.486 |
| | *02102101 | S36 | 0.01 | 12.95 | 0.06 | 53.97 | 18.83 | 0.03 | 0.56 | 10.33 | 0.00 | 0.00 | 0.00 | 0.38 | 97.13 | 0.515 | 0.737 | 0.032 | 0.255 | 0.713 |
| | *02102101 | S37 | 0.00 | 28.18 | 0.50 | 36.83 | 18.57 | 0.16 | 0.19 | 14.14 | 0.00 | 0.00 | 0.00 | 0.03 | 96.61 | 0.653 | 0.467 | 0.034 | 0.515 | 0.451 |
| | *02102101 | S38 | 0.00 | 17.28 | 0.10 | 44.44 | 27.22 | 0.10 | 0.47 | 7.27 | 0.05 | 0.03 | 0.01 | 0.61 | 97.57 | 0.362 | 0.633 | 0.074 | 0.340 | 0.586 |
| | *02102101 | S39 | 0.03 | 11.87 | 0.17 | 50.04 | 26.18 | 0.10 | 0.42 | 7.76 | 0.00 | 0.00 | 0.01 | 0.26 | 96.84 | 0.397 | 0.739 | 0.081 | 0.240 | 0.679 |
| | *02102101 | S40 | 0.02 | 27.36 | 0.00 | 37.23 | 18.98 | 0.08 | 0.25 | 12.95 | 0.02 | 0.01 | 0.02 | 0.19 | 97.11 | 0.595 | 0.477 | 0.049 | 0.497 | 0.454 |
| | *02102303 | S1 | 0.09 | 11.30 | 0.21 | 49.03 | 29.17 | 0.08 | 0.34 | 5.67 | 0.02 | 0.00 | 0.01 | 0.16 | 96.08 | 0.298 | 0.744 | 0.082 | 0.235 | 0.684 |
| | *02102303 | S2 | 0.06 | 11.40 | 0.96 | 47.67 | 24.07 | 0.12 | 0.30 | 11.31 | 0.04 | 0.00 | 0.00 | 0.07 | 95.99 | 0.581 | 0.737 | 0.119 | 0.231 | 0.649 |
| | *02102303 | S3 | 0.04 | 15.95 | 2.64 | 37.31 | 26.81 | 0.20 | 0.18 | 12.48 | 0.01 | 0.00 | 0.00 | 0.00 | 95.63 | 0.652 | 0.611 | 0.154 | 0.329 | 0.517 |
| | *02102303 | S4 | 0.02 | 34.81 | 0.07 | 30.65 | 13.56 | 0.18 | 0.16 | 16.76 | 0.06 | 0.02 | 0.01 | 0.07 | 96.37 | 0.736 | 0.371 | 0.038 | 0.604 | 0.357 |

Table C-2. Chemical compositions of detrital garnets from the Mineoka and Setogawa areas. (1)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|---------------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Mineoka Gr. | *00021202 | G1 | 37.57 | 21.13 | 0.03 | 0.07 | 30.50 | 0.01 | 3.49 | 3.83 | 1.82 | 0.03 | 0.00 | 98.49 | 70.60 | 15.81 | 8.18 | 5.19 | 0.00 | 0.22 |
| Haccho Fm. (sandstone) | *01042101 | G1 | 38.19 | 22.28 | 0.03 | 0.06 | 32.12 | 0.00 | 0.21 | 6.92 | 0.89 | 0.00 | 0.00 | 100.70 | 70.04 | 27.00 | 0.46 | 1.95 | 0.38 | 0.18 |
| | *01042101 | G2 | 39.25 | 22.54 | 0.03 | 0.00 | 25.69 | 0.03 | 0.27 | 10.70 | 0.84 | 0.00 | 0.00 | 99.36 | 55.72 | 41.35 | 0.60 | 2.32 | 0.00 | 0.01 |
| | *01042101 | G3 | 38.82 | 21.61 | 0.10 | 0.05 | 31.19 | 0.04 | 0.30 | 3.11 | 4.83 | 0.00 | 0.00 | 100.04 | 72.16 | 12.82 | 0.71 | 14.15 | 0.00 | 0.16 |
| | *01042101 | G4 | 39.02 | 22.65 | 0.00 | 0.00 | 27.56 | 0.00 | 0.31 | 10.36 | 0.91 | 0.03 | 0.01 | 100.83 | 57.13 | 39.69 | 0.67 | 0.00 | 2.51 | 0.00 |
| | *01042101 | G5 | 36.84 | 21.85 | 0.01 | 0.00 | 35.13 | 0.02 | 1.42 | 2.83 | 0.86 | 0.02 | 0.00 | 98.97 | 82.25 | 11.81 | 3.37 | 2.57 | 0.00 | 0.00 |
| | *01042101 | G6 | 37.24 | 21.36 | 0.03 | 0.02 | 30.94 | 0.02 | 8.46 | 1.02 | 1.09 | 0.00 | 0.00 | 100.18 | 72.41 | 4.26 | 20.05 | 3.22 | 0.00 | 0.06 |
| | *01042101 | G7 | 36.86 | 21.27 | 0.00 | 0.18 | 33.57 | 0.00 | 0.77 | 4.95 | 1.66 | 0.01 | 0.00 | 99.27 | 73.36 | 20.03 | 1.78 | 0.00 | 4.27 | 0.57 |
| | *01042101 | G8 | 39.53 | 22.36 | 0.02 | 0.04 | 27.40 | 0.05 | 0.15 | 9.83 | 1.57 | 0.00 | 0.00 | 100.95 | 58.21 | 37.21 | 0.31 | 4.14 | 0.00 | 0.13 |
| | *01042101 | G9 | 36.39 | 21.62 | 0.02 | 0.00 | 32.79 | 0.00 | 8.22 | 0.65 | 0.33 | 0.05 | 0.00 | 100.08 | 76.81 | 2.71 | 19.49 | 0.98 | 0.00 | 0.00 |
| | *01042101 | G10 | 38.18 | 21.79 | 0.10 | 0.06 | 32.56 | 0.00 | 0.59 | 5.24 | 2.00 | 0.06 | 0.00 | 100.59 | 72.26 | 20.72 | 1.33 | 5.50 | 0.00 | 0.20 |
| | *01042101 | G11 | 38.32 | 21.60 | 0.10 | 0.11 | 34.69 | 0.00 | 0.88 | 3.86 | 1.16 | 0.04 | 0.00 | 100.75 | 78.94 | 15.64 | 2.03 | 3.06 | 0.00 | 0.34 |
| | *01042101 | G12 | 39.11 | 21.92 | 0.08 | 0.04 | 25.48 | 0.00 | 0.34 | 10.93 | 1.31 | 0.00 | 0.01 | 99.20 | 53.88 | 41.80 | 0.73 | 2.97 | 0.52 | 0.11 |
| | *01042101 | G13 | 37.98 | 21.49 | 0.29 | 0.04 | 21.99 | 0.00 | 8.32 | 1.49 | 9.61 | 0.03 | 0.01 | 101.26 | 48.26 | 5.89 | 18.63 | 27.10 | 0.00 | 0.12 |
| | *01042101 | G14 | 38.17 | 21.68 | 0.00 | 0.00 | 32.99 | 0.00 | 0.68 | 5.76 | 1.12 | 0.00 | 0.00 | 100.39 | 72.69 | 22.64 | 1.51 | 3.17 | 0.00 | 0.00 |
| | *01042101 | G15 | 39.16 | 21.36 | 0.05 | 0.05 | 26.59 | 0.00 | 0.56 | 9.33 | 1.09 | 0.00 | 0.00 | 98.19 | 58.85 | 36.82 | 1.25 | 2.91 | 0.00 | 0.17 |
| | *01042101 | G16 | 38.79 | 22.35 | 0.04 | 0.06 | 26.91 | 0.00 | 0.26 | 10.34 | 1.12 | 0.00 | 0.00 | 99.86 | 56.61 | 39.73 | 0.56 | 0.87 | 2.04 | 0.19 |
| | *01042101 | G17 | 39.24 | 22.58 | 0.06 | 0.03 | 26.40 | 0.04 | 0.26 | 11.00 | 0.81 | 0.01 | 0.00 | 100.44 | 55.37 | 41.84 | 0.57 | 0.70 | 1.43 | 0.09 |
| | *01042101 | G18 | 39.50 | 22.57 | 0.01 | 0.05 | 25.55 | 0.00 | 0.74 | 10.12 | 1.06 | 0.00 | 0.01 | 99.58 | 55.92 | 39.49 | 1.63 | 2.82 | 0.00 | 0.15 |
| | *01042101 | G19 | 37.96 | 21.91 | 0.02 | 0.00 | 34.77 | 0.03 | 0.94 | 3.45 | 1.18 | 0.01 | 0.00 | 100.28 | 80.13 | 14.19 | 2.20 | 3.49 | 0.00 | 0.00 |
| | *01042101 | G20 | 39.25 | 22.18 | 0.00 | 0.09 | 27.43 | 0.00 | 0.23 | 9.40 | 1.33 | 0.00 | 0.00 | 99.91 | 59.48 | 36.33 | 0.51 | 3.43 | 0.00 | 0.26 |
| | *01042101 | G21 | 38.70 | 22.45 | 0.00 | 0.05 | 31.07 | 0.03 | 0.72 | 7.73 | 1.01 | 0.04 | 0.00 | 101.80 | 65.71 | 29.90 | 1.59 | 0.00 | 2.64 | 0.16 |
| *01042101 | G22 | 37.87 | 21.66 | 0.03 | 0.00 | 34.11 | 0.00 | 0.95 | 3.15 | 1.60 | 0.00 | 0.00 | 99.37 | 79.81 | 13.12 | 2.26 | 4.81 | 0.00 | 0.00 | |
| Hota Gr. | *99072212 | G1 | 38.35 | 22.12 | 0.01 | 0.08 | 34.29 | 0.00 | 0.76 | 4.69 | 1.20 | 0.00 | 0.00 | 101.50 | 76.28 | 18.60 | 1.70 | 3.19 | 0.00 | 0.24 |
| Fukawa Fm. | *99072212 | G2 | 39.18 | 22.26 | 0.03 | 0.04 | 30.78 | 0.00 | 0.74 | 7.07 | 1.04 | 0.00 | 0.01 | 101.15 | 67.69 | 27.72 | 1.64 | 2.83 | 0.00 | 0.12 |
| | *99072212 | G3 | 40.02 | 22.72 | 0.02 | 0.04 | 27.09 | 0.01 | 0.28 | 9.83 | 1.27 | 0.00 | 0.00 | 101.29 | 58.22 | 37.67 | 0.61 | 3.38 | 0.00 | 0.11 |
| | *99072212 | G4 | 39.61 | 22.48 | 0.03 | 0.05 | 28.57 | 0.01 | 0.58 | 7.97 | 2.12 | 0.00 | 0.00 | 101.43 | 62.00 | 30.84 | 1.28 | 5.72 | 0.00 | 0.16 |
| | *99072212 | G5 | 39.93 | 21.23 | 0.02 | 0.01 | 23.86 | 0.00 | 0.66 | 7.42 | 6.79 | 0.00 | 0.00 | 99.92 | 49.69 | 29.44 | 1.49 | 19.35 | 0.00 | 0.03 |
| | *99072212 | G6 | 40.13 | 22.92 | 0.08 | 0.09 | 26.94 | 0.00 | 0.64 | 9.86 | 1.09 | 0.00 | 0.00 | 101.75 | 57.86 | 37.75 | 1.39 | 2.74 | 0.00 | 0.27 |
| | *99072212 | G7 | 39.45 | 22.16 | 0.01 | 0.01 | 28.37 | 0.01 | 0.31 | 7.37 | 3.15 | 0.02 | 0.01 | 100.87 | 61.87 | 28.65 | 0.69 | 8.76 | 0.00 | 0.03 |
| | *99072212 | G8 | 39.71 | 22.18 | 0.05 | 0.00 | 31.62 | 0.00 | 0.38 | 7.15 | 0.62 | 0.00 | 0.00 | 101.70 | 69.43 | 27.99 | 0.84 | 1.74 | 0.00 | 0.00 |
| | *99072212 | G9 | 39.39 | 22.36 | 0.00 | 0.00 | 30.96 | 0.01 | 0.91 | 6.32 | 0.92 | 0.09 | 0.00 | 100.95 | 69.84 | 25.41 | 2.09 | 2.67 | 0.00 | 0.00 |
| | *99072212 | G10 | 39.76 | 22.21 | 0.00 | 0.05 | 26.37 | 0.00 | 0.31 | 10.35 | 0.85 | 0.00 | 0.00 | 99.90 | 57.05 | 39.92 | 0.67 | 2.20 | 0.00 | 0.16 |
| | *99072212 | G11 | 38.43 | 21.98 | 0.04 | 0.02 | 31.63 | 0.00 | 1.81 | 5.61 | 0.73 | 0.01 | 0.02 | 100.27 | 71.24 | 22.52 | 4.13 | 2.03 | 0.00 | 0.07 |
| | *99072212 | G12 | 39.93 | 21.27 | 0.02 | 0.07 | 27.08 | 0.00 | 0.24 | 10.03 | 1.01 | 0.10 | 0.00 | 99.75 | 56.90 | 39.68 | 0.54 | 2.67 | 0.00 | 0.21 |
| | *99072212 | G13 | 38.34 | 21.99 | 0.03 | 0.06 | 32.34 | 0.00 | 0.81 | 5.65 | 0.84 | 0.00 | 0.02 | 100.09 | 73.00 | 22.73 | 1.85 | 2.22 | 0.00 | 0.20 |
| | *99072212 | G14 | 35.83 | 23.02 | 0.01 | 0.02 | 26.49 | 0.02 | 0.43 | 10.30 | 1.20 | 0.00 | 0.01 | 97.33 | 52.49 | 42.91 | 1.02 | 0.00 | 3.51 | 0.07 |
| | *99072212 | G15 | 38.53 | 21.96 | 0.02 | 0.00 | 28.97 | 0.01 | 0.97 | 2.33 | 8.22 | 0.05 | 0.00 | 101.06 | 64.89 | 9.32 | 2.20 | 23.59 | 0.00 | 0.00 |
| | *99072212 | G16 | 40.18 | 22.86 | 0.03 | 0.00 | 26.21 | 0.00 | 0.21 | 10.73 | 0.88 | 0.01 | 0.00 | 101.11 | 56.14 | 40.99 | 0.45 | 2.41 | 0.00 | 0.00 |
| | *99072212 | G17 | 39.23 | 21.91 | 0.00 | 0.05 | 31.96 | 0.02 | 1.08 | 5.91 | 1.12 | 0.00 | 0.01 | 101.29 | 70.98 | 23.40 | 2.44 | 3.02 | 0.00 | 0.16 |
| | *99072212 | G18 | 35.55 | 21.73 | 0.05 | 0.00 | 27.71 | 0.06 | 1.51 | 4.03 | 7.02 | 0.00 | 0.01 | 97.66 | 58.32 | 16.90 | 3.60 | 10.80 | 10.38 | 0.00 |

Table C-2. Chemical compositions of detrital garnets from the Mineoka and Setogawa areas. (2)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|--------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Hota Gr. | *99072212 | G19 | 38.97 | 21.32 | 0.07 | 0.00 | 26.91 | 0.02 | 1.27 | 4.99 | 6.77 | 0.03 | 0.00 | 100.35 | 58.17 | 19.72 | 2.86 | 19.25 | 0.00 | 0.00 |
| Fukawa Fm. | *00040908 | G1 | 39.29 | 22.19 | 0.08 | 0.02 | 27.95 | 0.06 | 0.27 | 8.81 | 1.03 | 0.01 | 0.00 | 99.72 | 61.77 | 34.70 | 0.61 | 2.85 | 0.00 | 0.07 |
| | *00040908 | G2 | 39.17 | 21.11 | 0.06 | 0.05 | 29.34 | 0.00 | 0.16 | 8.02 | 1.33 | 0.00 | 0.01 | 99.24 | 63.87 | 31.96 | 0.36 | 3.65 | 0.00 | 0.16 |
| | *00040908 | G3 | 39.46 | 22.39 | 0.09 | 0.02 | 25.99 | 0.00 | 0.20 | 10.44 | 1.08 | 0.02 | 0.00 | 99.69 | 56.29 | 40.29 | 0.43 | 2.93 | 0.00 | 0.07 |
| | *00040908 | G4 | 39.04 | 22.11 | 0.01 | 0.02 | 28.65 | 0.00 | 0.41 | 7.35 | 2.67 | 0.04 | 0.02 | 100.31 | 62.84 | 28.74 | 0.91 | 7.46 | 0.00 | 0.05 |
| | *00040908 | G5 | 39.44 | 22.53 | 0.04 | 0.00 | 26.83 | 0.01 | 0.28 | 10.15 | 0.93 | 0.02 | 0.00 | 100.22 | 57.84 | 38.99 | 0.62 | 2.56 | 0.00 | 0.00 |
| | *00040908 | G6 | 38.64 | 18.63 | 0.01 | 0.00 | 31.25 | 0.01 | 0.32 | 7.13 | 0.67 | 0.00 | 0.00 | 96.66 | 64.73 | 32.29 | 0.82 | 2.17 | 0.00 | 0.00 |
| | *00040908 | G7 | 38.26 | 21.73 | 0.05 | 0.03 | 31.74 | 0.00 | 0.61 | 5.99 | 0.90 | 0.00 | 0.00 | 99.30 | 71.84 | 24.18 | 1.39 | 2.50 | 0.00 | 0.10 |
| | *00040908 | G8 | 39.26 | 22.09 | 0.02 | 0.13 | 27.77 | 0.02 | 0.19 | 9.11 | 1.56 | 0.02 | 0.00 | 100.16 | 60.11 | 35.16 | 0.41 | 3.92 | 0.00 | 0.39 |
| | *00040908 | G9 | 39.50 | 22.19 | 0.10 | 0.11 | 24.55 | 0.00 | 0.61 | 10.08 | 1.81 | 0.00 | 0.00 | 98.95 | 54.00 | 39.54 | 1.37 | 4.76 | 0.00 | 0.33 |
| | *00040908 | G10 | 39.47 | 22.44 | 0.18 | 0.02 | 25.50 | 0.00 | 1.04 | 10.41 | 1.39 | 0.00 | 0.01 | 100.46 | 54.37 | 39.58 | 2.24 | 3.75 | 0.00 | 0.06 |
| | *00040908 | G11 | 37.73 | 19.68 | 0.00 | 0.09 | 31.64 | 0.00 | 1.53 | 4.21 | 2.48 | 0.03 | 0.00 | 97.38 | 70.70 | 17.98 | 3.72 | 7.29 | 0.00 | 0.32 |
| | *00040908 | G12 | 38.42 | 21.37 | 0.11 | 0.05 | 31.45 | 0.00 | 0.84 | 5.00 | 2.69 | 0.00 | 0.00 | 99.93 | 70.42 | 19.95 | 1.91 | 7.55 | 0.00 | 0.17 |
| | *00040908 | G13 | 39.54 | 22.14 | 0.04 | 0.05 | 27.68 | 0.00 | 0.13 | 9.13 | 1.09 | 0.03 | 0.03 | 99.86 | 60.84 | 35.78 | 0.30 | 2.93 | 0.00 | 0.15 |
| | *00040908 | G14 | 37.58 | 20.97 | 0.01 | 0.00 | 25.98 | 0.00 | 7.05 | 2.93 | 3.38 | 0.00 | 0.00 | 97.91 | 60.86 | 12.25 | 16.73 | 10.16 | 0.00 | 0.00 |
| | *00040908 | G15 | 38.02 | 21.55 | 0.04 | 0.04 | 34.01 | 0.01 | 0.78 | 4.22 | 0.94 | 0.02 | 0.00 | 99.64 | 78.14 | 17.28 | 1.82 | 2.64 | 0.00 | 0.12 |
| | *00040908 | G16 | 38.38 | 21.91 | 0.06 | 0.00 | 26.69 | 0.00 | 0.48 | 9.61 | 1.46 | 0.00 | 0.00 | 98.58 | 57.60 | 37.27 | 1.06 | 3.33 | 0.74 | 0.00 |
| | *00040908 | G17 | 39.25 | 22.05 | 0.07 | 0.02 | 24.93 | 0.00 | 0.49 | 9.38 | 2.24 | 0.03 | 0.00 | 98.45 | 55.39 | 37.14 | 1.10 | 6.33 | 0.00 | 0.05 |
| | *01042105 | G1 | 39.63 | 22.63 | 0.00 | 0.10 | 28.85 | 0.00 | 0.20 | 9.03 | 1.17 | 0.01 | 0.01 | 101.63 | 61.86 | 34.50 | 0.43 | 2.90 | 0.00 | 0.31 |
| | *01042105 | G2 | 38.04 | 21.75 | 0.00 | 0.02 | 34.70 | 0.03 | 1.08 | 3.96 | 0.99 | 0.00 | 0.00 | 100.59 | 78.62 | 16.01 | 2.49 | 2.81 | 0.00 | 0.08 |
| | *01042105 | G3 | 38.40 | 21.71 | 0.03 | 0.05 | 24.66 | 0.03 | 10.69 | 3.70 | 1.54 | 0.03 | 0.00 | 100.83 | 55.97 | 14.97 | 24.58 | 4.33 | 0.00 | 0.15 |
| | *01042105 | G4 | 39.60 | 23.10 | 0.05 | 0.02 | 25.87 | 0.00 | 0.31 | 10.81 | 1.04 | 0.03 | 0.00 | 100.83 | 55.28 | 41.20 | 0.68 | 2.77 | 0.00 | 0.06 |
| | *01042105 | G5 | 36.87 | 20.67 | 1.75 | 0.04 | 21.26 | 0.00 | 13.11 | 0.17 | 5.45 | 0.01 | 0.00 | 99.33 | 50.83 | 0.73 | 31.75 | 16.56 | 0.00 | 0.14 |
| *01042105 | G6 | 39.02 | 21.95 | 0.01 | 0.07 | 29.71 | 0.00 | 0.67 | 6.48 | 2.34 | 0.00 | 0.00 | 100.24 | 66.12 | 25.71 | 1.51 | 6.46 | 0.00 | 0.21 | |
| *01042105 | G7 | 39.85 | 22.21 | 0.05 | 0.05 | 26.43 | 0.00 | 0.28 | 9.08 | 1.05 | 0.02 | 0.01 | 99.01 | 59.73 | 36.59 | 0.63 | 2.91 | 0.00 | 0.15 | |
| *01042105 | G8 | 39.06 | 22.07 | 0.02 | 0.01 | 29.89 | 0.00 | 0.70 | 7.56 | 1.11 | 0.02 | 0.00 | 100.42 | 65.71 | 29.60 | 1.56 | 3.10 | 0.00 | 0.02 | |
| *01042105 | G9 | 37.85 | 21.86 | 0.37 | 0.00 | 31.41 | 0.00 | 0.74 | 5.07 | 2.68 | 0.00 | 0.02 | 99.99 | 70.36 | 20.26 | 1.68 | 7.70 | 0.00 | 0.00 | |
| *01042105 | G10 | 39.23 | 22.59 | 0.06 | 0.03 | 27.69 | 0.03 | 0.13 | 9.72 | 0.83 | 0.00 | 0.01 | 100.31 | 59.93 | 37.50 | 0.28 | 2.21 | 0.00 | 0.09 | |
| *01042105 | G11 | 37.45 | 21.67 | 0.10 | 0.05 | 25.64 | 0.01 | 8.28 | 4.63 | 1.47 | 0.00 | 0.00 | 99.30 | 58.05 | 18.70 | 18.98 | 4.10 | 0.00 | 0.16 | |
| *01042105 | G12 | 39.42 | 21.71 | 0.04 | 0.00 | 25.70 | 0.00 | 0.93 | 6.90 | 5.84 | 0.00 | 0.01 | 100.55 | 54.84 | 26.78 | 2.06 | 16.30 | 0.00 | 0.01 | |
| *01042105 | G13 | 37.70 | 21.31 | 0.00 | 0.04 | 27.47 | 0.04 | 9.40 | 2.28 | 0.74 | 0.00 | 0.00 | 98.97 | 65.40 | 9.68 | 22.67 | 2.12 | 0.00 | 0.12 | |
| *01042105 | G14 | 37.84 | 22.36 | 0.01 | 0.04 | 28.56 | 0.01 | 0.58 | 7.78 | 2.32 | 0.00 | 0.01 | 99.50 | 61.48 | 30.65 | 1.31 | 3.93 | 2.50 | 0.14 | |
| *01042105 | G15 | 38.29 | 21.84 | 0.03 | 0.01 | 31.81 | 0.02 | 0.69 | 4.57 | 2.24 | 0.06 | 0.00 | 99.56 | 73.09 | 18.73 | 1.60 | 6.56 | 0.00 | 0.02 | |
| *01042105 | G16 | 37.94 | 22.57 | 0.00 | 0.00 | 28.02 | 0.00 | 0.37 | 9.55 | 0.86 | 0.02 | 0.00 | 99.34 | 59.15 | 37.59 | 0.83 | 0.00 | 2.44 | 0.00 | |
| *01042105 | G17 | 39.61 | 22.72 | 0.05 | 0.03 | 27.42 | 0.00 | 0.41 | 9.77 | 0.90 | 0.00 | 0.00 | 100.91 | 59.11 | 37.52 | 0.89 | 2.39 | 0.00 | 0.10 | |
| *01042105 | G18 | 38.43 | 21.83 | 0.06 | 0.05 | 34.16 | 0.00 | 0.45 | 5.14 | 0.66 | 0.03 | 0.01 | 100.81 | 76.56 | 20.53 | 1.01 | 1.73 | 0.00 | 0.17 | |
| *01042105 | G19 | 38.86 | 21.77 | 0.03 | 0.00 | 26.90 | 0.00 | 0.91 | 5.15 | 6.69 | 0.00 | 0.00 | 100.30 | 59.03 | 20.13 | 2.03 | 18.82 | 0.00 | 0.00 | |
| *01042105 | G20 | 38.37 | 21.87 | 0.05 | 0.00 | 32.01 | 0.05 | 0.71 | 5.31 | 1.45 | 0.02 | 0.01 | 99.85 | 72.68 | 21.47 | 1.63 | 4.22 | 0.00 | 0.00 | |
| *01042105 | G21 | 38.71 | 22.28 | 0.00 | 0.07 | 30.02 | 0.03 | 0.51 | 7.49 | 1.00 | 0.03 | 0.01 | 100.14 | 66.47 | 29.54 | 1.14 | 2.63 | 0.00 | 0.22 | |
| *01042105 | G22 | 39.16 | 22.61 | 0.00 | 0.04 | 26.83 | 0.00 | 0.41 | 10.65 | 0.79 | 0.00 | 0.00 | 100.49 | 56.40 | 40.56 | 0.88 | 0.65 | 1.39 | 0.12 | |
| Kanigawa Fm. | *02092301 | G1 | 39.06 | 20.03 | 0.02 | 0.04 | 34.80 | 0.03 | 0.97 | 4.12 | 1.15 | 0.00 | 0.00 | 100.22 | 76.91 | 17.33 | 2.31 | 3.32 | 0.00 | 0.14 |

Table C-2. Chemical compositions of detrital garnets from the Mineoka and Setogawa areas. (3)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) | |
|--------------|--------------|------------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|------|
| Hota Gr. | *02092301 | G2 | 38.61 | 20.99 | 0.04 | 0.10 | 36.00 | 0.00 | 2.33 | 2.55 | 1.02 | 0.00 | 0.01 | 101.63 | 81.43 | 10.27 | 5.34 | 2.66 | 0.00 | 0.31 | |
| Kanigawa Fm. | *02092301 | G3 | 39.07 | 21.74 | 0.01 | 0.00 | 33.00 | 0.02 | 1.98 | 4.75 | 1.08 | 0.00 | 0.00 | 101.65 | 73.56 | 18.89 | 4.48 | 3.07 | 0.00 | 0.00 | |
| | *02092301 | G4 | 40.00 | 24.73 | 0.04 | 0.00 | 15.59 | 0.00 | 10.39 | 1.21 | 7.40 | 0.15 | 0.03 | 99.53 | 41.30 | 5.70 | 27.89 | 25.11 | 0.00 | 0.00 | |
| | *02092301 | G5 | 39.49 | 20.44 | 0.77 | 0.06 | 24.22 | 0.00 | 8.89 | 1.28 | 6.45 | 0.00 | 0.01 | 101.61 | 54.83 | 5.28 | 20.81 | 18.88 | 0.00 | 0.21 | |
| | *02092301 | G6 | 39.44 | 21.33 | 0.08 | 0.01 | 13.76 | 0.00 | 12.18 | 0.64 | 14.54 | 0.00 | 0.00 | 101.97 | 28.83 | 2.51 | 27.35 | 41.27 | 0.00 | 0.04 | |
| | *02092301 | G7 | 39.88 | 15.62 | 0.39 | 0.01 | 9.14 | 0.00 | 0.55 | 0.05 | 35.10 | 0.00 | 0.00 | 100.75 | 0.00 | 0.21 | 1.30 | 75.08 | 23.37 | 0.04 | |
| | *02092301 | G8 | 38.82 | 21.98 | 0.13 | 0.06 | 34.88 | 0.02 | 0.68 | 4.33 | 0.80 | 0.02 | 0.00 | 101.72 | 78.69 | 17.43 | 1.56 | 2.11 | 0.00 | 0.21 | |
| | *02092301 | G9 | 39.29 | 21.81 | 0.04 | 0.01 | 32.11 | 0.00 | 0.87 | 6.17 | 0.76 | 0.05 | 0.00 | 101.11 | 71.42 | 24.46 | 1.95 | 2.14 | 0.00 | 0.04 | |
| | *02092301 | G10 | 38.23 | 21.16 | 0.03 | 0.06 | 34.00 | 0.00 | 5.21 | 2.01 | 0.97 | 0.00 | 0.00 | 101.66 | 77.11 | 8.11 | 11.97 | 2.62 | 0.00 | 0.19 | |
| | *02092301 | G11 | 38.41 | 20.93 | 0.07 | 0.03 | 33.15 | 0.02 | 5.04 | 3.00 | 0.56 | 0.02 | 0.01 | 101.24 | 74.77 | 12.08 | 11.53 | 1.51 | 0.00 | 0.10 | |
| | *02092301 | G12 | 38.45 | 20.83 | 0.09 | 0.06 | 36.22 | 0.00 | 1.08 | 2.35 | 2.28 | 0.02 | 0.00 | 101.39 | 81.38 | 9.51 | 2.48 | 6.44 | 0.00 | 0.19 | |
| | *02092301 | G13 | 38.46 | 20.80 | 0.10 | 0.09 | 33.59 | 0.00 | 4.45 | 1.83 | 1.81 | 0.00 | 0.01 | 101.13 | 76.90 | 7.47 | 10.32 | 5.02 | 0.00 | 0.30 | |
| | *02092301 | G14 | 38.58 | 21.45 | 0.08 | 0.10 | 34.63 | 0.05 | 2.93 | 2.67 | 1.02 | 0.00 | 0.00 | 101.51 | 79.31 | 10.89 | 6.80 | 2.67 | 0.00 | 0.33 | |
| | *02092301 | G15 | 38.56 | 21.43 | 0.02 | 0.10 | 35.13 | 0.01 | 1.28 | 2.78 | 2.03 | 0.00 | 0.00 | 101.35 | 79.86 | 11.27 | 2.96 | 5.58 | 0.00 | 0.33 | |
| | *02092301 | G16 | 39.03 | 21.58 | 0.03 | 0.04 | 31.33 | 0.02 | 2.35 | 2.96 | 2.82 | 0.00 | 0.01 | 100.17 | 73.57 | 12.37 | 5.59 | 8.36 | 0.00 | 0.12 | |
| | *02092301 | G17 | 39.02 | 21.70 | 0.11 | 0.05 | 33.63 | 0.00 | 0.82 | 3.18 | 1.53 | 0.04 | 0.00 | 100.06 | 79.92 | 13.45 | 1.97 | 4.49 | 0.00 | 0.17 | |
| | *02092301 | G18 | 36.73 | 20.60 | 0.29 | 0.01 | 36.66 | 0.00 | 3.98 | 0.80 | 1.01 | 0.02 | 0.00 | 100.09 | 84.47 | 3.29 | 9.28 | 2.94 | 0.00 | 0.03 | |
| | *02092301 | G19 | 36.12 | 21.59 | 0.05 | 0.14 | 33.57 | 0.00 | 0.82 | 5.23 | 1.20 | 0.00 | 0.00 | 98.71 | 72.95 | 21.57 | 1.91 | 0.00 | 3.12 | 0.44 | |
| | *02092301 | G20 | 39.19 | 21.94 | 0.11 | 0.06 | 32.63 | 0.02 | 0.62 | 5.06 | 2.04 | 0.00 | 0.00 | 101.65 | 72.72 | 20.08 | 1.39 | 5.62 | 0.00 | 0.20 | |
| | *02092301 | G21 | 39.55 | 22.02 | 0.13 | 0.03 | 30.85 | 0.00 | 0.57 | 7.51 | 1.03 | 0.00 | 0.01 | 101.70 | 66.87 | 29.02 | 1.25 | 2.78 | 0.00 | 0.09 | |
| | *02092301 | G22 | 39.58 | 22.01 | 0.08 | 0.05 | 29.01 | 0.03 | 0.50 | 7.82 | 1.59 | 0.00 | 0.01 | 100.67 | 63.79 | 30.64 | 1.11 | 4.30 | 0.00 | 0.17 | |
| | *02092301 | G23 | 38.44 | 5.14 | 0.00 | 0.00 | 21.02 | 0.00 | 0.12 | 0.19 | 34.82 | 0.01 | 0.00 | 99.73 | 0.00 | 0.82 | 0.29 | 25.28 | 73.60 | 0.00 | |
| | *02092301 | G24 | 38.55 | 20.30 | 0.08 | 0.00 | 34.43 | 0.00 | 0.55 | 2.83 | 3.20 | 0.00 | 0.00 | 99.93 | 77.40 | 11.75 | 1.30 | 9.55 | 0.00 | 0.00 | |
| | *02092301 | G25 | 41.09 | 22.96 | 0.08 | 0.02 | 23.03 | 0.05 | 1.13 | 11.40 | 2.94 | 0.00 | 0.00 | 102.68 | 47.73 | 42.11 | 2.37 | 7.74 | 0.00 | 0.05 | |
| | *02092301 | G26 | 39.58 | 21.69 | 0.01 | 0.00 | 24.65 | 0.00 | 2.82 | 5.07 | 4.35 | 0.01 | 0.00 | 98.19 | 58.52 | 21.45 | 6.79 | 13.24 | 0.00 | 0.00 | |
| | *02092301 | G27 | 38.95 | 21.07 | 0.12 | 0.00 | 19.24 | 0.00 | 17.85 | 1.66 | 2.37 | 0.06 | 0.00 | 101.33 | 44.42 | 6.83 | 41.74 | 7.00 | 0.00 | 0.01 | |
| | *02092301 | G28 | 40.02 | 22.29 | 0.09 | 0.02 | 30.28 | 0.00 | 0.55 | 7.42 | 1.14 | 0.00 | 0.00 | 101.80 | 66.52 | 29.05 | 1.22 | 3.15 | 0.00 | 0.06 | |
| | *02092301 | G29 | 38.64 | 21.00 | 0.01 | 0.01 | 36.38 | 0.02 | 1.40 | 1.42 | 2.72 | 0.01 | 0.00 | 101.60 | 83.02 | 5.79 | 3.25 | 7.91 | 0.00 | 0.04 | |
| | *02092301 | G30 | 41.13 | 22.62 | 0.01 | 0.02 | 27.47 | 0.00 | 0.43 | 8.29 | 2.07 | 0.02 | 0.01 | 102.05 | 60.61 | 32.59 | 0.96 | 5.79 | 0.00 | 0.05 | |
| | *02092301 | G31 | 39.19 | 21.89 | 0.01 | 0.00 | 31.78 | 0.00 | 0.84 | 4.80 | 1.48 | 0.02 | 0.00 | 99.99 | 73.78 | 19.86 | 1.97 | 4.39 | 0.00 | 0.00 | |
| | *02092301 | G32 | 38.22 | 21.63 | 0.07 | 0.05 | 32.47 | 0.01 | 3.66 | 3.57 | 1.09 | 0.02 | 0.00 | 100.78 | 73.93 | 14.47 | 8.43 | 3.02 | 0.00 | 0.15 | |
| | *02092301 | G33 | 38.04 | 21.68 | 0.04 | 0.00 | 34.36 | 0.00 | 0.75 | 3.17 | 2.11 | 0.02 | 0.02 | 100.18 | 79.04 | 12.99 | 1.74 | 6.21 | 0.00 | 0.01 | |
| | *02092301 | G34 | 40.14 | 22.44 | 0.08 | 0.04 | 29.81 | 0.00 | 0.65 | 8.00 | 1.19 | 0.00 | 0.03 | 102.36 | 64.46 | 30.82 | 1.42 | 3.18 | 0.00 | 0.12 | |
| | *02092301 | G35 | 39.35 | 13.33 | 1.09 | 0.00 | 10.80 | 0.00 | 0.93 | 0.23 | 35.04 | 0.00 | 0.00 | 99.85 | 0.00 | 1.01 | 0.06 | 68.83 | 30.10 | 0.00 | |
| | *02092301 | G36 | 39.28 | 22.45 | 0.03 | 0.10 | 31.99 | 0.00 | 0.58 | 6.50 | 1.01 | 0.02 | 0.00 | 101.95 | 70.38 | 25.49 | 1.30 | 2.53 | 0.00 | 0.30 | |
| | *02092301 | G37 | 39.66 | 21.84 | 0.08 | 0.09 | 30.92 | 0.00 | 0.64 | 6.74 | 1.12 | 0.00 | 0.02 | 101.10 | 68.68 | 26.70 | 1.43 | 2.90 | 0.00 | 0.29 | |
| | *02092301 | G38 | 38.83 | 21.44 | 0.02 | 0.00 | 29.75 | 0.04 | 8.75 | 2.22 | 1.17 | 0.00 | 0.00 | 102.23 | 67.51 | 8.99 | 20.11 | 3.39 | 0.00 | 0.00 | |
| | *02092301 | G39 | 38.90 | 20.97 | 0.13 | 0.00 | 30.64 | 0.01 | 1.79 | 2.50 | 5.06 | 0.03 | 0.00 | 100.04 | 70.61 | 10.27 | 4.17 | 14.94 | 0.00 | 0.01 | |
| | *02092301 | G40 | 38.55 | 6.53 | 0.05 | 0.05 | 19.27 | 0.05 | 0.07 | 0.04 | 34.54 | 0.00 | 0.00 | 99.14 | 0.00 | 0.18 | 0.17 | 33.94 | 65.54 | 0.17 | |
| | Ackiyama Fm. | *99072111 | G1 | 38.12 | 21.33 | 0.13 | 0.02 | 30.87 | 0.00 | 3.40 | 3.23 | 3.05 | 0.03 | 0.00 | 100.17 | 70.20 | 13.10 | 7.82 | 8.83 | 0.00 | 0.05 |
| | Takazuru Fm. | 99122407-1 | G1 | 37.91 | 20.80 | 0.39 | 0.00 | 32.34 | 0.00 | 1.35 | 1.82 | 5.69 | 0.00 | 0.01 | 100.31 | 72.95 | 7.38 | 3.11 | 16.55 | 0.00 | 0.01 |

Table C-2. Chemical compositions of detrital garnets from the Mineoka and Setogawa areas. (4)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|-----------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Hota Gr. | 99122601-2 | G1 | 39.04 | 22.28 | 0.02 | 0.04 | 31.63 | 0.00 | 0.67 | 7.07 | 1.30 | 0.07 | 0.00 | 102.14 | 67.73 | 27.20 | 1.47 | 2.72 | 0.76 | 0.13 |
| Maejima Fm. | 99122601-2 | G2 | 38.34 | 21.69 | 0.03 | 0.07 | 32.32 | 0.00 | 0.44 | 6.65 | 1.34 | 0.01 | 0.00 | 100.89 | 69.41 | 25.86 | 0.97 | 1.83 | 1.71 | 0.22 |
| Sakuma Gr. | *00021112 | G1 | 38.34 | 21.23 | 0.06 | 0.04 | 31.84 | 0.00 | 0.70 | 4.94 | 2.76 | 0.08 | 0.01 | 100.00 | 70.93 | 19.62 | 1.58 | 7.77 | 0.00 | 0.12 |
| Okuzure Fm. | *00021112 | G2 | 38.12 | 22.04 | 0.00 | 0.01 | 35.41 | 0.03 | 1.46 | 2.45 | 1.11 | 0.05 | 0.00 | 100.76 | 82.98 | 10.24 | 3.46 | 3.30 | 0.00 | 0.02 |
| | *00021112 | G3 | 37.92 | 21.96 | 0.00 | 0.01 | 25.44 | 0.02 | 13.08 | 1.65 | 0.88 | 0.00 | 0.00 | 100.95 | 59.50 | 6.89 | 30.98 | 2.61 | 0.00 | 0.03 |
| | *00021112 | G4 | 37.66 | 20.13 | 0.04 | 0.00 | 31.43 | 0.04 | 0.96 | 3.08 | 2.25 | 0.02 | 0.02 | 95.62 | 77.10 | 13.46 | 2.38 | 7.06 | 0.00 | 0.00 |
| | *00021112 | G5 | 38.54 | 21.43 | 0.03 | 0.00 | 31.05 | 0.00 | 2.48 | 6.03 | 1.44 | 0.00 | 0.00 | 101.00 | 66.72 | 23.67 | 5.54 | 3.90 | 0.15 | 0.01 |
| | *00021112 | G6 | 38.43 | 22.36 | 0.05 | 0.01 | 30.45 | 0.00 | 2.64 | 5.75 | 1.41 | 0.00 | 0.01 | 101.11 | 67.41 | 22.67 | 5.93 | 3.97 | 0.00 | 0.03 |
| | *00021112 | G7 | 38.79 | 21.92 | 0.04 | 0.06 | 27.71 | 0.00 | 1.12 | 5.46 | 5.35 | 0.03 | 0.00 | 100.44 | 61.00 | 21.43 | 2.49 | 14.90 | 0.00 | 0.18 |
| | *00021112 | G8 | 37.67 | 21.74 | 0.02 | 0.04 | 36.43 | 0.00 | 0.79 | 2.42 | 1.78 | 0.01 | 0.00 | 100.88 | 83.15 | 9.84 | 1.82 | 5.07 | 0.00 | 0.12 |
| | *00021112 | G9 | 37.62 | 21.59 | 0.01 | 0.03 | 33.57 | 0.02 | 1.13 | 4.59 | 1.32 | 0.10 | 0.00 | 99.98 | 75.27 | 18.36 | 2.57 | 3.49 | 0.20 | 0.11 |
| | *00021112 | G10 | 39.29 | 22.61 | 0.03 | 0.07 | 28.61 | 0.00 | 0.26 | 9.10 | 1.02 | 0.03 | 0.01 | 101.03 | 61.65 | 34.96 | 0.56 | 2.62 | 0.00 | 0.21 |
| | *00021112 | G11 | 36.91 | 21.35 | 0.31 | 0.00 | 33.65 | 0.05 | 0.81 | 2.21 | 4.60 | 0.05 | 0.00 | 101.03 | 75.89 | 8.92 | 1.86 | 12.80 | 0.53 | 0.00 |
| | *00021112 | G12 | 37.96 | 21.16 | 0.29 | 0.00 | 32.76 | 0.00 | 1.86 | 2.60 | 4.40 | 0.00 | 0.01 | 101.04 | 72.82 | 10.37 | 4.21 | 12.61 | 0.00 | 0.00 |
| | *00021112 | G13 | 38.39 | 21.85 | 0.00 | 0.00 | 34.80 | 0.00 | 1.58 | 2.54 | 1.49 | 0.00 | 0.01 | 100.67 | 81.26 | 10.55 | 3.75 | 4.44 | 0.00 | 0.00 |
| | *00021112 | G14 | 37.42 | 21.50 | 0.02 | 0.00 | 29.97 | 0.00 | 10.88 | 0.76 | 0.24 | 0.06 | 0.03 | 100.88 | 70.27 | 3.17 | 25.85 | 0.71 | 0.00 | 0.00 |
| Sakuma Gr. | *00080702 | G1 | 37.39 | 22.75 | 0.10 | 0.00 | 26.27 | 0.01 | 0.26 | 10.77 | 1.32 | 0.00 | 0.01 | 98.88 | 52.73 | 42.91 | 0.60 | 0.00 | 3.76 | 0.01 |
| Okuyama Fm. | *00080702 | G2 | 38.17 | 21.76 | 0.04 | 0.03 | 34.58 | 0.00 | 0.45 | 4.56 | 0.36 | 0.00 | 0.00 | 99.96 | 79.27 | 18.62 | 1.04 | 0.96 | 0.00 | 0.11 |
| | *00080702 | G3 | 38.14 | 20.99 | 0.25 | 0.00 | 31.11 | 0.00 | 1.50 | 3.16 | 4.79 | 0.02 | 0.00 | 99.96 | 70.05 | 12.70 | 3.42 | 13.83 | 0.00 | 0.00 |
| | *00080702 | G4 | 36.55 | 20.88 | 0.06 | 0.00 | 16.54 | 0.03 | 20.04 | 0.35 | 1.96 | 0.01 | 0.01 | 96.43 | 41.38 | 1.57 | 50.79 | 6.26 | 0.00 | 0.01 |
| | *00080702 | G5 | 37.32 | 20.83 | 0.17 | 0.00 | 32.10 | 0.01 | 2.55 | 2.15 | 3.83 | 0.07 | 0.00 | 99.03 | 73.93 | 8.81 | 5.95 | 11.31 | 0.00 | 0.00 |
| Sakuma Gr. | *00040902 | G1 | 39.25 | 22.16 | 0.00 | 0.00 | 30.46 | 0.00 | 1.94 | 5.61 | 2.29 | 0.02 | 0.00 | 101.72 | 67.16 | 22.05 | 4.33 | 6.46 | 0.00 | 0.00 |
| Nakaobara Fm. | *00040902 | G2 | 38.24 | 21.52 | 0.09 | 0.04 | 32.08 | 0.01 | 0.34 | 1.89 | 7.05 | 0.02 | 0.01 | 101.27 | 71.57 | 7.51 | 0.76 | 20.06 | 0.00 | 0.11 |
| | *00040902 | G3 | 38.64 | 22.60 | 0.02 | 0.08 | 31.11 | 0.00 | 0.52 | 7.53 | 0.93 | 0.02 | 0.01 | 101.45 | 67.18 | 29.09 | 1.15 | 1.92 | 0.41 | 0.25 |
| | *00040902 | G4 | 38.50 | 22.09 | 0.05 | 0.02 | 33.92 | 0.00 | 1.13 | 4.94 | 1.06 | 0.00 | 0.00 | 101.71 | 75.00 | 19.48 | 2.53 | 2.92 | 0.00 | 0.07 |
| | *00040902 | G5 | 38.32 | 21.12 | 0.52 | 0.00 | 29.96 | 0.00 | 1.72 | 3.69 | 5.72 | 0.00 | 0.00 | 101.06 | 64.94 | 14.74 | 3.90 | 16.42 | 0.00 | 0.00 |
| | *00040902 | G6 | 38.24 | 21.86 | 0.06 | 0.02 | 27.46 | 0.00 | 2.40 | 1.72 | 9.08 | 0.03 | 0.00 | 100.85 | 61.60 | 6.87 | 5.44 | 26.05 | 0.00 | 0.05 |
| | *00040902 | G7 | 38.40 | 22.02 | 0.02 | 0.04 | 27.03 | 0.00 | 6.79 | 5.09 | 1.17 | 0.00 | 0.00 | 100.55 | 60.77 | 20.40 | 15.47 | 3.24 | 0.00 | 0.12 |
| | *00040902 | G8 | 38.52 | 22.21 | 0.03 | 0.02 | 31.61 | 0.03 | 0.54 | 6.23 | 1.14 | 0.03 | 0.00 | 100.36 | 70.69 | 24.85 | 1.21 | 3.19 | 0.00 | 0.06 |
| | *00040902 | G9 | 37.26 | 21.65 | 0.01 | 0.00 | 35.25 | 0.01 | 1.37 | 2.46 | 1.14 | 0.02 | 0.00 | 99.16 | 82.98 | 10.33 | 3.26 | 3.42 | 0.00 | 0.01 |
| | *00040902 | G10 | 39.08 | 22.44 | 0.06 | 0.00 | 26.98 | 0.07 | 1.20 | 8.32 | 2.14 | 0.00 | 0.00 | 100.29 | 58.95 | 32.40 | 2.65 | 6.00 | 0.00 | 0.00 |
| | *00040902 | G11 | 37.34 | 17.71 | 0.02 | 0.00 | 30.46 | 0.00 | 1.50 | 1.60 | 7.39 | 0.00 | 0.00 | 96.03 | 63.04 | 7.63 | 4.06 | 25.27 | 0.00 | 0.00 |
| | *00040902 | G12 | 38.13 | 21.73 | 0.01 | 0.04 | 30.75 | 0.01 | 3.85 | 5.27 | 1.06 | 0.00 | 0.00 | 100.84 | 67.74 | 20.68 | 8.60 | 2.86 | 0.00 | 0.12 |
| | *00040902 | G13 | 40.73 | 22.79 | 0.04 | 0.05 | 22.83 | 0.00 | 0.23 | 12.57 | 1.44 | 0.03 | 0.00 | 100.70 | 48.25 | 47.36 | 0.48 | 3.76 | 0.00 | 0.15 |
| | *00040902 | G14 | 38.69 | 21.99 | 0.03 | 0.08 | 30.68 | 0.00 | 0.47 | 7.37 | 0.99 | 0.00 | 0.00 | 100.30 | 67.33 | 28.84 | 1.04 | 2.54 | 0.00 | 0.26 |
| Futatsuyama Fm. | *00040907 | G1 | 36.93 | 21.00 | 0.03 | 0.00 | 23.88 | 0.00 | 17.93 | 0.08 | 0.25 | 0.00 | 0.00 | 100.10 | 56.18 | 0.34 | 42.73 | 0.76 | 0.00 | 0.00 |
| | *00040907 | G2 | 37.59 | 21.65 | 0.03 | 0.00 | 28.21 | 0.00 | 11.03 | 1.33 | 1.33 | 0.01 | 0.00 | 101.18 | 64.91 | 5.46 | 25.71 | 3.93 | 0.00 | 0.00 |
| | *00040907 | G3 | 37.80 | 21.34 | 0.04 | 0.00 | 23.00 | 0.00 | 10.64 | 1.69 | 5.53 | 0.00 | 0.01 | 100.05 | 52.42 | 6.88 | 24.55 | 16.16 | 0.00 | 0.00 |
| | *00040907 | G4 | 38.94 | 22.26 | 0.04 | 0.00 | 30.01 | 0.04 | 0.70 | 6.82 | 0.78 | 0.00 | 0.01 | 99.59 | 68.41 | 27.72 | 1.61 | 2.26 | 0.00 | 0.00 |
| | *00040907 | G5 | 37.59 | 21.65 | 0.06 | 0.08 | 31.69 | 0.00 | 5.88 | 2.59 | 1.22 | 0.00 | 0.01 | 100.77 | 72.32 | 10.52 | 13.59 | 3.30 | 0.00 | 0.27 |
| | *00040907 | G6 | 37.96 | 21.74 | 0.00 | 0.02 | 24.20 | 0.00 | 13.86 | 2.24 | 0.91 | 0.00 | 0.00 | 100.94 | 55.77 | 9.21 | 32.35 | 2.61 | 0.00 | 0.06 |

Table C-2. Chemical compositions of detrital garnets from the Mineoka and Setogawa areas. (5)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|--------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Futatsuyama Fm. | *00040907 | G7 | 37.85 | 22.18 | 0.02 | 0.00 | 33.27 | 0.01 | 5.24 | 2.88 | 0.65 | 0.02 | 0.00 | 102.13 | 74.68 | 11.53 | 11.92 | 1.87 | 0.00 | 0.00 |
| | *00040907 | G8 | 37.87 | 21.56 | 0.05 | 0.00 | 29.10 | 0.00 | 9.53 | 1.22 | 1.41 | 0.00 | 0.00 | 100.73 | 68.10 | 5.08 | 22.59 | 4.23 | 0.00 | 0.00 |
| | *00040907 | G9 | 37.44 | 21.65 | 0.04 | 0.03 | 27.63 | 0.02 | 11.67 | 1.23 | 1.46 | 0.00 | 0.02 | 101.19 | 63.50 | 5.03 | 27.18 | 4.18 | 0.00 | 0.11 |
| | *00040907 | G10 | 37.90 | 21.74 | 0.11 | 0.02 | 24.95 | 0.00 | 13.64 | 2.12 | 1.02 | 0.00 | 0.01 | 101.51 | 56.90 | 8.61 | 31.51 | 2.90 | 0.00 | 0.07 |
| | *00040907 | G11 | 37.60 | 21.81 | 0.04 | 0.05 | 27.53 | 0.01 | 8.89 | 2.47 | 0.98 | 0.00 | 0.00 | 99.37 | 65.27 | 10.43 | 21.35 | 2.81 | 0.00 | 0.16 |
| | *00040907 | G12 | 37.77 | 21.44 | 0.39 | 0.00 | 19.94 | 0.00 | 16.14 | 2.36 | 1.38 | 0.00 | 0.00 | 99.42 | 47.17 | 9.96 | 38.67 | 4.20 | 0.00 | 0.00 |
| | *00040907 | G13 | 38.27 | 21.86 | 0.00 | 0.00 | 30.15 | 0.04 | 7.05 | 2.85 | 1.09 | 0.04 | 0.01 | 101.35 | 68.90 | 11.59 | 16.32 | 3.19 | 0.00 | 0.00 |
| | *00081907 | G1 | 36.72 | 20.95 | 0.20 | 0.04 | 36.33 | 0.02 | 4.99 | 0.53 | 1.36 | 0.02 | 0.00 | 101.15 | 82.40 | 2.16 | 11.49 | 3.52 | 0.31 | 0.12 |
| | *00081907 | G2 | 35.73 | 22.49 | 0.05 | 0.01 | 29.00 | 0.00 | 0.40 | 8.62 | 0.93 | 0.00 | 0.00 | 97.24 | 60.31 | 35.94 | 0.96 | 0.00 | 2.75 | 0.05 |
| | *00081907 | G3 | 38.06 | 21.48 | 0.03 | 0.03 | 33.33 | 0.00 | 1.90 | 2.06 | 2.48 | 0.00 | 0.02 | 99.38 | 79.19 | 8.71 | 4.57 | 7.44 | 0.00 | 0.09 |
| | *00081907 | G4 | 37.04 | 21.62 | 0.00 | 0.00 | 25.88 | 0.01 | 12.93 | 2.02 | 0.77 | 0.01 | 0.00 | 100.29 | 59.41 | 8.25 | 30.07 | 2.27 | 0.00 | 0.00 |
| | *00081907 | G5 | 37.35 | 21.60 | 0.06 | 0.05 | 22.09 | 0.00 | 17.63 | 1.76 | 0.70 | 0.02 | 0.00 | 101.24 | 50.25 | 7.13 | 40.60 | 1.85 | 0.00 | 0.17 |
| | *00081907 | G6 | 34.87 | 22.08 | 0.03 | 0.01 | 24.38 | 0.00 | 15.21 | 2.24 | 1.21 | 0.00 | 0.01 | 100.04 | 49.74 | 9.58 | 36.95 | 0.00 | 3.70 | 0.02 |
| | *00081907 | G7 | 37.77 | 21.78 | 0.00 | 0.00 | 18.76 | 0.00 | 21.32 | 1.69 | 0.55 | 0.02 | 0.00 | 101.89 | 42.57 | 6.83 | 48.99 | 1.60 | 0.00 | 0.00 |
| | *00081907 | G8 | 37.09 | 21.13 | 0.05 | 0.00 | 24.30 | 0.00 | 14.44 | 0.89 | 1.02 | 0.04 | 0.00 | 98.95 | 58.10 | 3.80 | 34.97 | 3.13 | 0.00 | 0.00 |
| | *00081907 | G9 | 37.75 | 20.60 | 0.00 | 0.00 | 26.61 | 0.06 | 13.07 | 2.16 | 1.00 | 0.00 | 0.00 | 101.24 | 57.82 | 8.85 | 30.40 | 2.93 | 0.00 | 0.00 |
| | *00081907 | G10 | 38.86 | 21.16 | 0.14 | 0.02 | 5.05 | 0.00 | 4.23 | 0.01 | 30.60 | 0.00 | 0.00 | 100.07 | 6.63 | 0.05 | 9.18 | 77.77 | 6.33 | 0.05 |
| | *00081907 | G11 | 35.79 | 21.24 | 0.04 | 0.02 | 30.09 | 0.01 | 7.35 | 0.59 | 3.19 | 0.00 | 0.00 | 98.31 | 70.52 | 2.48 | 17.44 | 9.50 | 0.00 | 0.07 |
| | *00081907 | G12 | 37.31 | 21.44 | 0.00 | 0.00 | 26.82 | 0.02 | 13.60 | 2.13 | 0.72 | 0.01 | 0.01 | 102.07 | 58.44 | 8.53 | 30.96 | 0.00 | 2.08 | 0.00 |
| | *00081907 | G13 | 39.15 | 23.13 | 0.01 | 0.05 | 28.99 | 0.00 | 0.36 | 8.96 | 1.40 | 0.00 | 0.00 | 102.05 | 61.30 | 34.11 | 0.78 | 2.74 | 0.93 | 0.15 |
| | *00081907 | G14 | 38.66 | 20.53 | 0.18 | 0.00 | 2.52 | 0.00 | 0.36 | 0.30 | 36.34 | 0.00 | 0.00 | 98.89 | 0.00 | 1.17 | 0.78 | 89.79 | 8.26 | 0.00 |
| | *00081907 | G15 | 39.15 | 22.53 | 0.04 | 0.01 | 29.34 | 0.01 | 0.57 | 8.41 | 1.19 | 0.00 | 0.00 | 101.24 | 63.18 | 32.30 | 1.24 | 3.24 | 0.00 | 0.04 |
| | *00081907 | G16 | 38.23 | 21.31 | 0.25 | 0.01 | 20.78 | 0.00 | 9.28 | 0.89 | 9.61 | 0.00 | 0.00 | 100.38 | 47.13 | 3.61 | 21.33 | 27.90 | 0.00 | 0.04 |
| | *00081907 | G17 | 37.47 | 21.49 | 0.10 | 0.00 | 21.75 | 0.01 | 17.23 | 2.20 | 0.82 | 0.00 | 0.01 | 101.08 | 49.24 | 8.89 | 39.50 | 2.37 | 0.00 | 0.01 |
| | *00081907 | G18 | 37.34 | 20.95 | 0.04 | 0.00 | 31.31 | 0.00 | 7.31 | 0.57 | 2.27 | 0.07 | 0.00 | 99.86 | 73.42 | 2.39 | 17.35 | 6.83 | 0.00 | 0.00 |
| | *00081907 | G19 | 38.14 | 21.89 | 0.07 | 0.00 | 31.71 | 0.00 | 1.22 | 4.59 | 2.66 | 0.00 | 0.00 | 100.28 | 71.21 | 18.37 | 2.78 | 7.64 | 0.00 | 0.00 |
| | *00081907 | G20 | 37.39 | 20.37 | 0.41 | 0.00 | 4.51 | 0.00 | 34.96 | 0.26 | 3.10 | 0.00 | 0.00 | 101.00 | 7.49 | 1.07 | 82.22 | 9.22 | 0.00 | 0.00 |
| | *00081907 | G21 | 38.49 | 21.37 | 0.02 | 0.04 | 25.34 | 0.00 | 9.62 | 1.52 | 2.38 | 0.00 | 0.01 | 98.78 | 62.05 | 6.65 | 23.85 | 7.31 | 0.00 | 0.14 |
| | *00081907 | G22 | 37.93 | 20.95 | 0.02 | 0.00 | 27.53 | 0.03 | 13.85 | 0.04 | 0.15 | 0.00 | 0.00 | 100.49 | 65.85 | 0.16 | 33.54 | 0.44 | 0.00 | 0.00 |
| | *00081907 | G23 | 37.88 | 21.30 | 0.06 | 0.00 | 35.21 | 0.00 | 3.69 | 1.35 | 1.23 | 0.00 | 0.00 | 100.73 | 82.01 | 5.62 | 8.71 | 3.66 | 0.00 | 0.01 |
| | *00081907 | G24 | 39.89 | 21.32 | 0.07 | 0.08 | 26.16 | 0.00 | 0.48 | 10.77 | 1.09 | 0.00 | 0.00 | 99.86 | 53.34 | 42.50 | 1.07 | 2.84 | 0.00 | 0.25 |
| | *00081907 | G25 | 37.64 | 20.13 | 0.08 | 0.00 | 22.76 | 0.05 | 16.81 | 0.37 | 1.00 | 0.10 | 0.00 | 98.95 | 54.54 | 1.56 | 40.82 | 3.08 | 0.00 | 0.00 |
| | *00081907 | G26 | 40.31 | 22.42 | 0.02 | 0.09 | 26.81 | 0.00 | 0.44 | 9.65 | 0.89 | 0.00 | 0.00 | 100.63 | 58.79 | 37.72 | 0.98 | 2.23 | 0.00 | 0.28 |
| | *00081907 | G27 | 38.23 | 21.42 | 0.01 | 0.00 | 30.35 | 0.01 | 7.33 | 1.90 | 1.50 | 0.04 | 0.00 | 100.78 | 70.44 | 7.88 | 17.23 | 4.46 | 0.00 | 0.00 |
| *00081907 | G28 | 38.04 | 21.37 | 0.00 | 0.00 | 36.25 | 0.00 | 3.66 | 1.09 | 1.03 | 0.02 | 0.01 | 101.46 | 83.88 | 4.51 | 8.58 | 3.04 | 0.00 | 0.00 | |
| *00081907 | G29 | 37.74 | 21.42 | 0.01 | 0.01 | 29.52 | 0.00 | 10.16 | 1.22 | 0.68 | 0.00 | 0.00 | 100.76 | 68.88 | 5.09 | 24.00 | 2.02 | 0.00 | 0.02 | |
| *00081907 | G30 | 38.80 | 22.00 | 0.00 | 0.03 | 33.73 | 0.06 | 0.69 | 5.09 | 0.96 | 0.06 | 0.01 | 101.43 | 75.41 | 20.29 | 1.56 | 2.66 | 0.00 | 0.09 | |
| *00081907 | G31 | 37.75 | 21.56 | 0.00 | 0.06 | 30.05 | 0.00 | 9.29 | 1.02 | 1.12 | 0.01 | 0.02 | 100.89 | 70.35 | 4.26 | 22.03 | 3.15 | 0.00 | 0.21 | |
| *00081907 | G32 | 39.60 | 22.52 | 0.07 | 0.03 | 29.70 | 0.02 | 0.53 | 8.07 | 1.10 | 0.02 | 0.00 | 101.64 | 64.53 | 31.26 | 1.16 | 2.95 | 0.00 | 0.10 | |
| *00081907 | G33 | 37.72 | 21.39 | 0.00 | 0.04 | 28.84 | 0.07 | 10.52 | 1.19 | 0.51 | 0.02 | 0.02 | 100.31 | 68.25 | 5.01 | 25.21 | 1.39 | 0.00 | 0.14 | |
| *00081907 | G34 | 37.54 | 21.41 | 0.00 | 0.03 | 28.10 | 0.00 | 10.94 | 1.53 | 0.79 | 0.01 | 0.01 | 100.35 | 65.47 | 6.35 | 25.83 | 2.26 | 0.00 | 0.09 | |

Table C-2. Chemical compositions of detrital garnets from the Mineoka and Setogawa areas. (6)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|--|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Futatsuyama Fm. | *00081907 | G35 | 37.81 | 19.86 | 0.20 | 0.00 | 15.30 | 0.00 | 21.89 | 1.30 | 3.24 | 0.00 | 0.01 | 99.61 | 31.77 | 5.53 | 52.82 | 9.89 | 0.00 | 0.00 |
| | *00081907 | G36 | 38.02 | 21.41 | 0.00 | 0.00 | 31.68 | 0.09 | 7.92 | 1.09 | 0.97 | 0.00 | 0.02 | 101.20 | 73.87 | 4.52 | 18.71 | 2.90 | 0.00 | 0.00 |
| | *00081907 | G37 | 37.89 | 21.25 | 0.04 | 0.00 | 34.95 | 0.00 | 4.47 | 0.59 | 1.54 | 0.00 | 0.00 | 100.73 | 82.25 | 2.47 | 10.65 | 4.62 | 0.00 | 0.01 |
| | *00081907 | G38 | 37.69 | 21.67 | 0.00 | 0.00 | 24.37 | 0.06 | 13.75 | 1.94 | 0.85 | 0.04 | 0.00 | 100.36 | 56.89 | 8.06 | 32.51 | 2.55 | 0.00 | 0.00 |
| | *00081907 | G39 | 37.52 | 22.84 | 0.06 | 0.03 | 27.23 | 0.04 | 0.16 | 9.64 | 0.98 | 0.04 | 0.00 | 98.53 | 58.39 | 38.44 | 0.37 | 0.00 | 2.73 | 0.08 |
| | *00081907 | G40 | 39.78 | 15.69 | 0.64 | 0.00 | 9.94 | 0.00 | 1.07 | 0.14 | 32.92 | 0.04 | 0.02 | 100.24 | 0.00 | 0.60 | 2.61 | 76.70 | 20.10 | 0.00 |
| | *00081907 | G41 | 38.95 | 21.44 | 0.04 | 0.05 | 28.51 | 0.04 | 0.87 | 7.88 | 1.29 | 0.00 | 0.00 | 99.06 | 63.24 | 31.14 | 1.94 | 3.50 | 0.00 | 0.17 |
| | *00081907 | G42 | 37.45 | 20.76 | 0.02 | 0.03 | 19.25 | 0.00 | 17.30 | 1.64 | 1.12 | 0.00 | 0.00 | 97.57 | 46.81 | 7.09 | 42.61 | 3.39 | 0.00 | 0.10 |
| | *00081907 | G43 | 39.40 | 20.17 | 0.20 | 0.03 | 6.17 | 0.00 | 1.76 | 0.03 | 31.84 | 0.00 | 0.00 | 99.60 | 5.18 | 0.14 | 3.97 | 85.55 | 5.08 | 0.09 |
| | *00081907 | G44 | 37.22 | 21.13 | 1.09 | 0.07 | 20.46 | 0.00 | 16.72 | 2.18 | 0.72 | 0.00 | 0.02 | 99.59 | 48.49 | 9.20 | 40.14 | 1.96 | 0.00 | 0.22 |
| *00081907 | G45 | 38.05 | 20.25 | 0.08 | 0.00 | 22.47 | 0.00 | 17.72 | 0.73 | 0.67 | 0.06 | 0.00 | 100.03 | 52.76 | 3.06 | 42.15 | 2.02 | 0.00 | 0.00 | |
| Leucocratic sandstone (Hegurinaka) | 00051303 | G1 | 39.95 | 23.03 | 0.01 | 0.03 | 27.45 | 0.00 | 0.11 | 9.89 | 1.25 | 0.00 | 0.00 | 101.71 | 58.68 | 37.68 | 0.23 | 3.32 | 0.00 | 0.09 |
| | 00051303 | G2 | 37.20 | 21.45 | 0.02 | 0.00 | 34.99 | 0.00 | 0.70 | 3.62 | 0.69 | 0.03 | 0.00 | 98.70 | 81.29 | 15.01 | 1.65 | 2.05 | 0.00 | 0.00 |
| | 00051303 | G3 | 38.12 | 21.28 | 0.00 | 0.03 | 35.89 | 0.00 | 0.74 | 1.14 | 1.85 | 0.00 | 0.01 | 99.05 | 87.46 | 4.96 | 1.82 | 5.66 | 0.00 | 0.10 |
| | 00051303 | G4 | 38.98 | 22.23 | 0.02 | 0.00 | 27.53 | 0.02 | 0.15 | 8.34 | 1.02 | 0.00 | 0.00 | 98.27 | 62.79 | 33.90 | 0.34 | 2.97 | 0.00 | 0.00 |
| | *00051303 | G5 | 37.56 | 21.45 | 0.18 | 0.03 | 34.36 | 0.00 | 0.95 | 3.81 | 1.77 | 0.00 | 0.00 | 100.09 | 77.41 | 15.30 | 2.17 | 5.02 | 0.00 | 0.11 |
| | *00051303 | G6 | 39.44 | 22.50 | 0.07 | 0.12 | 27.96 | 0.00 | 0.50 | 8.45 | 1.92 | 0.00 | 0.00 | 100.96 | 60.80 | 32.75 | 1.11 | 4.97 | 0.00 | 0.37 |
| | *00051303 | G7 | 38.34 | 21.22 | 0.12 | 0.00 | 30.35 | 0.02 | 0.39 | 1.29 | 8.82 | 0.05 | 0.00 | 100.60 | 68.43 | 5.20 | 0.88 | 25.48 | 0.00 | 0.01 |
| | *00051303 | G8 | 38.03 | 20.85 | 0.09 | 0.00 | 31.42 | 0.03 | 0.92 | 5.05 | 2.11 | 0.07 | 0.00 | 98.57 | 71.32 | 20.42 | 2.12 | 6.14 | 0.00 | 0.00 |
| | *00051303 | G9 | 39.17 | 21.80 | 0.11 | 0.06 | 28.21 | 0.00 | 0.81 | 4.69 | 6.89 | 0.00 | 0.02 | 101.75 | 61.01 | 18.10 | 1.78 | 18.91 | 0.00 | 0.20 |
| | *00051303 | G10 | 38.90 | 22.50 | 0.01 | 0.06 | 28.91 | 0.04 | 0.53 | 8.38 | 1.08 | 0.01 | 0.01 | 100.45 | 63.17 | 32.64 | 1.18 | 2.84 | 0.00 | 0.18 |
| | *00051303 | G11 | 38.15 | 21.73 | 0.01 | 0.02 | 34.20 | 0.01 | 0.92 | 3.87 | 1.13 | 0.06 | 0.00 | 100.09 | 78.65 | 15.87 | 2.13 | 3.28 | 0.00 | 0.06 |
| | *00051303 | G12 | 40.25 | 22.50 | 0.02 | 0.01 | 25.16 | 0.00 | 0.21 | 11.38 | 1.29 | 0.01 | 0.00 | 100.83 | 53.19 | 42.88 | 0.45 | 3.45 | 0.00 | 0.03 |
| *00051303 | G13 | 38.66 | 22.17 | 0.05 | 0.00 | 29.51 | 0.01 | 0.51 | 7.90 | 0.99 | 0.01 | 0.00 | 99.81 | 65.05 | 31.02 | 1.13 | 2.79 | 0.00 | 0.01 | |
| Leucocratic sandstone (Mineoka- sengen) | *00081817 | G1 | 39.93 | 23.01 | 0.00 | 0.00 | 26.70 | 0.00 | 0.37 | 10.42 | 0.96 | 0.01 | 0.01 | 101.40 | 56.97 | 39.63 | 0.79 | 2.61 | 0.00 | 0.00 |
| | *00081817 | G2 | 36.41 | 0.29 | 0.01 | 0.03 | 27.11 | 0.02 | 0.50 | 0.17 | 33.02 | 0.00 | 0.00 | 97.54 | 0.00 | 0.72 | 0.76 | 0.00 | 98.42 | 0.09 |
| | *00081817 | G3 | 39.29 | 22.31 | 0.01 | 0.10 | 29.90 | 0.02 | 0.26 | 8.07 | 1.05 | 0.02 | 0.00 | 101.03 | 85.16 | 31.33 | 0.58 | 2.63 | 0.00 | 0.30 |
| | *00081817 | G4 | 39.00 | 22.36 | 0.02 | 0.04 | 32.19 | 0.00 | 0.57 | 6.43 | 0.69 | 0.04 | 0.02 | 101.35 | 71.36 | 25.40 | 1.28 | 1.84 | 0.00 | 0.12 |
| | *00081817 | G5 | 38.95 | 23.12 | 0.03 | 0.06 | 25.12 | 0.04 | 0.23 | 11.26 | 1.18 | 0.00 | 0.00 | 99.99 | 53.12 | 43.12 | 0.51 | 1.80 | 1.27 | 0.18 |
| | *00081817 | G6 | 40.12 | 22.44 | 0.05 | 0.00 | 26.80 | 0.04 | 0.41 | 10.01 | 0.85 | 0.00 | 0.00 | 100.71 | 58.08 | 38.67 | 0.90 | 2.35 | 0.00 | 0.00 |
| | *00081817 | G7 | 38.90 | 21.93 | 0.03 | 0.08 | 32.20 | 0.03 | 0.76 | 4.37 | 3.08 | 0.04 | 0.00 | 101.41 | 72.03 | 17.44 | 1.72 | 8.58 | 0.00 | 0.24 |
| | *00081817 | G8 | 39.60 | 22.61 | 0.05 | 0.07 | 27.49 | 0.00 | 0.31 | 10.12 | 1.06 | 0.00 | 0.00 | 101.32 | 58.25 | 38.20 | 0.67 | 2.67 | 0.00 | 0.21 |
| | *00081817 | G9 | 39.68 | 22.68 | 0.04 | 0.03 | 27.73 | 0.00 | 0.20 | 9.78 | 0.96 | 0.01 | 0.00 | 101.10 | 59.52 | 37.43 | 0.43 | 2.55 | 0.00 | 0.08 |
| | *00081817 | G10 | 39.95 | 22.36 | 0.03 | 0.05 | 27.46 | 0.00 | 0.23 | 9.44 | 0.98 | 0.03 | 0.00 | 100.52 | 60.00 | 36.75 | 0.51 | 2.60 | 0.00 | 0.15 |
| | *00081817 | G11 | 39.18 | 22.30 | 0.05 | 0.06 | 28.47 | 0.02 | 0.46 | 8.96 | 0.99 | 0.00 | 0.00 | 100.48 | 61.66 | 34.57 | 1.01 | 2.58 | 0.00 | 0.18 |
| | *00081817 | G12 | 40.43 | 22.95 | 0.04 | 0.04 | 26.14 | 0.00 | 0.61 | 10.35 | 0.99 | 0.00 | 0.00 | 101.55 | 56.23 | 39.70 | 1.34 | 2.62 | 0.00 | 0.11 |
| | *00081817 | G13 | 38.64 | 22.82 | 0.01 | 0.06 | 26.80 | 0.00 | 0.59 | 9.77 | 1.62 | 0.00 | 0.00 | 100.31 | 56.52 | 37.69 | 1.30 | 2.10 | 2.22 | 0.18 |
| | *00081817 | G14 | 39.93 | 22.73 | 0.06 | 0.05 | 26.61 | 0.01 | 0.17 | 10.14 | 1.07 | 0.02 | 0.00 | 100.78 | 57.57 | 39.09 | 0.37 | 2.83 | 0.00 | 0.14 |
| | *00081817 | G15 | 38.29 | 21.63 | 0.08 | 0.07 | 34.50 | 0.00 | 1.08 | 2.72 | 1.16 | 0.02 | 0.00 | 99.54 | 82.27 | 11.58 | 2.60 | 3.32 | 0.00 | 0.23 |
| | *00081817 | G16 | 38.65 | 21.88 | 0.00 | 0.05 | 33.92 | 0.00 | 0.80 | 4.38 | 1.04 | 0.02 | 0.03 | 100.76 | 77.33 | 17.80 | 1.84 | 2.89 | 0.00 | 0.15 |
| | *00081817 | G17 | 39.02 | 21.62 | 0.07 | 0.00 | 27.72 | 0.00 | 1.74 | 4.52 | 6.58 | 0.00 | 0.00 | 101.27 | 60.07 | 17.63 | 3.85 | 18.45 | 0.00 | 0.00 |

Table C-2. Chemical compositions of detrital garnets from the Mineoka and Setogawa areas. (7)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | *FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|---------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Leucocratic | *00081817 | G18 | 39.30 | 21.83 | 0.05 | 0.06 | 28.76 | 0.01 | 1.04 | 8.33 | 1.04 | 0.00 | 0.00 | 100.41 | 62.53 | 32.29 | 2.29 | 2.72 | 0.00 | 0.18 |
| sandstone | *00081817 | G19 | 39.57 | 22.44 | 0.03 | 0.04 | 28.27 | 0.02 | 0.44 | 8.44 | 1.12 | 0.00 | 0.00 | 100.37 | 62.55 | 33.29 | 0.98 | 3.07 | 0.00 | 0.11 |
| (Mineoka- | *00081817 | G20 | 39.70 | 22.77 | 0.06 | 0.07 | 26.86 | 0.02 | 0.26 | 10.34 | 0.98 | 0.04 | 0.02 | 101.12 | 57.38 | 39.37 | 0.57 | 2.48 | 0.00 | 0.21 |
| sengen) | *00081817 | G21 | 39.40 | 22.32 | 0.04 | 0.02 | 29.24 | 0.00 | 0.36 | 8.15 | 1.56 | 0.00 | 0.00 | 101.08 | 63.40 | 31.49 | 0.79 | 4.26 | 0.00 | 0.07 |
| Leucocratic | *00081806 | G1 | 39.25 | 21.75 | 0.12 | 0.00 | 30.56 | 0.02 | 1.00 | 2.62 | 5.79 | 0.00 | 0.03 | 101.15 | 69.99 | 10.69 | 2.33 | 17.00 | 0.00 | 0.00 |
| sandstone | *00081806 | G2 | 39.10 | 22.08 | 0.00 | 0.10 | 32.47 | 0.05 | 1.08 | 5.43 | 1.36 | 0.00 | 0.00 | 101.67 | 72.19 | 21.50 | 2.43 | 3.56 | 0.00 | 0.33 |
| (Yohka Beach) | *00081806 | G3 | 39.08 | 21.69 | 0.04 | 0.02 | 28.97 | 0.01 | 1.25 | 4.44 | 5.01 | 0.00 | 0.00 | 100.51 | 65.02 | 17.75 | 2.84 | 14.33 | 0.00 | 0.07 |
| | *00081806 | G4 | 38.94 | 22.15 | 0.05 | 0.11 | 29.49 | 0.01 | 1.15 | 7.56 | 1.01 | 0.05 | 0.00 | 100.51 | 64.92 | 29.67 | 2.55 | 2.52 | 0.00 | 0.34 |
| | *00081806 | G5 | 39.65 | 21.93 | 0.02 | 0.05 | 28.83 | 0.00 | 0.59 | 8.42 | 1.05 | 0.04 | 0.00 | 100.56 | 62.99 | 32.77 | 1.30 | 2.79 | 0.00 | 0.15 |
| | *00081806 | G6 | 38.67 | 22.88 | 0.09 | 0.00 | 11.39 | 0.00 | 0.18 | 0.01 | 22.78 | 0.01 | 0.00 | 96.01 | 27.93 | 0.04 | 0.45 | 71.58 | 0.00 | 0.00 |
| | *00081806 | G7 | 40.31 | 22.71 | 0.01 | 0.05 | 31.06 | 0.05 | 0.90 | 6.26 | 1.00 | 0.03 | 0.01 | 102.39 | 69.95 | 25.12 | 2.05 | 2.71 | 0.00 | 0.17 |
| | *00081806 | G8 | 39.98 | 22.25 | 0.16 | 0.01 | 28.65 | 0.06 | 0.62 | 8.48 | 1.29 | 0.00 | 0.00 | 101.50 | 62.21 | 32.83 | 1.37 | 3.55 | 0.00 | 0.04 |
| | *00081806 | G9 | 39.24 | 22.12 | 0.00 | 0.00 | 32.43 | 0.00 | 0.74 | 5.52 | 1.21 | 0.03 | 0.02 | 101.33 | 72.75 | 22.08 | 1.69 | 3.48 | 0.00 | 0.00 |
| | *00081806 | G10 | 40.46 | 22.07 | 0.02 | 0.06 | 24.81 | 0.05 | 1.00 | 6.72 | 5.98 | 0.00 | 0.00 | 101.17 | 54.58 | 26.34 | 2.23 | 16.65 | 0.00 | 0.20 |
| | *00081806 | G11 | 38.89 | 21.82 | 0.03 | 0.24 | 33.95 | 0.04 | 1.07 | 2.67 | 2.62 | 0.00 | 0.02 | 101.34 | 78.70 | 11.04 | 2.50 | 6.99 | 0.00 | 0.78 |
| | *00081806 | G12 | 39.00 | 22.04 | 0.06 | 0.00 | 26.67 | 0.00 | 6.05 | 4.31 | 2.77 | 0.00 | 0.01 | 100.90 | 60.58 | 17.43 | 13.92 | 8.07 | 0.00 | 0.00 |
| | *00081806 | G13 | 38.24 | 21.52 | 0.03 | 0.00 | 34.47 | 0.03 | 2.02 | 3.24 | 0.98 | 0.01 | 0.00 | 100.53 | 79.18 | 13.24 | 4.70 | 2.88 | 0.00 | 0.00 |
| | *00081806 | G14 | 38.23 | 22.04 | 0.13 | 0.02 | 22.55 | 0.06 | 0.52 | 5.07 | 9.64 | 0.00 | 0.01 | 98.25 | 50.74 | 20.32 | 1.17 | 27.71 | 0.00 | 0.06 |
| | *00081806 | G15 | 39.88 | 22.35 | 0.13 | 0.01 | 29.97 | 0.07 | 0.24 | 7.40 | 1.09 | 0.04 | 0.00 | 101.17 | 66.92 | 29.43 | 0.54 | 3.07 | 0.00 | 0.04 |
| | *00081806 | G16 | 40.09 | 22.53 | 0.07 | 0.08 | 24.93 | 0.01 | 0.64 | 10.41 | 1.30 | 0.00 | 0.00 | 100.04 | 54.45 | 40.51 | 1.41 | 3.38 | 0.00 | 0.26 |
| | *00081806 | G17 | 38.71 | 21.72 | 0.06 | 0.03 | 32.62 | 0.00 | 1.01 | 5.11 | 1.11 | 0.02 | 0.00 | 100.37 | 73.84 | 20.63 | 2.31 | 3.12 | 0.00 | 0.09 |
| | *00081806 | G18 | 39.14 | 20.22 | 0.09 | 0.00 | 27.30 | 0.01 | 0.57 | 8.98 | 1.36 | 0.03 | 0.01 | 97.69 | 57.15 | 37.45 | 1.34 | 4.06 | 0.00 | 0.00 |
| | *00081806 | G19 | 39.83 | 22.12 | 0.03 | 0.05 | 19.73 | 0.03 | 0.61 | 4.71 | 12.67 | 0.04 | 0.00 | 99.82 | 43.86 | 18.68 | 1.36 | 35.93 | 0.00 | 0.17 |
| | *00081806 | G20 | 38.06 | 21.66 | 0.01 | 0.00 | 34.77 | 0.04 | 0.98 | 3.42 | 1.16 | 0.02 | 0.00 | 100.12 | 80.20 | 14.06 | 2.30 | 3.44 | 0.00 | 0.00 |
| | *00081806 | G21 | 38.84 | 21.65 | 0.03 | 0.12 | 31.49 | 0.04 | 0.99 | 6.41 | 0.93 | 0.00 | 0.02 | 100.52 | 69.81 | 25.32 | 2.22 | 2.27 | 0.00 | 0.38 |
| | *00081806 | G22 | 39.36 | 21.94 | 0.07 | 0.07 | 34.00 | 0.00 | 0.72 | 1.97 | 0.85 | 0.00 | 0.00 | 98.97 | 86.45 | 8.91 | 1.86 | 2.52 | 0.00 | 0.25 |
| | *00081806 | G23 | 38.55 | 21.49 | 0.07 | 0.00 | 35.07 | 0.00 | 0.84 | 2.90 | 1.30 | 0.01 | 0.01 | 100.22 | 82.05 | 12.08 | 1.98 | 3.88 | 0.00 | 0.01 |
| | *00081806 | G24 | 39.43 | 21.32 | 0.09 | 0.09 | 25.61 | 0.03 | 1.18 | 6.42 | 6.20 | 0.03 | 0.00 | 100.40 | 54.47 | 25.30 | 2.64 | 17.30 | 0.00 | 0.29 |
| | *00081806 | G25 | 36.59 | 21.62 | 0.18 | 0.07 | 20.26 | 0.00 | 0.95 | 1.46 | 16.30 | 0.00 | 0.00 | 97.43 | 44.32 | 5.93 | 2.19 | 44.60 | 2.73 | 0.23 |
| | *00081806 | G26 | 40.04 | 21.51 | 0.06 | 0.00 | 20.43 | 0.00 | 2.34 | 1.84 | 15.24 | 0.04 | 0.00 | 101.51 | 44.62 | 7.22 | 5.22 | 42.94 | 0.00 | 0.00 |
| | *00081806 | G27 | 40.17 | 21.93 | 0.04 | 0.08 | 29.35 | 0.06 | 0.46 | 7.12 | 1.85 | 0.02 | 0.00 | 101.07 | 65.40 | 28.28 | 1.03 | 5.04 | 0.00 | 0.25 |
| | *00081806 | G28 | 39.59 | 22.27 | 0.06 | 0.01 | 33.02 | 0.01 | 0.72 | 5.22 | 0.99 | 0.03 | 0.00 | 101.91 | 74.52 | 20.99 | 1.64 | 2.80 | 0.00 | 0.05 |
| | *00081806 | G29 | 38.43 | 21.89 | 0.17 | 0.03 | 33.91 | 0.01 | 1.28 | 4.71 | 0.65 | 0.00 | 0.03 | 101.11 | 76.32 | 18.89 | 2.92 | 1.78 | 0.00 | 0.09 |
| | *00081806 | G30 | 38.98 | 21.56 | 0.12 | 0.08 | 30.42 | 0.01 | 1.21 | 1.72 | 6.95 | 0.00 | 0.01 | 101.06 | 69.73 | 7.04 | 2.82 | 20.16 | 0.00 | 0.26 |
| | *00081806 | G31 | 40.35 | 21.76 | 0.19 | 0.00 | 1.83 | 0.01 | 0.08 | 0.09 | 36.37 | 0.04 | 0.01 | 100.74 | 0.00 | 0.33 | 0.18 | 97.93 | 1.56 | 0.00 |
| | *00081806 | G32 | 38.86 | 21.76 | 0.06 | 0.04 | 32.75 | 0.00 | 0.54 | 2.89 | 1.10 | 0.00 | 0.00 | 98.01 | 82.16 | 12.92 | 1.38 | 3.39 | 0.00 | 0.14 |
| | *00081806 | G33 | 36.83 | 21.34 | 0.20 | 0.00 | 27.22 | 0.00 | 13.63 | 0.41 | 0.17 | 0.00 | 0.00 | 99.80 | 64.84 | 1.74 | 32.90 | 0.53 | 0.00 | 0.00 |
| | *00081806 | G34 | 39.09 | 21.46 | 0.10 | 0.04 | 23.86 | 0.00 | 0.89 | 4.72 | 9.86 | 0.05 | 0.02 | 100.08 | 51.70 | 18.51 | 1.99 | 27.67 | 0.00 | 0.13 |
| Mikura Gr. | *02122701 | G1 | 38.67 | 21.97 | 0.02 | 0.07 | 30.60 | 0.00 | 0.72 | 5.96 | 1.64 | 0.00 | 0.00 | 99.64 | 69.48 | 24.10 | 1.66 | 4.55 | 0.00 | 0.21 |
| | *02122701 | G2 | 37.07 | 21.18 | 0.13 | 0.11 | 20.25 | 0.00 | 18.72 | 1.18 | 0.96 | 0.01 | 0.01 | 99.61 | 47.61 | 4.93 | 44.58 | 2.53 | 0.00 | 0.36 |
| | *02122701 | G3 | 37.98 | 21.41 | 0.04 | 0.02 | 28.60 | 0.01 | 5.89 | 4.28 | 2.14 | 0.00 | 0.02 | 100.40 | 63.63 | 16.99 | 13.28 | 6.04 | 0.00 | 0.06 |

Table C-2. Chemical compositions of detrital garnets from the Mineoka and Setogawa areas. (8)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) | |
|------------|-----------------------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|------|
| Mikura Gr. | *02122701 | G4 | 37.57 | 20.48 | 0.25 | 0.00 | 17.08 | 0.01 | 17.43 | 1.95 | 4.71 | 0.00 | 0.01 | 99.49 | 37.26 | 8.04 | 40.76 | 13.93 | 0.00 | 0.01 | |
| | *02122701 | G5 | 37.81 | 21.48 | 0.00 | 0.05 | 34.10 | 0.00 | 3.60 | 0.30 | 3.22 | 0.01 | 0.00 | 100.57 | 80.41 | 1.27 | 8.59 | 9.56 | 0.00 | 0.17 | |
| | *02122701 | G6 | 38.82 | 21.89 | 0.07 | 0.02 | 31.75 | 0.00 | 0.64 | 5.87 | 1.45 | 0.00 | 0.00 | 100.51 | 70.99 | 23.41 | 1.44 | 4.09 | 0.00 | 0.07 | |
| | *02122701 | G7 | 39.46 | 21.54 | 0.02 | 0.00 | 25.30 | 0.04 | 13.22 | 0.76 | 0.38 | 0.06 | 0.00 | 100.78 | 62.41 | 3.36 | 33.03 | 1.20 | 0.00 | 0.00 | |
| | *02122701 | G8 | 37.54 | 20.95 | 0.03 | 0.00 | 33.63 | 0.00 | 5.30 | 0.66 | 1.42 | 0.05 | 0.01 | 99.60 | 80.07 | 2.81 | 12.79 | 4.33 | 0.00 | 0.00 | |
| | *02122701 | G9 | 39.41 | 22.31 | 0.05 | 0.01 | 24.74 | 0.00 | 9.19 | 3.99 | 1.26 | 0.00 | 0.20 | 101.15 | 57.83 | 16.64 | 21.76 | 3.74 | 0.00 | 0.02 | |
| | *02122701 | G10 | 37.70 | 20.95 | 0.11 | 0.02 | 12.95 | 0.02 | 17.72 | 0.85 | 8.14 | 0.00 | 0.00 | 98.45 | 30.22 | 3.54 | 41.90 | 24.27 | 0.00 | 0.08 | |
| | *02122701 | G11 | 36.28 | 20.64 | 0.02 | 0.09 | 25.68 | 0.01 | 10.65 | 3.22 | 1.42 | 0.04 | 0.02 | 98.06 | 57.51 | 13.30 | 24.98 | 0.97 | 2.95 | 0.29 | |
| | *02122701 | G12 | 39.10 | 20.96 | 0.15 | 0.05 | 22.67 | 0.01 | 9.99 | 1.69 | 6.71 | 0.00 | 0.02 | 101.34 | 51.04 | 6.78 | 22.80 | 19.24 | 0.00 | 0.14 | |
| | *02122701 | G13 | 38.63 | 21.17 | 0.07 | 0.01 | 24.57 | 0.00 | 2.60 | 1.44 | 11.38 | 0.00 | 0.00 | 99.87 | 55.39 | 5.80 | 5.93 | 32.84 | 0.00 | 0.04 | |
| | *02122701 | G14 | 36.61 | 21.00 | 0.01 | 0.01 | 29.95 | 0.00 | 10.31 | 0.53 | 0.41 | 0.00 | 0.02 | 98.86 | 71.55 | 2.25 | 24.94 | 1.22 | 0.00 | 0.04 | |
| | *02122701 | G15 | 37.75 | 21.12 | 0.02 | 0.02 | 28.17 | 0.00 | 8.75 | 2.20 | 1.33 | 0.01 | 0.00 | 99.37 | 66.06 | 9.18 | 20.78 | 3.92 | 0.00 | 0.06 | |
| | *02122701 | G16 | 37.23 | 21.09 | 0.03 | 0.00 | 27.60 | 0.00 | 11.45 | 1.30 | 0.96 | 0.12 | 0.02 | 99.78 | 64.59 | 5.40 | 27.13 | 2.88 | 0.00 | 0.00 | |
| | *02122701 | G17 | 37.90 | 21.15 | 0.10 | 0.01 | 23.17 | 0.00 | 9.82 | 0.34 | 7.46 | 0.05 | 0.00 | 99.99 | 53.53 | 1.40 | 22.99 | 22.06 | 0.00 | 0.02 | |
| | Setogawa Gr. | *03081201 | G1 | 38.05 | 22.24 | 0.02 | 0.06 | 22.72 | 0.00 | 14.63 | 2.96 | 1.02 | 0.00 | 0.02 | 101.72 | 51.49 | 11.96 | 33.59 | 2.78 | 0.00 | 0.19 |
| | Odake | *03081201 | G2 | 38.19 | 22.54 | 0.03 | 0.00 | 30.81 | 0.00 | 0.63 | 6.07 | 2.16 | 0.00 | 0.01 | 100.44 | 68.42 | 24.02 | 1.41 | 6.14 | 0.00 | 0.01 |
| | Thrust Sheet (sandstone) | *03081201 | G3 | 38.42 | 21.87 | 0.04 | 0.04 | 33.34 | 0.00 | 0.97 | 3.86 | 0.98 | 0.00 | 0.00 | 99.53 | 78.51 | 16.21 | 2.32 | 2.85 | 0.00 | 0.12 |
| *03081201 | | G4 | 38.45 | 21.40 | 0.26 | 0.00 | 10.54 | 0.00 | 17.69 | 0.30 | 12.59 | 0.04 | 0.00 | 101.27 | 23.37 | 1.17 | 39.71 | 35.76 | 0.00 | 0.00 | |
| *03081201 | | G5 | 38.88 | 21.59 | 0.41 | 0.01 | 28.04 | 0.00 | 1.51 | 4.84 | 5.64 | 0.01 | 0.00 | 100.93 | 61.71 | 19.01 | 3.37 | 15.87 | 0.00 | 0.03 | |
| *03081201 | | G6 | 37.16 | 22.23 | 0.04 | 0.02 | 33.75 | 0.00 | 0.65 | 5.01 | 0.94 | 0.00 | 0.00 | 99.78 | 75.74 | 20.07 | 1.47 | 2.41 | 0.24 | 0.06 | |
| *03081201 | | G7 | 38.31 | 21.58 | 0.03 | 0.07 | 32.49 | 0.00 | 0.91 | 3.41 | 3.52 | 0.00 | 0.01 | 100.33 | 73.83 | 13.83 | 2.10 | 10.03 | 0.00 | 0.22 | |
| *03081201 | | G8 | 37.58 | 21.18 | 0.04 | 0.00 | 29.17 | 0.01 | 11.67 | 1.31 | 0.79 | 0.00 | 0.00 | 101.76 | 65.78 | 5.28 | 26.66 | 2.28 | 0.00 | 0.00 | |
| *03081201 | | G9 | 39.63 | 22.97 | 0.00 | 0.01 | 24.60 | 0.00 | 0.49 | 11.23 | 0.98 | 0.00 | 0.00 | 99.91 | 53.05 | 43.17 | 1.08 | 2.67 | 0.00 | 0.03 | |
| *03081201 | | G10 | 36.81 | 21.45 | 0.11 | 0.03 | 28.08 | 0.04 | 11.48 | 1.31 | 0.77 | 0.00 | 0.01 | 100.09 | 65.25 | 5.44 | 27.01 | 2.21 | 0.00 | 0.09 | |
| *03081201 | | G11 | 39.28 | 22.44 | 0.07 | 0.03 | 25.99 | 0.00 | 0.40 | 10.20 | 1.39 | 0.00 | 0.01 | 99.81 | 56.08 | 39.20 | 0.87 | 3.76 | 0.00 | 0.09 | |
| *03081201 | | G12 | 37.95 | 21.00 | 0.05 | 0.00 | 23.87 | 0.01 | 12.46 | 3.09 | 1.28 | 0.00 | 0.00 | 99.72 | 54.71 | 12.63 | 28.91 | 3.76 | 0.00 | 0.00 | |
| *03081201 | | G13 | 38.59 | 22.23 | 0.05 | 0.10 | 28.57 | 0.00 | 6.13 | 4.58 | 1.40 | 0.00 | 0.00 | 101.65 | 63.85 | 18.26 | 13.87 | 3.71 | 0.00 | 0.30 | |
| *03081201 | | G14 | 38.16 | 22.02 | 0.02 | 0.03 | 29.92 | 0.02 | 7.06 | 1.85 | 1.71 | 0.00 | 0.00 | 100.79 | 70.30 | 7.74 | 16.81 | 5.05 | 0.00 | 0.09 | |
| *03081201 | | G15 | 38.68 | 22.13 | 0.05 | 0.06 | 32.61 | 0.00 | 0.92 | 5.70 | 1.24 | 0.00 | 0.00 | 101.40 | 72.00 | 22.43 | 2.07 | 3.32 | 0.00 | 0.19 | |
| *03081201 | | G16 | 38.13 | 22.11 | 0.04 | 0.00 | 19.35 | 0.00 | 18.70 | 1.72 | 0.99 | 0.02 | 0.02 | 101.07 | 45.40 | 7.18 | 44.43 | 2.99 | 0.00 | 0.00 | |
| *03081201 | | G17 | 37.81 | 21.67 | 0.00 | 0.07 | 26.47 | 0.02 | 11.00 | 1.61 | 1.97 | 0.05 | 0.00 | 100.67 | 61.53 | 6.68 | 25.91 | 5.66 | 0.00 | 0.22 | |
| *03081201 | | G18 | 37.59 | 21.53 | 0.01 | 0.00 | 26.85 | 0.00 | 4.30 | 0.61 | 9.51 | 0.06 | 0.02 | 100.49 | 60.36 | 2.44 | 9.80 | 27.40 | 0.00 | 0.00 | |
| *03081201 | | G19 | 38.09 | 21.84 | 0.03 | 0.00 | 34.34 | 0.03 | 1.22 | 1.42 | 3.76 | 0.00 | 0.03 | 100.77 | 79.99 | 5.91 | 2.89 | 11.22 | 0.00 | 0.00 | |
| *03081201 | | G20 | 38.87 | 22.25 | 0.02 | 0.10 | 35.51 | 0.00 | 0.83 | 2.64 | 1.09 | 0.00 | 0.00 | 101.31 | 83.65 | 11.08 | 1.98 | 2.96 | 0.00 | 0.33 | |
| *03081201 | | G21 | 38.22 | 21.87 | 0.03 | 0.01 | 32.86 | 0.02 | 0.91 | 3.78 | 0.95 | 0.00 | 0.00 | 98.64 | 78.72 | 16.14 | 2.21 | 2.89 | 0.00 | 0.04 | |
| *03081201 | | G22 | 37.28 | 21.21 | 0.02 | 0.00 | 27.25 | 0.00 | 11.59 | 0.79 | 0.55 | 0.02 | 0.00 | 98.71 | 66.31 | 3.42 | 28.55 | 1.72 | 0.00 | 0.00 | |
| *03081201 | | G23 | 38.30 | 21.59 | 0.05 | 0.04 | 34.37 | 0.03 | 0.59 | 1.70 | 1.67 | 0.00 | 0.00 | 98.33 | 85.64 | 7.53 | 1.49 | 5.22 | 0.00 | 0.12 | |
| *03081201 | | G24 | 38.58 | 21.92 | 0.05 | 0.00 | 32.32 | 0.00 | 0.63 | 3.00 | 2.01 | 0.00 | 0.01 | 98.52 | 79.08 | 13.09 | 1.56 | 6.28 | 0.00 | 0.01 | |
| *03081201 | | G25 | 37.52 | 21.41 | 0.00 | 0.00 | 31.11 | 0.03 | 7.62 | 0.82 | 0.53 | 0.05 | 0.01 | 99.11 | 75.92 | 3.57 | 18.84 | 1.67 | 0.00 | 0.00 | |
| *03081201 | | G26 | 38.81 | 22.41 | 0.06 | 0.12 | 29.69 | 0.01 | 0.60 | 7.83 | 1.12 | 0.01 | 0.00 | 100.65 | 65.00 | 30.54 | 1.33 | 2.75 | 0.00 | 0.38 | |
| *03081201 | | G27 | 38.40 | 22.30 | 0.00 | 0.01 | 31.25 | 0.00 | 0.95 | 5.74 | 1.21 | 0.00 | 0.00 | 99.86 | 71.02 | 23.27 | 2.19 | 3.50 | 0.00 | 0.02 | |

Table C-2. Chemical compositions of detrital garnets from the Mineoka and Setogawa areas. (9)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyrr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|----------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|-------------|--------|---------|--------|--------|--------|--------|
| Odake | *03081201 | G28 | 38.24 | 22.10 | 0.04 | 0.08 | 32.17 | 0.01 | 0.84 | 5.74 | 1.02 | 0.00 | 0.00 | 100.24 | 72.19 | 22.96 | 1.90 | 2.69 | 0.00 | 0.25 |
| Thrust Sheet | *03081201 | G29 | 37.33 | 21.82 | 0.09 | 0.00 | 34.24 | 0.03 | 0.64 | 3.65 | 2.07 | 0.00 | 0.00 | 99.87 | 77.73 | 14.78 | 1.46 | 6.03 | 0.00 | 0.00 |
| (sandstone) | *03081201 | G30 | 38.34 | 21.50 | 0.01 | 0.05 | 30.95 | 0.00 | 4.07 | 2.68 | 2.87 | 0.04 | 0.01 | 100.52 | 71.11 | 10.98 | 9.47 | 8.27 | 0.00 | 0.17 |
| Setogawa Gr. | *02090604 | G1 | 37.53 | 22.10 | 0.00 | 0.00 | 35.00 | 0.01 | 0.76 | 4.35 | 0.54 | 0.05 | 0.00 | 100.33 | 79.17 | 17.55 | 1.73 | 1.55 | 0.00 | 0.00 |
| Odake | *02090604 | G2 | 38.61 | 22.10 | 0.08 | 0.00 | 28.27 | 0.04 | 0.52 | 7.35 | 2.42 | 0.05 | 0.00 | 99.48 | 62.83 | 29.10 | 1.17 | 6.90 | 0.00 | 0.00 |
| Thrust Sheet | *02093005 | G1 | 39.13 | 22.84 | 0.01 | 0.01 | 28.27 | 0.05 | 0.49 | 9.24 | 1.00 | 0.09 | 0.02 | 101.15 | 60.60 | 35.56 | 1.06 | 2.02 | 0.72 | 0.03 |
| (conglomerate) | *02093005 | G2 | 37.17 | 20.31 | 0.01 | 0.00 | 33.75 | 0.00 | 3.42 | 2.10 | 1.38 | 0.00 | 0.00 | 98.13 | 78.99 | 8.78 | 8.10 | 4.13 | 0.00 | 0.00 |
| | *02093005 | G3 | 39.89 | 22.70 | 0.02 | 0.05 | 26.85 | 0.03 | 0.37 | 9.60 | 1.51 | 0.00 | 0.02 | 101.03 | 58.02 | 36.98 | 0.81 | 4.05 | 0.00 | 0.14 |
| | *02093005 | G4 | 37.94 | 22.09 | 0.01 | 0.00 | 31.13 | 0.00 | 3.16 | 2.51 | 3.86 | 0.02 | 0.00 | 100.71 | 71.17 | 10.22 | 7.31 | 11.30 | 0.00 | 0.00 |
| | *02093005 | G5 | 40.13 | 23.13 | 0.24 | 0.05 | 24.60 | 0.00 | 0.18 | 11.92 | 1.15 | 0.01 | 0.00 | 101.39 | 51.80 | 44.73 | 0.38 | 2.96 | 0.00 | 0.14 |
| | *02093005 | G6 | 39.63 | 22.84 | 0.00 | 0.00 | 28.01 | 0.00 | 0.10 | 9.26 | 1.06 | 0.00 | 0.00 | 100.90 | 60.91 | 35.90 | 0.23 | 2.96 | 0.00 | 0.00 |
| | *02093005 | G7 | 39.83 | 23.14 | 0.04 | 0.05 | 25.93 | 0.00 | 0.31 | 10.91 | 1.00 | 0.02 | 0.01 | 101.23 | 55.22 | 41.40 | 0.67 | 2.56 | 0.00 | 0.15 |
| | *02093005 | G8 | 39.78 | 23.00 | 0.06 | 0.05 | 26.57 | 0.01 | 0.27 | 10.56 | 1.07 | 0.01 | 0.00 | 101.38 | 56.49 | 40.01 | 0.57 | 2.77 | 0.00 | 0.15 |
| | *02093005 | G9 | 37.58 | 21.79 | 0.00 | 0.00 | 34.94 | 0.01 | 1.94 | 3.35 | 0.96 | 0.05 | 0.00 | 100.62 | 79.22 | 13.55 | 4.45 | 2.78 | 0.00 | 0.00 |
| | *02093005 | G10 | 39.25 | 22.57 | 0.00 | 0.00 | 26.95 | 0.03 | 0.17 | 9.66 | 1.31 | 0.07 | 0.00 | 100.01 | 58.55 | 37.43 | 0.37 | 3.65 | 0.00 | 0.00 |
| | *02093005 | G11 | 38.36 | 21.81 | 0.00 | 0.15 | 23.94 | 0.00 | 2.05 | 6.26 | 5.65 | 0.01 | 0.00 | 98.22 | 53.93 | 25.11 | 4.67 | 15.80 | 0.00 | 0.49 |
| | *02093005 | G12 | 39.12 | 22.52 | 0.02 | 0.00 | 30.40 | 0.00 | 0.54 | 7.84 | 0.64 | 0.00 | 0.00 | 101.08 | 66.48 | 30.55 | 1.19 | 1.78 | 0.00 | 0.01 |
| | *02093005 | G13 | 37.77 | 21.70 | 0.05 | 0.00 | 35.66 | 0.00 | 0.73 | 2.97 | 1.20 | 0.00 | 0.00 | 100.08 | 82.48 | 12.25 | 1.71 | 3.57 | 0.00 | 0.00 |
| | *02093005 | G14 | 37.32 | 22.07 | 0.04 | 0.02 | 29.08 | 0.00 | 0.46 | 8.13 | 1.30 | 0.05 | 0.01 | 98.48 | 62.60 | 32.62 | 1.04 | 0.00 | 3.68 | 0.07 |
| | *02093005 | G15 | 39.48 | 22.80 | 0.02 | 0.05 | 26.83 | 0.00 | 0.39 | 10.14 | 1.16 | 0.06 | 0.01 | 100.95 | 57.34 | 38.64 | 0.84 | 3.04 | 0.00 | 0.14 |
| | *02093005 | G16 | 39.71 | 23.03 | 0.02 | 0.07 | 25.53 | 0.00 | 0.12 | 11.74 | 1.01 | 0.00 | 0.02 | 101.25 | 52.90 | 44.12 | 0.25 | 1.13 | 1.39 | 0.22 |
| | *02093005 | G17 | 39.89 | 22.89 | 0.00 | 0.11 | 25.23 | 0.05 | 0.29 | 11.07 | 1.14 | 0.05 | 0.00 | 100.73 | 54.02 | 42.23 | 0.63 | 2.78 | 0.00 | 0.34 |
| | *02093005 | G18 | 39.84 | 22.72 | 0.04 | 0.12 | 27.01 | 0.01 | 0.41 | 10.30 | 1.15 | 0.00 | 0.02 | 101.62 | 57.16 | 38.84 | 0.88 | 2.78 | 0.00 | 0.35 |
| | *02093005 | G19 | 39.86 | 21.71 | 0.08 | 0.00 | 24.88 | 0.02 | 0.32 | 11.14 | 1.56 | 0.00 | 0.02 | 99.60 | 51.66 | 43.27 | 0.72 | 4.35 | 0.00 | 0.00 |
| | *02093005 | G20 | 38.04 | 21.65 | 0.09 | 0.03 | 31.67 | 0.02 | 0.85 | 5.75 | 0.53 | 0.04 | 0.00 | 98.66 | 72.88 | 23.59 | 1.98 | 1.46 | 0.00 | 0.09 |
| | *02093008 | G1 | 35.74 | 21.38 | 0.06 | 0.01 | 15.42 | 0.01 | 26.40 | 0.18 | 0.52 | 0.00 | 0.00 | 99.71 | 35.20 | 0.74 | 62.50 | 0.28 | 1.26 | 0.02 |
| | *02093008 | G2 | 38.94 | 22.21 | 0.02 | 0.00 | 24.60 | 0.02 | 0.72 | 7.73 | 5.79 | 0.05 | 0.00 | 100.08 | 52.69 | 29.74 | 1.56 | 15.42 | 0.59 | 0.00 |
| | *02093008 | G3 | 38.59 | 21.79 | 0.11 | 0.08 | 30.53 | 0.00 | 1.18 | 4.95 | 3.09 | 0.00 | 0.01 | 100.32 | 68.62 | 19.82 | 2.68 | 8.62 | 0.00 | 0.27 |
| | *02093008 | G4 | 37.77 | 21.50 | 0.00 | 0.00 | 27.56 | 0.01 | 10.74 | 2.81 | 0.88 | 0.04 | 0.00 | 101.31 | 61.84 | 11.22 | 24.40 | 2.54 | 0.00 | 0.00 |
| | *02093008 | G5 | 37.97 | 21.57 | 0.03 | 0.03 | 34.43 | 0.03 | 3.97 | 1.91 | 1.95 | 0.00 | 0.00 | 101.88 | 77.62 | 7.67 | 9.07 | 5.56 | 0.00 | 0.08 |
| | *02093008 | G6 | 38.03 | 21.36 | 0.01 | 0.00 | 18.41 | 0.01 | 18.87 | 3.01 | 1.50 | 0.03 | 0.00 | 101.23 | 41.09 | 11.98 | 42.65 | 4.27 | 0.00 | 0.01 |
| | *02093008 | G7 | 38.53 | 21.96 | 0.00 | 0.04 | 28.83 | 0.00 | 3.79 | 4.72 | 3.51 | 0.00 | 0.00 | 101.38 | 63.24 | 18.47 | 8.42 | 9.74 | 0.00 | 0.14 |
| | *02093008 | G8 | 35.08 | 20.40 | 0.41 | 0.02 | 20.46 | 0.00 | 21.23 | 0.81 | 0.63 | 0.00 | 0.00 | 99.02 | 43.44 | 3.43 | 51.20 | 0.00 | 1.88 | 0.05 |
| | *02093008 | G9 | 38.15 | 21.51 | 0.15 | 0.00 | 31.75 | 0.00 | 0.40 | 4.43 | 3.34 | 0.02 | 0.00 | 99.74 | 71.63 | 17.82 | 0.91 | 9.64 | 0.00 | 0.00 |
| | *02093008 | G10 | 38.01 | 21.04 | 0.13 | 0.03 | 34.31 | 0.00 | 2.48 | 2.73 | 1.95 | 0.01 | 0.00 | 100.66 | 77.67 | 11.00 | 5.68 | 5.57 | 0.00 | 0.08 |
| | *02093008 | G11 | 36.73 | 21.55 | 0.00 | 0.00 | 26.89 | 0.02 | 13.39 | 0.33 | 0.62 | 0.04 | 0.01 | 99.55 | 64.29 | 1.39 | 32.42 | 1.90 | 0.00 | 0.00 |
| | *02093008 | G12 | 38.01 | 21.24 | 0.00 | 0.02 | 21.95 | 0.01 | 15.17 | 2.81 | 1.96 | 0.04 | 0.02 | 101.22 | 48.95 | 11.17 | 34.27 | 5.57 | 0.00 | 0.05 |
| | *02093008 | G13 | 37.58 | 20.87 | 0.10 | 0.00 | 21.82 | 0.00 | 20.20 | 0.39 | 0.47 | 0.02 | 0.00 | 101.43 | 50.07 | 1.59 | 46.96 | 1.38 | 0.00 | 0.00 |
| | *02093008 | G14 | 38.04 | 21.65 | 0.04 | 0.06 | 36.50 | 0.00 | 1.70 | 1.69 | 0.92 | 0.00 | 0.01 | 100.60 | 86.08 | 7.10 | 4.05 | 2.58 | 0.00 | 0.20 |
| | *02093008 | G15 | 37.39 | 20.91 | 0.08 | 0.03 | 33.60 | 0.00 | 2.51 | 2.69 | 1.74 | 0.00 | 0.00 | 98.93 | 77.83 | 11.12 | 5.89 | 5.09 | 0.00 | 0.08 |
| | *02093008 | G16 | 37.89 | 21.49 | 0.17 | 0.00 | 34.60 | 0.00 | 2.66 | 1.86 | 1.76 | 0.00 | 0.00 | 100.44 | 80.71 | 7.73 | 6.29 | 5.26 | 0.00 | 0.01 |

Table C-2. Chemical compositions of detrital garnets from the Mineoka and Setogawa areas. (10)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|----------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Odake | *02093008 | G17 | 38.19 | 21.79 | 0.05 | 0.06 | 29.45 | 0.02 | 8.25 | 2.55 | 0.95 | 0.01 | 0.00 | 101.31 | 67.59 | 10.43 | 19.18 | 2.61 | 0.00 | 0.19 |
| Thrust Sheet | *02093008 | G18 | 39.83 | 22.64 | 0.09 | 0.02 | 26.60 | 0.00 | 2.67 | 8.15 | 1.65 | 0.00 | 0.00 | 101.67 | 57.88 | 31.62 | 5.89 | 4.54 | 0.00 | 0.07 |
| (conglomerate) | *02093008 | G19 | 38.09 | 21.93 | 0.01 | 0.00 | 34.37 | 0.07 | 1.34 | 3.46 | 1.36 | 0.04 | 0.01 | 100.66 | 78.77 | 14.14 | 3.10 | 3.98 | 0.00 | 0.00 |
| Setogawa Gr. | *02122603 | G1 | 40.75 | 22.54 | 0.04 | 0.06 | 26.95 | 0.00 | 0.32 | 10.89 | 0.91 | 0.00 | 0.00 | 102.47 | 56.21 | 40.67 | 0.68 | 2.26 | 0.00 | 0.18 |
| Oigawa | *02122603 | G2 | 38.83 | 22.37 | 0.03 | 0.07 | 34.52 | 0.00 | 0.81 | 5.18 | 0.84 | 0.00 | 0.00 | 102.64 | 75.63 | 20.24 | 1.79 | 2.14 | 0.00 | 0.21 |
| Thrust Sheet | *02122603 | G3 | 37.88 | 21.48 | 0.13 | 0.00 | 19.15 | 0.04 | 22.38 | 0.57 | 0.50 | 0.04 | 0.02 | 102.18 | 44.04 | 2.34 | 52.14 | 1.48 | 0.00 | 0.00 |
| | *02122603 | G4 | 38.52 | 21.46 | 0.10 | 0.02 | 30.69 | 0.00 | 8.11 | 1.85 | 1.48 | 0.07 | 0.00 | 102.30 | 69.59 | 7.48 | 18.63 | 4.24 | 0.00 | 0.07 |
| | *02122603 | G5 | 39.54 | 22.23 | 0.05 | 0.07 | 31.83 | 0.00 | 0.72 | 6.71 | 1.00 | 0.00 | 0.00 | 102.14 | 69.50 | 26.12 | 1.59 | 2.56 | 0.00 | 0.22 |
| | *02122603 | G6 | 39.49 | 22.01 | 0.00 | 0.03 | 32.21 | 0.00 | 2.68 | 4.64 | 1.04 | 0.00 | 0.02 | 102.11 | 72.35 | 18.57 | 6.09 | 2.90 | 0.00 | 0.09 |
| | *02122603 | G7 | 38.25 | 21.87 | 0.02 | 0.01 | 34.40 | 0.02 | 0.59 | 3.76 | 1.98 | 0.06 | 0.02 | 100.96 | 77.76 | 15.15 | 1.35 | 5.70 | 0.00 | 0.04 |
| | *02122603 | G8 | 38.57 | 21.56 | 0.06 | 0.01 | 31.88 | 0.02 | 7.74 | 1.79 | 1.02 | 0.03 | 0.00 | 102.69 | 72.09 | 7.23 | 17.73 | 2.91 | 0.00 | 0.05 |
| | *02122603 | G9 | 40.05 | 22.36 | 0.07 | 0.03 | 30.58 | 0.01 | 0.48 | 7.44 | 1.79 | 0.04 | 0.00 | 102.84 | 65.61 | 28.43 | 1.04 | 4.82 | 0.00 | 0.10 |
| | *02122603 | G10 | 33.34 | 20.48 | 0.12 | 0.01 | 18.99 | 0.01 | 24.43 | 0.28 | 0.34 | 0.00 | 0.01 | 97.99 | 35.27 | 1.25 | 62.39 | 0.00 | 1.07 | 0.03 |
| | *02122603 | G11 | 40.05 | 22.77 | 0.05 | 0.03 | 28.68 | 0.00 | 0.39 | 9.30 | 0.97 | 0.05 | 0.00 | 102.28 | 61.14 | 35.36 | 0.84 | 2.58 | 0.00 | 0.08 |
| | *02122603 | G12 | 38.70 | 22.06 | 0.04 | 0.01 | 36.35 | 0.00 | 1.04 | 3.46 | 0.90 | 0.01 | 0.01 | 102.57 | 81.28 | 13.78 | 2.37 | 2.55 | 0.00 | 0.02 |
| | *02122603 | G13 | 38.31 | 21.63 | 0.02 | 0.02 | 27.85 | 0.01 | 11.71 | 2.06 | 1.04 | 0.00 | 0.00 | 102.64 | 62.29 | 8.19 | 26.53 | 2.92 | 0.00 | 0.07 |
| | *02122603 | G14 | 40.14 | 22.55 | 0.07 | 0.04 | 31.08 | 0.00 | 0.41 | 7.41 | 1.43 | 0.01 | 0.03 | 103.15 | 66.78 | 28.39 | 0.90 | 3.82 | 0.00 | 0.11 |
| | *02122603 | G15 | 38.57 | 21.57 | 0.06 | 0.03 | 28.19 | 0.00 | 12.32 | 1.69 | 0.89 | 0.00 | 0.00 | 103.32 | 62.88 | 6.73 | 27.85 | 2.46 | 0.00 | 0.09 |
| | *02122603 | G16 | 37.69 | 21.32 | 0.00 | 0.01 | 27.73 | 0.00 | 14.24 | 0.39 | 0.38 | 0.01 | 0.00 | 101.77 | 63.98 | 1.60 | 33.29 | 1.11 | 0.00 | 0.02 |
| | *02122603 | G17 | 40.60 | 22.87 | 0.08 | 0.02 | 27.17 | 0.00 | 0.23 | 10.55 | 1.07 | 0.03 | 0.00 | 102.62 | 57.10 | 39.53 | 0.49 | 2.81 | 0.00 | 0.07 |
| | *02122603 | G18 | 39.20 | 22.43 | 0.04 | 0.01 | 30.74 | 0.00 | 0.42 | 8.01 | 1.06 | 0.03 | 0.00 | 101.94 | 65.68 | 30.51 | 0.90 | 2.83 | 0.05 | 0.03 |
| | *02122603 | G19 | 38.68 | 21.69 | 0.07 | 0.00 | 33.44 | 0.01 | 2.60 | 4.01 | 1.32 | 0.02 | 0.01 | 101.85 | 74.46 | 15.90 | 5.87 | 3.77 | 0.00 | 0.00 |
| | *02122603 | G20 | 37.54 | 20.86 | 0.05 | 0.01 | 21.83 | 0.01 | 16.86 | 1.26 | 1.03 | 0.00 | 0.01 | 99.44 | 51.40 | 5.29 | 40.20 | 3.08 | 0.00 | 0.02 |
| | *02122603 | G21 | 38.24 | 21.89 | 0.13 | 0.04 | 30.26 | 0.00 | 9.11 | 1.62 | 1.36 | 0.05 | 0.00 | 102.66 | 68.58 | 6.56 | 20.92 | 3.81 | 0.00 | 0.13 |
| | *02122603 | G22 | 38.67 | 21.47 | 0.06 | 0.06 | 35.65 | 0.01 | 0.78 | 3.07 | 1.53 | 0.01 | 0.00 | 101.31 | 81.26 | 12.47 | 1.81 | 4.26 | 0.00 | 0.20 |
| | *02122603 | G23 | 37.69 | 21.44 | 0.07 | 0.06 | 28.52 | 0.00 | 10.65 | 2.41 | 1.04 | 0.02 | 0.02 | 101.92 | 63.47 | 9.58 | 24.00 | 2.77 | 0.00 | 0.18 |
| | *02122603 | G24 | 40.95 | 23.14 | 0.02 | 0.15 | 25.32 | 0.00 | 0.28 | 11.35 | 1.43 | 0.01 | 0.00 | 102.66 | 53.11 | 42.45 | 0.60 | 3.40 | 0.00 | 0.45 |
| | *02122603 | G25 | 40.34 | 22.60 | 0.05 | 0.11 | 26.41 | 0.00 | 0.39 | 10.79 | 1.05 | 0.00 | 0.00 | 101.74 | 55.74 | 40.59 | 0.83 | 2.50 | 0.00 | 0.34 |
| | *02122603 | G26 | 36.86 | 21.39 | 0.07 | 0.01 | 35.72 | 0.00 | 4.36 | 1.01 | 1.79 | 0.03 | 0.00 | 101.24 | 80.66 | 4.10 | 10.03 | 4.39 | 0.78 | 0.05 |
| | *02122605 | G1 | 39.52 | 22.27 | 0.05 | 0.08 | 27.23 | 0.04 | 0.16 | 9.45 | 1.42 | 0.00 | 0.02 | 100.24 | 59.12 | 36.57 | 0.36 | 3.71 | 0.00 | 0.25 |
| | *02122605 | G2 | 37.52 | 21.26 | 0.02 | 0.00 | 36.47 | 0.07 | 1.36 | 2.19 | 1.23 | 0.07 | 0.00 | 100.18 | 84.17 | 9.02 | 3.18 | 3.63 | 0.00 | 0.00 |
| | *02122605 | G3 | 38.81 | 21.46 | 0.05 | 0.00 | 27.26 | 0.01 | 0.76 | 4.74 | 6.77 | 0.00 | 0.00 | 99.86 | 60.37 | 18.71 | 1.70 | 19.22 | 0.00 | 0.00 |
| | *02122605 | G4 | 37.61 | 21.07 | 0.10 | 0.04 | 24.60 | 0.02 | 7.55 | 0.58 | 7.63 | 0.05 | 0.01 | 99.25 | 57.12 | 2.41 | 17.75 | 22.58 | 0.00 | 0.14 |
| | *02122605 | G5 | 37.02 | 22.09 | 0.08 | 0.02 | 31.81 | 0.03 | 0.55 | 6.94 | 0.71 | 0.00 | 0.01 | 99.25 | 68.75 | 27.93 | 1.26 | 0.00 | 1.98 | 0.07 |
| | *02122605 | G6 | 37.07 | 21.54 | 0.01 | 0.00 | 35.49 | 0.00 | 0.46 | 2.92 | 0.90 | 0.01 | 0.00 | 98.39 | 83.88 | 12.30 | 1.11 | 2.72 | 0.00 | 0.00 |
| | *02122605 | G7 | 39.18 | 22.21 | 0.04 | 0.03 | 27.80 | 0.00 | 0.40 | 9.29 | 1.14 | 0.00 | 0.00 | 100.09 | 60.14 | 35.83 | 0.87 | 3.06 | 0.00 | 0.10 |
| | *02122605 | G8 | 37.84 | 21.29 | 0.05 | 0.00 | 32.36 | 0.00 | 3.62 | 1.96 | 0.97 | 0.04 | 0.01 | 98.14 | 79.38 | 8.59 | 9.00 | 3.04 | 0.00 | 0.00 |
| | *02122605 | G9 | 37.91 | 21.62 | 0.00 | 0.01 | 31.11 | 0.00 | 1.10 | 6.28 | 1.07 | 0.01 | 0.00 | 99.11 | 69.46 | 24.99 | 2.49 | 3.02 | 0.00 | 0.04 |
| | *02122605 | G10 | 39.56 | 22.49 | 0.00 | 0.03 | 25.34 | 0.00 | 0.20 | 10.76 | 1.15 | 0.00 | 0.01 | 99.55 | 54.86 | 41.52 | 0.43 | 3.12 | 0.00 | 0.08 |
| | *02122605 | G11 | 38.87 | 20.16 | 0.03 | 0.01 | 30.66 | 0.04 | 0.46 | 6.59 | 0.96 | 0.00 | 0.00 | 97.76 | 68.50 | 27.53 | 1.10 | 2.85 | 0.00 | 0.02 |
| | *02122605 | G12 | 39.29 | 22.34 | 0.00 | 0.10 | 28.60 | 0.00 | 0.44 | 8.36 | 1.36 | 0.03 | 0.00 | 100.51 | 62.59 | 32.62 | 0.97 | 3.53 | 0.00 | 0.30 |

Table C-2. Chemical compositions of detrital garnets from the Mineoka and Setogawa areas. (11)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|--------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Setogawa Gr. | *02122605 | G13 | 38.06 | 22.09 | 0.00 | 0.01 | 31.51 | 0.01 | 1.23 | 5.99 | 0.94 | 0.00 | 0.00 | 99.84 | 70.59 | 23.93 | 2.79 | 2.67 | 0.00 | 0.02 |
| Oigawa | *02122605 | G14 | 38.00 | 21.41 | 0.08 | 0.00 | 28.45 | 0.00 | 1.44 | 2.74 | 7.88 | 0.06 | 0.00 | 100.07 | 63.37 | 10.88 | 3.25 | 22.50 | 0.00 | 0.00 |
| Thrust Sheet | *02122605 | G15 | 39.13 | 22.04 | 0.00 | 0.03 | 29.84 | 0.00 | 0.61 | 7.41 | 0.91 | 0.00 | 0.01 | 99.98 | 66.55 | 29.45 | 1.38 | 2.53 | 0.00 | 0.08 |
| | *02122605 | G16 | 39.28 | 22.16 | 0.03 | 0.04 | 28.61 | 0.01 | 0.89 | 8.48 | 1.10 | 0.00 | 0.01 | 100.61 | 62.15 | 32.82 | 1.96 | 2.94 | 0.00 | 0.12 |
| | *02122605 | G17 | 39.60 | 22.34 | 0.02 | 0.04 | 27.91 | 0.01 | 0.52 | 9.15 | 1.12 | 0.01 | 0.00 | 100.72 | 60.44 | 35.33 | 1.14 | 2.96 | 0.00 | 0.14 |
| | *02122605 | G18 | 37.88 | 21.82 | 0.07 | 0.00 | 33.55 | 0.04 | 1.16 | 3.96 | 1.19 | 0.01 | 0.01 | 99.69 | 77.46 | 16.29 | 2.72 | 3.52 | 0.00 | 0.00 |
| | *02122605 | G19 | 39.86 | 22.14 | 0.02 | 0.10 | 26.34 | 0.00 | 0.45 | 10.34 | 1.01 | 0.01 | 0.00 | 100.27 | 56.64 | 39.61 | 0.97 | 2.47 | 0.00 | 0.31 |
| | *02122605 | G20 | 38.60 | 21.47 | 0.06 | 0.03 | 28.91 | 0.02 | 0.32 | 3.58 | 7.56 | 0.00 | 0.00 | 100.53 | 63.83 | 14.07 | 0.72 | 21.31 | 0.00 | 0.08 |
| | *02122605 | G21 | 39.29 | 22.16 | 0.00 | 0.04 | 28.53 | 0.00 | 0.35 | 8.22 | 1.38 | 0.00 | 0.01 | 99.97 | 62.98 | 32.33 | 0.78 | 3.80 | 0.00 | 0.12 |
| | *02122605 | G22 | 38.46 | 21.64 | 0.01 | 0.09 | 28.02 | 0.02 | 1.81 | 7.72 | 1.23 | 0.04 | 0.00 | 99.04 | 62.01 | 30.44 | 4.06 | 3.21 | 0.00 | 0.28 |
| | *02122605 | G23 | 39.54 | 22.18 | 0.06 | 0.00 | 24.04 | 0.00 | 0.20 | 11.28 | 1.68 | 0.02 | 0.00 | 99.01 | 51.69 | 43.23 | 0.44 | 4.64 | 0.00 | 0.00 |
| | *02122605 | G24 | 38.96 | 22.19 | 0.02 | 0.04 | 27.83 | 0.00 | 0.25 | 8.74 | 1.18 | 0.03 | 0.00 | 99.23 | 61.61 | 34.48 | 0.57 | 3.20 | 0.00 | 0.14 |
| | *02122605 | G25 | 38.87 | 21.65 | 0.09 | 0.05 | 29.82 | 0.00 | 0.53 | 7.07 | 0.99 | 0.00 | 0.01 | 99.06 | 67.44 | 28.48 | 1.21 | 2.71 | 0.00 | 0.16 |
| | *02122605 | G26 | 39.66 | 22.06 | 0.03 | 0.10 | 24.69 | 0.00 | 0.19 | 11.50 | 1.32 | 0.01 | 0.00 | 99.55 | 52.12 | 43.85 | 0.42 | 3.33 | 0.00 | 0.29 |
| | *02122605 | G27 | 39.39 | 22.42 | 0.07 | 0.04 | 25.19 | 0.00 | 0.18 | 11.22 | 1.27 | 0.00 | 0.00 | 99.78 | 53.59 | 42.56 | 0.39 | 3.32 | 0.00 | 0.13 |
| | *02122605 | G28 | 39.04 | 21.18 | 0.05 | 0.05 | 26.72 | 0.00 | 0.37 | 9.94 | 0.89 | 0.01 | 0.03 | 98.27 | 57.12 | 39.51 | 0.82 | 2.39 | 0.00 | 0.16 |
| | *02122605 | G29 | 37.83 | 21.47 | 0.04 | 0.00 | 34.59 | 0.00 | 0.73 | 3.44 | 0.50 | 0.00 | 0.00 | 38.59 | 82.16 | 14.57 | 1.77 | 1.51 | 0.00 | 0.00 |
| | *02122605 | G30 | 39.51 | 22.45 | 0.08 | 0.07 | 26.34 | 0.00 | 0.69 | 9.81 | 1.37 | 0.00 | 0.00 | 100.32 | 56.93 | 37.79 | 1.50 | 3.59 | 0.00 | 0.20 |
| | *02122605 | G31 | 39.57 | 22.02 | 0.02 | 0.07 | 25.88 | 0.00 | 0.45 | 10.48 | 1.04 | 0.00 | 0.00 | 99.54 | 55.83 | 40.31 | 0.99 | 2.65 | 0.00 | 0.23 |
| | *02122605 | G32 | 38.09 | 21.14 | 0.02 | 0.00 | 32.31 | 0.03 | 1.08 | 2.19 | 3.02 | 0.00 | 0.00 | 97.88 | 78.47 | 9.47 | 2.66 | 9.40 | 0.00 | 0.00 |
| | *002122608 | G1 | 39.58 | 22.58 | 0.06 | 0.07 | 27.69 | 0.00 | 0.11 | 9.66 | 0.98 | 0.00 | 0.02 | 100.75 | 59.84 | 37.21 | 0.24 | 2.52 | 0.00 | 0.20 |
| | *002122608 | G2 | 39.93 | 22.53 | 0.05 | 0.01 | 26.54 | 0.00 | 0.25 | 10.70 | 0.80 | 0.01 | 0.00 | 100.82 | 56.61 | 40.67 | 0.54 | 2.16 | 0.00 | 0.02 |
| | *002122608 | G3 | 39.76 | 22.81 | 0.03 | 0.03 | 25.22 | 0.01 | 0.30 | 10.07 | 1.06 | 0.00 | 0.01 | 99.30 | 56.25 | 40.05 | 0.68 | 2.94 | 0.00 | 0.08 |
| | *002122608 | G4 | 39.81 | 22.82 | 0.00 | 0.00 | 27.35 | 0.03 | 0.28 | 9.72 | 1.00 | 0.04 | 0.01 | 101.04 | 59.16 | 37.48 | 0.60 | 2.75 | 0.00 | 0.01 |
| | *002122608 | G5 | 38.21 | 21.69 | 0.02 | 0.09 | 30.76 | 0.01 | 1.90 | 3.15 | 5.09 | 0.05 | 0.01 | 100.98 | 68.64 | 12.52 | 4.29 | 14.28 | 0.00 | 0.27 |
| | *002122608 | G6 | 40.01 | 23.02 | 0.09 | 0.00 | 25.66 | 0.00 | 0.26 | 11.45 | 1.06 | 0.00 | 0.00 | 101.54 | 53.81 | 42.79 | 0.55 | 2.85 | 0.00 | 0.00 |
| | *002122608 | G7 | 39.45 | 22.96 | 0.02 | 0.00 | 25.90 | 0.01 | 0.27 | 10.39 | 0.97 | 0.02 | 0.02 | 100.01 | 56.39 | 40.30 | 0.60 | 2.72 | 0.00 | 0.00 |
| | *002122608 | G8 | 39.19 | 22.49 | 0.29 | 0.05 | 27.95 | 0.02 | 0.44 | 9.25 | 1.07 | 0.06 | 0.01 | 100.81 | 60.43 | 35.66 | 0.95 | 2.82 | 0.00 | 0.14 |
| | *002122608 | G9 | 37.85 | 21.58 | 0.05 | 0.02 | 34.86 | 0.00 | 1.31 | 4.08 | 0.81 | 0.03 | 0.00 | 100.58 | 78.34 | 16.35 | 2.98 | 2.27 | 0.00 | 0.06 |
| | *002122608 | G10 | 38.93 | 22.60 | 0.00 | 0.00 | 29.73 | 0.00 | 0.31 | 7.87 | 1.04 | 0.00 | 0.01 | 100.50 | 65.46 | 30.90 | 0.69 | 2.93 | 0.00 | 0.01 |
| | *002122608 | G11 | 40.05 | 23.20 | 0.00 | 0.03 | 26.21 | 0.00 | 0.29 | 10.17 | 1.13 | 0.00 | 0.00 | 101.09 | 56.88 | 39.35 | 0.64 | 3.04 | 0.00 | 0.09 |
| | *002122608 | G12 | 38.37 | 21.80 | 0.01 | 0.01 | 31.51 | 0.00 | 3.45 | 3.65 | 2.60 | 0.00 | 0.00 | 101.40 | 70.26 | 14.52 | 7.80 | 7.39 | 0.00 | 0.04 |
| | *002122608 | G13 | 39.05 | 22.44 | 0.02 | 0.00 | 31.12 | 0.00 | 0.38 | 7.39 | 0.74 | 0.00 | 0.02 | 101.15 | 68.20 | 28.88 | 0.85 | 2.07 | 0.00 | 0.00 |
| | *002122608 | G14 | 39.66 | 23.17 | 0.11 | 0.04 | 26.17 | 0.00 | 0.26 | 11.09 | 1.04 | 0.00 | 0.00 | 101.55 | 55.02 | 41.62 | 0.56 | 2.56 | 0.11 | 0.13 |
| | *002122608 | G15 | 40.36 | 22.33 | 0.05 | 0.11 | 25.10 | 0.04 | 0.37 | 11.95 | 1.05 | 0.00 | 0.00 | 101.37 | 51.40 | 44.96 | 0.80 | 2.51 | 0.00 | 0.33 |
| | *002122608 | G16 | 39.73 | 23.13 | 0.01 | 0.08 | 25.45 | 0.00 | 0.51 | 10.80 | 1.69 | 0.00 | 0.00 | 101.39 | 53.72 | 40.64 | 1.09 | 4.31 | 0.00 | 0.25 |
| | *002122608 | G17 | 37.60 | 21.85 | 0.00 | 0.00 | 38.61 | 0.02 | 0.75 | 1.10 | 0.77 | 0.00 | 0.02 | 100.71 | 91.25 | 4.63 | 1.79 | 2.33 | 0.00 | 0.00 |
| | *002122608 | G18 | 40.14 | 22.80 | 0.04 | 0.07 | 26.00 | 0.02 | 0.34 | 10.57 | 1.10 | 0.00 | 0.03 | 101.11 | 55.81 | 40.43 | 0.74 | 2.80 | 0.00 | 0.22 |
| | *002122608 | G19 | 39.54 | 23.00 | 0.09 | 0.11 | 25.43 | 0.00 | 0.22 | 10.74 | 1.60 | 0.03 | 0.01 | 100.77 | 54.31 | 40.86 | 0.47 | 4.03 | 0.00 | 0.34 |
| | *002122608 | G20 | 37.36 | 22.90 | 0.18 | 0.01 | 25.99 | 0.00 | 0.41 | 10.80 | 0.92 | 0.00 | 0.01 | 98.59 | 53.43 | 42.99 | 0.94 | 0.00 | 2.61 | 0.04 |
| | *002122608 | G21 | 38.90 | 22.48 | 0.00 | 0.00 | 27.64 | 0.00 | 0.34 | 8.32 | 2.29 | 0.00 | 0.00 | 99.97 | 60.42 | 32.42 | 0.76 | 6.40 | 0.00 | 0.00 |

Table C-2. Chemical compositions of detrital garnets from the Mineoka and Setogawa areas. (12)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|--------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Setogawa Gr. | *002122608 | G22 | 38.46 | 21.97 | 0.05 | 0.00 | 27.27 | 0.00 | 2.17 | 2.56 | 7.96 | 0.03 | 0.00 | 100.47 | 61.66 | 10.31 | 4.98 | 23.05 | 0.00 | 0.00 |
| Oigawa | *002122608 | G23 | 38.09 | 22.25 | 0.06 | 0.08 | 33.80 | 0.00 | 0.72 | 4.29 | 1.18 | 0.05 | 0.01 | 100.52 | 77.36 | 17.52 | 1.66 | 3.22 | 0.00 | 0.25 |
| Thrust Sheet | *002122608 | G24 | 39.81 | 23.13 | 0.01 | 0.07 | 26.39 | 0.01 | 0.07 | 10.73 | 1.07 | 0.01 | 0.02 | 101.31 | 56.20 | 40.72 | 0.15 | 2.73 | 0.00 | 0.20 |
| | *002122608 | G25 | 39.57 | 22.83 | 0.01 | 0.00 | 26.12 | 0.00 | 0.26 | 10.16 | 1.16 | 0.00 | 0.00 | 100.11 | 56.82 | 39.39 | 0.57 | 3.22 | 0.00 | 0.00 |
| | *002122608 | G26 | 39.73 | 22.82 | 0.00 | 0.02 | 26.57 | 0.00 | 0.31 | 9.84 | 1.49 | 0.00 | 0.00 | 100.77 | 57.36 | 37.85 | 0.68 | 4.04 | 0.00 | 0.07 |
| | *002122608 | G27 | 39.39 | 22.44 | 0.09 | 0.02 | 26.27 | 0.00 | 0.32 | 10.64 | 1.03 | 0.00 | 0.00 | 100.19 | 56.05 | 40.44 | 0.69 | 2.75 | 0.00 | 0.07 |
| | *002122608 | G28 | 40.12 | 22.86 | 0.06 | 0.09 | 25.39 | 0.00 | 0.49 | 11.29 | 0.89 | 0.03 | 0.00 | 101.23 | 53.85 | 42.67 | 1.06 | 2.16 | 0.00 | 0.26 |
| | *002122608 | G29 | 39.70 | 23.06 | 0.03 | 0.05 | 27.82 | 0.00 | 0.13 | 9.60 | 1.07 | 0.00 | 0.01 | 101.46 | 59.92 | 36.85 | 0.28 | 2.80 | 0.00 | 0.14 |
| | *002122608 | G30 | 38.48 | 21.70 | 0.06 | 0.04 | 34.54 | 0.00 | 0.90 | 3.85 | 1.13 | 0.00 | 0.00 | 100.69 | 78.94 | 15.68 | 2.07 | 3.20 | 0.00 | 0.11 |
| Kurami Gr. | *02122803 | G1 | 37.89 | 21.91 | 0.09 | 0.01 | 33.97 | 0.00 | 1.23 | 3.84 | 1.04 | 0.01 | 0.00 | 99.98 | 78.28 | 15.77 | 2.88 | 3.04 | 0.00 | 0.02 |
| Amakata Ss. | *02122803 | G2 | 37.35 | 20.39 | 0.02 | 0.03 | 30.97 | 0.06 | 6.56 | 2.05 | 1.01 | 0.00 | 0.00 | 98.45 | 72.76 | 8.57 | 15.61 | 2.94 | 0.00 | 0.11 |
| | *02122803 | G3 | 38.83 | 21.92 | 0.00 | 0.00 | 31.73 | 0.00 | 1.24 | 5.48 | 1.15 | 0.05 | 0.02 | 100.42 | 71.75 | 22.08 | 2.83 | 3.34 | 0.00 | 0.00 |
| | *02122803 | G4 | 38.29 | 21.24 | 0.06 | 0.00 | 27.07 | 0.00 | 5.79 | 1.75 | 5.81 | 0.03 | 0.00 | 100.03 | 62.26 | 7.16 | 13.48 | 17.11 | 0.00 | 0.00 |
| | *02122803 | G5 | 36.68 | 21.13 | 0.02 | 0.00 | 25.25 | 0.00 | 12.51 | 2.47 | 0.91 | 0.05 | 0.00 | 99.01 | 58.06 | 10.14 | 29.13 | 2.68 | 0.00 | 0.00 |
| | *02122803 | G6 | 38.22 | 21.60 | 0.10 | 0.06 | 34.90 | 0.00 | 4.02 | 1.46 | 0.81 | 0.00 | 0.00 | 101.17 | 81.91 | 6.10 | 9.56 | 2.22 | 0.00 | 0.20 |
| | *02122803 | G7 | 36.94 | 21.04 | 0.01 | 0.03 | 26.67 | 0.05 | 12.42 | 1.21 | 0.51 | 0.01 | 0.00 | 98.89 | 63.42 | 5.13 | 29.91 | 1.44 | 0.00 | 0.10 |
| | *02122803 | G8 | 38.96 | 22.31 | 0.04 | 0.03 | 30.69 | 0.00 | 0.63 | 6.16 | 1.49 | 0.00 | 0.00 | 100.31 | 69.41 | 24.81 | 1.45 | 4.25 | 0.00 | 0.08 |
| | *02122803 | G9 | 37.76 | 21.37 | 0.00 | 0.00 | 25.54 | 0.00 | 10.93 | 2.64 | 0.87 | 0.04 | 0.02 | 99.15 | 60.20 | 11.08 | 26.09 | 2.64 | 0.00 | 0.00 |
| | *02122803 | G10 | 36.28 | 20.22 | 0.27 | 0.02 | 35.45 | 0.02 | 3.14 | 1.47 | 0.52 | 0.05 | 0.01 | 97.45 | 84.55 | 6.27 | 7.59 | 1.54 | 0.00 | 0.06 |
| | *02122803 | G11 | 38.22 | 20.18 | 0.24 | 0.03 | 13.84 | 0.03 | 19.13 | 0.73 | 7.76 | 0.02 | 0.01 | 100.18 | 28.32 | 3.03 | 45.37 | 23.19 | 0.00 | 0.10 |
| | *02122803 | G12 | 38.23 | 21.33 | 0.02 | 0.21 | 33.25 | 0.03 | 0.59 | 2.83 | 2.29 | 0.02 | 0.00 | 98.80 | 79.49 | 12.07 | 1.42 | 6.31 | 0.00 | 0.71 |
| | *02122803 | G13 | 38.46 | 20.95 | 0.02 | 0.00 | 24.64 | 0.00 | 14.87 | 0.68 | 0.71 | 0.01 | 0.02 | 98.37 | 58.91 | 2.90 | 36.01 | 2.18 | 0.00 | 0.00 |
| | *02122803 | G14 | 37.34 | 21.23 | 0.00 | 0.00 | 25.60 | 0.04 | 10.48 | 2.32 | 1.46 | 0.02 | 0.00 | 98.48 | 60.65 | 9.78 | 25.14 | 4.43 | 0.00 | 0.00 |
| | *02122803 | G15 | 38.04 | 20.84 | 0.00 | 0.00 | 24.14 | 0.00 | 13.22 | 2.04 | 0.77 | 0.00 | 0.00 | 99.05 | 57.26 | 8.63 | 31.77 | 2.34 | 0.00 | 0.00 |
| | *02122803 | G16 | 36.54 | 21.32 | 0.07 | 0.00 | 27.44 | 0.00 | 12.37 | 0.66 | 0.32 | 0.02 | 0.01 | 98.74 | 66.05 | 2.81 | 30.17 | 0.98 | 0.00 | 0.00 |
| | *02122803 | G17 | 37.83 | 21.13 | 0.03 | 0.03 | 23.43 | 0.00 | 11.15 | 2.62 | 1.49 | 0.03 | 0.00 | 97.74 | 56.71 | 11.32 | 27.34 | 4.51 | 0.00 | 0.11 |
| | *02122803 | G18 | 36.58 | 22.25 | 0.01 | 0.00 | 6.09 | 0.00 | 22.86 | 5.38 | 4.79 | 0.01 | 0.00 | 97.95 | 11.07 | 21.92 | 52.98 | 9.73 | 4.29 | 0.01 |
| | *02122803 | G19 | 38.89 | 22.52 | 0.05 | 0.04 | 24.65 | 0.00 | 0.39 | 10.42 | 1.08 | 0.01 | 0.02 | 98.07 | 54.77 | 41.28 | 0.88 | 2.94 | 0.00 | 0.14 |
| | *02122803 | G20 | 37.05 | 21.08 | 0.07 | 0.02 | 23.29 | 0.00 | 13.81 | 1.53 | 0.81 | 0.02 | 0.01 | 97.68 | 56.75 | 6.63 | 34.08 | 2.49 | 0.00 | 0.05 |
| | *02122803 | G21 | 37.97 | 21.12 | 0.03 | 0.04 | 30.43 | 0.01 | 0.83 | 3.98 | 2.98 | 0.00 | 0.00 | 97.39 | 72.14 | 16.82 | 1.98 | 8.91 | 0.00 | 0.15 |
| | *02122803 | G22 | 37.31 | 21.26 | 0.07 | 0.01 | 34.94 | 0.00 | 1.71 | 1.76 | 0.97 | 0.00 | 0.00 | 98.02 | 85.12 | 7.65 | 4.22 | 2.99 | 0.00 | 0.02 |
| | *02122803 | G23 | 37.92 | 21.44 | 0.00 | 0.00 | 31.04 | 0.00 | 1.70 | 3.97 | 1.13 | 0.00 | 0.00 | 97.20 | 75.19 | 17.15 | 4.16 | 3.48 | 0.00 | 0.01 |
| | *02122803 | G24 | 37.82 | 21.21 | 0.03 | 0.01 | 30.48 | 0.03 | 2.08 | 2.63 | 2.43 | 0.03 | 0.01 | 96.75 | 75.47 | 11.62 | 5.21 | 7.67 | 0.00 | 0.03 |
| | *02122803 | G25 | 39.00 | 21.85 | 0.03 | 0.06 | 26.51 | 0.00 | 0.42 | 8.46 | 1.10 | 0.00 | 0.00 | 97.44 | 61.04 | 34.73 | 0.99 | 3.04 | 0.00 | 0.20 |
| | *02122803 | G26 | 38.65 | 21.91 | 0.00 | 0.02 | 23.66 | 0.01 | 9.07 | 2.75 | 2.71 | 0.05 | 0.00 | 98.83 | 57.39 | 11.91 | 22.27 | 8.38 | 0.00 | 0.05 |
| | *02122803 | G27 | 36.97 | 20.60 | 0.25 | 0.00 | 20.24 | 0.02 | 17.55 | 0.84 | 0.78 | 0.00 | 0.00 | 97.25 | 49.96 | 3.70 | 43.89 | 2.45 | 0.00 | 0.00 |
| | *02122803 | G28 | 38.79 | 21.70 | 0.01 | 0.08 | 27.77 | 0.00 | 0.45 | 6.81 | 2.24 | 0.02 | 0.00 | 97.86 | 64.24 | 28.09 | 1.04 | 6.38 | 0.00 | 0.25 |
| | *02122803 | G29 | 38.82 | 22.23 | 0.01 | 0.04 | 29.29 | 0.00 | 0.43 | 7.73 | 1.01 | 0.00 | 0.00 | 99.56 | 65.39 | 30.75 | 0.96 | 2.76 | 0.00 | 0.14 |
| | *02122803 | G30 | 37.42 | 20.19 | 0.08 | 0.03 | 24.56 | 0.00 | 5.19 | 2.18 | 5.50 | 0.00 | 0.00 | 95.16 | 60.27 | 9.54 | 12.90 | 17.20 | 0.00 | 0.09 |
| | *02122803 | G31 | 37.51 | 20.74 | 0.02 | 0.00 | 26.09 | 0.00 | 10.84 | 1.63 | 0.48 | 0.04 | 0.00 | 97.35 | 64.28 | 7.15 | 27.05 | 1.52 | 0.00 | 0.00 |
| Todo | *02122810 | G1 | 36.87 | 21.21 | 0.03 | 0.04 | 34.55 | 0.01 | 1.23 | 2.30 | 0.37 | 0.05 | 0.00 | 96.66 | 85.58 | 10.16 | 3.08 | 1.05 | 0.00 | 0.13 |

Table C-2. Chemical compositions of detrital garnets from the Mineoka and Setogawa areas. (14)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|---------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Koma Gr. | *02102504 | G25 | 38.64 | 21.84 | 0.04 | 0.04 | 26.38 | 0.03 | 12.52 | 1.87 | 1.47 | 0.00 | 0.00 | 102.83 | 59.59 | 7.52 | 28.63 | 4.13 | 0.00 | 0.13 |
| Kushigatayama | *02102504 | G26 | 40.66 | 22.59 | 0.06 | 0.07 | 24.62 | 0.00 | 0.46 | 12.11 | 1.44 | 0.00 | 0.00 | 102.01 | 50.08 | 45.10 | 0.98 | 3.63 | 0.00 | 0.22 |
| Subgr. | *02102504 | G27 | 39.36 | 21.89 | 0.07 | 0.04 | 30.77 | 0.00 | 0.59 | 6.96 | 1.46 | 0.03 | 0.00 | 101.17 | 67.41 | 27.18 | 1.31 | 3.97 | 0.00 | 0.13 |
| (sandstone) | *02102504 | G28 | 38.22 | 21.35 | 0.08 | 0.04 | 25.93 | 0.00 | 12.14 | 2.53 | 1.03 | 0.04 | 0.00 | 101.34 | 58.88 | 10.23 | 27.91 | 2.87 | 0.00 | 0.12 |
| | *02102504 | G29 | 39.44 | 22.52 | 0.07 | 0.03 | 32.76 | 0.02 | 0.76 | 6.03 | 0.82 | 0.00 | 0.01 | 102.44 | 72.28 | 23.72 | 1.69 | 2.23 | 0.00 | 0.08 |
| | *02102504 | G30 | 38.38 | 21.41 | 0.05 | 0.01 | 22.59 | 0.00 | 17.18 | 0.25 | 0.91 | 0.00 | 0.01 | 100.79 | 54.32 | 1.07 | 41.82 | 2.77 | 0.00 | 0.02 |
| | *02102504 | G31 | 40.72 | 22.90 | 0.03 | 0.05 | 27.99 | 0.04 | 0.32 | 9.12 | 1.35 | 0.00 | 0.00 | 102.51 | 60.47 | 35.11 | 0.69 | 3.58 | 0.00 | 0.16 |
| Koma Gr. | *02102101 | G1 | 39.18 | 21.92 | 0.02 | 0.00 | 34.30 | 0.03 | 2.44 | 2.39 | 1.97 | 0.03 | 0.00 | 102.27 | 78.78 | 9.77 | 5.67 | 5.78 | 0.00 | 0.00 |
| Momonoki | *02102101 | G2 | 38.45 | 21.67 | 0.09 | 0.06 | 34.10 | 0.00 | 0.83 | 4.84 | 1.63 | 0.00 | 0.00 | 101.67 | 74.69 | 18.90 | 1.85 | 4.38 | 0.00 | 0.19 |
| Subgr. | *02102101 | G3 | 39.42 | 21.81 | 0.05 | 0.08 | 32.20 | 0.00 | 0.72 | 6.07 | 1.24 | 0.00 | 0.01 | 101.58 | 71.05 | 23.85 | 1.61 | 3.23 | 0.00 | 0.26 |
| | *02102101 | G4 | 36.98 | 21.54 | 0.05 | 0.00 | 30.10 | 0.00 | 8.05 | 2.44 | 1.12 | 0.04 | 0.00 | 100.31 | 68.36 | 9.88 | 18.51 | 3.25 | 0.00 | 0.00 |
| | *02102101 | G5 | 35.86 | 21.46 | 0.00 | 0.00 | 24.41 | 0.04 | 12.89 | 2.24 | 1.13 | 0.00 | 0.01 | 98.06 | 56.77 | 9.35 | 30.49 | 3.00 | 0.40 | 0.00 |
| | *02102303 | G1 | 38.68 | 21.95 | 0.11 | 0.05 | 32.04 | 0.00 | 0.56 | 6.10 | 1.57 | 0.02 | 0.00 | 101.08 | 70.44 | 23.91 | 1.24 | 4.26 | 0.00 | 0.16 |
| | *02102303 | G2 | 39.12 | 21.25 | 0.16 | 0.02 | 2.19 | 0.01 | 19.79 | 0.12 | 18.58 | 0.00 | 0.01 | 101.25 | 1.96 | 0.48 | 44.59 | 52.92 | 0.00 | 0.05 |
| | *02102303 | G3 | 38.43 | 21.20 | 0.01 | 0.00 | 33.91 | 0.00 | 0.90 | 4.60 | 1.19 | 0.03 | 0.01 | 100.27 | 76.15 | 18.40 | 2.04 | 3.41 | 0.00 | 0.00 |
| | *02102303 | G4 | 38.21 | 20.61 | 0.12 | 0.00 | 19.41 | 0.01 | 13.23 | 0.98 | 7.28 | 0.02 | 0.00 | 99.86 | 43.85 | 4.00 | 30.75 | 21.40 | 0.00 | 0.00 |
| | *02102303 | G5 | 39.86 | 22.32 | 0.17 | 0.02 | 23.88 | 0.03 | 0.73 | 8.04 | 6.55 | 0.00 | 0.02 | 101.60 | 50.30 | 30.38 | 1.56 | 17.72 | 0.00 | 0.05 |
| | *02102303 | G6 | 37.70 | 21.94 | 0.07 | 0.01 | 32.52 | 0.00 | 2.78 | 4.04 | 1.60 | 0.00 | 0.00 | 100.65 | 72.96 | 16.14 | 6.31 | 4.57 | 0.00 | 0.02 |
| | *02102303 | G7 | 37.43 | 21.81 | 0.01 | 0.03 | 34.67 | 0.00 | 7.12 | 0.98 | 0.49 | 0.03 | 0.00 | 102.57 | 78.35 | 3.94 | 16.30 | 1.32 | 0.00 | 0.09 |
| | *02102303 | G8 | 39.78 | 22.33 | 0.03 | 0.03 | 31.57 | 0.00 | 0.89 | 6.89 | 1.14 | 0.00 | 0.00 | 102.67 | 68.30 | 26.58 | 1.96 | 3.08 | 0.00 | 0.09 |
| | *02102303 | G9 | 38.34 | 21.36 | 0.01 | 0.06 | 26.68 | 0.02 | 1.68 | 3.52 | 7.76 | 0.03 | 0.01 | 99.46 | 59.83 | 14.06 | 3.81 | 22.12 | 0.00 | 0.19 |
| | *02102303 | G10 | 37.93 | 21.06 | 0.14 | 0.00 | 36.44 | 0.00 | 1.61 | 0.68 | 3.79 | 0.00 | 0.00 | 101.65 | 82.57 | 2.75 | 3.69 | 10.99 | 0.00 | 0.00 |
| | *02102303 | G11 | 36.92 | 21.17 | 0.03 | 0.00 | 34.28 | 0.00 | 7.26 | 0.29 | 0.99 | 0.08 | 0.01 | 101.04 | 78.94 | 1.20 | 16.94 | 2.92 | 0.00 | 0.00 |
| | *02102303 | G12 | 38.44 | 20.66 | 0.01 | 0.00 | 32.55 | 0.00 | 4.25 | 3.91 | 1.06 | 0.01 | 0.01 | 100.88 | 71.09 | 15.96 | 9.86 | 3.10 | 0.00 | 0.00 |
| | *02102303 | G13 | 39.44 | 21.90 | 0.13 | 0.03 | 26.48 | 0.00 | 1.18 | 1.35 | 12.01 | 0.01 | 0.00 | 102.53 | 58.24 | 5.28 | 2.64 | 33.77 | 0.00 | 0.08 |
| | *02102303 | G14 | 37.59 | 21.40 | 0.00 | 0.00 | 33.69 | 0.00 | 7.30 | 0.34 | 0.73 | 0.05 | 0.00 | 101.10 | 79.05 | 1.40 | 17.36 | 2.20 | 0.00 | 0.00 |
| | *02102303 | G15 | 39.42 | 22.44 | 0.01 | 0.11 | 31.94 | 0.00 | 0.50 | 6.95 | 0.89 | 0.00 | 0.00 | 102.26 | 69.49 | 26.93 | 1.09 | 2.13 | 0.00 | 0.35 |
| | *02102303 | G16 | 38.14 | 21.42 | 0.07 | 0.04 | 31.65 | 0.02 | 0.54 | 6.24 | 1.57 | 0.02 | 0.02 | 99.72 | 69.81 | 24.53 | 1.22 | 4.32 | 0.00 | 0.12 |
| | *02102303 | G17 | 38.98 | 21.42 | 0.00 | 0.00 | 33.43 | 0.03 | 0.52 | 5.50 | 1.02 | 0.02 | 0.00 | 100.94 | 74.18 | 21.75 | 1.17 | 2.90 | 0.00 | 0.00 |
| | *02102303 | G18 | 38.45 | 21.75 | 0.20 | 0.04 | 30.00 | 0.00 | 6.61 | 3.61 | 0.69 | 0.02 | 0.01 | 101.39 | 68.16 | 14.63 | 15.20 | 1.87 | 0.00 | 0.14 |
| | *02102303 | G19 | 39.61 | 22.40 | 0.02 | 0.04 | 29.69 | 0.00 | 0.53 | 8.37 | 1.02 | 0.00 | 0.00 | 101.68 | 63.93 | 32.11 | 1.15 | 2.71 | 0.00 | 0.11 |
| | *02102303 | G20 | 39.76 | 21.56 | 0.06 | 0.07 | 29.59 | 0.04 | 0.62 | 7.50 | 1.69 | 0.03 | 0.00 | 100.92 | 64.63 | 29.25 | 1.37 | 4.53 | 0.00 | 0.22 |
| | *02102303 | G21 | 37.30 | 21.26 | 0.05 | 0.00 | 30.55 | 0.00 | 9.27 | 1.64 | 1.14 | 0.06 | 0.00 | 101.26 | 68.93 | 6.60 | 21.17 | 3.30 | 0.00 | 0.00 |
| | *02102303 | G22 | 37.26 | 20.56 | 0.08 | 0.02 | 24.91 | 0.02 | 14.91 | 0.19 | 2.86 | 0.01 | 0.00 | 100.82 | 56.11 | 0.76 | 34.71 | 8.37 | 0.00 | 0.06 |
| | *02102303 | G23 | 39.04 | 21.71 | 0.00 | 0.00 | 34.69 | 0.01 | 1.39 | 3.19 | 1.14 | 0.00 | 0.01 | 101.17 | 80.23 | 13.14 | 3.26 | 3.38 | 0.00 | 0.00 |
| | *02102303 | G24 | 38.48 | 20.70 | 0.33 | 0.00 | 33.56 | 0.02 | 1.77 | 1.87 | 4.18 | 0.01 | 0.00 | 100.92 | 76.03 | 7.62 | 4.10 | 12.25 | 0.00 | 0.00 |
| | *02102303 | G25 | 40.48 | 18.57 | 0.64 | 0.03 | 6.14 | 0.00 | 0.13 | 0.20 | 35.16 | 0.02 | 0.01 | 101.37 | 0.00 | 0.83 | 0.30 | 89.08 | 9.70 | 0.10 |

Table C-3. Chemical compositions of detrital clinopyroxenes from the Mineoka and Setogawa areas. (1)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Fe ²⁺ 3# | Mg3# | Ca3# |
|--------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|-------|-------------------|------------------|-------------|---------------------|-------|-------|
| Mineoka Gr. | 99122403 | C1 | 51.29 | 3.44 | 0.36 | 1.28 | 2.87 | 0.01 | 0.06 | 16.12 | 21.86 | 0.30 | 0.00 | 97.58 | 0.049 | 0.482 | 0.469 |
| Haccho Fm. | 99122403 | C2 | 51.47 | 3.29 | 0.46 | 1.18 | 2.90 | 0.06 | 0.16 | 16.61 | 22.83 | 0.25 | 0.01 | 99.21 | 0.049 | 0.478 | 0.472 |
| conglomerate | 99122403 | C3 | 53.67 | 1.78 | 0.13 | 0.67 | 2.92 | 0.02 | 0.13 | 17.92 | 22.71 | 0.18 | 0.00 | 100.12 | 0.048 | 0.498 | 0.454 |
| (Fusada) | 99122403 | C4 | 53.05 | 2.80 | 0.46 | 1.02 | 2.40 | 0.07 | 0.08 | 16.60 | 22.91 | 0.25 | 0.00 | 99.64 | 0.040 | 0.462 | 0.478 |
| | 99122403 | C5 | 50.40 | 4.08 | 0.40 | 1.03 | 2.23 | 0.10 | 0.07 | 15.97 | 23.81 | 0.16 | 0.01 | 98.27 | 0.038 | 0.465 | 0.498 |
| | 99122403 | C6 | 50.41 | 3.03 | 0.30 | 1.13 | 2.95 | 0.00 | 0.07 | 16.81 | 22.53 | 0.16 | 0.00 | 97.36 | 0.049 | 0.484 | 0.467 |
| | 99122403 | C7 | 52.84 | 3.05 | 0.24 | 0.97 | 2.00 | 0.05 | 0.03 | 17.06 | 23.94 | 0.21 | 0.02 | 100.41 | 0.032 | 0.482 | 0.486 |
| | 99122403 | C8 | 53.17 | 2.90 | 0.26 | 1.01 | 2.42 | 0.06 | 0.07 | 17.32 | 22.66 | 0.30 | 0.00 | 100.17 | 0.040 | 0.495 | 0.465 |
| | 99122403 | C9 | 51.55 | 1.61 | 0.13 | 1.07 | 1.77 | 0.06 | 0.08 | 16.31 | 24.09 | 0.11 | 0.01 | 96.79 | 0.030 | 0.471 | 0.500 |
| | 99122403 | C10 | 52.03 | 1.28 | 0.24 | 0.74 | 3.11 | 0.04 | 0.11 | 16.50 | 22.81 | 0.21 | 0.01 | 97.06 | 0.052 | 0.475 | 0.472 |
| Mineoka Gr. | 00051407 | C1 | 52.64 | 2.39 | 0.59 | 0.00 | 6.52 | 0.05 | 0.18 | 15.87 | 21.70 | 0.25 | 0.00 | 100.18 | 0.107 | 0.451 | 0.443 |
| Haccho Fm. | 00051407 | C2 | 51.61 | 1.82 | 0.40 | 0.21 | 6.73 | 0.03 | 0.15 | 16.94 | 19.59 | 0.28 | 0.01 | 97.75 | 0.111 | 0.486 | 0.404 |
| conglomerate | 00051407 | C3 | 55.75 | 1.99 | 0.22 | 0.37 | 2.03 | 0.08 | 0.09 | 18.19 | 24.05 | 0.11 | 0.04 | 102.93 | 0.032 | 0.496 | 0.471 |
| (Motona) | 00051407 | C4 | 53.64 | 4.06 | 0.30 | 1.05 | 1.84 | 0.04 | 0.02 | 17.11 | 22.48 | 0.07 | 0.00 | 100.61 | 0.030 | 0.499 | 0.471 |
| | 00051407 | C5 | 53.01 | 1.15 | 0.13 | 0.63 | 3.22 | 0.03 | 0.09 | 18.60 | 20.95 | 0.15 | 0.01 | 97.95 | 0.052 | 0.524 | 0.424 |
| | 00051407 | C6 | 53.02 | 1.82 | 0.17 | 0.35 | 4.38 | 0.00 | 0.14 | 18.02 | 20.96 | 0.13 | 0.00 | 98.99 | 0.071 | 0.506 | 0.423 |
| | 00051407 | C7 | 53.36 | 2.07 | 0.31 | 0.32 | 5.47 | 0.00 | 0.20 | 15.08 | 23.22 | 0.25 | 0.00 | 100.26 | 0.091 | 0.431 | 0.478 |
| | 00051407 | C8 | 52.60 | 2.20 | 0.56 | 0.06 | 6.61 | 0.00 | 0.16 | 15.71 | 22.38 | 0.31 | 0.01 | 100.60 | 0.107 | 0.441 | 0.452 |
| | 00051407 | C9 | 52.34 | 3.72 | 0.19 | 1.07 | 2.13 | 0.02 | 0.09 | 16.90 | 23.61 | 0.17 | 0.00 | 100.23 | 0.035 | 0.481 | 0.483 |
| | 00051407 | C10 | 52.32 | 2.36 | 0.16 | 0.10 | 6.00 | 0.00 | 0.17 | 16.95 | 20.53 | 0.12 | 0.00 | 98.70 | 0.098 | 0.482 | 0.420 |
| | 00051407 | C11 | 52.05 | 2.54 | 0.31 | 0.33 | 4.18 | 0.01 | 0.08 | 16.90 | 22.22 | 0.20 | 0.00 | 98.80 | 0.068 | 0.479 | 0.453 |
| | 00051407 | C12 | 52.02 | 0.36 | 0.05 | 0.64 | 3.17 | 0.04 | 0.06 | 17.75 | 21.10 | 0.16 | 0.01 | 95.34 | 0.052 | 0.511 | 0.437 |
| | 00051407 | C13 | 53.26 | 0.40 | 0.10 | 0.13 | 5.46 | 0.02 | 0.24 | 15.68 | 22.64 | 0.26 | 0.00 | 98.17 | 0.091 | 0.446 | 0.463 |
| | 00051407 | C14 | 54.80 | 2.51 | 0.23 | 0.37 | 4.46 | 0.00 | 0.06 | 19.15 | 20.70 | 0.18 | 0.01 | 102.46 | 0.069 | 0.524 | 0.407 |
| Hota Gr. | 00040901 | C1 | 51.98 | 0.89 | 0.38 | 0.24 | 7.10 | 0.04 | 0.24 | 16.56 | 18.85 | 0.26 | 0.00 | 96.55 | 0.120 | 0.484 | 0.396 |
| Aokiyama Fm. | 00040901 | C2 | 50.95 | 3.02 | 0.87 | 0.24 | 9.04 | 0.00 | 0.26 | 15.14 | 19.46 | 0.35 | 0.02 | 99.34 | 0.152 | 0.441 | 0.407 |
| | 00040901 | C3 | 51.69 | 1.95 | 0.55 | 0.10 | 9.30 | 0.03 | 0.26 | 15.98 | 18.93 | 0.23 | 0.00 | 98.63 | 0.154 | 0.457 | 0.389 |
| | 00040901 | C4 | 52.09 | 1.46 | 0.32 | 0.38 | 6.14 | 0.04 | 0.17 | 17.11 | 19.45 | 0.19 | 0.00 | 97.33 | 0.102 | 0.494 | 0.404 |
| Sakuma Gr. | *00021112 | C1 | 51.39 | 3.10 | 0.62 | 0.22 | 5.50 | 0.00 | 0.19 | 16.38 | 21.05 | 0.35 | 0.00 | 98.80 | 0.092 | 0.472 | 0.436 |
| Okuyama Fm. | *00021112 | C2 | 48.60 | 5.17 | 0.71 | 0.24 | 6.96 | 0.00 | 0.08 | 14.67 | 20.45 | 0.36 | 0.00 | 97.23 | 0.119 | 0.440 | 0.441 |
| | *00021112 | C3 | 52.47 | 1.95 | 0.70 | 0.02 | 10.65 | 0.01 | 0.29 | 15.66 | 18.77 | 0.33 | 0.01 | 100.84 | 0.174 | 0.444 | 0.382 |
| | *00021112 | C4 | 51.67 | 2.33 | 0.59 | 0.18 | 8.84 | 0.04 | 0.21 | 16.50 | 18.51 | 0.41 | 0.00 | 99.28 | 0.146 | 0.473 | 0.381 |
| | *00021112 | C5 | 51.39 | 2.84 | 0.57 | 0.02 | 10.39 | 0.00 | 0.27 | 15.25 | 18.53 | 0.34 | 0.00 | 99.60 | 0.173 | 0.441 | 0.386 |
| | *00021112 | C6 | 51.11 | 2.91 | 0.73 | 0.17 | 10.30 | 0.03 | 0.25 | 15.98 | 17.65 | 0.50 | 0.00 | 98.62 | 0.171 | 0.462 | 0.367 |
| | *00021112 | C7 | 51.07 | 2.44 | 0.67 | 0.05 | 6.97 | 0.00 | 0.22 | 15.64 | 20.52 | 0.28 | 0.00 | 97.85 | 0.117 | 0.454 | 0.429 |
| | *00021112 | C8 | 51.40 | 3.15 | 0.71 | 0.05 | 8.04 | 0.00 | 0.24 | 15.05 | 20.67 | 0.36 | 0.00 | 99.66 | 0.134 | 0.435 | 0.430 |
| | *00021112 | C9 | 52.44 | 1.46 | 0.49 | 0.03 | 9.25 | 0.07 | 0.61 | 14.76 | 19.06 | 0.31 | 0.00 | 98.48 | 0.163 | 0.434 | 0.403 |
| | *00021112 | C10 | 52.58 | 1.95 | 0.37 | 0.11 | 6.68 | 0.04 | 0.25 | 16.60 | 20.39 | 0.33 | 0.00 | 99.30 | 0.111 | 0.472 | 0.417 |
| | *00021112 | C11 | 52.26 | 1.82 | 0.65 | 0.00 | 9.84 | 0.01 | 0.52 | 15.23 | 19.80 | 0.32 | 0.01 | 100.45 | 0.165 | 0.432 | 0.403 |
| | *00021112 | C12 | 49.87 | 4.94 | 0.80 | 0.02 | 8.01 | 0.03 | 0.23 | 14.00 | 20.55 | 0.42 | 0.00 | 98.87 | 0.138 | 0.419 | 0.442 |
| Sakuma Gr. | *00040902 | C1 | 51.24 | 2.56 | 0.98 | 0.02 | 10.83 | 0.00 | 0.39 | 14.70 | 17.98 | 0.37 | 0.02 | 99.08 | 0.186 | 0.433 | 0.381 |

Table C-3. Chemical compositions of detrital clinopyroxenes from the Mineoka and Setogawa areas. (2)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Fe ²⁺ 3# | Mg3# | Ca3# |
|-----------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|-------|-------------------|------------------|-------------|---------------------|-------|-------|
| Sakuma Gr. | *00040902 | C2 | 51.56 | 2.65 | 0.51 | 0.00 | 7.57 | 0.00 | 0.31 | 16.06 | 19.86 | 0.20 | 0.01 | 98.73 | 0.127 | 0.462 | 0.411 |
| Nakaobara Fm. | *00040902 | C3 | 51.08 | 1.55 | 0.42 | 0.00 | 8.57 | 0.04 | 0.34 | 15.81 | 19.77 | 0.27 | 0.00 | 97.85 | 0.143 | 0.451 | 0.406 |
| | *00040902 | C4 | 52.49 | 1.75 | 0.49 | 0.07 | 5.10 | 0.05 | 0.18 | 16.25 | 22.10 | 0.25 | 0.01 | 98.74 | 0.084 | 0.463 | 0.453 |
| | *00040902 | C5 | 52.72 | 1.63 | 0.42 | 0.00 | 8.06 | 0.00 | 0.80 | 14.96 | 20.81 | 0.35 | 0.00 | 99.74 | 0.143 | 0.429 | 0.429 |
| | *00040902 | C6 | 50.39 | 4.09 | 0.82 | 0.31 | 7.77 | 0.02 | 0.20 | 14.56 | 20.85 | 0.25 | 0.00 | 99.25 | 0.131 | 0.428 | 0.441 |
| | *00040902 | C7 | 49.85 | 4.95 | 0.93 | 0.13 | 8.86 | 0.04 | 0.21 | 14.71 | 19.42 | 0.45 | 0.00 | 99.54 | 0.151 | 0.436 | 0.414 |
| | *00040902 | C8 | 51.53 | 2.36 | 0.63 | 0.24 | 10.07 | 0.00 | 0.30 | 15.29 | 19.06 | 0.23 | 0.01 | 99.71 | 0.167 | 0.439 | 0.394 |
| | *00040902 | C9 | 51.20 | 2.98 | 0.77 | 0.11 | 7.97 | 0.00 | 0.26 | 15.46 | 20.48 | 0.24 | 0.01 | 99.47 | 0.133 | 0.444 | 0.423 |
| Futatsuyama Fm. | *00040907 | C1 | 51.24 | 2.91 | 0.74 | 0.15 | 8.40 | 0.00 | 0.18 | 15.59 | 19.37 | 0.32 | 0.00 | 98.90 | 0.140 | 0.454 | 0.406 |
| | *00040907 | C2 | 51.95 | 2.55 | 0.69 | 0.00 | 8.06 | 0.00 | 0.23 | 15.35 | 20.66 | 0.31 | 0.01 | 99.80 | 0.133 | 0.440 | 0.426 |
| | *00040907 | C3 | 52.74 | 1.28 | 0.35 | 0.00 | 8.17 | 0.01 | 0.45 | 15.32 | 21.12 | 0.39 | 0.00 | 99.83 | 0.137 | 0.433 | 0.430 |
| | *00040907 | C4 | 52.06 | 3.15 | 0.82 | 0.00 | 7.81 | 0.00 | 0.28 | 15.81 | 20.09 | 0.41 | 0.01 | 100.44 | 0.130 | 0.454 | 0.415 |
| | *00040907 | C5 | 50.98 | 3.21 | 0.76 | 0.05 | 9.91 | 0.02 | 0.24 | 14.23 | 19.76 | 0.46 | 0.01 | 99.63 | 0.167 | 0.417 | 0.416 |
| | *00040907 | C6 | 52.48 | 1.21 | 0.37 | 0.00 | 9.28 | 0.00 | 0.39 | 15.61 | 20.79 | 0.30 | 0.00 | 100.42 | 0.151 | 0.434 | 0.415 |
| | *00040907 | C7 | 51.59 | 1.06 | 0.35 | 0.05 | 9.29 | 0.00 | 0.63 | 14.50 | 20.66 | 0.33 | 0.02 | 98.47 | 0.160 | 0.415 | 0.425 |
| | *00040907 | C8 | 47.83 | 2.58 | 0.65 | 0.33 | 7.71 | 0.03 | 0.23 | 15.74 | 19.81 | 0.24 | 0.00 | 95.15 | 0.129 | 0.457 | 0.414 |
| | *00040907 | C9 | 52.16 | 2.37 | 0.76 | 0.00 | 9.08 | 0.00 | 0.30 | 15.48 | 20.27 | 0.36 | 0.00 | 100.79 | 0.149 | 0.438 | 0.413 |
| | *00040907 | C10 | 52.53 | 2.94 | 0.38 | 0.34 | 5.08 | 0.02 | 0.11 | 16.50 | 22.30 | 0.17 | 0.00 | 100.36 | 0.082 | 0.466 | 0.452 |
| | *00040907 | C11 | 51.60 | 3.04 | 0.48 | 0.30 | 4.88 | 0.02 | 0.23 | 16.27 | 20.91 | 0.25 | 0.00 | 97.97 | 0.084 | 0.478 | 0.440 |
| | *00040907 | C12 | 51.86 | 2.02 | 0.61 | 0.00 | 8.66 | 0.00 | 0.57 | 14.70 | 20.23 | 0.30 | 0.00 | 98.95 | 0.151 | 0.427 | 0.422 |
| | *00040907 | C13 | 51.77 | 1.43 | 0.66 | 0.00 | 7.96 | 0.04 | 0.23 | 15.36 | 20.46 | 0.31 | 0.00 | 98.22 | 0.133 | 0.443 | 0.424 |
| | *00040907 | C14 | 51.94 | 1.49 | 0.41 | 0.04 | 9.10 | 0.03 | 0.38 | 14.67 | 20.46 | 0.34 | 0.00 | 98.85 | 0.153 | 0.423 | 0.424 |
| | *00040907 | C15 | 50.91 | 1.30 | 0.42 | 0.00 | 7.56 | 0.00 | 0.38 | 14.65 | 21.05 | 0.28 | 0.01 | 96.55 | 0.130 | 0.428 | 0.442 |
| | *00040907 | C16 | 51.46 | 2.37 | 0.72 | 0.00 | 9.10 | 0.00 | 0.36 | 14.87 | 19.53 | 0.28 | 0.00 | 98.68 | 0.155 | 0.435 | 0.410 |
| | *00040907 | C17 | 50.36 | 2.65 | 0.65 | 0.38 | 9.25 | 0.02 | 0.22 | 14.30 | 19.66 | 0.36 | 0.00 | 97.85 | 0.157 | 0.424 | 0.419 |
| | *00040907 | C18 | 51.51 | 2.27 | 0.67 | 0.01 | 7.87 | 0.00 | 0.30 | 15.01 | 20.24 | 0.27 | 0.00 | 98.14 | 0.134 | 0.440 | 0.426 |
| | *00040907 | C19 | 51.86 | 0.86 | 0.31 | 0.03 | 8.93 | 0.00 | 0.40 | 14.95 | 20.11 | 0.18 | 0.00 | 97.62 | 0.151 | 0.431 | 0.417 |
| | *00040907 | C20 | 51.17 | 0.93 | 0.46 | 0.05 | 8.65 | 0.02 | 0.72 | 14.43 | 20.67 | 0.31 | 0.01 | 97.41 | 0.152 | 0.418 | 0.430 |
| | *00040907 | C21 | 50.96 | 1.46 | 0.56 | 0.03 | 9.88 | 0.00 | 0.39 | 13.11 | 20.09 | 0.22 | 0.01 | 96.71 | 0.173 | 0.393 | 0.433 |
| | *00040907 | C22 | 52.72 | 0.63 | 0.36 | 0.02 | 7.63 | 0.01 | 0.59 | 15.15 | 20.89 | 0.28 | 0.00 | 98.27 | 0.133 | 0.436 | 0.432 |
| | *00040907 | C23 | 51.49 | 1.01 | 0.62 | 0.04 | 8.81 | 0.01 | 0.34 | 15.04 | 20.51 | 0.33 | 0.00 | 98.19 | 0.147 | 0.431 | 0.422 |
| | *00040907 | C24 | 51.67 | 0.54 | 0.46 | 0.00 | 7.55 | 0.00 | 0.41 | 15.74 | 20.75 | 0.32 | 0.00 | 97.43 | 0.127 | 0.448 | 0.425 |
| | *00040907 | C25 | 52.18 | 0.70 | 0.40 | 0.00 | 9.16 | 0.01 | 0.38 | 14.44 | 20.70 | 0.31 | 0.01 | 98.29 | 0.154 | 0.417 | 0.429 |
| | *00081907 | C1 | 50.34 | 5.52 | 0.49 | 0.12 | 16.70 | 0.02 | 0.64 | 11.72 | 11.95 | 0.54 | 0.45 | 98.49 | 0.324 | 0.390 | 0.286 |
| | *00081907 | C2 | 50.40 | 1.97 | 0.84 | 0.00 | 8.20 | 0.00 | 0.25 | 14.53 | 21.13 | 0.25 | 0.00 | 97.57 | 0.138 | 0.422 | 0.441 |
| | *00081907 | C3 | 52.60 | 1.80 | 0.52 | 0.00 | 8.77 | 0.00 | 0.44 | 15.25 | 20.70 | 0.35 | 0.01 | 100.43 | 0.146 | 0.432 | 0.421 |
| | *00081907 | C4 | 50.61 | 3.03 | 0.91 | 0.01 | 8.96 | 0.01 | 0.48 | 14.37 | 20.46 | 0.33 | 0.01 | 99.17 | 0.154 | 0.418 | 0.428 |
| | *00081907 | C5 | 52.84 | 1.10 | 0.39 | 0.03 | 8.67 | 0.00 | 0.61 | 14.94 | 20.79 | 0.23 | 0.00 | 99.60 | 0.149 | 0.426 | 0.426 |
| | *00081907 | C6 | 52.60 | 1.82 | 0.64 | 0.02 | 8.33 | 0.00 | 0.42 | 15.17 | 20.54 | 0.23 | 0.02 | 99.77 | 0.141 | 0.435 | 0.424 |
| | *00081907 | C7 | 51.51 | 2.41 | 0.59 | 0.00 | 8.68 | 0.03 | 0.34 | 15.09 | 20.46 | 0.38 | 0.00 | 99.47 | 0.145 | 0.433 | 0.422 |
| | *00081907 | C8 | 52.46 | 1.06 | 0.30 | 0.06 | 7.98 | 0.00 | 0.68 | 15.11 | 20.93 | 0.33 | 0.00 | 98.91 | 0.139 | 0.431 | 0.430 |

Table C-3. Chemical compositions of detrital clinopyroxenes from the Mineoka and Setogawa areas. (3)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Fe ²⁺ 3# | Mg3# | Ca3# | |
|--------------------|--|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|-------|-------------------|------------------|-------------|---------------------|-------|-------|-------|
| Futatsuyama Fm. | *00081907 | C9 | 51.19 | 1.56 | 0.65 | 0.00 | 8.27 | 0.02 | 0.42 | 14.54 | 21.20 | 0.36 | 0.01 | 98.21 | 0.141 | 0.420 | 0.440 | |
| | *00081907 | C10 | 52.63 | 0.62 | 0.32 | 0.01 | 8.39 | 0.00 | 0.73 | 15.02 | 20.99 | 0.39 | 0.00 | 99.10 | 0.145 | 0.426 | 0.428 | |
| | *00081907 | C11 | 52.40 | 0.90 | 0.44 | 0.03 | 7.97 | 0.01 | 0.80 | 14.28 | 20.82 | 0.42 | 0.01 | 98.07 | 0.144 | 0.418 | 0.438 | |
| | *00081907 | C12 | 51.49 | 2.43 | 0.59 | 0.04 | 7.98 | 0.00 | 0.38 | 15.15 | 20.74 | 0.24 | 0.00 | 99.04 | 0.135 | 0.436 | 0.429 | |
| | *00081907 | C13 | 52.43 | 1.34 | 0.43 | 0.00 | 8.26 | 0.00 | 0.53 | 15.26 | 20.75 | 0.31 | 0.00 | 99.31 | 0.141 | 0.435 | 0.425 | |
| | *00081907 | C14 | 51.80 | 1.82 | 0.73 | 0.03 | 9.46 | 0.02 | 0.36 | 14.83 | 20.19 | 0.35 | 0.00 | 99.59 | 0.158 | 0.425 | 0.416 | |
| | *00081907 | C15 | 52.59 | 1.56 | 0.54 | 0.00 | 7.75 | 0.01 | 0.39 | 15.44 | 21.10 | 0.38 | 0.01 | 99.77 | 0.130 | 0.439 | 0.431 | |
| | *00081907 | C16 | 52.48 | 0.90 | 0.42 | 0.00 | 8.41 | 0.00 | 0.75 | 14.84 | 20.84 | 0.44 | 0.00 | 99.08 | 0.147 | 0.424 | 0.429 | |
| | *00081907 | C17 | 50.83 | 1.89 | 0.72 | 0.03 | 8.43 | 0.00 | 0.55 | 14.30 | 20.56 | 0.47 | 0.04 | 97.81 | 0.148 | 0.419 | 0.433 | |
| | *00081907 | C18 | 51.32 | 3.42 | 0.77 | 0.12 | 9.26 | 0.01 | 0.35 | 15.57 | 19.31 | 0.35 | 0.00 | 100.47 | 0.155 | 0.447 | 0.398 | |
| | *00081907 | C19 | 51.96 | 2.48 | 0.72 | 0.04 | 7.90 | 0.00 | 0.49 | 13.95 | 20.51 | 0.40 | 0.00 | 98.45 | 0.141 | 0.418 | 0.441 | |
| | *00081907 | C20 | 52.60 | 1.40 | 0.43 | 0.05 | 9.11 | 0.03 | 0.34 | 14.61 | 20.81 | 0.33 | 0.01 | 99.72 | 0.152 | 0.419 | 0.429 | |
| | *00081907 | C21 | 54.16 | 1.27 | 0.40 | 0.00 | 7.92 | 0.03 | 0.53 | 15.17 | 21.32 | 0.36 | 0.01 | 101.17 | 0.135 | 0.430 | 0.435 | |
| | *00081907 | C22 | 53.72 | 1.74 | 0.52 | 0.02 | 8.68 | 0.01 | 0.36 | 15.48 | 21.33 | 0.14 | 0.00 | 101.99 | 0.141 | 0.431 | 0.427 | |
| | *00081907 | C23 | 53.49 | 0.81 | 0.41 | 0.00 | 7.75 | 0.00 | 0.56 | 15.37 | 20.56 | 0.33 | 0.01 | 99.30 | 0.134 | 0.441 | 0.424 | |
| | *00081907 | C24 | 52.48 | 1.20 | 0.55 | 0.03 | 8.60 | 0.00 | 0.40 | 15.18 | 20.54 | 0.34 | 0.00 | 99.32 | 0.144 | 0.434 | 0.422 | |
| | *00081907 | C25 | 54.12 | 1.29 | 0.38 | 0.03 | 7.84 | 0.02 | 0.20 | 15.37 | 20.62 | 0.42 | 0.01 | 100.30 | 0.130 | 0.443 | 0.427 | |
| | *00081907 | C26 | 53.53 | 0.88 | 0.37 | 0.00 | 7.52 | 0.01 | 0.56 | 15.81 | 21.01 | 0.36 | 0.00 | 100.05 | 0.128 | 0.446 | 0.426 | |
| | *00081907 | C27 | 51.46 | 2.43 | 0.70 | 0.00 | 8.47 | 0.02 | 0.33 | 15.70 | 20.41 | 0.30 | 0.00 | 99.82 | 0.140 | 0.445 | 0.415 | |
| | *00081907 | C28 | 52.66 | 1.30 | 0.36 | 0.00 | 8.30 | 0.00 | 0.60 | 14.86 | 20.63 | 0.33 | 0.00 | 99.06 | 0.144 | 0.428 | 0.428 | |
| | *00081907 | C29 | 53.62 | 1.38 | 0.41 | 0.00 | 7.95 | 0.00 | 0.51 | 15.14 | 20.90 | 0.36 | 0.01 | 100.27 | 0.136 | 0.434 | 0.430 | |
| | *00081907 | C30 | 52.38 | 1.15 | 0.61 | 0.00 | 8.91 | 0.00 | 0.39 | 15.30 | 20.32 | 0.32 | 0.01 | 99.40 | 0.149 | 0.436 | 0.416 | |
| | *00081907 | C31 | 51.39 | 3.04 | 0.86 | 0.00 | 8.23 | 0.00 | 0.22 | 14.78 | 20.41 | 0.40 | 0.00 | 99.34 | 0.139 | 0.432 | 0.429 | |
| | *00081907 | C32 | 53.57 | 1.11 | 0.25 | 0.00 | 8.32 | 0.01 | 0.46 | 15.06 | 21.12 | 0.28 | 0.01 | 100.19 | 0.140 | 0.428 | 0.432 | |
| | *00081907 | C33 | 53.42 | 1.57 | 0.54 | 0.00 | 8.48 | 0.01 | 0.78 | 14.74 | 20.67 | 0.36 | 0.02 | 100.58 | 0.149 | 0.424 | 0.427 | |
| | *00081907 | C34 | 52.08 | 2.10 | 0.58 | 0.01 | 7.60 | 0.00 | 0.29 | 15.58 | 20.86 | 0.30 | 0.00 | 99.39 | 0.126 | 0.445 | 0.428 | |
| | *00081907 | C35 | 52.03 | 3.30 | 0.84 | 0.02 | 8.61 | 0.00 | 0.29 | 14.62 | 20.82 | 0.23 | 0.00 | 100.76 | 0.144 | 0.423 | 0.433 | |
| | *00081907 | C36 | 53.45 | 0.88 | 0.48 | 0.05 | 8.25 | 0.00 | 0.55 | 15.70 | 20.22 | 0.28 | 0.00 | 99.86 | 0.140 | 0.446 | 0.413 | |
| | *00081907 | C37 | 52.58 | 0.48 | 0.27 | 0.04 | 7.89 | 0.06 | 0.85 | 15.73 | 21.34 | 0.39 | 0.00 | 99.64 | 0.136 | 0.437 | 0.426 | |
| | *00081907 | C38 | 53.73 | 1.20 | 0.52 | 0.00 | 7.21 | 0.00 | 0.28 | 16.54 | 20.12 | 0.30 | 0.01 | 99.89 | 0.119 | 0.470 | 0.411 | |
| | *00081907 | C39 | 53.03 | 1.12 | 0.56 | 0.05 | 9.12 | 0.00 | 0.33 | 14.02 | 20.76 | 0.36 | 0.00 | 99.34 | 0.155 | 0.409 | 0.436 | |
| | *00081907 | C40 | 53.46 | 0.62 | 0.31 | 0.00 | 7.93 | 0.05 | 0.63 | 15.11 | 20.70 | 0.46 | 0.00 | 99.33 | 0.138 | 0.434 | 0.428 | |
| | *00081907 | C41 | 52.58 | 1.81 | 0.59 | 0.00 | 8.03 | 0.00 | 0.46 | 15.23 | 20.47 | 0.36 | 0.01 | 99.52 | 0.137 | 0.439 | 0.424 | |
| | *00081907 | C42 | 53.34 | 1.59 | 0.64 | 0.00 | 7.00 | 0.01 | 0.37 | 15.63 | 21.03 | 0.27 | 0.02 | 99.89 | 0.119 | 0.448 | 0.433 | |
| | *00081907 | C43 | 53.09 | 0.99 | 0.25 | 0.02 | 10.31 | 0.00 | 0.71 | 13.18 | 20.45 | 0.27 | 0.01 | 99.28 | 0.182 | 0.387 | 0.431 | |
| | *00081907 | C44 | 52.29 | 3.21 | 0.68 | 0.28 | 6.62 | 0.00 | 0.21 | 16.89 | 19.82 | 0.36 | 0.00 | 100.35 | 0.109 | 0.483 | 0.407 | |
| | Serpentine sandstone (Eastern Mineoka- sengen) | 00081811 | C1 | 51.37 | 4.07 | 0.07 | 0.49 | 4.10 | 0.10 | 0.16 | 19.76 | 16.42 | 0.17 | 0.00 | 96.70 | 0.071 | 0.582 | 0.347 |
| | | 00081811 | C2 | 50.80 | 3.32 | 0.78 | 0.15 | 7.19 | 0.03 | 0.20 | 16.04 | 20.38 | 0.21 | 0.00 | 99.11 | 0.119 | 0.460 | 0.420 |
| | | 00081811 | C3 | 52.27 | 2.38 | 0.54 | 0.02 | 7.86 | 0.03 | 0.26 | 17.57 | 15.61 | 0.42 | 0.06 | 97.01 | 0.137 | 0.527 | 0.336 |
| | | 00081811 | C4 | 49.12 | 2.79 | 0.72 | 0.22 | 6.84 | 0.00 | 0.16 | 15.68 | 19.49 | 0.20 | 0.00 | 95.21 | 0.117 | 0.466 | 0.417 |
| | | 00081811 | C5 | 50.77 | 1.19 | 0.85 | 0.02 | 7.86 | 0.00 | 0.18 | 16.73 | 18.15 | 0.36 | 0.03 | 96.14 | 0.132 | 0.488 | 0.380 |

Table C-3. Chemical compositions of detrital clinopyroxenes from the Mineoka and Setogawa areas. (4)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Fe ²⁺ 3# | Mg3# | Ca3# | |
|--|--|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|------|-------|-------|-------------------|------------------|-------------|---------------------|-------|-------|-------|
| Serpentine sandstone (Eastern Mineoka- sengen) | 00081811 | C6 | 49.24 | 5.03 | 1.95 | 0.20 | 7.61 | 0.00 | 0.14 | 13.83 | 21.43 | 0.29 | 0.01 | 99.73 | 0.130 | 0.412 | 0.459 | |
| | 00081811 | C7 | 48.99 | 5.05 | 1.76 | 0.14 | 7.94 | 0.00 | 0.20 | 14.09 | 21.20 | 0.27 | 0.00 | 99.65 | 0.135 | 0.416 | 0.449 | |
| | 00081811 | C8 | 49.36 | 4.80 | 2.07 | 0.36 | 8.52 | 0.03 | 0.24 | 13.84 | 20.54 | 0.30 | 0.00 | 100.05 | 0.147 | 0.413 | 0.440 | |
| | 00081811 | C9 | 52.88 | 3.37 | 0.09 | 0.86 | 2.21 | 0.04 | 0.08 | 16.83 | 23.63 | 0.27 | 0.00 | 100.26 | 0.037 | 0.480 | 0.484 | |
| | 00081811 | C10 | 50.55 | 2.16 | 1.31 | 0.01 | 12.84 | 0.04 | 0.38 | 14.23 | 17.66 | 0.32 | 0.00 | 99.50 | 0.216 | 0.414 | 0.370 | |
| | 00081811 | C11 | 51.99 | 5.82 | 0.43 | 0.88 | 2.33 | 0.04 | 0.04 | 15.48 | 22.58 | 0.71 | 0.00 | 100.31 | 0.046 | 0.466 | 0.488 | |
| | 00081811 | C12 | 51.98 | 3.76 | 0.10 | 1.18 | 2.03 | 0.03 | 0.05 | 16.92 | 22.32 | 0.51 | 0.00 | 98.88 | 0.034 | 0.496 | 0.470 | |
| | 00081811 | C13 | 51.49 | 3.70 | 0.84 | 0.11 | 7.06 | 0.02 | 0.15 | 15.28 | 20.81 | 0.27 | 0.00 | 99.73 | 0.118 | 0.446 | 0.436 | |
| | 00081811 | C14 | 54.43 | 1.86 | 0.03 | 0.80 | 2.43 | 0.05 | 0.10 | 17.52 | 23.28 | 0.36 | 0.01 | 100.87 | 0.040 | 0.491 | 0.469 | |
| | 00081811 | C15 | 53.78 | 0.71 | 0.05 | 0.72 | 1.72 | 0.03 | 0.09 | 17.22 | 24.37 | 0.11 | 0.00 | 98.80 | 0.028 | 0.482 | 0.490 | |
| | 00081811 | C16 | 51.50 | 1.74 | 0.86 | 0.06 | 8.11 | 0.03 | 0.23 | 16.00 | 18.88 | 0.25 | 0.01 | 97.68 | 0.137 | 0.467 | 0.396 | |
| | 00081811 | C17 | 52.98 | 3.75 | 0.18 | 0.72 | 1.87 | 0.00 | 0.05 | 16.34 | 23.27 | 0.66 | 0.01 | 99.83 | 0.035 | 0.477 | 0.488 | |
| | 00081811 | C18 | 54.95 | 3.82 | 0.16 | 0.65 | 2.18 | 0.07 | 0.10 | 18.27 | 22.36 | 0.30 | 0.01 | 102.86 | 0.036 | 0.513 | 0.451 | |
| | 00081811 | C19 | 53.80 | 1.73 | 1.10 | 0.23 | 5.24 | 0.04 | 0.13 | 16.90 | 21.86 | 0.29 | 0.01 | 101.31 | 0.085 | 0.474 | 0.441 | |
| | 00081811 | C20 | 54.51 | 3.17 | 0.05 | 1.10 | 2.21 | 0.05 | 0.10 | 17.19 | 22.88 | 0.41 | 0.00 | 101.66 | 0.037 | 0.492 | 0.471 | |
| | 00081811 | C21 | 54.84 | 1.85 | 0.04 | 0.58 | 2.05 | 0.02 | 0.06 | 17.34 | 24.04 | 0.15 | 0.00 | 100.97 | 0.033 | 0.484 | 0.483 | |
| | 00081811 | C22 | 52.72 | 3.35 | 0.17 | 1.19 | 2.07 | 0.11 | 0.09 | 16.28 | 23.00 | 0.47 | 0.00 | 99.45 | 0.036 | 0.478 | 0.486 | |
| | Serpentine sandstone (Yohka Beach) | 00081803 | C1 | 49.61 | 2.85 | 0.49 | 0.01 | 10.97 | 0.00 | 0.37 | 12.82 | 19.76 | 0.18 | 0.00 | 97.06 | 0.191 | 0.384 | 0.425 |
| | | 00081803 | C2 | 54.86 | 1.51 | 0.17 | 0.31 | 4.75 | 0.01 | 0.16 | 17.77 | 21.12 | 0.09 | 0.00 | 100.77 | 0.077 | 0.498 | 0.425 |
| | | 00081803 | C3 | 54.30 | 1.93 | 0.12 | 0.54 | 4.20 | 0.06 | 0.15 | 17.97 | 21.50 | 0.12 | 0.01 | 100.90 | 0.068 | 0.501 | 0.431 |
| | | 00081803 | C4 | 52.45 | 2.19 | 0.30 | 0.03 | 9.43 | 0.00 | 0.33 | 14.87 | 19.89 | 0.12 | 0.00 | 99.61 | 0.158 | 0.429 | 0.413 |
| | | 00081803 | C5 | 52.74 | 0.47 | 0.34 | 0.02 | 12.37 | 0.06 | 0.59 | 13.11 | 19.68 | 0.26 | 0.01 | 99.65 | 0.211 | 0.380 | 0.410 |
| 00081803 | | C6 | 53.10 | 1.51 | 0.18 | 0.52 | 5.06 | 0.00 | 0.12 | 18.05 | 20.41 | 0.14 | 0.00 | 99.07 | 0.081 | 0.507 | 0.412 | |
| 00081803 | | C7 | 54.54 | 1.35 | 0.11 | 0.55 | 3.90 | 0.00 | 0.12 | 18.20 | 21.97 | 0.13 | 0.00 | 100.87 | 0.062 | 0.502 | 0.436 | |
| 00081803 | | C8 | 51.95 | 1.99 | 0.31 | 0.00 | 9.31 | 0.02 | 0.53 | 14.66 | 20.47 | 0.17 | 0.03 | 99.44 | 0.158 | 0.420 | 0.422 | |
| 00081803 | | C9 | 53.97 | 1.20 | 0.14 | 0.40 | 4.65 | 0.05 | 0.10 | 17.81 | 21.03 | 0.07 | 0.00 | 99.41 | 0.075 | 0.500 | 0.425 | |
| 00081803 | | C10 | 51.23 | 2.64 | 0.41 | 0.05 | 11.63 | 0.05 | 0.32 | 15.11 | 17.54 | 0.13 | 0.01 | 99.11 | 0.195 | 0.439 | 0.366 | |
| 00081803 | | C11 | 52.65 | 3.39 | 0.33 | 1.07 | 4.84 | 0.07 | 0.17 | 18.64 | 18.60 | 0.24 | 0.02 | 100.02 | 0.081 | 0.535 | 0.384 | |
| 00081803 | | C12 | 50.87 | 2.68 | 0.20 | 0.35 | 4.94 | 0.00 | 0.14 | 16.37 | 21.94 | 0.05 | 0.00 | 97.53 | 0.081 | 0.468 | 0.451 | |
| 00081803 | | C13 | 52.60 | 1.00 | 0.22 | 0.00 | 10.14 | 0.00 | 0.57 | 13.43 | 20.61 | 0.10 | 0.00 | 98.66 | 0.176 | 0.392 | 0.432 | |
| 00081803 | | C14 | 53.88 | 1.90 | 0.13 | 0.25 | 5.95 | 0.02 | 0.19 | 17.41 | 20.52 | 0.04 | 0.00 | 100.29 | 0.097 | 0.489 | 0.414 | |
| 00081803 | | C15 | 53.22 | 1.96 | 0.10 | 0.26 | 4.65 | 0.01 | 0.13 | 16.91 | 21.46 | 0.05 | 0.00 | 98.75 | 0.077 | 0.483 | 0.441 | |
| 00081803 | | C16 | 51.98 | 1.56 | 0.31 | 0.00 | 11.51 | 0.00 | 0.67 | 13.47 | 19.70 | 0.18 | 0.00 | 99.36 | 0.198 | 0.391 | 0.411 | |
| 00081803 | | C17 | 52.57 | 2.29 | 0.30 | 0.04 | 10.34 | 0.00 | 0.28 | 15.51 | 18.92 | 0.14 | 0.00 | 100.40 | 0.170 | 0.442 | 0.388 | |
| 00081803 | | C18 | 52.49 | 1.94 | 0.12 | 1.03 | 3.67 | 0.03 | 0.14 | 17.58 | 21.57 | 0.07 | 0.00 | 98.63 | 0.061 | 0.499 | 0.440 | |
| 00081803 | | C19 | 52.12 | 3.20 | 0.18 | 0.46 | 4.96 | 0.05 | 0.13 | 16.99 | 20.62 | 0.13 | 0.01 | 98.87 | 0.082 | 0.490 | 0.428 | |
| 00081803 | | C20 | 51.39 | 0.69 | 0.35 | 0.05 | 11.08 | 0.00 | 0.77 | 13.93 | 19.38 | 0.13 | 0.00 | 97.77 | 0.193 | 0.403 | 0.404 | |
| 00081803 | | C21 | 53.17 | 2.20 | 0.13 | 0.91 | 3.36 | 0.00 | 0.12 | 17.02 | 21.74 | 0.18 | 0.01 | 98.83 | 0.056 | 0.492 | 0.452 | |
| 00081803 | | C22 | 52.27 | 2.65 | 0.17 | 0.77 | 4.15 | 0.00 | 0.05 | 17.00 | 21.19 | 0.17 | 0.02 | 98.44 | 0.068 | 0.491 | 0.440 | |
| 00081803 | | C23 | 52.35 | 1.21 | 0.26 | 0.00 | 12.14 | 0.01 | 0.48 | 13.50 | 19.33 | 0.20 | 0.00 | 99.48 | 0.205 | 0.392 | 0.403 | |
| 00081803 | | C24 | 50.77 | 3.55 | 0.39 | 0.02 | 8.08 | 0.05 | 0.21 | 14.77 | 21.01 | 0.20 | 0.00 | 99.06 | 0.135 | 0.428 | 0.437 | |

Table C-3. Chemical compositions of detrital clinopyroxenes from the Mineoka and Setogawa areas. (5)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Fe ²⁺ 3# | Mg3# | Ca3# |
|---------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|-------|-------------------|------------------|-------------|---------------------|-------|-------|
| Koma Gr. | *02102502 | C1 | 54.23 | 1.13 | 0.24 | 0.01 | 10.11 | 0.01 | 0.40 | 14.45 | 21.16 | 0.20 | 0.00 | 101.95 | 0.166 | 0.406 | 0.428 |
| Kushigatayama | *02102502 | C2 | 53.77 | 0.62 | 0.23 | 0.00 | 8.61 | 0.00 | 0.41 | 14.47 | 21.81 | 0.24 | 0.01 | 100.17 | 0.144 | 0.411 | 0.445 |
| Subgr. | *02102502 | C3 | 54.20 | 0.85 | 0.22 | 0.01 | 10.23 | 0.00 | 0.43 | 14.09 | 21.35 | 0.27 | 0.00 | 101.65 | 0.169 | 0.398 | 0.433 |
| (sandstone) | *02102502 | C4 | 53.26 | 1.24 | 0.38 | 0.00 | 9.11 | 0.02 | 0.39 | 14.20 | 21.19 | 0.24 | 0.01 | 100.03 | 0.153 | 0.408 | 0.438 |
| | *02102502 | C5 | 52.47 | 4.20 | 0.29 | 0.78 | 4.23 | 0.02 | 0.04 | 16.25 | 22.52 | 0.14 | 0.00 | 100.94 | 0.069 | 0.467 | 0.465 |
| | *02102502 | C6 | 52.27 | 1.26 | 0.30 | 0.00 | 9.58 | 0.00 | 0.38 | 13.95 | 21.05 | 0.26 | 0.00 | 99.05 | 0.161 | 0.402 | 0.436 |
| | *02102502 | C7 | 53.43 | 0.82 | 0.24 | 0.00 | 9.46 | 0.05 | 0.41 | 14.26 | 21.66 | 0.23 | 0.01 | 100.55 | 0.157 | 0.403 | 0.440 |
| | *02102502 | C8 | 52.72 | 1.12 | 0.26 | 0.00 | 10.23 | 0.00 | 0.41 | 14.11 | 21.08 | 0.26 | 0.00 | 100.19 | 0.169 | 0.400 | 0.430 |
| | *02102502 | C9 | 50.45 | 0.70 | 0.21 | 0.04 | 9.65 | 0.00 | 0.42 | 14.17 | 21.21 | 0.24 | 0.00 | 97.10 | 0.161 | 0.404 | 0.435 |
| | *02102502 | C10 | 53.23 | 3.05 | 0.27 | 0.54 | 4.47 | 0.05 | 0.09 | 17.19 | 22.07 | 0.20 | 0.00 | 101.16 | 0.072 | 0.483 | 0.445 |
| | *02102502 | C11 | 53.63 | 1.06 | 0.23 | 0.01 | 9.37 | 0.00 | 0.39 | 14.43 | 21.45 | 0.23 | 0.00 | 100.78 | 0.155 | 0.408 | 0.436 |
| | *02102502 | C12 | 53.53 | 0.89 | 0.22 | 0.00 | 8.96 | 0.03 | 0.41 | 14.38 | 21.63 | 0.25 | 0.02 | 100.32 | 0.150 | 0.409 | 0.442 |
| | *02102502 | C13 | 53.54 | 0.86 | 0.21 | 0.00 | 9.25 | 0.05 | 0.47 | 13.53 | 21.30 | 0.24 | 0.00 | 99.45 | 0.159 | 0.394 | 0.446 |
| | *02102502 | C14 | 54.16 | 0.76 | 0.13 | 0.00 | 9.23 | 0.00 | 0.35 | 14.43 | 21.82 | 0.21 | 0.01 | 101.10 | 0.152 | 0.407 | 0.442 |
| | *02102502 | C15 | 53.85 | 0.96 | 0.31 | 0.00 | 9.37 | 0.00 | 0.38 | 14.15 | 21.08 | 0.22 | 0.00 | 100.31 | 0.157 | 0.407 | 0.436 |
| | *02102502 | C16 | 53.41 | 0.93 | 0.23 | 0.04 | 9.31 | 0.00 | 0.36 | 14.21 | 21.01 | 0.27 | 0.00 | 99.77 | 0.156 | 0.409 | 0.435 |
| | *02102502 | C17 | 53.33 | 1.45 | 0.31 | 0.00 | 9.24 | 0.01 | 0.42 | 13.97 | 21.46 | 0.28 | 0.00 | 100.47 | 0.156 | 0.401 | 0.443 |
| | *02102502 | C18 | 53.69 | 1.00 | 0.26 | 0.00 | 8.80 | 0.00 | 0.38 | 14.25 | 21.11 | 0.26 | 0.00 | 99.73 | 0.149 | 0.412 | 0.439 |
| | *02102502 | C19 | 53.58 | 1.15 | 0.27 | 0.00 | 9.15 | 0.00 | 0.39 | 14.42 | 21.36 | 0.25 | 0.00 | 100.57 | 0.152 | 0.411 | 0.437 |
| | *02102502 | C20 | 53.08 | 0.74 | 0.30 | 0.00 | 10.32 | 0.00 | 0.44 | 14.02 | 20.72 | 0.31 | 0.01 | 99.96 | 0.173 | 0.401 | 0.426 |
| | *02102502 | C21 | 53.40 | 1.07 | 0.25 | 0.04 | 10.06 | 0.00 | 0.37 | 14.14 | 20.88 | 0.25 | 0.00 | 100.45 | 0.167 | 0.404 | 0.429 |
| | *02102502 | C22 | 53.49 | 1.08 | 0.29 | 0.00 | 10.35 | 0.02 | 0.52 | 13.96 | 20.64 | 0.24 | 0.03 | 100.62 | 0.175 | 0.400 | 0.425 |
| | *02102502 | C23 | 53.74 | 0.90 | 0.25 | 0.00 | 9.32 | 0.02 | 0.41 | 14.35 | 21.37 | 0.36 | 0.00 | 100.72 | 0.155 | 0.408 | 0.437 |
| | *02102502 | C24 | 53.28 | 1.08 | 0.24 | 0.02 | 9.75 | 0.01 | 0.35 | 14.25 | 21.24 | 0.26 | 0.00 | 100.48 | 0.161 | 0.405 | 0.434 |
| | *02102502 | C25 | 53.33 | 1.04 | 0.20 | 0.02 | 9.52 | 0.04 | 0.44 | 14.32 | 21.09 | 0.26 | 0.00 | 100.27 | 0.159 | 0.408 | 0.432 |
| | *02102502 | C26 | 52.90 | 0.70 | 0.28 | 0.04 | 9.73 | 0.00 | 0.45 | 14.25 | 21.02 | 0.33 | 0.02 | 99.71 | 0.163 | 0.406 | 0.431 |
| | *02102502 | C27 | 53.84 | 0.86 | 0.13 | 0.00 | 10.22 | 0.03 | 0.49 | 13.75 | 21.48 | 0.25 | 0.01 | 101.06 | 0.171 | 0.391 | 0.439 |
| | *02102502 | C28 | 53.54 | 1.22 | 0.29 | 0.00 | 9.17 | 0.00 | 0.46 | 14.27 | 21.38 | 0.29 | 0.00 | 100.61 | 0.154 | 0.407 | 0.438 |
| | *02102502 | C29 | 53.42 | 1.06 | 0.26 | 0.02 | 9.84 | 0.02 | 0.42 | 14.24 | 20.99 | 0.26 | 0.02 | 100.54 | 0.164 | 0.406 | 0.430 |
| | *02102502 | C30 | 53.09 | 1.11 | 0.29 | 0.00 | 10.17 | 0.02 | 0.36 | 14.04 | 21.14 | 0.26 | 0.01 | 100.48 | 0.168 | 0.399 | 0.432 |

Table C-4. Chemical compositions of detrital chromian spinels from the Bengal basin. (1)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|-----------------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|---------------------|-------|-------|
| Kopili Fm. (Sylhet area) | *00042013 | S1 | 0.05 | 21.73 | 0.14 | 46.77 | 15.40 | 0.09 | 0.20 | 14.24 | 0.04 | 0.00 | 0.00 | 0.18 | 98.83 | 0.657 | 0.591 | 0.031 | 0.397 | 0.573 |
| | *00042013 | S2 | 0.04 | 24.83 | 0.46 | 45.36 | 16.55 | 0.09 | 0.34 | 13.83 | 0.05 | 0.00 | 0.00 | 0.21 | 101.76 | 0.622 | 0.551 | 0.017 | 0.442 | 0.541 |
| | *00042013 | S3 | 0.02 | 25.04 | 0.29 | 43.38 | 17.47 | 0.13 | 0.22 | 13.63 | 0.04 | 0.05 | 0.00 | 0.14 | 100.41 | 0.618 | 0.537 | 0.030 | 0.449 | 0.521 |
| | *00042013 | S4 | 0.01 | 26.57 | 0.16 | 41.86 | 15.74 | 0.10 | 0.29 | 14.20 | 0.03 | 0.01 | 0.00 | 0.12 | 99.08 | 0.642 | 0.514 | 0.023 | 0.475 | 0.502 |
| | *00042013 | S5 | 0.06 | 20.58 | 0.56 | 43.02 | 19.40 | 0.09 | 0.24 | 12.78 | 0.08 | 0.03 | 0.01 | 0.02 | 96.87 | 0.614 | 0.584 | 0.060 | 0.391 | 0.549 |
| | *00042013 | S6 | 0.05 | 34.29 | 0.49 | 27.95 | 21.34 | 0.28 | 0.11 | 15.19 | 0.07 | 0.00 | 0.01 | 0.05 | 99.83 | 0.662 | 0.354 | 0.086 | 0.591 | 0.323 |
| | *00042013 | S7 | 0.01 | 21.73 | 0.14 | 47.25 | 16.00 | 0.02 | 0.28 | 12.54 | 0.07 | 0.03 | 0.00 | 0.16 | 98.21 | 0.589 | 0.593 | 0.008 | 0.404 | 0.589 |
| | *00042013 | S8 | 0.04 | 13.12 | 0.02 | 55.41 | 19.08 | 0.00 | 0.36 | 10.24 | 0.11 | 0.00 | 0.02 | 0.37 | 98.75 | 0.503 | 0.739 | 0.024 | 0.255 | 0.722 |
| | *00042013 | S9 | 0.00 | 12.18 | 0.35 | 56.64 | 18.75 | 0.05 | 0.45 | 11.19 | 0.07 | 0.07 | 0.02 | 0.11 | 99.90 | 0.547 | 0.757 | 0.030 | 0.235 | 0.734 |
| | *00042013 | S10 | 0.01 | 21.71 | 0.38 | 47.11 | 15.19 | 0.05 | 0.20 | 13.28 | 0.08 | 0.01 | 0.02 | 0.12 | 98.17 | 0.625 | 0.593 | 0.009 | 0.404 | 0.588 |
| | *00042013 | S11 | 0.01 | 27.95 | 0.34 | 39.00 | 17.93 | 0.08 | 0.28 | 13.79 | 0.06 | 0.03 | 0.01 | 0.23 | 99.69 | 0.621 | 0.483 | 0.036 | 0.498 | 0.466 |
| | *00042013 | S12 | 0.00 | 29.08 | 0.27 | 39.19 | 16.34 | 0.12 | 0.23 | 13.84 | 0.06 | 0.00 | 0.00 | 0.12 | 99.25 | 0.622 | 0.475 | 0.016 | 0.517 | 0.467 |
| | *00042013 | S13 | 0.04 | 10.35 | 0.75 | 49.84 | 27.33 | 0.10 | 0.36 | 10.80 | 0.08 | 0.00 | 0.01 | 0.10 | 99.74 | 0.537 | 0.764 | 0.139 | 0.204 | 0.658 |
| | *00042013 | S14 | 0.00 | 26.03 | 0.46 | 40.23 | 19.11 | 0.12 | 0.34 | 12.56 | 0.06 | 0.00 | 0.01 | 0.20 | 99.11 | 0.579 | 0.509 | 0.034 | 0.474 | 0.492 |
| | *00042013 | S15 | 0.01 | 9.57 | 0.30 | 61.29 | 18.26 | 0.07 | 0.39 | 10.72 | 0.05 | 0.00 | 0.01 | 0.06 | 100.73 | 0.527 | 0.811 | 0.015 | 0.186 | 0.799 |
| | *00042013 | S16 | 0.07 | 13.89 | 1.54 | 53.24 | 16.95 | 0.15 | 0.25 | 14.58 | 0.08 | 0.00 | 0.01 | 0.08 | 100.82 | 0.705 | 0.720 | 0.051 | 0.266 | 0.683 |
| | *00042013 | S17 | 0.04 | 23.54 | 0.34 | 45.84 | 15.27 | 0.05 | 0.25 | 13.64 | 0.05 | 0.01 | 0.00 | 0.11 | 99.13 | 0.629 | 0.566 | 0.010 | 0.429 | 0.561 |
| | *00042013 | S18 | 0.01 | 11.61 | 0.34 | 59.33 | 10.82 | 0.11 | 2.26 | 12.23 | 0.04 | 0.17 | 0.01 | 4.18 | 100.90 | 0.592 | 0.774 | 0.016 | 0.222 | 0.762 |
| | *00042013 | S19 | 0.05 | 11.00 | 0.34 | 57.30 | 22.61 | 0.00 | 0.62 | 7.96 | 0.04 | 0.00 | 0.01 | 0.37 | 100.29 | 0.398 | 0.777 | 0.021 | 0.218 | 0.761 |
| | *00042013 | S20 | 0.00 | 8.55 | 0.38 | 59.74 | 20.30 | 0.09 | 0.37 | 9.04 | 0.06 | 0.08 | 0.01 | 0.18 | 98.79 | 0.461 | 0.824 | 0.020 | 0.172 | 0.808 |
| | *00042013 | S21 | 0.08 | 15.01 | 2.00 | 47.68 | 23.29 | 0.11 | 0.25 | 11.79 | 0.04 | 0.00 | 0.00 | 0.06 | 100.30 | 0.587 | 0.681 | 0.075 | 0.296 | 0.630 |
| | *00042013 | S22 | 0.03 | 33.51 | 0.13 | 35.90 | 14.74 | 0.18 | 0.17 | 15.29 | 0.04 | 0.02 | 0.00 | 0.09 | 100.09 | 0.663 | 0.418 | 0.013 | 0.574 | 0.413 |
| | *00042013 | S23 | 0.05 | 9.61 | 0.40 | 57.49 | 20.17 | 0.05 | 0.46 | 10.31 | 0.08 | 0.00 | 0.00 | 0.16 | 98.78 | 0.518 | 0.801 | 0.043 | 0.191 | 0.766 |
| | *00042013 | S24 | 0.05 | 10.06 | 0.45 | 59.12 | 18.75 | 0.01 | 0.36 | 9.30 | 0.07 | 0.01 | 0.00 | 0.18 | 98.34 | 0.473 | 0.798 | 0.000 | 0.202 | 0.798 |
| | *00042013 | S25 | 0.06 | 7.03 | 0.41 | 60.43 | 20.66 | 0.03 | 0.38 | 9.63 | 0.08 | 0.02 | 0.02 | 0.09 | 98.85 | 0.492 | 0.852 | 0.039 | 0.142 | 0.819 |
| | *00042013 | S26 | 0.00 | 23.63 | 0.19 | 44.59 | 15.50 | 0.17 | 0.25 | 14.15 | 0.04 | 0.00 | 0.00 | 0.12 | 98.65 | 0.650 | 0.559 | 0.027 | 0.429 | 0.543 |
| | *00042013 | S27 | 0.02 | 12.12 | 0.27 | 51.92 | 25.24 | 0.09 | 0.41 | 5.62 | 0.04 | 0.00 | 0.01 | 0.38 | 96.11 | 0.295 | 0.742 | 0.025 | 0.252 | 0.723 |
| | *00042013 | S28 | 0.03 | 10.31 | 0.58 | 56.53 | 19.78 | 0.08 | 0.32 | 12.24 | 0.04 | 0.00 | 0.01 | 0.08 | 99.99 | 0.600 | 0.786 | 0.065 | 0.200 | 0.736 |
| | *00042013 | S29 | 0.13 | 20.39 | 2.17 | 36.94 | 27.45 | 0.05 | 0.23 | 11.14 | 0.04 | 0.00 | 0.00 | 0.14 | 98.69 | 0.554 | 0.549 | 0.111 | 0.401 | 0.487 |
| | *00042013 | S30 | 0.01 | 5.71 | 0.25 | 62.28 | 22.70 | 0.00 | 0.40 | 7.36 | 0.05 | 0.00 | 0.00 | 0.23 | 98.99 | 0.383 | 0.880 | 0.025 | 0.117 | 0.858 |
| | *00042013 | S31 | 0.03 | 18.78 | 0.30 | 51.34 | 15.14 | 0.04 | 0.64 | 13.15 | 0.02 | 0.01 | 0.00 | 0.72 | 100.19 | 0.615 | 0.647 | 0.016 | 0.347 | 0.636 |
| | *00042013 | S32 | 0.03 | 31.19 | 0.16 | 37.53 | 15.54 | 0.11 | 0.20 | 14.56 | 0.01 | 0.00 | 0.01 | 0.19 | 99.52 | 0.643 | 0.447 | 0.016 | 0.544 | 0.439 |
| | *00042013 | S33 | 0.00 | 44.23 | 0.31 | 23.41 | 13.55 | 0.22 | 0.16 | 16.47 | 0.00 | 0.03 | 0.01 | 0.15 | 98.53 | 0.692 | 0.262 | 0.005 | 0.734 | 0.261 |
| | *00042013 | S34 | 0.11 | 27.06 | 1.68 | 31.98 | 22.60 | 0.12 | 0.22 | 14.17 | 0.02 | 0.00 | 0.00 | 0.08 | 98.05 | 0.667 | 0.442 | 0.097 | 0.503 | 0.399 |
| | *00042013 | S35 | 0.03 | 31.59 | 0.26 | 35.27 | 21.32 | 0.11 | 0.38 | 11.27 | 0.04 | 0.00 | 0.00 | 0.33 | 100.60 | 0.504 | 0.428 | 0.023 | 0.558 | 0.418 |
| | *00042013 | S36 | 0.06 | 14.05 | 0.78 | 49.78 | 20.77 | 0.20 | 0.27 | 12.06 | 0.04 | 0.00 | 0.03 | 0.09 | 98.14 | 0.596 | 0.704 | 0.074 | 0.274 | 0.652 |
| | *00042013 | S37 | 0.00 | 29.84 | 0.52 | 39.88 | 14.11 | 0.11 | 0.26 | 14.96 | 0.00 | 0.04 | 0.00 | 0.14 | 99.86 | 0.666 | 0.473 | 0.004 | 0.525 | 0.471 |
| | *00042013 | S38 | 0.03 | 10.44 | 2.18 | 59.31 | 14.62 | 0.04 | 0.29 | 12.75 | 0.02 | 0.00 | 0.00 | 0.00 | 99.70 | 0.652 | 0.792 | 0.000 | 0.208 | 0.792 |
| | *00042013 | S39 | 0.05 | 19.98 | 0.22 | 48.13 | 19.12 | 0.09 | 0.29 | 11.26 | 0.02 | 0.00 | 0.01 | 0.30 | 99.47 | 0.532 | 0.618 | 0.023 | 0.374 | 0.603 |
| | *00042013 | S40 | 0.02 | 24.12 | 0.69 | 43.14 | 17.62 | 0.15 | 0.20 | 13.85 | 0.04 | 0.00 | 0.00 | 0.14 | 99.95 | 0.637 | 0.545 | 0.036 | 0.438 | 0.526 |
| | *00042013 | S41 | 0.02 | 13.76 | 0.83 | 52.38 | 22.69 | 0.06 | 0.33 | 9.42 | 0.03 | 0.02 | 0.00 | 0.18 | 99.72 | 0.469 | 0.719 | 0.038 | 0.271 | 0.691 |

Table C-4. Chemical compositions of detrital chromian spinels from the Bengal basin. (2)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|---------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|---------------------|-------|-------|
| Barail Fm. | *00042002 | S1 | 0.04 | 25.14 | 0.01 | 41.14 | 17.43 | 0.00 | 0.25 | 12.39 | 0.02 | 0.00 | 0.00 | n. d. | 96.42 | 0.581 | 0.523 | 0.023 | 0.466 | 0.511 |
| (Sythet area) | *00042002 | S2 | 0.04 | 19.37 | 1.85 | 36.51 | 28.58 | 0.11 | 0.34 | 9.81 | 0.02 | 0.00 | 0.00 | n. d. | 96.62 | 0.500 | 0.558 | 0.117 | 0.390 | 0.493 |
| | *00042006 | S1 | 0.01 | 23.68 | 0.04 | 45.66 | 15.77 | 0.07 | 0.23 | 13.61 | 0.03 | 0.06 | 0.01 | n. d. | 99.17 | 0.623 | 0.564 | 0.017 | 0.429 | 0.554 |
| | *00042006 | S2 | 0.03 | 21.22 | 0.07 | 46.11 | 19.85 | 0.00 | 0.25 | 11.35 | 0.00 | 0.03 | 0.00 | n. d. | 98.90 | 0.534 | 0.593 | 0.030 | 0.395 | 0.575 |
| | *00042006 | S3 | 0.04 | 23.40 | 0.19 | 37.24 | 27.19 | 0.05 | 0.37 | 10.04 | 0.03 | 0.00 | 0.00 | n. d. | 98.55 | 0.473 | 0.516 | 0.098 | 0.436 | 0.466 |
| | *00042006 | S4 | 0.04 | 6.25 | 0.20 | 57.97 | 23.28 | 0.01 | 1.03 | 7.46 | 0.04 | 0.03 | 0.02 | 0.92 | 97.25 | 0.392 | 0.861 | 0.062 | 0.130 | 0.808 |
| | *00042006 | S5 | 0.05 | 25.72 | 0.20 | 40.98 | 18.93 | 0.04 | 0.25 | 12.70 | 0.02 | 0.03 | 0.01 | n. d. | 98.92 | 0.583 | 0.517 | 0.034 | 0.467 | 0.499 |
| | *00042006 | S6 | 0.04 | 25.89 | 0.49 | 38.37 | 21.57 | 0.06 | 0.19 | 10.34 | 0.03 | 0.02 | 0.01 | n. d. | 97.01 | 0.493 | 0.499 | 0.027 | 0.488 | 0.485 |
| | *00042006 | S7 | 0.05 | 23.67 | 0.11 | 43.66 | 17.80 | 0.14 | 0.34 | 12.46 | 0.00 | 0.02 | 0.00 | 0.16 | 98.42 | 0.579 | 0.553 | 0.027 | 0.435 | 0.538 |
| | *00042006 | S8 | 0.04 | 30.55 | 0.12 | 35.27 | 16.65 | 0.12 | 0.19 | 14.19 | 0.03 | 0.00 | 0.00 | n. d. | 97.14 | 0.641 | 0.436 | 0.032 | 0.545 | 0.422 |
| | *00042006 | S9 | 0.02 | 31.36 | 0.21 | 36.37 | 16.96 | 0.06 | 0.20 | 14.39 | 0.03 | 0.02 | 0.00 | n. d. | 99.62 | 0.635 | 0.438 | 0.026 | 0.548 | 0.426 |
| | *00042006 | S10 | 0.00 | 26.47 | 0.10 | 41.88 | 16.83 | 0.10 | 0.24 | 13.24 | 0.05 | 0.00 | 0.00 | n. d. | 98.91 | 0.603 | 0.515 | 0.018 | 0.476 | 0.505 |
| | *00042006 | S11 | 0.00 | 17.31 | 0.00 | 50.65 | 19.46 | 0.00 | 0.40 | 10.08 | 0.02 | 0.02 | 0.00 | n. d. | 97.92 | 0.489 | 0.662 | 0.015 | 0.332 | 0.652 |
| | *00042006 | S12 | 0.01 | 25.65 | 0.26 | 34.20 | 26.05 | 0.15 | 0.31 | 10.94 | 0.06 | 0.00 | 0.00 | n. d. | 97.62 | 0.513 | 0.472 | 0.099 | 0.476 | 0.425 |
| | *00042006 | S13 | 0.00 | 18.08 | 0.01 | 50.81 | 18.93 | 0.07 | 0.25 | 12.08 | 0.03 | 0.04 | 0.01 | n. d. | 98.29 | 0.575 | 0.654 | 0.018 | 0.340 | 0.642 |
| | *00042006 | S14 | 0.00 | 21.67 | 0.07 | 46.11 | 17.30 | 0.06 | 0.25 | 12.90 | 0.00 | 0.00 | 0.00 | n. d. | 98.37 | 0.602 | 0.588 | 0.030 | 0.400 | 0.571 |
| | *00042006 | S15 | 0.02 | 10.48 | 0.08 | 58.18 | 16.32 | 0.01 | 0.32 | 11.08 | 0.04 | 0.01 | 0.00 | n. d. | 96.53 | 0.559 | 0.788 | 0.013 | 0.209 | 0.778 |
| | *00042006 | S16 | 0.00 | 36.51 | 0.12 | 31.02 | 16.45 | 0.07 | 0.26 | 14.37 | 0.01 | 0.03 | 0.01 | n. d. | 98.64 | 0.625 | 0.363 | 0.014 | 0.628 | 0.358 |
| | *00042006 | S17 | 0.00 | 38.91 | 0.07 | 28.34 | 14.40 | 0.16 | 0.21 | 16.07 | 0.03 | 0.00 | 0.01 | n. d. | 98.19 | 0.688 | 0.328 | 0.020 | 0.659 | 0.322 |
| | *00042006 | S18 | 0.00 | 29.59 | 0.07 | 37.47 | 16.14 | 0.15 | 0.19 | 14.48 | 0.01 | 0.00 | 0.00 | n. d. | 98.10 | 0.649 | 0.459 | 0.030 | 0.524 | 0.445 |
| | *00042006 | S19 | 0.03 | 28.72 | 0.20 | 36.58 | 18.46 | 0.16 | 0.30 | 13.69 | 0.04 | 0.00 | 0.00 | n. d. | 98.17 | 0.620 | 0.461 | 0.046 | 0.514 | 0.439 |
| | *00042006 | S20 | 0.00 | 34.20 | 0.09 | 33.49 | 15.03 | 0.14 | 0.24 | 15.38 | 0.02 | 0.00 | 0.01 | n. d. | 98.59 | 0.671 | 0.396 | 0.022 | 0.590 | 0.388 |
| | *00042006 | S21 | 0.03 | 14.85 | 0.05 | 54.28 | 17.11 | 0.00 | 0.32 | 10.88 | 0.02 | 0.00 | 0.01 | n. d. | 97.54 | 0.534 | 0.710 | 0.006 | 0.288 | 0.706 |
| | *00042006 | S22 | 0.03 | 27.72 | 0.03 | 39.20 | 16.89 | 0.07 | 0.23 | 13.14 | 0.05 | 0.01 | 0.02 | n. d. | 97.38 | 0.602 | 0.487 | 0.021 | 0.502 | 0.476 |
| | *00042006 | S23 | 0.00 | 11.34 | 0.12 | 54.00 | 23.44 | 0.07 | 0.40 | 7.75 | 0.06 | 0.04 | 0.00 | n. d. | 97.22 | 0.396 | 0.762 | 0.038 | 0.229 | 0.732 |
| | *00042006 | S24 | 0.00 | 27.21 | 0.20 | 38.82 | 17.56 | 0.05 | 0.27 | 13.65 | 0.01 | 0.01 | 0.01 | n. d. | 97.80 | 0.624 | 0.489 | 0.037 | 0.492 | 0.471 |
| | *00042006 | S25 | 0.01 | 18.08 | 0.05 | 46.67 | 21.29 | 0.11 | 0.36 | 10.38 | 0.05 | 0.05 | 0.02 | n. d. | 97.07 | 0.506 | 0.634 | 0.049 | 0.348 | 0.603 |
| | *00042006 | S26 | 0.02 | 11.33 | 0.08 | 55.93 | 20.31 | 0.00 | 0.39 | 9.44 | 0.06 | 0.07 | 0.02 | 0.05 | 97.69 | 0.475 | 0.768 | 0.028 | 0.225 | 0.746 |
| | *00042006 | S27 | 0.00 | 20.25 | 0.18 | 39.29 | 25.50 | 0.14 | 0.37 | 9.82 | 0.02 | 0.00 | 0.00 | n. d. | 95.57 | 0.482 | 0.565 | 0.095 | 0.393 | 0.512 |
| | *00042006 | S28 | 0.08 | 43.44 | 0.28 | 20.60 | 14.31 | 0.27 | 0.14 | 19.11 | 0.03 | 0.00 | 0.01 | n. d. | 98.26 | 0.792 | 0.241 | 0.062 | 0.712 | 0.226 |
| | *00042006 | S29 | 0.05 | 7.63 | 0.08 | 62.42 | 18.30 | 0.09 | 0.34 | 7.22 | 0.05 | 0.01 | 0.00 | 0.08 | 96.25 | 0.381 | 0.846 | 0.000 | 0.078 | 0.846 |
| | *00042006 | S30 | 0.04 | 21.93 | 0.01 | 43.39 | 18.36 | 0.02 | 0.24 | 11.99 | 0.08 | 0.00 | 0.01 | n. d. | 98.06 | 0.573 | 0.570 | 0.036 | 0.414 | 0.550 |
| | *00042006 | S31 | 0.08 | 8.84 | 0.13 | 55.42 | 18.98 | 0.06 | 0.31 | 11.99 | 0.03 | 0.00 | 0.01 | n. d. | 95.85 | 0.609 | 0.808 | 0.076 | 0.177 | 0.746 |
| | *00042006 | S32 | 0.00 | 15.07 | 0.27 | 49.37 | 18.29 | 0.04 | 0.23 | 12.94 | 0.04 | 0.02 | 0.00 | n. d. | 96.28 | 0.635 | 0.687 | 0.066 | 0.292 | 0.642 |
| | *00042006 | S33 | 0.03 | 24.19 | 0.11 | 42.43 | 17.77 | 0.07 | 0.25 | 12.93 | 0.02 | 0.00 | 0.00 | n. d. | 97.79 | 0.600 | 0.541 | 0.033 | 0.444 | 0.523 |
| | *00042006 | S34 | 0.00 | 29.91 | 0.04 | 37.28 | 15.77 | 0.08 | 0.26 | 13.99 | 0.05 | 0.04 | 0.00 | n. d. | 97.41 | 0.632 | 0.455 | 0.019 | 0.534 | 0.447 |
| | *00042006 | S35 | 0.02 | 17.43 | 0.07 | 51.03 | 16.58 | 0.06 | 0.27 | 12.70 | 0.03 | 0.01 | 0.02 | n. d. | 98.22 | 0.605 | 0.663 | 0.027 | 0.328 | 0.645 |
| | *00042015 | S1 | 0.00 | 35.90 | 0.05 | 29.94 | 14.53 | 0.16 | 0.25 | 14.31 | 0.07 | 0.03 | 0.00 | n. d. | 95.24 | 0.642 | 0.359 | 0.008 | 0.636 | 0.356 |
| | *00042015 | S2 | 0.01 | 27.22 | 0.03 | 39.36 | 16.07 | 0.10 | 0.21 | 13.60 | 0.06 | 0.04 | 0.00 | n. d. | 96.71 | 0.626 | 0.492 | 0.024 | 0.495 | 0.481 |
| | *00042015 | S3 | 0.00 | 27.95 | 0.12 | 37.35 | 17.92 | 0.06 | 0.25 | 12.33 | 0.08 | 0.04 | 0.02 | n. d. | 96.12 | 0.575 | 0.473 | 0.023 | 0.515 | 0.462 |
| | *00042015 | S4 | 0.00 | 36.05 | 0.11 | 30.30 | 16.15 | 0.15 | 0.17 | 14.88 | 0.09 | 0.02 | 0.00 | n. d. | 97.92 | 0.651 | 0.361 | 0.025 | 0.623 | 0.352 |

Table C-4. Chemical compositions of detrital chromian spinels from the Bengal basin. (3)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# | |
|-----------------------------|-----------------------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|------|-------|-------|-------------------|------------------|-------|-------------|--------|-------|---------------------|-------|-------|-------|
| Barail Fm. (Sylhet area) | *00042015 | S5 | 0.03 | 19.98 | 0.26 | 47.78 | 14.59 | 0.03 | 0.30 | 11.68 | 0.05 | 0.02 | 0.01 | n. d. | 94.73 | 0.575 | 0.616 | 0.000 | 0.384 | 0.616 | |
| | *00042015 | S6 | 0.00 | 20.13 | 0.38 | 42.85 | 22.97 | 0.08 | 0.34 | 11.38 | 0.03 | 0.04 | 0.01 | n. d. | 98.18 | 0.544 | 0.588 | 0.076 | 0.380 | 0.543 | |
| | *00042015 | S7 | 0.07 | 37.40 | 0.05 | 29.95 | 14.32 | 0.22 | 0.13 | 16.43 | 0.03 | 0.01 | 0.02 | n. d. | 98.62 | 0.703 | 0.349 | 0.027 | 0.633 | 0.340 | |
| | *00042015 | S8 | 0.00 | 29.17 | 0.15 | 37.57 | 16.26 | 0.16 | 0.21 | 13.61 | 0.01 | 0.00 | 0.00 | n. d. | 97.15 | 0.621 | 0.463 | 0.020 | 0.526 | 0.454 | |
| | *00042015 | S9 | 0.02 | 17.04 | 0.10 | 52.77 | 14.45 | 0.11 | 0.21 | 14.40 | 0.04 | 0.00 | 0.00 | n. d. | 99.15 | 0.675 | 0.675 | 0.029 | 0.316 | 0.656 | |
| | *00042015 | S10 | 0.04 | 24.68 | 0.06 | 41.29 | 18.44 | 0.05 | 0.25 | 12.76 | 0.04 | 0.01 | 0.00 | n. d. | 97.61 | 0.592 | 0.529 | 0.039 | 0.453 | 0.508 | |
| | *00042015 | S11 | 0.00 | 27.75 | 0.14 | 36.60 | 20.76 | 0.11 | 0.28 | 11.67 | 0.00 | 0.02 | 0.00 | n. d. | 97.33 | 0.541 | 0.469 | 0.042 | 0.508 | 0.450 | |
| | *00042015 | S12 | 0.00 | 17.62 | 0.21 | 46.88 | 21.09 | 0.05 | 0.34 | 10.35 | 0.06 | 0.00 | 0.01 | n. d. | 96.61 | 0.509 | 0.641 | 0.046 | 0.343 | 0.612 | |
| | *00042015 | S13 | 0.02 | 29.60 | 0.05 | 36.96 | 16.58 | 0.04 | 0.19 | 13.15 | 0.06 | 0.02 | 0.00 | n. d. | 96.66 | 0.602 | 0.456 | 0.016 | 0.536 | 0.449 | |
| | *00042015 | S14 | 0.00 | 28.84 | 0.16 | 34.09 | 22.43 | 0.11 | 0.28 | 11.84 | 0.02 | 0.02 | 0.00 | n. d. | 97.78 | 0.543 | 0.442 | 0.062 | 0.523 | 0.415 | |
| | *00042015 | S15 | 0.09 | 33.98 | 0.16 | 32.19 | 15.08 | 0.18 | 0.23 | 14.51 | 0.03 | 0.05 | 0.00 | n. d. | 96.49 | 0.650 | 0.389 | 0.016 | 0.602 | 0.382 | |
| | *00042015 | S16 | 0.00 | 20.19 | 0.22 | 44.69 | 19.90 | 0.08 | 0.31 | 9.60 | 0.09 | 0.00 | 0.00 | n. d. | 95.08 | 0.477 | 0.597 | 0.015 | 0.396 | 0.588 | |
| | *00042015 | S17 | 0.00 | 44.43 | 0.01 | 21.67 | 14.72 | 0.16 | 0.17 | 16.19 | 0.06 | 0.02 | 0.01 | n. d. | 97.45 | 0.682 | 0.246 | 0.018 | 0.740 | 0.242 | |
| | Bhuban Fm. (Sylhet area) | *00042016 | S1 | 0.00 | 28.85 | 0.24 | 40.52 | 17.81 | 0.09 | 0.22 | 14.18 | 0.07 | 0.00 | 0.00 | 0.19 | 102.16 | 0.621 | 0.485 | 0.030 | 0.500 | 0.471 |
| | | *00042016 | S2 | 0.06 | 28.34 | 0.05 | 42.97 | 14.97 | 0.03 | 0.30 | 14.68 | 0.08 | 0.11 | 0.02 | 0.27 | 101.87 | 0.642 | 0.504 | 0.011 | 0.490 | 0.499 |
| | | *00042016 | S3 | 0.00 | 33.82 | 0.09 | 38.42 | 15.25 | 0.06 | 0.22 | 12.62 | 0.05 | 0.06 | 0.00 | 0.21 | 100.81 | 0.553 | 0.432 | 0.000 | 0.568 | 0.432 |
| | | *00042016 | S4 | 0.03 | 24.44 | 0.12 | 45.21 | 15.39 | 0.05 | 0.17 | 14.33 | 0.04 | 0.00 | 0.00 | 0.15 | 99.92 | 0.648 | 0.554 | 0.021 | 0.437 | 0.542 |
| *00042016 | | S5 | 0.00 | 24.24 | 0.31 | 41.48 | 20.66 | 0.09 | 0.28 | 11.78 | 0.06 | 0.00 | 0.01 | 0.31 | 99.22 | 0.547 | 0.534 | 0.044 | 0.445 | 0.511 | |
| *00042016 | | S6 | 0.00 | 30.36 | 0.19 | 38.49 | 13.20 | 0.09 | 0.17 | 15.87 | 0.06 | 0.05 | 0.02 | 0.16 | 98.66 | 0.703 | 0.460 | 0.016 | 0.532 | 0.452 | |
| *00042016 | | S7 | 0.00 | 36.18 | 0.08 | 31.41 | 14.71 | 0.17 | 0.28 | 15.85 | 0.06 | 0.02 | 0.01 | 0.26 | 99.03 | 0.682 | 0.368 | 0.025 | 0.616 | 0.359 | |
| *00042016 | | S8 | 0.02 | 36.90 | 0.07 | 30.72 | 15.55 | 0.11 | 0.19 | 15.89 | 0.06 | 0.05 | 0.00 | 0.18 | 99.72 | 0.678 | 0.358 | 0.029 | 0.623 | 0.348 | |
| *00042016 | | S9 | 0.03 | 17.86 | 0.13 | 50.50 | 16.75 | 0.04 | 0.30 | 11.60 | 0.11 | 0.00 | 0.01 | 0.20 | 97.52 | 0.561 | 0.655 | 0.011 | 0.341 | 0.647 | |
| *00042016 | | S10 | 0.03 | 25.93 | 0.09 | 42.95 | 14.80 | 0.13 | 0.11 | 13.34 | 0.03 | 0.02 | 0.00 | 0.21 | 97.63 | 0.615 | 0.526 | 0.002 | 0.473 | 0.525 | |
| *00042016 | | S11 | 0.03 | 27.73 | 0.25 | 39.92 | 16.17 | 0.04 | 0.19 | 14.03 | 0.04 | 0.03 | 0.00 | 0.08 | 98.51 | 0.637 | 0.491 | 0.022 | 0.497 | 0.480 | |
| *00042016 | | S12 | 0.02 | 23.25 | 0.06 | 46.11 | 16.80 | 0.05 | 0.25 | 11.91 | 0.08 | 0.03 | 0.02 | 0.22 | 98.79 | 0.555 | 0.571 | 0.002 | 0.428 | 0.570 | |
| *00042016 | | S13 | 0.04 | 9.44 | 0.15 | 55.05 | 20.41 | 0.00 | 0.36 | 10.79 | 0.10 | 0.00 | 0.00 | 0.13 | 96.46 | 0.548 | 0.796 | 0.068 | 0.190 | 0.742 | |
| *00042016 | | S14 | 0.03 | 24.46 | 0.09 | 39.26 | 23.20 | 0.05 | 0.44 | 9.09 | 0.13 | 0.00 | 0.00 | 0.40 | 97.14 | 0.435 | 0.518 | 0.038 | 0.463 | 0.499 | |
| *00042016 | | S15 | 0.02 | 27.79 | 0.05 | 38.27 | 19.39 | 0.09 | 0.28 | 12.19 | 0.05 | 0.00 | 0.00 | 0.25 | 98.37 | 0.557 | 0.480 | 0.034 | 0.502 | 0.464 | |
| *00042016 | | S16 | 0.02 | 32.52 | 0.18 | 29.85 | 24.34 | 0.14 | 0.30 | 10.81 | 0.07 | 0.00 | 0.01 | 0.45 | 98.70 | 0.489 | 0.381 | 0.060 | 0.582 | 0.358 | |
| *00042016 | | S17 | 0.01 | 41.29 | 0.03 | 23.20 | 14.65 | 0.08 | 0.18 | 15.51 | 0.07 | 0.02 | 0.01 | 0.32 | 95.35 | 0.675 | 0.274 | 0.022 | 0.710 | 0.268 | |
| *00042016 | | S18 | 0.00 | 34.56 | 0.03 | 34.72 | 15.97 | 0.01 | 0.26 | 14.81 | 0.03 | 0.04 | 0.01 | 0.24 | 100.68 | 0.637 | 0.403 | 0.016 | 0.588 | 0.396 | |
| *00042016 | | S19 | 0.04 | 33.90 | 0.08 | 34.96 | 15.14 | 0.11 | 0.17 | 15.27 | 0.04 | 0.00 | 0.00 | 0.19 | 99.89 | 0.661 | 0.409 | 0.018 | 0.580 | 0.401 | |
| *00042016 | | S20 | 0.10 | 36.41 | 0.05 | 31.51 | 17.53 | 0.11 | 0.19 | 15.12 | 0.06 | 0.00 | 0.00 | 0.26 | 101.33 | 0.642 | 0.367 | 0.035 | 0.611 | 0.355 | |
| *00042016 | | S21 | 0.01 | 16.72 | 0.73 | 48.38 | 19.41 | 0.08 | 0.28 | 11.86 | 0.04 | 0.00 | 0.03 | 0.25 | 97.78 | 0.581 | 0.660 | 0.047 | 0.324 | 0.629 | |
| *00042016 | | S22 | 0.00 | 25.55 | 0.14 | 40.67 | 16.20 | 0.04 | 0.28 | 13.73 | 0.04 | 0.00 | 0.00 | 0.10 | 96.75 | 0.637 | 0.516 | 0.031 | 0.468 | 0.500 | |
| *00042016 | | S23 | 0.02 | 38.15 | 0.11 | 30.00 | 16.71 | 0.08 | 0.19 | 11.66 | 0.06 | 0.01 | 0.00 | 0.38 | 97.37 | 0.520 | 0.345 | 0.000 | 0.655 | 0.345 | |
| *00042016 | | S24 | 0.03 | 20.64 | 0.19 | 47.22 | 15.76 | 0.07 | 0.28 | 12.34 | 0.04 | 0.00 | 0.03 | 0.08 | 96.68 | 0.591 | 0.605 | 0.009 | 0.391 | 0.600 | |
| *00042016 | | S25 | 0.02 | 31.47 | 0.07 | 37.38 | 17.23 | 0.10 | 0.28 | 13.76 | 0.06 | 0.03 | 0.01 | 0.18 | 100.58 | 0.604 | 0.443 | 0.019 | 0.546 | 0.435 | |
| *00042016 | | S26 | 0.02 | 25.67 | 0.32 | 37.68 | 22.28 | 0.10 | 0.29 | 9.75 | 0.07 | 0.00 | 0.01 | 0.24 | 96.43 | 0.468 | 0.496 | 0.034 | 0.487 | 0.479 | |
| *00042016 | | S27 | 0.04 | 26.56 | 0.08 | 38.46 | 22.33 | 0.09 | 0.25 | 9.46 | 0.06 | 0.00 | 0.00 | 0.31 | 97.63 | 0.446 | 0.493 | 0.024 | 0.495 | 0.481 | |
| *00042016 | | S28 | 0.05 | 29.90 | 0.11 | 37.23 | 16.81 | 0.13 | 0.23 | 14.00 | 0.05 | 0.00 | 0.00 | 0.18 | 98.67 | 0.627 | 0.455 | 0.029 | 0.529 | 0.442 | |

Table C-4. Chemical compositions of detrital chromian spinels from the Bengal basin. (4)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | *FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|------------------------------------|-----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|-------|-------------|-------|-------|--------------------|-------|-------|
| Bhuban Fm. (Sylhet area) | *00042016 | S29 | 0.05 | 22.27 | 0.21 | 43.74 | 20.14 | 0.11 | 0.31 | 11.15 | 0.02 | 0.00 | 0.00 | 0.14 | 98.14 | 0.528 | 0.569 | 0.034 | 0.417 | 0.549 |
| | *00042016 | S30 | 0.00 | 34.00 | 0.10 | 34.96 | 14.70 | 0.13 | 0.20 | 15.76 | 0.02 | 0.00 | 0.01 | 0.14 | 100.01 | 0.679 | 0.408 | 0.021 | 0.580 | 0.400 |
| | *00042016 | S31 | 0.02 | 36.15 | 0.13 | 31.68 | 13.29 | 0.13 | 0.16 | 15.92 | 0.04 | 0.04 | 0.00 | 0.14 | 97.70 | 0.694 | 0.370 | 0.011 | 0.623 | 0.366 |
| | *00042016 | S32 | 0.04 | 17.50 | 0.17 | 49.32 | 20.05 | 0.00 | 0.32 | 6.84 | 0.07 | 0.00 | 0.03 | 0.18 | 94.52 | 0.353 | 0.654 | 0.000 | 0.346 | 0.654 |
| | *00042016 | S33 | 0.00 | 35.76 | 0.04 | 32.95 | 14.84 | 0.06 | 0.17 | 15.40 | 0.01 | 0.02 | 0.00 | 0.25 | 99.50 | 0.663 | 0.382 | 0.015 | 0.609 | 0.376 |
| | *00042016 | S34 | 0.01 | 33.06 | 0.05 | 35.52 | 14.99 | 0.07 | 0.15 | 15.13 | 0.06 | 0.00 | 0.01 | 0.26 | 99.30 | 0.660 | 0.419 | 0.018 | 0.571 | 0.411 |
| | *00042016 | S35 | 0.03 | 29.87 | 0.09 | 36.05 | 18.02 | 0.09 | 0.27 | 13.23 | 0.09 | 0.01 | 0.02 | 0.20 | 97.96 | 0.599 | 0.447 | 0.033 | 0.534 | 0.433 |
| | *00042016 | S36 | 0.01 | 22.35 | 0.09 | 44.79 | 17.24 | 0.13 | 0.20 | 12.67 | 0.07 | 0.00 | 0.00 | 0.20 | 97.72 | 0.594 | 0.573 | 0.028 | 0.414 | 0.557 |
| | *00042016 | S37 | 0.06 | 22.45 | 0.12 | 44.73 | 18.29 | 0.01 | 0.29 | 12.12 | 0.01 | 0.01 | 0.03 | 0.26 | 98.37 | 0.568 | 0.572 | 0.028 | 0.416 | 0.556 |
| | *00042016 | S38 | 0.00 | 9.78 | 0.26 | 56.58 | 17.94 | 0.00 | 0.27 | 10.25 | 0.06 | 0.00 | 0.01 | 0.06 | 95.23 | 0.530 | 0.795 | 0.023 | 0.200 | 0.776 |
| | *00042016 | S39 | 0.00 | 19.32 | 0.43 | 45.11 | 21.02 | 0.04 | 0.37 | 10.68 | 0.07 | 0.02 | 0.01 | 0.33 | 97.41 | 0.520 | 0.610 | 0.046 | 0.372 | 0.582 |
| | *00042016 | S40 | 0.00 | 16.65 | 0.07 | 46.35 | 20.87 | 0.01 | 0.26 | 10.13 | 0.06 | 0.01 | 0.01 | 0.26 | 96.70 | 0.495 | 0.625 | 0.039 | 0.360 | 0.601 |
| | *00042016 | S41 | 0.01 | 31.13 | 0.10 | 34.53 | 18.99 | 0.09 | 0.20 | 13.18 | 0.04 | 0.02 | 0.02 | 0.20 | 98.49 | 0.591 | 0.427 | 0.038 | 0.552 | 0.410 |
| | *00042016 | S42 | 0.00 | 50.04 | 0.01 | 19.01 | 13.25 | 0.22 | 0.21 | 17.80 | 0.07 | 0.01 | 0.01 | 0.31 | 100.93 | 0.709 | 0.203 | 0.010 | 0.789 | 0.201 |
| | *00042016 | S43 | 0.04 | 39.74 | 0.06 | 29.70 | 15.00 | 0.16 | 0.26 | 16.35 | 0.02 | 0.00 | 0.01 | 0.24 | 101.58 | 0.679 | 0.334 | 0.020 | 0.653 | 0.327 |
| | *00042016 | S44 | 0.04 | 24.11 | 0.18 | 45.31 | 16.13 | 0.02 | 0.30 | 13.64 | 0.08 | 0.02 | 0.01 | 0.08 | 99.92 | 0.622 | 0.558 | 0.018 | 0.434 | 0.548 |
| | *00042016 | S45 | 0.04 | 28.07 | 0.16 | 37.71 | 16.86 | 0.13 | 0.21 | 13.87 | 0.06 | 0.04 | 0.00 | 0.10 | 97.24 | 0.634 | 0.474 | 0.035 | 0.508 | 0.457 |
| | *00042016 | S46 | 0.04 | 17.20 | 0.13 | 51.01 | 16.23 | 0.00 | 0.29 | 12.62 | 0.08 | 0.00 | 0.00 | 0.14 | 97.74 | 0.606 | 0.666 | 0.024 | 0.326 | 0.649 |
| *00042016 | S47 | 0.08 | 18.08 | 0.24 | 45.46 | 21.94 | 0.06 | 0.39 | 9.92 | 0.07 | 0.01 | 0.00 | 0.13 | 96.36 | 0.490 | 0.628 | 0.051 | 0.353 | 0.596 | |
| *00042016 | S48 | 0.01 | 33.06 | 0.04 | 30.73 | 19.18 | 0.06 | 0.20 | 13.52 | 0.05 | 0.00 | 0.00 | 0.22 | 97.07 | 0.606 | 0.384 | 0.049 | 0.586 | 0.365 | |
| Bhuban Fm. (Chittagong area) | *CH01 | S1 | 0.00 | 40.22 | 0.05 | 28.56 | 14.57 | 0.15 | 0.26 | 16.62 | 0.02 | 0.00 | 0.00 | 0.25 | 100.69 | 0.692 | 0.323 | 0.023 | 0.662 | 0.315 |
| | *CH01 | S2 | 0.01 | 34.48 | 0.05 | 35.79 | 14.70 | 0.23 | 0.21 | 15.57 | 0.02 | 0.00 | 0.02 | 0.16 | 101.23 | 0.664 | 0.410 | 0.014 | 0.581 | 0.405 |
| | *CH01 | S3 | 0.00 | 16.50 | 0.13 | 50.34 | 19.84 | 0.00 | 0.25 | 10.57 | 0.00 | 0.00 | 0.00 | 0.18 | 97.60 | 0.516 | 0.672 | 0.030 | 0.319 | 0.652 |
| | *CH01 | S4 | 0.00 | 45.03 | 0.10 | 23.64 | 14.55 | 0.17 | 0.21 | 17.02 | 0.06 | 0.04 | 0.01 | 0.16 | 100.99 | 0.694 | 0.260 | 0.018 | 0.726 | 0.256 |
| | *CH01 | S5 | 0.00 | 21.78 | 0.05 | 47.67 | 15.42 | 0.07 | 0.22 | 13.36 | 0.00 | 0.00 | 0.01 | 0.17 | 98.75 | 0.619 | 0.595 | 0.015 | 0.399 | 0.586 |
| | *CH01 | S6 | 0.00 | 12.53 | 0.16 | 54.15 | 19.66 | 0.06 | 0.32 | 11.18 | 0.00 | 0.05 | 0.02 | 0.08 | 98.20 | 0.550 | 0.744 | 0.049 | 0.244 | 0.707 |
| | *CH01 | S7 | 0.00 | 40.19 | 0.10 | 26.38 | 14.88 | 0.10 | 0.19 | 16.35 | 0.03 | 0.01 | 0.01 | 0.23 | 98.46 | 0.694 | 0.306 | 0.028 | 0.675 | 0.297 |
| | *CH01 | S8 | 0.00 | 39.58 | 0.08 | 28.66 | 14.36 | 0.15 | 0.18 | 16.11 | 0.01 | 0.02 | 0.00 | 0.20 | 99.35 | 0.682 | 0.327 | 0.016 | 0.662 | 0.322 |
| | *CH01 | S9 | 0.00 | 35.57 | 0.04 | 31.32 | 15.43 | 0.17 | 0.27 | 14.83 | 0.00 | 0.03 | 0.00 | 0.18 | 97.84 | 0.649 | 0.371 | 0.021 | 0.616 | 0.364 |
| | *CH01 | S10 | 0.01 | 27.53 | 0.00 | 40.90 | 17.03 | 0.12 | 0.30 | 13.46 | 0.04 | 0.00 | 0.02 | 0.19 | 99.59 | 0.604 | 0.499 | 0.024 | 0.489 | 0.487 |
| | *CH01 | S11 | 0.03 | 37.42 | 0.03 | 30.37 | 15.25 | 0.18 | 0.25 | 15.84 | 0.00 | 0.02 | 0.00 | 0.17 | 99.56 | 0.675 | 0.352 | 0.026 | 0.631 | 0.343 |
| | *CH01 | S12 | 0.04 | 19.39 | 0.10 | 50.07 | 17.04 | 0.03 | 0.29 | 12.60 | 0.02 | 0.00 | 0.00 | 0.13 | 99.70 | 0.589 | 0.634 | 0.021 | 0.358 | 0.621 |
| | *CH01 | S13 | 0.02 | 21.45 | 0.10 | 45.58 | 19.54 | 0.11 | 0.38 | 11.71 | 0.09 | 0.00 | 0.02 | 0.12 | 99.12 | 0.549 | 0.588 | 0.036 | 0.397 | 0.566 |
| *CH01 | S14 | 0.00 | 33.52 | 0.33 | 33.33 | 17.81 | 0.10 | 0.27 | 14.00 | 0.08 | 0.00 | 0.00 | 0.22 | 99.66 | 0.616 | 0.400 | 0.028 | 0.583 | 0.389 | |
| *CH01 | S15 | 0.01 | 25.63 | 0.10 | 36.82 | 24.53 | 0.13 | 0.34 | 10.44 | 0.00 | 0.00 | 0.01 | 0.11 | 98.11 | 0.488 | 0.491 | 0.070 | 0.473 | 0.456 | |
| *CH01 | S16 | 0.01 | 35.55 | 0.08 | 32.64 | 14.71 | 0.23 | 0.25 | 15.93 | 0.01 | 0.00 | 0.00 | 0.10 | 99.50 | 0.684 | 0.381 | 0.024 | 0.604 | 0.372 | |
| *CH01 | S17 | 0.00 | 44.97 | 0.12 | 23.07 | 13.88 | 0.16 | 0.17 | 16.78 | 0.01 | 0.01 | 0.02 | 0.25 | 99.43 | 0.694 | 0.256 | 0.012 | 0.735 | 0.253 | |
| *CH01 | S18 | 0.00 | 26.74 | 0.05 | 41.77 | 16.97 | 0.05 | 0.20 | 13.02 | 0.01 | 0.00 | 0.00 | 0.12 | 98.93 | 0.592 | 0.512 | 0.016 | 0.481 | 0.504 | |
| *CH01 | S19 | 0.00 | 28.95 | 0.15 | 36.81 | 17.81 | 0.11 | 0.21 | 14.17 | 0.00 | 0.00 | 0.00 | 0.16 | 98.37 | 0.637 | 0.460 | 0.046 | 0.515 | 0.439 | |
| *CH01 | S20 | 0.00 | 40.46 | 0.13 | 28.27 | 15.03 | 0.15 | 0.19 | 15.24 | 0.02 | 0.04 | 0.00 | 0.20 | 99.71 | 0.646 | 0.319 | 0.005 | 0.678 | 0.318 | |
| *CH01 | S21 | 0.00 | 20.32 | 0.12 | 43.37 | 22.17 | 0.15 | 0.29 | 11.53 | 0.02 | 0.00 | 0.00 | 0.13 | 98.09 | 0.547 | 0.589 | 0.073 | 0.381 | 0.546 | |

Table C-4. Chemical compositions of detrital chromian spinels from the Bengal basin. (5)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|------------------------------------|--------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|--------------------|-------|-------|
| Bhuban Fm. (Chittagong area) | *CH01 | S22 | 0.00 | 10.65 | 0.03 | 59.06 | 17.10 | 0.00 | 0.35 | 11.19 | 0.02 | 0.03 | 0.00 | 0.14 | 98.57 | 0.552 | 0.788 | 0.019 | 0.208 | 0.773 |
| | *CH01 | S23 | 0.00 | 32.95 | 0.07 | 35.38 | 15.96 | 0.14 | 0.25 | 15.02 | 0.00 | 0.03 | 0.00 | 0.15 | 99.95 | 0.653 | 0.419 | 0.026 | 0.566 | 0.408 |
| | *CH01 | S24 | 0.02 | 31.13 | 0.11 | 37.07 | 16.69 | 0.05 | 0.24 | 14.36 | 0.00 | 0.00 | 0.02 | 0.16 | 99.85 | 0.632 | 0.444 | 0.025 | 0.542 | 0.433 |
| | *CH01 | S25 | 0.03 | 11.81 | 0.16 | 51.68 | 23.34 | 0.12 | 0.37 | 10.17 | 0.00 | 0.00 | 0.01 | 0.15 | 97.84 | 0.507 | 0.746 | 0.084 | 0.233 | 0.683 |
| | *CH01 | S26 | 0.00 | 18.85 | 0.24 | 47.07 | 19.87 | 0.06 | 0.29 | 12.96 | 0.01 | 0.00 | 0.00 | 0.16 | 99.50 | 0.607 | 0.626 | 0.066 | 0.349 | 0.585 |
| | *CH01 | S27 | 0.04 | 36.86 | 0.13 | 30.20 | 14.42 | 0.20 | 0.20 | 16.09 | 0.00 | 0.00 | 0.00 | 0.05 | 98.18 | 0.695 | 0.355 | 0.025 | 0.629 | 0.346 |
| | *CH01 | S28 | 0.11 | 25.97 | 0.03 | 41.78 | 17.80 | 0.07 | 0.27 | 13.25 | 0.01 | 0.00 | 0.00 | 0.23 | 99.52 | 0.600 | 0.519 | 0.033 | 0.465 | 0.502 |
| | *CH01 | S29 | 0.03 | 39.78 | 0.08 | 24.43 | 16.47 | 0.22 | 0.25 | 15.90 | 0.00 | 0.01 | 0.00 | 0.20 | 97.35 | 0.683 | 0.292 | 0.046 | 0.676 | 0.278 |
| | *CH01 | S30 | 0.03 | 39.96 | 0.02 | 26.29 | 14.17 | 0.14 | 0.14 | 17.18 | 0.00 | 0.00 | 0.01 | 0.22 | 98.15 | 0.727 | 0.306 | 0.037 | 0.668 | 0.295 |
| | *CH01 | S31 | 0.05 | 28.86 | 0.15 | 40.31 | 17.19 | 0.03 | 0.30 | 13.81 | 0.01 | 0.00 | 0.02 | 0.17 | 100.90 | 0.811 | 0.484 | 0.022 | 0.505 | 0.473 |
| | *CH01 | S32 | 0.02 | 22.23 | 0.09 | 43.74 | 21.06 | 0.09 | 0.32 | 11.46 | 0.01 | 0.00 | 0.01 | 0.26 | 99.28 | 0.534 | 0.569 | 0.049 | 0.410 | 0.541 |
| | *CH01 | S33 | 0.03 | 18.07 | 0.04 | 49.31 | 18.78 | 0.05 | 0.34 | 11.21 | 0.00 | 0.03 | 0.00 | 0.19 | 98.06 | 0.538 | 0.647 | 0.029 | 0.343 | 0.628 |
| | *CH01 | S34 | 0.00 | 33.32 | 0.05 | 32.75 | 17.39 | 0.11 | 0.29 | 13.92 | 0.00 | 0.00 | 0.01 | 0.29 | 98.14 | 0.617 | 0.397 | 0.032 | 0.584 | 0.385 |
| | *CH01 | S35 | 0.04 | 15.46 | 0.11 | 53.75 | 18.05 | 0.07 | 0.33 | 11.04 | 0.01 | 0.04 | 0.00 | 0.17 | 99.06 | 0.533 | 0.700 | 0.016 | 0.295 | 0.689 |
| | *CH01 | S36 | 0.04 | 39.41 | 0.01 | 28.40 | 14.22 | 0.19 | 0.21 | 16.52 | 0.00 | 0.00 | 0.02 | 0.23 | 99.26 | 0.698 | 0.326 | 0.024 | 0.658 | 0.318 |
| | *CH01 | S37 | 0.00 | 38.29 | 0.18 | 28.63 | 16.71 | 0.10 | 0.17 | 15.33 | 0.02 | 0.02 | 0.00 | 0.30 | 99.75 | 0.654 | 0.334 | 0.030 | 0.646 | 0.324 |
| | *CH01 | S38 | 0.03 | 46.14 | 0.07 | 19.89 | 14.48 | 0.12 | 0.21 | 17.34 | 0.00 | 0.01 | 0.01 | 0.14 | 98.43 | 0.716 | 0.224 | 0.029 | 0.753 | 0.218 |
| | *CH01 | S39 | 0.04 | 36.52 | 0.09 | 30.95 | 15.06 | 0.14 | 0.24 | 15.11 | 0.02 | 0.00 | 0.00 | 0.23 | 98.39 | 0.656 | 0.362 | 0.017 | 0.627 | 0.356 |
| | *CH01 | S40 | 0.00 | 44.23 | 0.02 | 23.43 | 14.25 | 0.17 | 0.13 | 16.69 | 0.01 | 0.00 | 0.00 | 0.24 | 99.17 | 0.692 | 0.262 | 0.017 | 0.725 | 0.258 |
| | *CH01 | S41 | 0.00 | 32.83 | 0.05 | 33.88 | 17.89 | 0.07 | 0.21 | 13.58 | 0.01 | 0.00 | 0.00 | 0.24 | 98.76 | 0.601 | 0.409 | 0.028 | 0.575 | 0.398 |
| | *CH01 | S42 | 0.00 | 36.24 | 0.07 | 30.04 | 15.92 | 0.15 | 0.17 | 15.51 | 0.01 | 0.02 | 0.00 | 0.21 | 98.35 | 0.672 | 0.357 | 0.034 | 0.621 | 0.345 |
| | *CH01 | S43 | 0.05 | 29.32 | 0.10 | 38.53 | 15.08 | 0.12 | 0.21 | 14.17 | 0.01 | 0.00 | 0.00 | 0.13 | 97.71 | 0.640 | 0.469 | 0.015 | 0.524 | 0.462 |
| | *CH01 | S44 | 0.02 | 16.32 | 0.07 | 52.23 | 17.41 | 0.05 | 0.23 | 11.01 | 0.02 | 0.00 | 0.00 | 0.26 | 97.60 | 0.536 | 0.682 | 0.011 | 0.314 | 0.675 |
| | *CH01 | S45 | 0.03 | 29.62 | 0.05 | 38.48 | 16.81 | 0.05 | 0.23 | 13.22 | 0.01 | 0.08 | 0.01 | 0.20 | 98.77 | 0.595 | 0.466 | 0.014 | 0.527 | 0.459 |
| | *CH01 | S46 | 0.00 | 38.04 | 0.15 | 29.66 | 15.80 | 0.13 | 0.19 | 15.58 | 0.03 | 0.00 | 0.02 | 0.20 | 99.80 | 0.664 | 0.343 | 0.024 | 0.641 | 0.335 |
| | *CH01 | S47 | 0.02 | 22.66 | 0.02 | 46.46 | 15.20 | 0.08 | 0.27 | 13.91 | 0.02 | 0.00 | 0.00 | 0.02 | 98.65 | 0.640 | 0.579 | 0.021 | 0.412 | 0.567 |
| | *CH01 | S48 | 0.00 | 48.51 | 0.11 | 18.85 | 14.24 | 0.27 | 0.12 | 17.52 | 0.01 | 0.00 | 0.00 | 0.17 | 99.80 | 0.710 | 0.207 | 0.021 | 0.777 | 0.203 |
| | *CH01 | S49 | 0.02 | 45.55 | 0.06 | 21.89 | 14.41 | 0.24 | 0.13 | 17.09 | 0.00 | 0.01 | 0.01 | 0.16 | 99.58 | 0.702 | 0.244 | 0.022 | 0.740 | 0.239 |
| | *CH01 | S50 | 0.01 | 40.46 | 0.05 | 25.54 | 14.98 | 0.22 | 0.18 | 16.46 | 0.01 | 0.01 | 0.01 | 0.11 | 98.04 | 0.699 | 0.297 | 0.033 | 0.679 | 0.288 |
| | *CH01 | S51 | 0.13 | 34.56 | 0.05 | 33.74 | 15.73 | 0.14 | 0.23 | 15.29 | 0.02 | 0.01 | 0.00 | 0.21 | 100.11 | 0.659 | 0.396 | 0.025 | 0.589 | 0.386 |
| | *CH01 | S52 | 0.01 | 19.78 | 0.04 | 48.49 | 18.16 | 0.06 | 0.29 | 12.19 | 0.01 | 0.05 | 0.02 | 0.17 | 99.26 | 0.572 | 0.622 | 0.030 | 0.367 | 0.603 |
| | *CH01 | S53 | 0.00 | 12.45 | 0.08 | 51.90 | 23.33 | 0.00 | 0.32 | 8.98 | 0.01 | 0.02 | 0.00 | 0.22 | 97.31 | 0.452 | 0.737 | 0.060 | 0.248 | 0.692 |
| | *CH01 | S54 | 0.02 | 34.79 | 0.11 | 34.15 | 14.66 | 0.15 | 0.20 | 16.05 | 0.00 | 0.06 | 0.00 | 0.23 | 100.42 | 0.687 | 0.397 | 0.024 | 0.589 | 0.388 |
| | *CH59 | S1 | 0.00 | 20.92 | 0.01 | 47.97 | 15.06 | 0.02 | 0.26 | 12.83 | 0.06 | 0.00 | 0.00 | 0.11 | 97.24 | 0.607 | 0.606 | 0.008 | 0.391 | 0.601 |
| | *CH59 | S2 | 0.01 | 28.36 | 0.01 | 40.07 | 16.93 | 0.12 | 0.28 | 13.55 | 0.00 | 0.00 | 0.00 | 0.17 | 99.51 | 0.607 | 0.487 | 0.023 | 0.502 | 0.476 |
| | *CH59 | S3 | 0.00 | 40.04 | 0.18 | 27.43 | 15.10 | 0.15 | 0.20 | 15.77 | 0.01 | 0.00 | 0.00 | 0.20 | 99.07 | 0.671 | 0.315 | 0.018 | 0.673 | 0.309 |
| | *CH59 | S4 | 0.02 | 23.76 | 0.01 | 44.95 | 16.54 | 0.07 | 0.25 | 13.34 | 0.01 | 0.00 | 0.00 | 0.15 | 99.09 | 0.611 | 0.559 | 0.024 | 0.430 | 0.546 |
| | *CH59 | S5 | 0.02 | 44.96 | 0.04 | 22.75 | 12.53 | 0.28 | 0.15 | 17.14 | 0.03 | 0.01 | 0.00 | 0.22 | 98.15 | 0.713 | 0.253 | 0.009 | 0.740 | 0.251 |
| | *CH59 | S6 | 0.06 | 25.77 | 0.34 | 38.32 | 22.27 | 0.09 | 0.26 | 12.16 | 0.00 | 0.00 | 0.00 | 0.11 | 99.40 | 0.560 | 0.499 | 0.065 | 0.468 | 0.467 |
| | *CH59 | S7 | 0.01 | 23.56 | 0.02 | 45.20 | 17.20 | 0.06 | 0.36 | 13.04 | 0.04 | 0.00 | 0.01 | 0.16 | 99.66 | 0.596 | 0.563 | 0.026 | 0.426 | 0.548 |
| | *CH59 | S8 | 0.00 | 36.99 | 0.12 | 31.43 | 13.78 | 0.12 | 0.19 | 15.99 | 0.00 | 0.00 | 0.00 | 0.17 | 98.79 | 0.688 | 0.363 | 0.013 | 0.629 | 0.358 |

Table C-4. Chemical compositions of detrital chromian spinels from the Bengal basin. (6)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# | |
|------------------------------------|--------------------------------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|------|-------|-------|-------------------|------------------|------|-------------|-------|-------|---------------------|-------|-------|-------|
| Bhuban Fm. (Chittagong area) | *CH59 | S9 | 0.05 | 39.96 | 0.08 | 29.15 | 13.95 | 0.14 | 0.17 | 16.75 | 0.02 | 0.00 | 0.00 | 0.26 | 100.52 | 0.699 | 0.329 | 0.018 | 0.660 | 0.323 | |
| | *CH59 | S10 | 0.03 | 28.48 | 0.02 | 40.66 | 15.60 | 0.11 | 0.25 | 14.71 | 0.00 | 0.00 | 0.01 | 0.18 | 100.04 | 0.651 | 0.489 | 0.025 | 0.498 | 0.477 | |
| | *CH59 | S11 | 0.00 | 23.01 | 0.07 | 41.96 | 22.70 | 0.05 | 0.28 | 10.29 | 0.01 | 0.02 | 0.00 | 0.25 | 98.64 | 0.485 | 0.550 | 0.048 | 0.428 | 0.524 | |
| | *CH59 | S12 | 0.00 | 35.12 | 0.06 | 32.90 | 15.01 | 0.06 | 0.24 | 15.86 | 0.03 | 0.00 | 0.00 | 0.12 | 99.40 | 0.683 | 0.386 | 0.026 | 0.598 | 0.376 | |
| | *CH59 | S13 | 0.02 | 31.39 | 0.02 | 37.18 | 14.90 | 0.10 | 0.16 | 15.16 | 0.03 | 0.04 | 0.00 | 0.07 | 99.07 | 0.667 | 0.443 | 0.021 | 0.546 | 0.434 | |
| | *CH59 | S14 | 0.00 | 14.03 | 0.45 | 56.34 | 15.94 | 0.03 | 0.32 | 12.54 | 0.00 | 0.00 | 0.00 | 0.07 | 99.72 | 0.604 | 0.729 | 0.012 | 0.267 | 0.720 | |
| | *CH59 | S15 | 0.02 | 20.65 | 0.13 | 47.96 | 18.06 | 0.10 | 0.21 | 11.54 | 0.03 | 0.00 | 0.01 | 0.19 | 98.89 | 0.544 | 0.609 | 0.014 | 0.385 | 0.600 | |
| | *CH59 | S16 | 0.04 | 23.57 | 0.11 | 42.86 | 18.53 | 0.13 | 0.37 | 12.44 | 0.02 | 0.00 | 0.00 | 0.14 | 98.21 | 0.579 | 0.550 | 0.037 | 0.434 | 0.529 | |
| | *CH59 | S17 | 0.01 | 29.39 | 0.38 | 37.36 | 15.13 | 0.21 | 0.19 | 16.17 | 0.01 | 0.02 | 0.00 | 0.10 | 98.95 | 0.718 | 0.460 | 0.045 | 0.516 | 0.440 | |
| | *CH59 | S18 | 0.02 | 22.69 | 0.04 | 42.20 | 20.55 | 0.00 | 0.23 | 11.57 | 0.02 | 0.00 | 0.00 | 0.27 | 97.58 | 0.545 | 0.555 | 0.050 | 0.423 | 0.528 | |
| | *CH59 | S19 | 0.00 | 32.74 | 0.04 | 34.82 | 17.32 | 0.14 | 0.23 | 14.68 | 0.01 | 0.01 | 0.00 | 0.19 | 100.19 | 0.638 | 0.416 | 0.036 | 0.563 | 0.401 | |
| | *CH59 | S20 | 0.01 | 11.23 | 0.28 | 55.98 | 18.82 | 0.06 | 0.31 | 10.29 | 0.00 | 0.00 | 0.01 | 0.09 | 97.08 | 0.520 | 0.770 | 0.026 | 0.224 | 0.750 | |
| | *CH59 | S21 | 0.03 | 15.60 | 0.18 | 51.65 | 19.29 | 0.02 | 0.29 | 11.08 | 0.01 | 0.00 | 0.00 | 0.16 | 98.30 | 0.539 | 0.690 | 0.034 | 0.300 | 0.666 | |
| | *CH59 | S22 | 0.02 | 11.68 | 0.35 | 53.37 | 24.62 | 0.04 | 0.46 | 8.04 | 0.03 | 0.00 | 0.02 | 0.23 | 98.84 | 0.406 | 0.754 | 0.053 | 0.233 | 0.714 | |
| | *CH59 | S23 | 0.07 | 20.78 | 0.15 | 47.62 | 16.74 | 0.09 | 0.25 | 13.03 | 0.02 | 0.00 | 0.01 | 0.09 | 98.84 | 0.609 | 0.606 | 0.026 | 0.384 | 0.590 | |
| | *CH59 | S24 | 0.04 | 25.22 | 0.11 | 40.53 | 19.19 | 0.10 | 0.27 | 12.17 | 0.02 | 0.04 | 0.00 | 0.18 | 97.87 | 0.566 | 0.519 | 0.037 | 0.463 | 0.499 | |
| | *CH59 | S25 | 0.02 | 30.90 | 0.09 | 35.46 | 17.37 | 0.09 | 0.27 | 14.39 | 0.01 | 0.00 | 0.01 | 0.16 | 98.77 | 0.639 | 0.435 | 0.040 | 0.543 | 0.418 | |
| | *CH59 | S26 | 0.00 | 33.11 | 0.02 | 35.48 | 15.54 | 0.07 | 0.17 | 14.89 | 0.02 | 0.04 | 0.00 | 0.26 | 99.59 | 0.649 | 0.418 | 0.020 | 0.570 | 0.410 | |
| | *CH59 | S27 | 0.04 | 21.94 | 0.04 | 46.43 | 17.41 | 0.11 | 0.37 | 12.36 | 0.00 | 0.00 | 0.02 | 0.15 | 98.88 | 0.576 | 0.587 | 0.022 | 0.404 | 0.574 | |
| | *CH59 | S28 | 0.03 | 27.84 | 0.05 | 39.77 | 17.15 | 0.18 | 0.20 | 14.19 | 0.00 | 0.00 | 0.01 | 0.18 | 99.58 | 0.634 | 0.489 | 0.037 | 0.492 | 0.471 | |
| | *CH59 | S29 | 0.06 | 35.35 | 0.05 | 32.88 | 16.15 | 0.10 | 0.21 | 14.46 | 0.00 | 0.01 | 0.00 | 0.22 | 99.48 | 0.627 | 0.384 | 0.015 | 0.606 | 0.378 | |
| | *CH59 | S30 | 0.00 | 41.50 | 0.08 | 26.41 | 14.23 | 0.22 | 0.13 | 16.49 | 0.02 | 0.02 | 0.01 | 0.19 | 99.29 | 0.692 | 0.299 | 0.018 | 0.688 | 0.294 | |
| | Boka Bil Fm. (Chittagong area) | *CH03 | S1 | 0.03 | 28.69 | 0.04 | 40.16 | 16.56 | 0.08 | 0.22 | 13.94 | 0.04 | 0.00 | 0.00 | 0.21 | 99.98 | 0.620 | 0.484 | 0.022 | 0.504 | 0.474 |
| | | *CH03 | S2 | 0.01 | 14.98 | 0.16 | 47.75 | 23.27 | 0.01 | 0.43 | 11.04 | 0.00 | 0.01 | 0.00 | 0.16 | 97.81 | 0.539 | 0.681 | 0.092 | 0.289 | 0.618 |
| | | *CH03 | S3 | 0.00 | 22.14 | 0.02 | 44.71 | 18.14 | 0.03 | 0.31 | 12.97 | 0.01 | 0.00 | 0.00 | 0.15 | 98.49 | 0.602 | 0.575 | 0.043 | 0.406 | 0.550 |
| | | *CH03 | S4 | 0.00 | 24.81 | 0.02 | 40.11 | 19.41 | 0.06 | 0.29 | 12.95 | 0.00 | 0.01 | 0.00 | 0.26 | 97.93 | 0.597 | 0.520 | 0.057 | 0.452 | 0.491 |
| | | *CH03 | S5 | 0.02 | 8.24 | 0.10 | 58.63 | 22.55 | 0.04 | 0.39 | 8.48 | 0.02 | 0.00 | 0.00 | 0.25 | 98.71 | 0.431 | 0.827 | 0.044 | 0.166 | 0.790 |
| | | *CH03 | S6 | 0.03 | 28.38 | 0.04 | 38.53 | 16.36 | 0.11 | 0.20 | 14.72 | 0.01 | 0.00 | 0.01 | 0.16 | 98.55 | 0.659 | 0.477 | 0.040 | 0.502 | 0.458 |
| | | *CH03 | S7 | 0.06 | 22.16 | 0.09 | 43.15 | 18.25 | 0.03 | 0.35 | 12.91 | 0.03 | 0.00 | 0.00 | 0.20 | 97.22 | 0.607 | 0.566 | 0.050 | 0.412 | 0.538 |
| | | *CH03 | S8 | 0.01 | 31.89 | 0.09 | 35.92 | 14.77 | 0.15 | 0.28 | 15.48 | 0.01 | 0.00 | 0.00 | 0.19 | 98.79 | 0.680 | 0.430 | 0.027 | 0.554 | 0.419 |
| *CH03 | | S9 | 0.00 | 45.41 | 0.01 | 19.95 | 14.66 | 0.13 | 0.11 | 17.13 | 0.00 | 0.05 | 0.00 | 0.27 | 97.71 | 0.713 | 0.228 | 0.033 | 0.747 | 0.220 | |
| *CH03 | | S10 | 0.00 | 38.00 | 0.07 | 29.49 | 13.43 | 0.20 | 0.13 | 16.35 | 0.01 | 0.00 | 0.01 | 0.17 | 97.86 | 0.703 | 0.342 | 0.018 | 0.646 | 0.336 | |
| *CH03 | | S11 | 0.04 | 40.97 | 0.01 | 24.42 | 15.03 | 0.17 | 0.23 | 16.43 | 0.00 | 0.00 | 0.00 | 0.29 | 97.59 | 0.699 | 0.286 | 0.036 | 0.689 | 0.275 | |
| *CH03 | | S12 | 0.02 | 27.78 | 0.02 | 38.45 | 18.79 | 0.11 | 0.27 | 12.75 | 0.02 | 0.00 | 0.02 | 0.17 | 98.41 | 0.580 | 0.481 | 0.036 | 0.500 | 0.464 | |
| *CH03 | | S13 | 0.04 | 31.44 | 0.11 | 35.09 | 16.35 | 0.08 | 0.25 | 15.13 | 0.00 | 0.01 | 0.01 | 0.19 | 98.68 | 0.668 | 0.428 | 0.040 | 0.549 | 0.411 | |
| *CH03 | | S14 | 0.04 | 36.39 | 0.05 | 30.40 | 15.83 | 0.19 | 0.17 | 15.16 | 0.01 | 0.00 | 0.00 | 0.17 | 98.40 | 0.657 | 0.359 | 0.026 | 0.624 | 0.350 | |
| *CH03 | | S15 | 0.01 | 17.27 | 0.21 | 50.51 | 19.84 | 0.04 | 0.28 | 10.49 | 0.03 | 0.03 | 0.01 | 0.20 | 98.91 | 0.506 | 0.662 | 0.023 | 0.330 | 0.647 | |
| *CH03 | | S16 | 0.00 | 14.83 | 0.16 | 53.79 | 17.36 | 0.04 | 0.31 | 12.20 | 0.00 | 0.00 | 0.00 | 0.24 | 98.92 | 0.587 | 0.709 | 0.032 | 0.282 | 0.686 | |
| *CH03 | | S17 | 0.00 | 29.46 | 0.07 | 35.71 | 18.98 | 0.11 | 0.25 | 13.27 | 0.00 | 0.04 | 0.00 | 0.31 | 98.19 | 0.599 | 0.448 | 0.047 | 0.526 | 0.428 | |
| *CH03 | | S18 | 0.03 | 16.41 | 0.01 | 50.01 | 20.43 | 0.01 | 0.30 | 10.48 | 0.02 | 0.03 | 0.00 | 0.23 | 97.97 | 0.509 | 0.671 | 0.040 | 0.315 | 0.645 | |
| *CH03 | | S19 | 0.01 | 35.06 | 0.05 | 32.58 | 15.11 | 0.13 | 0.19 | 15.78 | 0.00 | 0.03 | 0.02 | 0.12 | 99.06 | 0.682 | 0.384 | 0.028 | 0.599 | 0.373 | |

Table C-4. Chemical compositions of detrital chromian spinels from the Bengal basin. (7)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|--------------------------------------|--------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|--------|-------------|-------|-------|---------------------|-------|-------|
| Boka Bil Fm. (Chittagong area) | *CH03 | S20 | 0.03 | 40.88 | 0.02 | 26.72 | 14.08 | 0.14 | 0.20 | 16.70 | 0.00 | 0.00 | 0.00 | 0.22 | 98.98 | 0.702 | 0.305 | 0.023 | 0.679 | 0.298 |
| | *CH03 | S21 | 0.02 | 23.61 | 0.05 | 44.63 | 16.96 | 0.10 | 0.28 | 12.82 | 0.00 | 0.00 | 0.00 | 0.22 | 98.69 | 0.592 | 0.559 | 0.022 | 0.431 | 0.547 |
| | *CH03 | S22 | 0.04 | 13.77 | 0.16 | 53.31 | 17.69 | 0.09 | 0.22 | 12.58 | 0.01 | 0.02 | 0.00 | 0.04 | 97.93 | 0.612 | 0.722 | 0.048 | 0.265 | 0.687 |
| | *CH03 | S23 | 0.03 | 41.54 | 0.06 | 24.72 | 14.18 | 0.16 | 0.20 | 16.80 | 0.02 | 0.00 | 0.00 | 0.23 | 97.94 | 0.710 | 0.285 | 0.029 | 0.694 | 0.277 |
| | *CH03 | S24 | 0.03 | 17.18 | 0.22 | 50.78 | 17.07 | 0.02 | 0.36 | 11.68 | 0.05 | 0.04 | 0.00 | 0.13 | 97.55 | 0.567 | 0.665 | 0.017 | 0.330 | 0.653 |
| | *CH03 | S25 | 0.06 | 46.46 | 0.02 | 20.22 | 12.46 | 0.21 | 0.14 | 18.06 | 0.00 | 0.00 | 0.01 | 0.13 | 97.79 | 0.745 | 0.226 | 0.021 | 0.757 | 0.221 |
| | *CH03 | S26 | 0.00 | 32.68 | 0.00 | 35.97 | 13.57 | 0.05 | 0.17 | 15.04 | 0.01 | 0.00 | 0.01 | 0.16 | 97.67 | 0.666 | 0.425 | 0.006 | 0.572 | 0.422 |
| | *CH03 | S27 | 0.01 | 30.34 | 0.03 | 36.71 | 17.13 | 0.10 | 0.21 | 13.95 | 0.03 | 0.00 | 0.01 | 0.24 | 98.76 | 0.622 | 0.448 | 0.031 | 0.535 | 0.434 |
| | *CH03 | S28 | 0.02 | 15.23 | 0.18 | 48.48 | 23.31 | 0.07 | 0.36 | 10.14 | 0.03 | 0.00 | 0.00 | 0.14 | 97.95 | 0.498 | 0.681 | 0.073 | 0.296 | 0.631 |
| | *CH03 | S29 | 0.02 | 28.14 | 0.04 | 37.93 | 18.47 | 0.09 | 0.27 | 13.46 | 0.03 | 0.00 | 0.01 | 0.21 | 98.67 | 0.608 | 0.475 | 0.044 | 0.502 | 0.454 |
| | *CH03 | S30 | 0.03 | 12.45 | 0.31 | 48.97 | 24.69 | 0.05 | 0.38 | 10.88 | 0.01 | 0.07 | 0.00 | 0.04 | 97.87 | 0.540 | 0.725 | 0.112 | 0.244 | 0.644 |
| | *CH03 | S31 | 0.00 | 49.30 | 0.06 | 18.53 | 10.11 | 0.19 | 0.07 | 19.24 | 0.00 | 0.02 | 0.01 | 0.21 | 97.74 | 0.781 | 0.201 | 0.009 | 0.791 | 0.199 |
| | *CH03 | S32 | 0.12 | 23.33 | 0.14 | 42.49 | 18.29 | 0.13 | 0.24 | 12.28 | 0.02 | 0.00 | 0.00 | 0.11 | 97.15 | 0.579 | 0.550 | 0.034 | 0.435 | 0.531 |
| | *CH03 | S33 | 0.02 | 14.45 | 0.06 | 53.59 | 18.93 | 0.06 | 0.33 | 11.59 | 0.03 | 0.03 | 0.00 | 0.10 | 99.18 | 0.559 | 0.713 | 0.040 | 0.275 | 0.685 |
| | *CH03 | S34 | 0.05 | 42.24 | 0.06 | 24.24 | 14.30 | 0.16 | 0.08 | 17.20 | 0.01 | 0.00 | 0.00 | 0.20 | 98.53 | 0.720 | 0.278 | 0.032 | 0.699 | 0.269 |
| | *CH03 | S35 | 0.02 | 22.57 | 0.04 | 43.00 | 19.26 | 0.08 | 0.33 | 12.26 | 0.09 | 0.00 | 0.02 | 0.27 | 97.93 | 0.574 | 0.561 | 0.048 | 0.418 | 0.534 |
| | *CH03 | S36 | 0.02 | 23.04 | 0.03 | 44.25 | 18.45 | 0.06 | 0.31 | 13.05 | 0.02 | 0.03 | 0.01 | 0.24 | 99.49 | 0.599 | 0.563 | 0.044 | 0.418 | 0.538 |
| | *CH03 | S37 | 0.09 | 32.35 | 0.67 | 30.31 | 19.12 | 0.04 | 0.27 | 15.35 | 0.00 | 0.02 | 0.00 | 0.10 | 98.32 | 0.664 | 0.386 | 0.071 | 0.570 | 0.358 |
| | *CH03 | S38 | 0.00 | 14.85 | 0.04 | 54.43 | 16.21 | 0.05 | 0.30 | 13.08 | 0.00 | 0.00 | 0.01 | 0.14 | 99.12 | 0.623 | 0.711 | 0.033 | 0.279 | 0.687 |
| | *CH03 | S39 | 0.00 | 33.11 | 0.12 | 34.49 | 15.89 | 0.04 | 0.20 | 15.26 | 0.03 | 0.02 | 0.01 | 0.20 | 99.36 | 0.666 | 0.411 | 0.030 | 0.571 | 0.399 |
| | *CH03 | S40 | 0.02 | 33.31 | 0.07 | 30.54 | 20.78 | 0.17 | 0.29 | 13.19 | 0.00 | 0.00 | 0.00 | 0.42 | 98.79 | 0.584 | 0.381 | 0.059 | 0.583 | 0.358 |
| | *CH03 | S41 | 0.29 | 39.03 | 0.07 | 27.98 | 15.82 | 0.18 | 0.17 | 16.47 | 0.00 | 0.00 | 0.03 | 0.27 | 100.31 | 0.693 | 0.325 | 0.039 | 0.649 | 0.312 |
| | *CH03 | S42 | 0.00 | 9.75 | 0.06 | 57.64 | 20.06 | 0.04 | 0.32 | 10.07 | 0.01 | 0.00 | 0.00 | 0.15 | 98.10 | 0.505 | 0.799 | 0.040 | 0.193 | 0.767 |
| | *CH03 | S43 | 0.05 | 40.06 | 0.01 | 26.30 | 14.50 | 0.19 | 0.16 | 16.88 | 0.00 | 0.02 | 0.00 | 0.16 | 98.33 | 0.714 | 0.306 | 0.035 | 0.670 | 0.295 |
| | *CH03 | S44 | 0.02 | 41.12 | 0.07 | 24.67 | 15.99 | 0.19 | 0.24 | 16.55 | 0.02 | 0.00 | 0.00 | 0.20 | 99.06 | 0.695 | 0.287 | 0.042 | 0.683 | 0.275 |
| | *CH03 | S45 | 0.02 | 30.14 | 0.02 | 36.54 | 16.34 | 0.12 | 0.26 | 14.11 | 0.02 | 0.01 | 0.00 | 0.11 | 97.68 | 0.634 | 0.449 | 0.029 | 0.536 | 0.436 |
| | *CH03 | S46 | 0.01 | 30.10 | 0.08 | 37.25 | 16.22 | 0.11 | 0.24 | 14.40 | 0.01 | 0.00 | 0.00 | 0.26 | 98.68 | 0.642 | 0.454 | 0.029 | 0.530 | 0.440 |
| | *CH03 | S47 | 0.01 | 30.60 | 0.01 | 35.90 | 16.29 | 0.12 | 0.21 | 14.83 | 0.03 | 0.03 | 0.00 | 0.22 | 98.22 | 0.659 | 0.440 | 0.039 | 0.538 | 0.423 |
| | *CH03 | S48 | 0.02 | 24.77 | 0.19 | 41.77 | 19.74 | 0.05 | 0.26 | 12.44 | 0.00 | 0.00 | 0.01 | 0.19 | 99.45 | 0.571 | 0.531 | 0.042 | 0.450 | 0.509 |
| | *CH03 | S49 | 0.02 | 34.30 | 0.05 | 33.16 | 14.38 | 0.15 | 0.21 | 15.66 | 0.01 | 0.00 | 0.00 | 0.15 | 98.10 | 0.684 | 0.393 | 0.023 | 0.592 | 0.384 |
| | *CH11 | S1 | 0.01 | 38.02 | 0.05 | 29.36 | 16.80 | 0.13 | 0.17 | 15.31 | 0.07 | 0.01 | 0.00 | 0.39 | 100.33 | 0.650 | 0.341 | 0.032 | 0.638 | 0.330 |
| | *CH11 | S2 | 0.00 | 42.94 | 0.01 | 26.01 | 13.67 | 0.24 | 0.20 | 16.68 | 0.01 | 0.00 | 0.00 | 0.17 | 99.93 | 0.691 | 0.289 | 0.011 | 0.703 | 0.286 |
| | *CH11 | S3 | 0.01 | 17.64 | 0.06 | 50.01 | 19.91 | 0.07 | 0.37 | 10.93 | 0.04 | 0.00 | 0.00 | 0.18 | 99.21 | 0.522 | 0.655 | 0.034 | 0.333 | 0.633 |
| | *CH11 | S4 | 0.00 | 34.75 | 0.11 | 33.43 | 16.40 | 0.14 | 0.21 | 14.99 | 0.03 | 0.00 | 0.00 | 0.26 | 100.31 | 0.646 | 0.392 | 0.026 | 0.592 | 0.382 |
| *CH11 | S5 | 0.01 | 41.18 | 0.06 | 27.63 | 13.94 | 0.14 | 0.21 | 16.97 | 0.00 | 0.09 | 0.01 | 0.26 | 100.49 | 0.705 | 0.310 | 0.020 | 0.676 | 0.304 | |
| *CH11 | S6 | 0.07 | 34.88 | 0.07 | 32.60 | 15.96 | 0.15 | 0.22 | 15.37 | 0.03 | 0.00 | 0.01 | 0.19 | 99.55 | 0.664 | 0.385 | 0.031 | 0.596 | 0.374 | |
| *CH11 | S7 | 0.04 | 11.34 | 0.36 | 55.35 | 21.06 | 0.03 | 0.37 | 9.18 | 0.00 | 0.01 | 0.00 | 0.23 | 97.98 | 0.465 | 0.766 | 0.031 | 0.227 | 0.743 | |
| *CH11 | S8 | 0.00 | 30.88 | 0.33 | 34.98 | 19.78 | 0.11 | 0.25 | 13.09 | 0.00 | 0.00 | 0.00 | 0.20 | 99.62 | 0.585 | 0.432 | 0.040 | 0.546 | 0.415 | |
| *CH11 | S9 | 0.06 | 31.47 | 0.33 | 36.32 | 16.88 | 0.10 | 0.24 | 14.56 | 0.02 | 0.00 | 0.00 | 0.15 | 100.12 | 0.641 | 0.436 | 0.028 | 0.548 | 0.424 | |
| *CH11 | S10 | 0.02 | 31.53 | 0.10 | 36.78 | 15.45 | 0.08 | 0.27 | 15.12 | 0.00 | 0.00 | 0.00 | 0.14 | 99.48 | 0.663 | 0.439 | 0.025 | 0.547 | 0.428 | |
| *CH11 | S11 | 0.02 | 22.69 | 0.12 | 40.40 | 23.88 | 0.11 | 0.29 | 10.50 | 0.03 | 0.00 | 0.00 | 0.32 | 98.36 | 0.496 | 0.544 | 0.071 | 0.424 | 0.506 | |

Table C-4. Chemical compositions of detrital chromian spinels from the Bengal basin. (8)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|--------------------------------------|--------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|--------|-------------|-------|-------|---------------------|-------|-------|
| Boka Bil Fm. (Chittagong area) | *CH11 | S12 | 0.03 | 8.55 | 0.12 | 56.95 | 21.47 | 0.08 | 0.39 | 8.36 | 0.05 | 0.01 | 0.00 | 0.17 | 96.18 | 0.435 | 0.817 | 0.037 | 0.176 | 0.787 |
| | *CH11 | S13 | 0.01 | 20.85 | 0.25 | 44.86 | 19.73 | 0.10 | 0.29 | 12.40 | 0.04 | 0.00 | 0.01 | 0.12 | 98.64 | 0.583 | 0.591 | 0.053 | 0.388 | 0.560 |
| | *CH11 | S14 | 0.04 | 18.26 | 0.08 | 50.34 | 15.29 | 0.02 | 0.31 | 13.24 | 0.04 | 0.03 | 0.01 | 0.06 | 97.72 | 0.630 | 0.649 | 0.022 | 0.343 | 0.635 |
| | *CH11 | S15 | 0.01 | 30.76 | 0.00 | 39.18 | 15.16 | 0.07 | 0.26 | 14.64 | 0.02 | 0.04 | 0.02 | 0.18 | 100.33 | 0.641 | 0.461 | 0.013 | 0.532 | 0.455 |
| | *CH11 | S16 | 0.07 | 38.40 | 0.08 | 27.79 | 15.19 | 0.14 | 0.19 | 15.81 | 0.03 | 0.04 | 0.00 | 0.18 | 97.90 | 0.681 | 0.327 | 0.029 | 0.654 | 0.317 |
| | *CH11 | S17 | 0.00 | 25.28 | 0.18 | 41.34 | 20.29 | 0.14 | 0.42 | 12.20 | 0.04 | 0.00 | 0.01 | 0.24 | 100.14 | 0.557 | 0.523 | 0.044 | 0.456 | 0.500 |
| | *CH11 | S18 | 0.00 | 16.68 | 0.55 | 41.12 | 29.09 | 0.12 | 0.35 | 9.25 | 0.01 | 0.00 | 0.02 | 0.19 | 97.37 | 0.459 | 0.623 | 0.130 | 0.328 | 0.542 |
| | *CH11 | S19 | 0.01 | 29.33 | 0.15 | 37.31 | 19.04 | 0.14 | 0.35 | 12.44 | 0.03 | 0.00 | 0.00 | 0.25 | 99.05 | 0.562 | 0.460 | 0.028 | 0.524 | 0.447 |
| | *CH11 | S20 | 0.05 | 25.05 | 0.06 | 40.53 | 20.12 | 0.07 | 0.28 | 12.88 | 0.02 | 0.04 | 0.01 | 0.19 | 99.30 | 0.588 | 0.521 | 0.057 | 0.452 | 0.491 |
| | *CH11 | S21 | 0.01 | 27.37 | 0.05 | 38.93 | 17.77 | 0.08 | 0.22 | 13.27 | 0.02 | 0.00 | 0.02 | 0.18 | 97.93 | 0.606 | 0.488 | 0.035 | 0.494 | 0.471 |
| | *CH11 | S22 | 0.05 | 31.80 | 0.09 | 36.97 | 14.76 | 0.09 | 0.21 | 14.73 | 0.00 | 0.00 | 0.00 | 0.10 | 98.79 | 0.651 | 0.438 | 0.011 | 0.556 | 0.433 |
| | *CH11 | S23 | 0.02 | 31.97 | 0.05 | 35.68 | 16.84 | 0.14 | 0.15 | 15.00 | 0.03 | 0.00 | 0.01 | 0.12 | 100.02 | 0.654 | 0.428 | 0.037 | 0.551 | 0.413 |
| | *CH11 | S24 | 0.03 | 27.17 | 0.04 | 40.02 | 16.04 | 0.10 | 0.24 | 14.13 | 0.04 | 0.00 | 0.01 | 0.14 | 97.95 | 0.642 | 0.497 | 0.030 | 0.488 | 0.482 |
| | *CH11 | S25 | 0.01 | 12.51 | 0.13 | 56.74 | 17.08 | 0.03 | 0.36 | 11.40 | 0.04 | 0.00 | 0.00 | 0.12 | 98.42 | 0.559 | 0.753 | 0.018 | 0.243 | 0.739 |
| | *CH11 | S26 | 0.11 | 18.95 | 0.89 | 45.46 | 17.45 | 0.22 | 0.22 | 15.05 | 0.06 | 0.06 | 0.00 | 0.00 | 98.46 | 0.714 | 0.617 | 0.073 | 0.355 | 0.572 |
| | *CH11 | S27 | 0.03 | 36.52 | 0.06 | 30.71 | 15.24 | 0.16 | 0.19 | 15.49 | 0.01 | 0.02 | 0.01 | 0.28 | 98.72 | 0.669 | 0.361 | 0.025 | 0.623 | 0.352 |
| | *CH11 | S28 | 0.01 | 29.80 | 0.02 | 38.82 | 16.44 | 0.14 | 0.28 | 14.09 | 0.00 | 0.00 | 0.00 | 0.17 | 99.76 | 0.624 | 0.466 | 0.023 | 0.522 | 0.456 |
| | *CH11 | S29 | 0.03 | 18.46 | 0.05 | 47.74 | 21.21 | 0.08 | 0.41 | 10.36 | 0.03 | 0.00 | 0.01 | 0.27 | 98.64 | 0.497 | 0.634 | 0.042 | 0.350 | 0.607 |
| | *CH11 | S30 | 0.00 | 25.15 | 0.11 | 38.30 | 22.37 | 0.11 | 0.31 | 11.22 | 0.00 | 0.00 | 0.01 | 0.30 | 97.86 | 0.524 | 0.505 | 0.061 | 0.464 | 0.474 |
| | *CH57 | S1 | 0.03 | 31.09 | 0.01 | 37.90 | 14.43 | 0.06 | 0.19 | 15.44 | 0.02 | 0.00 | 0.00 | 0.16 | 99.32 | 0.677 | 0.450 | 0.021 | 0.539 | 0.441 |
| | *CH57 | S2 | 0.00 | 37.62 | 0.08 | 31.12 | 13.83 | 0.12 | 0.19 | 16.76 | 0.05 | 0.00 | 0.01 | 0.08 | 99.86 | 0.709 | 0.357 | 0.022 | 0.629 | 0.349 |
| | *CH57 | S3 | 0.04 | 34.40 | 0.06 | 34.13 | 15.73 | 0.16 | 0.12 | 15.31 | 0.00 | 0.00 | 0.00 | 0.20 | 100.15 | 0.660 | 0.400 | 0.024 | 0.586 | 0.390 |
| | *CH57 | S4 | 0.03 | 20.11 | 0.06 | 47.90 | 16.60 | 0.07 | 0.29 | 12.53 | 0.04 | 0.02 | 0.00 | 0.16 | 97.80 | 0.593 | 0.615 | 0.022 | 0.376 | 0.601 |
| | *CH57 | S5 | 0.00 | 18.31 | 0.35 | 44.66 | 25.04 | 0.13 | 0.39 | 9.70 | 0.02 | 0.00 | 0.00 | 0.17 | 98.75 | 0.470 | 0.621 | 0.076 | 0.351 | 0.574 |
| | *CH57 | S6 | 0.03 | 30.60 | 0.10 | 36.64 | 16.46 | 0.11 | 0.24 | 13.84 | 0.03 | 0.06 | 0.01 | 0.18 | 98.29 | 0.621 | 0.445 | 0.022 | 0.543 | 0.436 |
| | *CH57 | S7 | 0.00 | 19.99 | 0.14 | 47.34 | 20.23 | 0.02 | 0.37 | 11.09 | 0.01 | 0.00 | 0.00 | 0.18 | 99.35 | 0.524 | 0.614 | 0.034 | 0.373 | 0.593 |
| | *CH57 | S8 | 0.09 | 29.64 | 0.02 | 39.02 | 16.06 | 0.01 | 0.29 | 13.61 | 0.04 | 0.00 | 0.00 | 0.21 | 98.97 | 0.609 | 0.469 | 0.012 | 0.525 | 0.463 |
| | *CH57 | S9 | 0.02 | 25.43 | 0.06 | 43.53 | 18.01 | 0.05 | 0.25 | 12.17 | 0.05 | 0.02 | 0.00 | 0.22 | 99.81 | 0.556 | 0.535 | 0.014 | 0.459 | 0.527 |
| | *CH57 | S10 | 0.00 | 39.00 | 0.04 | 30.40 | 13.09 | 0.11 | 0.17 | 16.55 | 0.00 | 0.00 | 0.00 | 0.18 | 99.52 | 0.699 | 0.343 | 0.009 | 0.651 | 0.340 |
| | *CH57 | S11 | 0.00 | 41.11 | 0.11 | 26.27 | 15.12 | 0.15 | 0.21 | 16.38 | 0.00 | 0.02 | 0.00 | 0.22 | 99.57 | 0.687 | 0.300 | 0.026 | 0.682 | 0.292 |
| *CH57 | S12 | 0.04 | 33.96 | 0.15 | 34.16 | 16.21 | 0.12 | 0.20 | 15.16 | 0.00 | 0.03 | 0.00 | 0.17 | 100.20 | 0.656 | 0.403 | 0.027 | 0.581 | 0.392 | |
| *CH57 | S13 | 0.03 | 26.99 | 0.09 | 41.31 | 17.66 | 0.07 | 0.26 | 12.77 | 0.03 | 0.07 | 0.01 | 0.22 | 99.49 | 0.579 | 0.507 | 0.019 | 0.484 | 0.497 | |
| *CH57 | S14 | 0.00 | 22.76 | 0.15 | 44.57 | 20.67 | 0.09 | 0.28 | 11.65 | 0.07 | 0.03 | 0.03 | 0.17 | 100.46 | 0.537 | 0.568 | 0.039 | 0.415 | 0.545 | |
| *CH57 | S15 | 0.02 | 34.63 | 0.09 | 34.74 | 15.12 | 0.14 | 0.16 | 15.47 | 0.01 | 0.02 | 0.00 | 0.16 | 100.54 | 0.664 | 0.402 | 0.017 | 0.587 | 0.395 | |
| *CH57 | S16 | 0.04 | 19.33 | 0.18 | 48.94 | 17.72 | 0.01 | 0.34 | 12.62 | 0.03 | 0.06 | 0.00 | 0.12 | 99.38 | 0.593 | 0.629 | 0.031 | 0.359 | 0.610 | |
| *CH57 | S17 | 0.02 | 21.96 | 0.07 | 47.88 | 14.92 | 0.05 | 0.33 | 13.67 | 0.03 | 0.00 | 0.01 | 0.14 | 99.07 | 0.631 | 0.594 | 0.013 | 0.401 | 0.586 | |
| *CH57 | S18 | 0.00 | 34.89 | 0.20 | 30.78 | 15.03 | 0.11 | 0.20 | 15.90 | 0.04 | 0.03 | 0.02 | 0.24 | 97.44 | 0.698 | 0.372 | 0.036 | 0.606 | 0.358 | |
| *CH57 | S19 | 0.00 | 15.70 | 0.00 | 53.03 | 18.38 | 0.03 | 0.29 | 10.57 | 0.01 | 0.03 | 0.00 | 0.21 | 98.25 | 0.514 | 0.694 | 0.014 | 0.302 | 0.684 | |
| *CH57 | S20 | 0.00 | 43.77 | 0.13 | 24.49 | 13.79 | 0.25 | 0.21 | 17.46 | 0.00 | 0.00 | 0.01 | 0.15 | 100.26 | 0.718 | 0.273 | 0.022 | 0.711 | 0.267 | |
| *CH57 | S21 | 0.03 | 31.64 | 0.03 | 38.15 | 15.00 | 0.10 | 0.23 | 15.25 | 0.04 | 0.02 | 0.00 | 0.15 | 100.64 | 0.661 | 0.447 | 0.018 | 0.543 | 0.439 | |
| *CH57 | S22 | 0.00 | 31.57 | 0.15 | 34.86 | 17.51 | 0.09 | 0.20 | 15.68 | 0.01 | 0.00 | 0.00 | 0.12 | 100.19 | 0.681 | 0.426 | 0.056 | 0.542 | 0.402 | |

Table C-4. Chemical compositions of detrital chromian spinels from the Bengal basin. (11)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|-----------------------------------|--------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|-------|-------------|-------|-------|---------------------|-------|-------|
| Tipam Gr. (Chittagong area) | *CH07 | S19 | 0.00 | 9.95 | 0.01 | 58.25 | 18.77 | 0.08 | 0.29 | 10.65 | 0.00 | 0.00 | 0.01 | 0.10 | 98.10 | 0.531 | 0.797 | 0.034 | 0.196 | 0.770 |
| | *CH07 | S20 | 0.03 | 21.43 | 0.18 | 41.99 | 21.45 | 0.05 | 0.25 | 11.48 | 0.06 | 0.00 | 0.00 | 0.10 | 97.02 | 0.549 | 0.568 | 0.063 | 0.405 | 0.532 |
| | *CH07 | S21 | 0.00 | 38.05 | 0.02 | 29.86 | 14.38 | 0.17 | 0.21 | 16.18 | 0.03 | 0.00 | 0.01 | 0.14 | 97.05 | 0.705 | 0.357 | 0.034 | 0.621 | 0.345 |
| | *CH07 | S22 | 0.00 | 27.71 | 0.06 | 38.62 | 17.96 | 0.09 | 0.29 | 13.93 | 0.02 | 0.02 | 0.00 | 0.22 | 98.90 | 0.627 | 0.483 | 0.046 | 0.493 | 0.461 |
| | *CH07 | S23 | 0.01 | 13.22 | 0.11 | 53.48 | 20.70 | 0.02 | 0.32 | 9.92 | 0.01 | 0.03 | 0.00 | 0.24 | 98.06 | 0.492 | 0.731 | 0.038 | 0.259 | 0.703 |
| | *CH07 | S24 | 0.02 | 22.78 | 0.16 | 42.70 | 18.18 | 0.06 | 0.19 | 12.79 | 0.04 | 0.00 | 0.01 | 0.20 | 97.13 | 0.602 | 0.557 | 0.043 | 0.424 | 0.533 |
| | *CH07 | S25 | 0.00 | 26.05 | 0.12 | 42.78 | 15.15 | 0.11 | 0.29 | 14.37 | 0.03 | 0.02 | 0.01 | 0.11 | 99.02 | 0.650 | 0.524 | 0.021 | 0.466 | 0.513 |
| | *CH07 | S26 | 0.00 | 28.74 | 0.09 | 36.66 | 19.84 | 0.08 | 0.29 | 12.76 | 0.03 | 0.02 | 0.01 | 0.27 | 98.78 | 0.577 | 0.461 | 0.046 | 0.514 | 0.440 |
| | *CH07 | S27 | 0.36 | 29.41 | 0.46 | 31.18 | 24.64 | 0.15 | 0.29 | 10.75 | 0.08 | 0.00 | 0.02 | 0.24 | 97.57 | 0.502 | 0.416 | 0.071 | 0.543 | 0.386 |
| | *CH07 | S28 | 0.02 | 34.78 | 0.19 | 31.43 | 15.40 | 0.16 | 0.10 | 15.95 | 0.05 | 0.00 | 0.01 | 0.16 | 98.25 | 0.695 | 0.377 | 0.037 | 0.600 | 0.364 |
| | *CH07 | S29 | 0.03 | 51.29 | 0.09 | 15.36 | 12.18 | 0.27 | 0.13 | 18.81 | 0.00 | 0.02 | 0.00 | 0.12 | 98.29 | 0.757 | 0.167 | 0.020 | 0.816 | 0.164 |
| | *CH07 | S30 | 0.00 | 24.07 | 0.08 | 43.22 | 17.72 | 0.07 | 0.29 | 12.46 | 0.03 | 0.00 | 0.00 | 0.34 | 98.27 | 0.578 | 0.546 | 0.027 | 0.441 | 0.532 |
| | *CH07 | S31 | 0.04 | 20.01 | 0.17 | 47.00 | 19.10 | 0.08 | 0.26 | 12.26 | 0.05 | 0.02 | 0.02 | 0.09 | 99.08 | 0.577 | 0.612 | 0.042 | 0.372 | 0.586 |
| | *CH07 | S32 | 0.03 | 18.22 | 0.37 | 50.11 | 14.49 | 0.03 | 0.32 | 14.16 | 0.02 | 0.02 | 0.00 | 0.13 | 97.91 | 0.672 | 0.648 | 0.027 | 0.342 | 0.631 |
| | *CH07 | S33 | 0.01 | 5.91 | 0.32 | 63.05 | 17.08 | 0.02 | 0.29 | 11.24 | 0.10 | 0.00 | 0.01 | 0.13 | 98.14 | 0.573 | 0.877 | 0.029 | 0.119 | 0.852 |
| | *CH07 | S34 | 0.00 | 14.53 | 0.17 | 51.44 | 22.39 | 0.03 | 0.39 | 9.27 | 0.01 | 0.00 | 0.00 | 0.18 | 98.40 | 0.458 | 0.704 | 0.043 | 0.284 | 0.674 |
| | *CH07 | S35 | 0.02 | 13.22 | 0.13 | 50.33 | 23.82 | 0.04 | 0.36 | 7.95 | 0.02 | 0.00 | 0.00 | 0.28 | 96.17 | 0.406 | 0.719 | 0.051 | 0.267 | 0.682 |
| | *CH07 | S36 | 0.00 | 5.75 | 0.03 | 62.41 | 20.50 | 0.05 | 0.38 | 8.81 | 0.11 | 0.05 | 0.00 | 0.14 | 98.21 | 0.454 | 0.879 | 0.030 | 0.117 | 0.853 |
| | *CH07 | S37 | 0.02 | 14.76 | 0.52 | 46.64 | 26.59 | 0.12 | 0.53 | 7.91 | 0.07 | 0.00 | 0.00 | 0.13 | 97.29 | 0.401 | 0.679 | 0.077 | 0.296 | 0.627 |
| | *CH07 | S38 | 0.03 | 39.97 | 0.15 | 25.23 | 16.27 | 0.11 | 0.18 | 16.21 | 0.02 | 0.03 | 0.00 | 0.19 | 98.38 | 0.690 | 0.297 | 0.042 | 0.673 | 0.285 |
| | *CH07 | S39 | 0.00 | 10.56 | 0.02 | 58.51 | 16.28 | 0.04 | 0.31 | 11.48 | 0.02 | 0.01 | 0.00 | 0.13 | 97.36 | 0.572 | 0.788 | 0.019 | 0.208 | 0.773 |
| | *CH07 | S40 | 0.01 | 30.90 | 0.20 | 37.22 | 13.08 | 0.13 | 0.17 | 16.49 | 0.06 | 0.00 | 0.01 | 0.18 | 98.44 | 0.727 | 0.447 | 0.026 | 0.538 | 0.435 |
| | *CH07 | S41 | 0.02 | 10.01 | 0.04 | 58.53 | 15.63 | 0.07 | 0.64 | 11.74 | 0.02 | 0.01 | 0.03 | 0.10 | 96.82 | 0.588 | 0.797 | 0.024 | 0.198 | 0.778 |
| | *CH07 | S42 | 0.00 | 35.62 | 0.06 | 30.28 | 14.99 | 0.14 | 0.20 | 16.03 | 0.03 | 0.04 | 0.01 | 0.17 | 97.57 | 0.698 | 0.363 | 0.037 | 0.613 | 0.350 |
| | *CH07 | S43 | 0.03 | 19.48 | 0.13 | 46.14 | 19.38 | 0.06 | 0.29 | 11.37 | 0.02 | 0.01 | 0.01 | 0.20 | 97.11 | 0.548 | 0.614 | 0.040 | 0.371 | 0.589 |
| | *CH07 | S44 | 0.06 | 9.02 | 0.25 | 55.88 | 20.62 | 0.08 | 0.40 | 10.95 | 0.00 | 0.00 | 0.01 | 0.12 | 97.39 | 0.553 | 0.806 | 0.071 | 0.180 | 0.749 |
| | *CH07 | S45 | 0.04 | 14.09 | 0.15 | 51.84 | 21.82 | 0.05 | 0.32 | 8.97 | 0.02 | 0.04 | 0.00 | 0.24 | 97.37 | 0.449 | 0.712 | 0.033 | 0.279 | 0.688 |
| | *CH07 | S46 | 0.00 | 44.24 | 0.05 | 23.26 | 13.62 | 0.17 | 0.16 | 17.22 | 0.02 | 0.01 | 0.01 | 0.23 | 98.99 | 0.713 | 0.261 | 0.020 | 0.725 | 0.256 |
| | *CH13 | S1 | 0.02 | 22.40 | 0.07 | 45.46 | 18.20 | 0.02 | 0.28 | 11.77 | 0.02 | 0.00 | 0.00 | 0.32 | 98.56 | 0.551 | 0.576 | 0.021 | 0.415 | 0.564 |
| | *CH13 | S2 | 0.00 | 30.12 | 0.03 | 38.06 | 15.81 | 0.11 | 0.29 | 14.50 | 0.02 | 0.00 | 0.00 | 0.18 | 99.12 | 0.643 | 0.459 | 0.024 | 0.528 | 0.448 |
| | *CH13 | S3 | 0.00 | 38.30 | 0.06 | 29.69 | 14.93 | 0.23 | 0.20 | 16.16 | 0.00 | 0.00 | 0.00 | 0.13 | 99.70 | 0.685 | 0.342 | 0.025 | 0.642 | 0.334 |
| | *CH13 | S4 | 0.00 | 20.89 | 0.13 | 46.34 | 19.24 | 0.11 | 0.28 | 12.47 | 0.05 | 0.00 | 0.00 | 0.20 | 99.70 | 0.579 | 0.598 | 0.045 | 0.384 | 0.571 |
| | *CH13 | S5 | 0.04 | 31.76 | 0.01 | 35.77 | 15.48 | 0.09 | 0.22 | 15.24 | 0.00 | 0.00 | 0.00 | 0.06 | 98.67 | 0.670 | 0.430 | 0.030 | 0.552 | 0.417 |
| | *CH13 | S6 | 0.04 | 27.88 | 0.01 | 39.95 | 16.92 | 0.12 | 0.26 | 13.24 | 0.03 | 0.03 | 0.01 | 0.28 | 98.75 | 0.599 | 0.490 | 0.022 | 0.499 | 0.479 |
| | *CH13 | S7 | 0.00 | 21.75 | 0.20 | 39.80 | 23.86 | 0.15 | 0.25 | 11.84 | 0.07 | 0.01 | 0.01 | 0.13 | 98.07 | 0.558 | 0.551 | 0.097 | 0.406 | 0.498 |
| | *CH13 | S8 | 0.00 | 33.65 | 0.40 | 26.58 | 23.39 | 0.28 | 0.31 | 13.36 | 0.01 | 0.00 | 0.00 | 0.21 | 98.20 | 0.596 | 0.346 | 0.092 | 0.594 | 0.315 |
| *CH13 | S9 | 0.01 | 32.37 | 0.28 | 35.55 | 15.48 | 0.13 | 0.20 | 15.06 | 0.02 | 0.03 | 0.01 | 0.16 | 99.29 | 0.663 | 0.424 | 0.022 | 0.563 | 0.415 | |
| *CH13 | S10 | 0.01 | 36.85 | 0.06 | 30.87 | 15.14 | 0.13 | 0.13 | 16.09 | 0.01 | 0.00 | 0.02 | 0.19 | 99.50 | 0.687 | 0.360 | 0.029 | 0.622 | 0.350 | |
| *CH53 | S1 | 0.00 | 27.03 | 0.01 | 40.75 | 17.02 | 0.05 | 0.19 | 13.22 | 0.01 | 0.00 | 0.00 | 0.15 | 98.43 | 0.601 | 0.503 | 0.022 | 0.486 | 0.492 | |
| *CH53 | S2 | 0.02 | 26.60 | 0.04 | 41.50 | 14.81 | 0.10 | 0.21 | 15.09 | 0.03 | 0.02 | 0.01 | 0.11 | 98.53 | 0.679 | 0.511 | 0.031 | 0.474 | 0.495 | |
| *CH53 | S3 | 0.02 | 31.98 | 0.04 | 35.15 | 16.05 | 0.08 | 0.17 | 15.14 | 0.00 | 0.00 | 0.00 | 0.21 | 98.84 | 0.665 | 0.424 | 0.035 | 0.555 | 0.410 | |

Table C-4. Chemical compositions of detrital chromian spinels from the Bengal basin. (15)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|-------------|--------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|---------------------|-------|-------|
| Beach sand | *CH14 | S22 | 0.00 | 33.33 | 0.07 | 35.71 | 15.37 | 0.11 | 0.22 | 14.66 | 0.01 | 0.02 | 0.00 | 0.16 | 99.66 | 0.639 | 0.416 | 0.012 | 0.575 | 0.413 |
| (Chittagong | *CH14 | S23 | 0.00 | 35.51 | 0.16 | 31.76 | 15.04 | 0.17 | 0.14 | 15.64 | 0.00 | 0.01 | 0.00 | 0.15 | 98.58 | 0.679 | 0.375 | 0.025 | 0.610 | 0.366 |
| City) | *CH14 | S24 | 0.00 | 16.91 | 0.31 | 46.64 | 21.52 | 0.08 | 0.41 | 10.40 | 0.01 | 0.00 | 0.01 | 0.16 | 96.44 | 0.514 | 0.649 | 0.057 | 0.331 | 0.612 |
| | *CH14 | S25 | 0.00 | 23.11 | 0.11 | 46.73 | 16.05 | 0.09 | 0.26 | 13.26 | 0.00 | 0.04 | 0.00 | 0.19 | 99.83 | 0.607 | 0.576 | 0.014 | 0.418 | 0.568 |
| | *CH14 | S26 | 0.01 | 31.59 | 0.19 | 36.95 | 16.81 | 0.05 | 0.25 | 14.64 | 0.00 | 0.01 | 0.01 | 0.18 | 100.68 | 0.639 | 0.440 | 0.027 | 0.545 | 0.428 |
| | *CH14 | S27 | 0.03 | 26.48 | 0.09 | 43.17 | 15.01 | 0.07 | 0.12 | 14.30 | 0.03 | 0.00 | 0.00 | 0.14 | 99.42 | 0.644 | 0.522 | 0.013 | 0.471 | 0.515 |
| | *CH14 | S28 | 0.01 | 29.75 | 0.07 | 38.70 | 16.81 | 0.13 | 0.31 | 14.12 | 0.00 | 0.00 | 0.00 | 0.14 | 100.05 | 0.624 | 0.466 | 0.026 | 0.520 | 0.454 |
| | *CH14 | S29 | 0.03 | 21.21 | 0.15 | 38.10 | 27.73 | 0.18 | 0.37 | 10.19 | 0.01 | 0.00 | 0.00 | 0.08 | 98.04 | 0.486 | 0.547 | 0.118 | 0.400 | 0.482 |
| | *CH14 | S30 | 0.02 | 15.44 | 0.32 | 49.39 | 20.99 | 0.05 | 0.31 | 10.95 | 0.02 | 0.01 | 0.01 | 0.16 | 97.67 | 0.538 | 0.682 | 0.057 | 0.300 | 0.643 |
| | *CH14 | S31 | 0.03 | 24.97 | 0.10 | 43.09 | 17.87 | 0.09 | 0.29 | 12.70 | 0.02 | 0.00 | 0.04 | 0.21 | 99.40 | 0.581 | 0.536 | 0.025 | 0.452 | 0.523 |
| | *CH14 | S32 | 0.04 | 31.61 | 0.21 | 36.93 | 16.47 | 0.18 | 0.22 | 14.65 | 0.00 | 0.01 | 0.00 | 0.16 | 100.46 | 0.641 | 0.439 | 0.025 | 0.547 | 0.429 |
| | *CH14 | S33 | 0.00 | 22.67 | 0.15 | 44.91 | 19.52 | 0.06 | 0.30 | 11.54 | 0.00 | 0.00 | 0.00 | 0.16 | 99.31 | 0.538 | 0.571 | 0.027 | 0.418 | 0.555 |
| | *CH14 | S34 | 0.00 | 11.37 | 0.13 | 54.13 | 24.66 | 0.05 | 0.40 | 7.98 | 0.01 | 0.03 | 0.00 | 0.27 | 99.02 | 0.401 | 0.762 | 0.054 | 0.226 | 0.721 |
| | *CH14 | S35 | 0.00 | 34.41 | 0.07 | 34.78 | 15.25 | 0.16 | 0.27 | 15.76 | 0.02 | 0.01 | 0.00 | 0.09 | 100.80 | 0.674 | 0.404 | 0.024 | 0.582 | 0.394 |
| | *CH14 | S36 | 0.01 | 11.01 | 0.22 | 55.94 | 21.04 | 0.00 | 0.42 | 9.03 | 0.02 | 0.00 | 0.02 | 0.19 | 97.90 | 0.457 | 0.773 | 0.030 | 0.220 | 0.750 |
| | *CH14 | S37 | 0.00 | 26.62 | 0.04 | 40.58 | 16.88 | 0.10 | 0.20 | 13.25 | 0.01 | 0.00 | 0.01 | 0.15 | 97.83 | 0.607 | 0.506 | 0.025 | 0.482 | 0.493 |
| | *CH14 | S38 | 0.00 | 43.62 | 0.11 | 23.25 | 15.61 | 0.19 | 0.11 | 16.83 | 0.00 | 0.00 | 0.00 | 0.23 | 99.95 | 0.696 | 0.263 | 0.032 | 0.713 | 0.255 |
| | *CH14 | S39 | 0.02 | 23.87 | 0.02 | 45.71 | 13.86 | 0.17 | 0.20 | 15.63 | 0.01 | 0.00 | 0.01 | 0.06 | 99.55 | 0.703 | 0.562 | 0.031 | 0.424 | 0.545 |
| | *CH14 | S40 | 0.01 | 22.15 | 0.14 | 43.06 | 21.79 | 0.10 | 0.28 | 11.25 | 0.03 | 0.05 | 0.00 | 0.25 | 99.08 | 0.527 | 0.566 | 0.055 | 0.410 | 0.535 |
| | *CH14 | S41 | 0.00 | 15.44 | 0.07 | 52.99 | 19.83 | 0.05 | 0.36 | 10.67 | 0.00 | 0.02 | 0.01 | 0.14 | 99.58 | 0.513 | 0.697 | 0.030 | 0.294 | 0.676 |
| | *CH14 | S42 | 0.04 | 39.80 | 0.21 | 26.98 | 15.33 | 0.22 | 0.20 | 16.43 | 0.01 | 0.00 | 0.00 | 0.16 | 99.36 | 0.695 | 0.313 | 0.032 | 0.666 | 0.303 |
| | *CH14 | S43 | 0.02 | 26.85 | 0.68 | 34.10 | 23.66 | 0.15 | 0.27 | 12.10 | 0.01 | 0.03 | 0.02 | 0.17 | 98.05 | 0.564 | 0.460 | 0.083 | 0.495 | 0.422 |
| | *CH14 | S44 | 0.00 | 12.51 | 0.12 | 54.47 | 20.93 | 0.00 | 0.37 | 8.99 | 0.08 | 0.00 | 0.00 | 0.25 | 97.72 | 0.452 | 0.745 | 0.026 | 0.248 | 0.726 |
| | *CH14 | S45 | 0.02 | 35.31 | 0.11 | 31.75 | 17.05 | 0.16 | 0.22 | 11.80 | 0.03 | 0.00 | 0.00 | 0.14 | 96.58 | 0.534 | 0.376 | 0.000 | 0.624 | 0.376 |
| | *CH14 | S46 | 0.00 | 24.45 | 0.17 | 42.22 | 16.89 | 0.09 | 0.29 | 13.54 | 0.04 | 0.02 | 0.01 | 0.14 | 97.85 | 0.626 | 0.537 | 0.035 | 0.447 | 0.518 |
| | *CH14 | S47 | 0.00 | 10.84 | 0.30 | 55.85 | 19.53 | 0.09 | 0.31 | 11.50 | 0.02 | 0.01 | 0.01 | 0.09 | 98.55 | 0.569 | 0.776 | 0.055 | 0.212 | 0.733 |
| | *CH14 | S48 | 0.02 | 31.53 | 0.07 | 37.66 | 14.90 | 0.11 | 0.29 | 14.34 | 0.00 | 0.05 | 0.00 | 0.13 | 99.09 | 0.634 | 0.445 | 0.007 | 0.551 | 0.442 |
| | *CH14 | S49 | 0.00 | 27.94 | 0.10 | 41.25 | 13.94 | 0.10 | 0.23 | 14.57 | 0.02 | 0.05 | 0.00 | 0.11 | 98.30 | 0.657 | 0.498 | 0.008 | 0.498 | 0.493 |
| | *CH14 | S50 | 0.01 | 41.60 | 0.03 | 26.04 | 16.11 | 0.17 | 0.19 | 15.68 | 0.03 | 0.00 | 0.01 | 0.29 | 100.15 | 0.656 | 0.296 | 0.023 | 0.688 | 0.289 |
| | *CH14 | S51 | 0.01 | 20.38 | 0.14 | 45.32 | 19.66 | 0.06 | 0.34 | 11.67 | 0.03 | 0.04 | 0.01 | 0.18 | 97.82 | 0.555 | 0.599 | 0.044 | 0.384 | 0.572 |
| | *CH14 | S52 | 0.00 | 22.87 | 0.11 | 42.84 | 20.47 | 0.07 | 0.25 | 11.70 | 0.03 | 0.03 | 0.01 | 0.21 | 98.59 | 0.547 | 0.557 | 0.046 | 0.423 | 0.531 |
| | *CH14 | S53 | 0.03 | 43.84 | 0.01 | 25.10 | 13.41 | 0.14 | 0.20 | 16.91 | 0.01 | 0.00 | 0.01 | 0.22 | 99.87 | 0.698 | 0.277 | 0.010 | 0.715 | 0.275 |
| | *CH14 | S54 | 0.00 | 27.04 | 0.12 | 42.43 | 15.92 | 0.09 | 0.28 | 13.63 | 0.01 | 0.00 | 0.02 | 0.13 | 99.75 | 0.614 | 0.513 | 0.011 | 0.482 | 0.507 |
| | *CH14 | S55 | 0.02 | 49.97 | 0.05 | 17.08 | 12.24 | 0.30 | 0.10 | 18.69 | 0.00 | 0.00 | 0.01 | 0.15 | 98.61 | 0.754 | 0.186 | 0.020 | 0.797 | 0.183 |
| | *CH14 | S56 | 0.01 | 29.17 | 0.31 | 37.44 | 17.97 | 0.04 | 0.17 | 13.33 | 0.00 | 0.00 | 0.01 | 0.16 | 98.59 | 0.604 | 0.463 | 0.028 | 0.523 | 0.450 |
| | *CH14 | S57 | 0.00 | 36.44 | 0.08 | 30.79 | 16.29 | 0.06 | 0.19 | 14.99 | 0.00 | 0.02 | 0.00 | 0.17 | 99.03 | 0.648 | 0.362 | 0.025 | 0.623 | 0.353 |
| | *CH14 | S58 | 0.05 | 20.19 | 0.21 | 45.77 | 19.83 | 0.04 | 0.27 | 11.63 | 0.00 | 0.00 | 0.00 | 0.14 | 98.12 | 0.553 | 0.603 | 0.042 | 0.380 | 0.578 |
| | *CH14 | S59 | 0.00 | 18.52 | 0.32 | 49.71 | 15.20 | 0.02 | 0.23 | 13.53 | 0.01 | 0.00 | 0.00 | 0.07 | 97.60 | 0.645 | 0.643 | 0.022 | 0.349 | 0.629 |
| | *CH14 | S60 | 0.02 | 23.91 | 0.10 | 44.16 | 16.67 | 0.10 | 0.27 | 13.73 | 0.01 | 0.00 | 0.00 | 0.18 | 99.15 | 0.628 | 0.553 | 0.032 | 0.432 | 0.536 |
| | *CH14 | S61 | 0.01 | 37.10 | 0.09 | 30.22 | 14.75 | 0.17 | 0.16 | 16.17 | 0.03 | 0.00 | 0.00 | 0.19 | 98.88 | 0.693 | 0.353 | 0.028 | 0.629 | 0.343 |
| | *CH14 | S62 | 0.01 | 20.72 | 0.15 | 49.04 | 13.50 | 0.07 | 0.31 | 13.17 | 0.00 | 0.04 | 0.00 | 0.20 | 97.22 | 0.624 | 0.614 | 0.000 | 0.386 | 0.614 |

Table C-4. Chemical compositions of detrital chromian spinels from the Bengal basin. (16)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ # | Al3# | Cr3# |
|-----------|-------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|------|-------------|-------|-------|--------------------|-------|-------|
| BP1 | *8-1 | S1 | 0.07 | 25.26 | 0.15 | 40.28 | 17.96 | 0.02 | 0.22 | 12.00 | 0.10 | 0.00 | 0.00 | 0.21 | 96.26 | 0.567 | 0.517 | 0.024 | 0.472 | 0.505 |
| | *8-1 | S2 | 0.07 | 10.88 | 0.19 | 53.67 | 22.92 | 0.08 | 0.33 | 6.63 | 0.11 | 0.00 | 0.00 | 0.16 | 95.04 | 0.351 | 0.768 | 0.019 | 0.228 | 0.753 |
| | *8-1 | S3 | 0.04 | 12.56 | 0.10 | 54.03 | 20.56 | 0.11 | 0.37 | 9.04 | 0.07 | 0.00 | 0.00 | 0.15 | 97.03 | 0.456 | 0.743 | 0.025 | 0.251 | 0.724 |
| | *8-1 | S4 | 0.04 | 17.28 | 0.37 | 45.69 | 23.17 | 0.07 | 0.36 | 10.04 | 0.05 | 0.00 | 0.00 | 0.12 | 97.18 | 0.495 | 0.640 | 0.066 | 0.337 | 0.597 |
| | *8-1 | S5 | 0.02 | 21.86 | 0.06 | 46.78 | 16.09 | 0.12 | 0.27 | 13.41 | 0.13 | 0.00 | 0.01 | 0.15 | 98.91 | 0.621 | 0.589 | 0.025 | 0.400 | 0.575 |
| | *8-1 | S6 | 0.00 | 30.91 | 0.03 | 37.65 | 15.81 | 0.11 | 0.16 | 13.61 | 0.03 | 0.01 | 0.00 | 0.16 | 98.48 | 0.609 | 0.450 | 0.007 | 0.546 | 0.446 |
| | *8-1 | S7 | 0.05 | 33.97 | 0.02 | 32.11 | 15.50 | 0.17 | 0.22 | 15.44 | 0.10 | 0.01 | 0.00 | 0.16 | 97.74 | 0.678 | 0.388 | 0.036 | 0.590 | 0.374 |
| | *8-1 | S8 | 0.00 | 38.79 | 0.01 | 29.68 | 17.47 | 0.10 | 0.24 | 13.83 | 0.05 | 0.00 | 0.03 | 0.21 | 100.40 | 0.590 | 0.339 | 0.010 | 0.654 | 0.336 |
| | *8-1 | S9 | 0.05 | 9.82 | 0.10 | 55.89 | 21.51 | 0.05 | 0.36 | 10.07 | 0.13 | 0.00 | 0.00 | 0.21 | 98.17 | 0.505 | 0.792 | 0.061 | 0.195 | 0.744 |
| | *8-1 | S10 | 0.00 | 30.48 | 0.13 | 37.06 | 16.03 | 0.09 | 0.23 | 14.53 | 0.07 | 0.00 | 0.02 | 0.11 | 98.74 | 0.647 | 0.449 | 0.026 | 0.537 | 0.438 |
| | *8-1 | S11 | 0.01 | 14.91 | 0.18 | 51.93 | 21.73 | 0.09 | 0.44 | 9.04 | 0.13 | 0.00 | 0.00 | 0.28 | 98.75 | 0.446 | 0.700 | 0.030 | 0.291 | 0.679 |
| | *8-1 | S12 | 0.00 | 24.01 | 0.03 | 42.19 | 18.65 | 0.12 | 0.28 | 12.44 | 0.07 | 0.02 | 0.00 | 0.16 | 97.96 | 0.578 | 0.541 | 0.039 | 0.441 | 0.520 |
| | *8-1 | S13 | 0.00 | 28.57 | 0.10 | 40.41 | 14.55 | 0.10 | 0.23 | 15.18 | 0.04 | 0.00 | 0.01 | 0.08 | 99.26 | 0.675 | 0.487 | 0.021 | 0.502 | 0.476 |
| | *8-1 | S14 | 0.03 | 19.37 | 0.02 | 49.65 | 19.47 | 0.05 | 0.38 | 10.43 | 0.09 | 0.00 | 0.00 | 0.33 | 99.82 | 0.494 | 0.632 | 0.014 | 0.362 | 0.623 |
| | *8-1 | S15 | 0.01 | 20.42 | 0.02 | 48.64 | 17.13 | 0.06 | 0.29 | 12.50 | 0.09 | 0.00 | 0.01 | 0.16 | 99.30 | 0.583 | 0.615 | 0.022 | 0.377 | 0.602 |
| | *8-1 | S16 | 0.10 | 33.32 | 0.08 | 36.12 | 15.23 | 0.16 | 0.25 | 16.48 | 0.08 | 0.02 | 0.00 | 0.09 | 101.93 | 0.699 | 0.421 | 0.035 | 0.559 | 0.406 |
| | *8-1 | S17 | 0.04 | 12.03 | 0.19 | 53.84 | 22.38 | 0.03 | 0.36 | 9.23 | 0.04 | 0.00 | 0.01 | 0.13 | 98.28 | 0.462 | 0.750 | 0.047 | 0.238 | 0.715 |
| | *8-1 | S18 | 0.00 | 12.33 | 0.02 | 56.19 | 20.72 | 0.05 | 0.39 | 9.50 | 0.09 | 0.02 | 0.00 | 0.34 | 99.64 | 0.467 | 0.753 | 0.029 | 0.240 | 0.732 |
| | *8-1 | S19 | 0.04 | 29.92 | 0.16 | 38.74 | 15.98 | 0.09 | 0.22 | 14.15 | 0.09 | 0.00 | 0.02 | 0.18 | 99.60 | 0.630 | 0.465 | 0.016 | 0.526 | 0.457 |
| | *8-1 | S20 | 0.02 | 23.44 | 0.66 | 36.80 | 23.37 | 0.16 | 0.28 | 13.51 | 0.07 | 0.02 | 0.00 | 0.07 | 98.38 | 0.630 | 0.513 | 0.112 | 0.432 | 0.455 |
| | *8-1 | S21 | 0.05 | 29.06 | 0.05 | 39.92 | 17.02 | 0.02 | 0.24 | 14.30 | 0.07 | 0.00 | 0.01 | 0.15 | 100.88 | 0.629 | 0.480 | 0.028 | 0.506 | 0.466 |
| | *8-1 | S22 | 0.04 | 12.62 | 0.30 | 49.36 | 25.73 | 0.11 | 0.35 | 9.52 | 0.09 | 0.00 | 0.00 | 0.08 | 98.19 | 0.475 | 0.724 | 0.098 | 0.249 | 0.653 |
| | *8-1 | S23 | 0.02 | 21.87 | 0.29 | 42.86 | 21.86 | 0.09 | 0.31 | 10.84 | 0.11 | 0.03 | 0.00 | 0.13 | 98.40 | 0.515 | 0.568 | 0.049 | 0.411 | 0.540 |
| | *8-1 | S24 | 0.00 | 34.68 | 0.23 | 33.43 | 16.47 | 0.12 | 0.20 | 14.75 | 0.10 | 0.00 | 0.01 | 0.26 | 100.25 | 0.639 | 0.393 | 0.022 | 0.594 | 0.384 |
| | *8-1 | S25 | 0.07 | 28.64 | 0.13 | 39.44 | 17.81 | 0.16 | 0.27 | 11.27 | 0.14 | 0.03 | 0.00 | 0.20 | 98.16 | 0.520 | 0.480 | 0.000 | 0.520 | 0.480 |
| | *8-1 | S26 | 0.00 | 35.98 | 0.13 | 25.14 | 23.49 | 0.18 | 0.25 | 13.02 | 0.08 | 0.03 | 0.01 | 0.29 | 98.59 | 0.573 | 0.319 | 0.081 | 0.625 | 0.293 |
| | *8-1 | S27 | 0.00 | 15.17 | 0.27 | 51.31 | 24.28 | 0.02 | 0.48 | 6.70 | 0.12 | 0.02 | 0.00 | 0.33 | 98.70 | 0.337 | 0.694 | 0.015 | 0.301 | 0.684 |
| | *8-1 | S28 | 0.03 | 20.82 | 0.00 | 46.78 | 18.90 | 0.00 | 0.29 | 11.84 | 0.06 | 0.00 | 0.00 | 0.20 | 98.91 | 0.555 | 0.601 | 0.032 | 0.386 | 0.582 |
| | *8-1 | S29 | 0.03 | 27.19 | 0.00 | 39.03 | 15.36 | 0.05 | 0.18 | 14.61 | 0.05 | 0.03 | 0.00 | 0.11 | 96.63 | 0.668 | 0.491 | 0.035 | 0.492 | 0.473 |
| | *8-1 | S30 | 0.00 | 27.84 | 0.07 | 41.77 | 12.50 | 0.12 | 0.24 | 12.81 | 0.08 | 0.09 | 0.02 | 0.19 | 95.73 | 0.598 | 0.502 | 0.000 | 0.498 | 0.502 |
| | *8-1 | S31 | 0.03 | 31.40 | 0.31 | 33.75 | 20.41 | 0.13 | 0.29 | 12.11 | 0.11 | 0.03 | 0.02 | 0.30 | 98.86 | 0.547 | 0.419 | 0.034 | 0.561 | 0.405 |
| | *8-1 | S32 | 0.00 | 23.51 | 0.40 | 36.32 | 26.45 | 0.09 | 0.26 | 8.04 | 0.07 | 0.00 | 0.00 | 0.23 | 95.34 | 0.398 | 0.509 | 0.064 | 0.460 | 0.477 |
| | *8-1 | S33 | 0.05 | 34.53 | 0.02 | 32.66 | 15.58 | 0.14 | 0.20 | 14.58 | 0.07 | 0.00 | 0.00 | 0.10 | 97.93 | 0.642 | 0.388 | 0.018 | 0.601 | 0.381 |
| | *8-1 | S34 | 0.00 | 31.98 | 0.06 | 36.86 | 15.22 | 0.22 | 0.23 | 15.27 | 0.11 | 0.00 | 0.02 | 0.16 | 100.12 | 0.665 | 0.436 | 0.024 | 0.550 | 0.426 |
| | *8-1 | S35 | 0.04 | 18.12 | 0.15 | 49.83 | 17.39 | 0.08 | 0.30 | 11.81 | 0.17 | 0.00 | 0.01 | 0.13 | 98.02 | 0.568 | 0.648 | 0.021 | 0.344 | 0.635 |
| | *8-1 | S36 | 0.02 | 21.12 | 0.13 | 46.82 | 18.63 | 0.02 | 0.27 | 12.03 | 0.05 | 0.00 | 0.01 | 0.25 | 99.34 | 0.562 | 0.598 | 0.029 | 0.390 | 0.580 |
| | *8-1 | S37 | 0.07 | 26.71 | 0.12 | 40.93 | 16.34 | 0.13 | 0.20 | 14.19 | 0.09 | 0.00 | 0.00 | 0.18 | 98.94 | 0.642 | 0.507 | 0.032 | 0.478 | 0.491 |
| | *8-1 | S38 | 0.00 | 50.89 | 0.06 | 16.07 | 13.52 | 0.15 | 0.14 | 16.90 | 0.02 | 0.00 | 0.02 | 0.25 | 98.00 | 0.690 | 0.175 | 0.004 | 0.822 | 0.174 |
| | *8-1 | S39 | 0.05 | 20.92 | 0.06 | 48.89 | 15.25 | 0.13 | 0.30 | 13.62 | 0.09 | 0.00 | 0.00 | 0.11 | 99.42 | 0.630 | 0.611 | 0.018 | 0.382 | 0.599 |
| BP3 | *4-1(10-15) | S1 | 0.05 | 14.81 | 0.20 | 50.88 | 21.64 | 0.03 | 0.24 | 10.49 | 0.05 | 0.00 | 0.02 | 0.16 | 98.58 | 0.513 | 0.697 | 0.054 | 0.286 | 0.660 |
| | *4-1(10-15) | S2 | 0.01 | 13.69 | 0.04 | 55.60 | 17.28 | 0.00 | 0.35 | 10.41 | 0.07 | 0.00 | 0.02 | 0.15 | 97.61 | 0.515 | 0.731 | 0.003 | 0.268 | 0.729 |

Table C-4. Chemical compositions of detrital chromian spinels from the Bengal basin. (17)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|-----------|---------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|------|-------------------|------------------|--------|-------------|-------|-------|---------------------|-------|-------|
| BP3 | *4-1⑩-⑮ | S3 | 0.00 | 10.00 | 0.18 | 54.69 | 22.98 | 0.06 | 0.39 | 10.13 | 0.07 | 0.00 | 0.00 | 0.21 | 98.70 | 0.506 | 0.786 | 0.079 | 0.197 | 0.724 |
| | *4-1⑩-⑮ | S4 | 0.00 | 32.61 | 0.06 | 35.40 | 14.57 | 0.13 | 0.17 | 15.09 | 0.02 | 0.00 | 0.00 | 0.15 | 98.19 | 0.666 | 0.421 | 0.017 | 0.569 | 0.414 |
| | *4-1⑩-⑮ | S5 | 0.01 | 30.58 | 0.03 | 36.64 | 16.78 | 0.05 | 0.23 | 14.80 | 0.04 | 0.00 | 0.00 | 0.22 | 99.39 | 0.652 | 0.446 | 0.039 | 0.533 | 0.428 |
| | *4-1⑩-⑮ | S6 | 0.00 | 18.64 | 0.15 | 50.13 | 16.38 | 0.07 | 0.23 | 11.44 | 0.13 | 0.00 | 0.00 | 0.07 | 97.23 | 0.553 | 0.643 | 0.000 | 0.357 | 0.643 |
| | *4-1⑩-⑮ | S7 | 0.01 | 21.53 | 0.02 | 45.73 | 16.19 | 0.06 | 0.21 | 13.29 | 0.04 | 0.00 | 0.00 | 0.18 | 97.24 | 0.624 | 0.588 | 0.031 | 0.400 | 0.570 |
| | *4-1⑩-⑮ | S8 | 0.02 | 23.46 | 0.12 | 43.77 | 19.20 | 0.07 | 0.31 | 13.30 | 0.06 | 0.00 | 0.02 | 0.04 | 100.36 | 0.605 | 0.556 | 0.050 | 0.422 | 0.528 |
| | *4-1⑩-⑮ | S9 | 0.02 | 30.88 | 0.18 | 34.67 | 20.22 | 0.09 | 0.33 | 13.12 | 0.03 | 0.00 | 0.00 | 0.26 | 99.79 | 0.584 | 0.430 | 0.048 | 0.543 | 0.409 |
| | *4-1⑩-⑮ | S10 | 0.04 | 20.98 | 0.23 | 47.80 | 16.42 | 0.05 | 0.21 | 13.33 | 0.14 | 0.02 | 0.01 | 0.08 | 99.31 | 0.620 | 0.604 | 0.024 | 0.386 | 0.590 |
| | *4-1⑩-⑮ | S11 | 0.03 | 18.53 | 0.04 | 50.04 | 17.69 | 0.01 | 0.29 | 11.20 | 0.11 | 0.00 | 0.00 | 0.18 | 98.12 | 0.537 | 0.644 | 0.012 | 0.351 | 0.637 |
| | *4-1⑩-⑮ | S12 | 0.02 | 16.66 | 0.28 | 48.99 | 19.24 | 0.05 | 0.30 | 11.18 | 0.21 | 0.05 | 0.00 | 0.16 | 97.13 | 0.549 | 0.664 | 0.039 | 0.323 | 0.638 |
| | *4-1⑩-⑮ | S13 | 0.05 | 16.95 | 0.06 | 52.46 | 16.34 | 0.05 | 0.34 | 11.87 | 0.05 | 0.00 | 0.00 | 0.05 | 98.23 | 0.570 | 0.675 | 0.010 | 0.322 | 0.668 |
| | *4-1⑩-⑮ | S14 | 0.00 | 30.08 | 0.37 | 35.99 | 19.69 | 0.10 | 0.23 | 12.25 | 0.06 | 0.00 | 0.02 | 0.36 | 99.15 | 0.555 | 0.445 | 0.028 | 0.539 | 0.433 |
| | *4-1⑩-⑮ | S15 | 0.00 | 37.43 | 0.17 | 28.67 | 17.33 | 0.15 | 0.16 | 13.00 | 0.08 | 0.00 | 0.01 | 0.31 | 97.30 | 0.576 | 0.339 | 0.007 | 0.656 | 0.337 |
| | *4-1⑩-⑮ | S16 | 0.00 | 23.52 | 0.03 | 46.24 | 16.48 | 0.05 | 0.28 | 12.70 | 0.07 | 0.00 | 0.00 | 0.14 | 99.50 | 0.583 | 0.569 | 0.009 | 0.427 | 0.563 |
| | *8-2②-⑦ | S1 | 0.02 | 19.85 | 0.00 | 51.39 | 14.59 | 0.02 | 0.26 | 13.82 | 0.02 | 0.00 | 0.02 | 0.13 | 99.49 | 0.423 | 0.679 | 0.057 | 0.302 | 0.640 |
| | *8-2②-⑦ | S2 | 0.04 | 15.53 | 0.43 | 49.03 | 25.14 | 0.06 | 0.49 | 8.58 | 0.04 | 0.00 | 0.02 | 0.13 | 100.81 | 0.567 | 0.587 | 0.029 | 0.401 | 0.570 |
| *8-2②-⑦ | S3 | 0.04 | 22.11 | 0.08 | 46.91 | 18.72 | 0.05 | 0.29 | 12.37 | 0.00 | 0.03 | 0.00 | 0.20 | 100.93 | 0.353 | 0.686 | 0.026 | 0.306 | 0.668 | |
| *8-2②-⑦ | S4 | 0.01 | 15.95 | 0.05 | 51.84 | 24.76 | 0.03 | 0.49 | 7.28 | 0.00 | 0.08 | 0.00 | 0.44 | 100.93 | 0.353 | 0.686 | 0.026 | 0.306 | 0.668 | |
| *6-1①-⑤ | S1 | 0.03 | 14.32 | 0.16 | 51.92 | 21.30 | 0.00 | 0.32 | 10.52 | 0.01 | 0.00 | 0.02 | 0.17 | 98.77 | 0.514 | 0.709 | 0.051 | 0.276 | 0.673 | |
| *6-1①-⑤ | S2 | 0.00 | 27.12 | 0.20 | 39.64 | 19.73 | 0.08 | 0.26 | 12.87 | 0.02 | 0.01 | 0.00 | 0.12 | 100.05 | 0.581 | 0.495 | 0.041 | 0.484 | 0.475 | |
| *6-1①-⑤ | S3 | 0.00 | 40.14 | 0.13 | 26.83 | 17.66 | 0.12 | 0.20 | 15.53 | 0.03 | 0.00 | 0.00 | 0.20 | 100.83 | 0.651 | 0.310 | 0.036 | 0.665 | 0.298 | |
| *6-1①-⑤ | S4 | 0.00 | 28.74 | 0.03 | 44.33 | 16.04 | 0.04 | 0.29 | 14.53 | 0.03 | 0.08 | 0.00 | 0.17 | 102.27 | 0.637 | 0.527 | 0.021 | 0.464 | 0.515 | |
| *6-1①-⑤ | S5 | 0.03 | 17.91 | 0.03 | 52.92 | 16.99 | 0.08 | 0.29 | 12.11 | 0.07 | 0.00 | 0.02 | 0.06 | 100.51 | 0.567 | 0.665 | 0.011 | 0.332 | 0.657 | |
| *6-1①-⑤ | S6 | 0.00 | 46.11 | 0.08 | 23.01 | 14.59 | 0.30 | 0.07 | 17.71 | 0.03 | 0.01 | 0.00 | 0.34 | 102.25 | 0.710 | 0.251 | 0.025 | 0.731 | 0.245 | |
| *6-1①-⑤ | S7 | 0.01 | 17.03 | 0.06 | 50.17 | 20.96 | 0.13 | 0.31 | 11.43 | 0.04 | 0.00 | 0.00 | 0.13 | 100.27 | 0.540 | 0.664 | 0.054 | 0.318 | 0.628 | |
| *6-1①-⑤ | S8 | 0.01 | 35.26 | 0.12 | 32.22 | 13.96 | 0.17 | 0.24 | 16.75 | 0.03 | 0.00 | 0.00 | 0.08 | 98.82 | 0.721 | 0.380 | 0.032 | 0.600 | 0.368 | |
| *6-1①-⑤ | S9 | 0.00 | 20.26 | 0.07 | 44.89 | 21.70 | 0.09 | 0.25 | 11.86 | 0.06 | 0.00 | 0.00 | 0.16 | 99.33 | 0.556 | 0.598 | 0.067 | 0.375 | 0.558 | |
| *10-2③-⑧ | S1 | 0.00 | 23.58 | 0.01 | 44.65 | 17.38 | 0.05 | 0.31 | 13.55 | 0.02 | 0.04 | 0.00 | 0.16 | 99.72 | 0.617 | 0.559 | 0.036 | 0.425 | 0.539 | |
| *10-2③-⑧ | S2 | 0.01 | 23.49 | 0.04 | 46.37 | 16.82 | 0.12 | 0.23 | 13.39 | 0.09 | 0.03 | 0.00 | 0.13 | 100.52 | 0.608 | 0.570 | 0.020 | 0.422 | 0.558 | |
| *10-2③-⑧ | S3 | 0.02 | 35.13 | 0.09 | 33.50 | 16.33 | 0.09 | 0.18 | 14.66 | 0.10 | 0.00 | 0.00 | 0.22 | 100.32 | 0.632 | 0.390 | 0.017 | 0.599 | 0.383 | |
| *10-2③-⑧ | S4 | 0.01 | 9.81 | 0.38 | 57.52 | 21.67 | 0.00 | 0.42 | 8.60 | 0.04 | 0.01 | 0.00 | 0.16 | 98.62 | 0.438 | 0.797 | 0.026 | 0.197 | 0.776 | |
| BP4 | *9-2①-⑥ | S1 | 0.00 | 15.90 | 0.10 | 44.78 | 26.56 | 0.05 | 0.33 | 9.27 | 0.08 | 0.00 | 0.00 | 0.27 | 97.34 | 0.458 | 0.654 | 0.103 | 0.310 | 0.587 |
| | *9-2①-⑥ | S2 | 0.06 | 24.07 | 0.02 | 42.52 | 17.80 | 0.10 | 0.23 | 12.85 | 0.08 | 0.00 | 0.00 | 0.17 | 97.91 | 0.596 | 0.542 | 0.036 | 0.441 | 0.523 |
| | *9-2①-⑥ | S3 | 0.01 | 34.39 | 0.25 | 33.79 | 15.17 | 0.12 | 0.22 | 15.31 | 0.20 | 0.05 | 0.00 | 0.08 | 99.59 | 0.666 | 0.397 | 0.018 | 0.592 | 0.390 |
| | *9-2①-⑥ | S4 | 0.00 | 37.28 | 0.12 | 29.05 | 16.01 | 0.20 | 0.17 | 15.78 | 0.11 | 0.00 | 0.00 | 0.10 | 98.82 | 0.678 | 0.343 | 0.035 | 0.634 | 0.331 |
| | *9-2①-⑥ | S5 | 0.00 | 25.29 | 0.08 | 43.48 | 15.87 | 0.03 | 0.28 | 13.74 | 0.08 | 0.03 | 0.00 | 0.12 | 98.99 | 0.626 | 0.536 | 0.019 | 0.456 | 0.525 |
| | *9-2①-⑥ | S6 | 0.00 | 34.84 | 0.23 | 30.89 | 15.63 | 0.16 | 0.20 | 15.53 | 0.04 | 0.00 | 0.01 | 0.08 | 97.60 | 0.683 | 0.373 | 0.034 | 0.605 | 0.360 |
| | *9-2①-⑥ | S7 | 0.00 | 40.91 | 0.04 | 26.51 | 14.03 | 0.12 | 0.19 | 16.58 | 0.06 | 0.00 | 0.00 | 0.27 | 98.72 | 0.699 | 0.303 | 0.021 | 0.682 | 0.296 |
| | *9-2①-⑥ | S8 | 0.00 | 18.36 | 0.13 | 45.38 | 21.96 | 0.07 | 0.28 | 10.79 | 0.12 | 0.00 | 0.00 | 0.20 | 97.27 | 0.523 | 0.624 | 0.064 | 0.352 | 0.584 |
| | *9-2①-⑥ | S9 | 0.02 | 15.22 | 0.40 | 48.98 | 22.60 | 0.00 | 0.40 | 9.09 | 0.06 | 0.02 | 0.00 | 0.10 | 96.87 | 0.457 | 0.683 | 0.044 | 0.303 | 0.653 |
| | *9-2①-⑥ | S10 | 0.12 | 23.78 | 0.04 | 42.40 | 17.31 | 0.12 | 0.22 | 13.10 | 0.09 | 0.00 | 0.01 | 0.16 | 97.35 | 0.611 | 0.545 | 0.037 | 0.438 | 0.524 |

Table C-4. Chemical compositions of detrital chromian spinels from the Bengal basin. (18)

| formation | sample | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | ZnO | Total (wt%) | Mg# | Cr# | Fe ³⁺ 3# | Al3# | Cr3# |
|-----------|----------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|-------|------|-------------------|------------------|-------|-------------|-------|-------|---------------------|-------|-------|
| BP4 | *9-2①-⑥ | S11 | 0.02 | 34.39 | 0.03 | 34.85 | 13.83 | 0.13 | 0.16 | 15.83 | 0.06 | 0.00 | 0.00 | 0.15 | 99.46 | 0.684 | 0.405 | 0.014 | 0.587 | 0.399 |
| | *9-2①-⑥ | S12 | 0.06 | 17.31 | 0.28 | 49.55 | 18.74 | 0.06 | 0.27 | 12.02 | 0.05 | 0.00 | 0.00 | 0.16 | 98.50 | 0.577 | 0.658 | 0.041 | 0.329 | 0.631 |
| | *9-2①-⑥ | S13 | 0.00 | 28.14 | 0.38 | 35.53 | 19.34 | 0.18 | 0.29 | 12.80 | 0.06 | 0.00 | 0.00 | 0.12 | 96.84 | 0.593 | 0.459 | 0.047 | 0.516 | 0.437 |
| | *9-2①-⑥ | S14 | 0.02 | 21.84 | 0.01 | 47.58 | 15.12 | 0.08 | 0.32 | 13.21 | 0.05 | 0.00 | 0.01 | 0.18 | 98.42 | 0.614 | 0.594 | 0.011 | 0.402 | 0.587 |
| | *9-2①-⑥ | S15 | 0.00 | 24.39 | 0.23 | 39.61 | 23.81 | 0.05 | 0.28 | 8.49 | 0.08 | 0.00 | 0.00 | 0.26 | 97.21 | 0.409 | 0.521 | 0.029 | 0.465 | 0.506 |
| | *9-2①-⑥ | S16 | 0.02 | 8.25 | 0.01 | 56.51 | 24.72 | 0.06 | 0.57 | 5.88 | 0.07 | 0.00 | 0.01 | 0.45 | 96.53 | 0.310 | 0.821 | 0.036 | 0.172 | 0.791 |
| | *9-2①-⑥ | S17 | 0.06 | 23.10 | 0.17 | 44.43 | 16.03 | 0.09 | 0.32 | 12.96 | 0.09 | 0.00 | 0.01 | 0.20 | 97.46 | 0.608 | 0.563 | 0.019 | 0.428 | 0.553 |
| | *9-2①-⑥ | S18 | 0.01 | 41.38 | 0.10 | 25.62 | 14.24 | 0.17 | 0.15 | 16.33 | 0.08 | 0.00 | 0.00 | 0.19 | 98.28 | 0.692 | 0.293 | 0.019 | 0.693 | 0.288 |
| | *9-2①-⑥ | S19 | 0.02 | 20.80 | 0.00 | 43.72 | 21.08 | 0.00 | 0.27 | 10.92 | 0.05 | 0.00 | 0.00 | 0.34 | 97.20 | 0.522 | 0.585 | 0.052 | 0.393 | 0.555 |
| | *10-2①-⑥ | S1 | 0.04 | 26.62 | 0.16 | 41.36 | 17.38 | 0.04 | 0.28 | 12.92 | 0.12 | 0.00 | 0.00 | 0.23 | 99.15 | 0.589 | 0.510 | 0.020 | 0.480 | 0.500 |
| | *10-2①-⑥ | S2 | 0.04 | 10.60 | 0.04 | 58.78 | 18.94 | 0.01 | 0.47 | 9.49 | 0.08 | 0.00 | 0.00 | 0.25 | 98.69 | 0.474 | 0.788 | 0.012 | 0.209 | 0.779 |
| | *10-2①-⑥ | S3 | 0.03 | 4.51 | 0.04 | 62.28 | 11.13 | 0.02 | 2.21 | 3.25 | 0.22 | 0.50 | 0.00 | 12.88 | 97.08 | 0.181 | 0.903 | 0.000 | 0.097 | 0.903 |
| | *10-2①-⑥ | S4 | 0.02 | 18.35 | 0.08 | 51.14 | 16.46 | 0.08 | 0.32 | 12.26 | 0.12 | 0.00 | 0.00 | 0.12 | 98.93 | 0.581 | 0.652 | 0.014 | 0.344 | 0.642 |
| | *10-2①-⑥ | S5 | 0.08 | 28.77 | 0.02 | 39.58 | 17.30 | 0.05 | 0.32 | 14.13 | 0.19 | 0.05 | 0.00 | 0.23 | 100.73 | 0.624 | 0.480 | 0.033 | 0.503 | 0.464 |
| | *10-2①-⑥ | S6 | 0.00 | 30.43 | 0.03 | 35.92 | 16.00 | 0.05 | 0.20 | 13.92 | 0.06 | 0.02 | 0.00 | 0.44 | 97.05 | 0.629 | 0.442 | 0.025 | 0.544 | 0.431 |
| | *10-2①-⑥ | S7 | 0.07 | 12.04 | 0.07 | 57.33 | 19.66 | 0.00 | 0.39 | 8.53 | 0.09 | 0.08 | 0.00 | 0.52 | 98.77 | 0.427 | 0.762 | 0.000 | 0.238 | 0.761 |
| | *10-2①-⑥ | S8 | 0.04 | 24.10 | 0.09 | 45.19 | 13.74 | 0.09 | 0.21 | 15.16 | 0.14 | 0.00 | 0.00 | 0.13 | 98.89 | 0.689 | 0.557 | 0.023 | 0.433 | 0.544 |
| | *10-2①-⑥ | S9 | 0.00 | 27.46 | 0.43 | 40.89 | 15.67 | 0.10 | 0.27 | 15.24 | 0.10 | 0.00 | 0.00 | 0.13 | 100.28 | 0.680 | 0.500 | 0.032 | 0.484 | 0.484 |
| | *10-2①-⑥ | S10 | 0.01 | 16.17 | 0.08 | 51.84 | 19.66 | 0.05 | 0.40 | 10.64 | 0.08 | 0.00 | 0.00 | 0.23 | 99.15 | 0.513 | 0.683 | 0.029 | 0.308 | 0.663 |
| | *10-2①-⑥ | S11 | 0.02 | 28.10 | 0.77 | 38.60 | 18.23 | 0.07 | 0.24 | 12.75 | 0.06 | 0.00 | 0.00 | 0.21 | 99.04 | 0.587 | 0.480 | 0.017 | 0.511 | 0.471 |
| | *10-2①-⑥ | S12 | 0.07 | 28.27 | 0.10 | 35.14 | 18.51 | 0.05 | 0.28 | 12.66 | 0.17 | 0.01 | 0.00 | 0.21 | 95.47 | 0.591 | 0.455 | 0.042 | 0.522 | 0.435 |
| | *10-2①-⑥ | S13 | 0.00 | 38.07 | 0.10 | 27.25 | 18.91 | 0.16 | 0.24 | 14.00 | 0.02 | 0.00 | 0.02 | 0.39 | 99.15 | 0.605 | 0.324 | 0.038 | 0.650 | 0.312 |
| | *10-2①-⑥ | S14 | 0.02 | 20.42 | 0.28 | 49.24 | 13.58 | 0.15 | 0.24 | 16.07 | 0.13 | 0.00 | 0.00 | 0.00 | 100.12 | 0.732 | 0.618 | 0.038 | 0.368 | 0.595 |
| | *10-2①-⑥ | S15 | 0.03 | 29.46 | 0.06 | 38.53 | 19.45 | 0.13 | 0.25 | 12.73 | 0.06 | 0.00 | 0.00 | 0.22 | 100.93 | 0.565 | 0.467 | 0.030 | 0.517 | 0.453 |
| | *10-2①-⑥ | S16 | 0.01 | 42.09 | 0.07 | 24.38 | 13.32 | 0.19 | 0.18 | 19.62 | 0.10 | 0.00 | 0.00 | 0.19 | 100.14 | 0.801 | 0.280 | 0.057 | 0.679 | 0.264 |
| | *10-2①-⑥ | S17 | 0.00 | 21.82 | 0.19 | 45.35 | 18.23 | 0.03 | 0.32 | 12.30 | 0.16 | 0.00 | 0.00 | 0.15 | 98.54 | 0.577 | 0.582 | 0.031 | 0.405 | 0.565 |
| | *10-2①-⑥ | S18 | 0.03 | 34.30 | 0.08 | 34.16 | 14.94 | 0.13 | 0.22 | 15.78 | 0.08 | 0.00 | 0.01 | 0.21 | 99.92 | 0.680 | 0.401 | 0.025 | 0.584 | 0.390 |
| | *10-2①-⑥ | S19 | 0.15 | 18.53 | 1.30 | 46.38 | 20.97 | 0.09 | 0.21 | 11.59 | 0.21 | 0.01 | 0.00 | 0.18 | 99.62 | 0.565 | 0.627 | 0.043 | 0.357 | 0.599 |
| | *10-2①-⑥ | S20 | 0.05 | 44.48 | 0.08 | 21.87 | 12.57 | 0.24 | 0.19 | 16.75 | 0.15 | 0.03 | 0.00 | 0.11 | 96.52 | 0.710 | 0.248 | 0.009 | 0.745 | 0.246 |
| | *10-2①-⑥ | S21 | 0.04 | 12.33 | 0.20 | 53.48 | 21.62 | 0.00 | 1.00 | 8.59 | 0.14 | 0.00 | 0.00 | 1.06 | 98.45 | 0.431 | 0.744 | 0.043 | 0.245 | 0.712 |
| | *10-2①-⑥ | S22 | 0.01 | 29.89 | 0.09 | 39.20 | 16.11 | 0.04 | 0.28 | 14.37 | 0.11 | 0.00 | 0.01 | 0.19 | 100.30 | 0.634 | 0.468 | 0.020 | 0.521 | 0.459 |
| | *10-2①-⑥ | S23 | 0.73 | 1.74 | 0.41 | 60.77 | 26.71 | 0.00 | 0.57 | 4.97 | 0.12 | 0.03 | 0.00 | 0.43 | 96.48 | 0.278 | 0.959 | 0.061 | 0.038 | 0.901 |
| | *10-2①-⑥ | S24 | 0.03 | 23.54 | 0.08 | 42.35 | 19.56 | 0.13 | 0.44 | 12.39 | 0.15 | 0.00 | 0.00 | 0.16 | 98.82 | 0.574 | 0.547 | 0.049 | 0.431 | 0.520 |
| | *10-2①-⑥ | S25 | 0.04 | 12.68 | 0.30 | 54.79 | 19.61 | 0.07 | 0.28 | 11.06 | 0.14 | 0.00 | 0.01 | 0.15 | 99.13 | 0.543 | 0.744 | 0.041 | 0.246 | 0.713 |
| | *10-2①-⑥ | S26 | 0.02 | 25.65 | 0.33 | 41.54 | 19.51 | 0.02 | 0.37 | 11.36 | 0.12 | 0.00 | 0.00 | 0.20 | 99.11 | 0.527 | 0.521 | 0.018 | 0.471 | 0.511 |
| | *10-2①-⑥ | S27 | 0.02 | 44.51 | 0.02 | 21.03 | 14.33 | 0.23 | 0.20 | 17.07 | 0.04 | 0.03 | 0.01 | 0.16 | 97.63 | 0.714 | 0.241 | 0.031 | 0.736 | 0.233 |
| | *10-2①-⑥ | S28 | 0.04 | 22.58 | 0.07 | 46.41 | 16.48 | 0.08 | 0.24 | 12.58 | 0.06 | 0.00 | 0.00 | 0.16 | 98.70 | 0.585 | 0.580 | 0.012 | 0.415 | 0.573 |
| | *10-2①-⑥ | S29 | 0.00 | 24.57 | 0.01 | 42.29 | 19.53 | 0.05 | 0.28 | 11.70 | 0.05 | 0.00 | 0.00 | 0.33 | 98.81 | 0.541 | 0.536 | 0.032 | 0.449 | 0.519 |
| | *10-2①-⑥ | S30 | 0.02 | 24.05 | 0.13 | 44.62 | 14.60 | 0.08 | 0.20 | 15.16 | 0.13 | 0.02 | 0.00 | 0.15 | 99.17 | 0.688 | 0.554 | 0.032 | 0.431 | 0.537 |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (2)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|------------------------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Barail Fm. (Sylhet area) | *00042006 | G10 | 40.00 | 22.63 | 0.04 | 0.06 | 26.85 | 0.00 | 0.58 | 9.58 | 1.23 | 0.00 | 0.00 | 100.96 | 58.26 | 37.07 | 1.26 | 3.22 | 0.00 | 0.19 |
| | *00042006 | G11 | 39.60 | 22.62 | 0.00 | 0.09 | 26.27 | 0.00 | 1.71 | 8.32 | 1.46 | 0.00 | 0.00 | 100.06 | 58.77 | 33.20 | 3.86 | 3.88 | 0.00 | 0.30 |
| | *00042006 | G12 | 38.77 | 22.21 | 0.07 | 0.04 | 29.70 | 0.00 | 0.62 | 7.30 | 1.15 | 0.02 | 0.01 | 99.88 | 66.27 | 29.03 | 1.41 | 3.17 | 0.00 | 0.11 |
| | *00042006 | G13 | 40.51 | 22.71 | 0.09 | 0.13 | 18.44 | 0.00 | 0.59 | 10.06 | 8.73 | 0.04 | 0.01 | 101.31 | 38.29 | 37.25 | 1.23 | 22.86 | 0.00 | 0.37 |
| | *00042006 | G14 | 37.61 | 21.01 | 0.06 | 0.07 | 24.74 | 0.00 | 11.74 | 0.57 | 3.10 | 0.00 | 0.00 | 98.90 | 59.43 | 2.44 | 28.58 | 9.33 | 0.00 | 0.22 |
| | *00042006 | G15 | 37.43 | 22.36 | 0.02 | 0.00 | 33.01 | 0.00 | 0.56 | 5.16 | 1.24 | 0.00 | 0.00 | 99.78 | 74.41 | 20.73 | 1.29 | 3.57 | 0.00 | 0.00 |
| | *00042006 | G16 | 39.18 | 22.25 | 0.06 | 0.09 | 28.18 | 0.02 | 0.82 | 8.76 | 0.88 | 0.00 | 0.00 | 100.23 | 61.60 | 34.14 | 1.81 | 2.18 | 0.00 | 0.28 |
| | *00042006 | G17 | 38.70 | 21.88 | 0.04 | 0.01 | 29.25 | 0.00 | 0.62 | 5.64 | 1.57 | 0.00 | 0.00 | 97.72 | 69.75 | 23.96 | 1.51 | 4.75 | 0.00 | 0.04 |
| | *00042006 | G18 | 37.62 | 21.25 | 0.02 | 0.00 | 31.64 | 0.02 | 2.42 | 2.04 | 3.77 | 0.01 | 0.00 | 98.78 | 74.38 | 8.53 | 5.75 | 11.35 | 0.00 | 0.01 |
| | *00042006 | G19 | 37.98 | 20.83 | 0.12 | 0.02 | 28.45 | 0.00 | 6.39 | 0.82 | 5.93 | 0.07 | 0.02 | 100.62 | 64.69 | 3.32 | 14.71 | 17.23 | 0.00 | 0.06 |
| | *00042006 | G20 | 36.98 | 21.11 | 0.10 | 0.00 | 22.96 | 0.00 | 7.47 | 1.06 | 8.15 | 0.06 | 0.07 | 97.95 | 53.58 | 4.40 | 17.66 | 24.37 | 0.00 | 0.00 |
| | *00042006 | G21 | 38.40 | 22.01 | 0.05 | 0.02 | 32.44 | 0.00 | 2.65 | 4.28 | 1.19 | 0.00 | 0.00 | 101.04 | 73.25 | 17.23 | 6.07 | 3.38 | 0.00 | 0.07 |
| | *00042006 | G22 | 37.84 | 20.99 | 0.16 | 0.05 | 20.40 | 0.02 | 11.23 | 0.40 | 8.31 | 0.00 | 0.00 | 99.39 | 47.31 | 1.64 | 26.37 | 24.52 | 0.00 | 0.16 |
| Shuban Fm. (Chittagong area) | *CH01 | G1(core) | 38.36 | 20.52 | 0.01 | 0.00 | 35.58 | 0.00 | 2.10 | 0.75 | 4.31 | 0.00 | 0.01 | 101.65 | 79.27 | 3.09 | 4.91 | 12.73 | 0.00 | 0.00 |
| | *CH01 | G1(rim) | 37.78 | 20.41 | 0.00 | 0.00 | 34.89 | 0.00 | 2.31 | 0.64 | 4.35 | 0.00 | 0.00 | 100.37 | 79.03 | 2.65 | 5.42 | 12.90 | 0.00 | 0.00 |
| | *CH01 | G1(rim) | 38.17 | 20.79 | 0.23 | 0.00 | 34.56 | 0.00 | 0.86 | 0.84 | 5.40 | 0.02 | 0.01 | 100.89 | 78.80 | 3.43 | 2.00 | 15.78 | 0.00 | 0.00 |
| | *CH01 | G2(core) | 38.21 | 21.10 | 0.05 | 0.00 | 26.80 | 0.00 | 12.85 | 0.84 | 1.44 | 0.00 | 0.00 | 101.29 | 62.08 | 3.49 | 30.16 | 4.27 | 0.00 | 0.00 |
| | *CH01 | G2(rim) | 38.00 | 21.02 | 0.02 | 0.00 | 27.32 | 0.01 | 13.60 | 0.73 | 0.96 | 0.02 | 0.03 | 101.70 | 62.64 | 2.98 | 31.57 | 2.82 | 0.00 | 0.00 |
| | *CH01 | G3 | 38.87 | 21.76 | 0.05 | 0.04 | 30.19 | 0.00 | 1.36 | 2.85 | 3.56 | 0.01 | 0.00 | 98.70 | 73.26 | 12.34 | 3.33 | 10.92 | 0.00 | 0.15 |
| | *CH01 | G4 | 38.44 | 21.01 | 0.09 | 0.04 | 33.09 | 0.06 | 0.44 | 2.44 | 4.38 | 0.01 | 0.00 | 99.99 | 76.09 | 10.01 | 1.02 | 12.77 | 0.00 | 0.12 |
| | *CH01 | G5 | 38.69 | 21.53 | 0.10 | 0.02 | 29.82 | 0.05 | 2.45 | 1.02 | 7.81 | 0.00 | 0.02 | 101.51 | 67.58 | 4.12 | 5.61 | 22.64 | 0.00 | 0.05 |
| | *CH01 | G6 | 38.44 | 20.68 | 0.01 | 0.06 | 31.20 | 0.00 | 0.94 | 4.05 | 5.46 | 0.00 | 0.00 | 100.84 | 65.85 | 16.24 | 2.15 | 14.22 | 1.35 | 0.19 |
| | *CH01 | G7 | 38.31 | 21.62 | 0.00 | 0.02 | 33.03 | 0.01 | 3.97 | 2.89 | 1.75 | 0.00 | 0.02 | 101.62 | 74.32 | 11.57 | 9.05 | 5.00 | 0.00 | 0.06 |
| | *CH01 | G8 | 39.22 | 21.91 | 0.11 | 0.00 | 25.69 | 0.00 | 0.85 | 4.04 | 9.86 | 0.01 | 0.00 | 101.69 | 55.33 | 15.55 | 1.85 | 27.27 | 0.00 | 0.00 |
| | *CH01 | G9 | 39.40 | 18.88 | 0.30 | 0.05 | 10.08 | 0.02 | 2.05 | 0.02 | 28.74 | 0.00 | 0.00 | 99.55 | 8.33 | 0.10 | 4.90 | 80.65 | 5.88 | 0.15 |
| | *CH01 | G10 | 38.28 | 21.61 | 0.01 | 0.07 | 32.30 | 0.00 | 3.51 | 3.05 | 2.88 | 0.00 | 0.00 | 101.70 | 71.82 | 12.08 | 7.89 | 8.00 | 0.00 | 0.21 |
| | *CH01 | G11 | 39.79 | 21.95 | 0.07 | 0.03 | 25.41 | 0.00 | 0.88 | 5.72 | 7.54 | 0.00 | 0.01 | 101.39 | 55.06 | 22.08 | 1.94 | 20.84 | 0.00 | 0.08 |
| | *CH01 | G12 | 38.21 | 22.05 | 0.12 | 0.00 | 30.40 | 0.00 | 0.28 | 1.92 | 9.01 | 0.00 | 0.02 | 102.01 | 66.60 | 7.48 | 0.63 | 25.30 | 0.00 | 0.00 |
| | *CH01 | G13 | 38.49 | 21.27 | 0.07 | 0.00 | 32.13 | 0.00 | 1.11 | 1.26 | 6.27 | 0.02 | 0.00 | 100.64 | 73.78 | 5.17 | 2.58 | 18.46 | 0.00 | 0.00 |
| | *CH01 | G14 | 38.96 | 21.55 | 0.10 | 0.03 | 30.68 | 0.00 | 0.49 | 3.86 | 5.57 | 0.03 | 0.01 | 101.28 | 67.90 | 15.21 | 1.10 | 15.69 | 0.00 | 0.11 |
| | *CH01 | G15 | 38.17 | 21.80 | 0.00 | 0.20 | 32.16 | 0.01 | 0.63 | 4.28 | 3.71 | 0.00 | 0.00 | 100.95 | 71.20 | 16.87 | 1.41 | 9.89 | 0.00 | 0.63 |
| | *CH01 | G16 | 39.14 | 21.87 | 0.01 | 0.06 | 31.22 | 0.00 | 1.43 | 3.52 | 4.54 | 0.01 | 0.00 | 101.81 | 69.75 | 14.01 | 3.25 | 12.80 | 0.00 | 0.20 |
| | *CH01 | G17 | 40.00 | 22.20 | 0.20 | 0.01 | 22.28 | 0.00 | 0.88 | 4.65 | 11.72 | 0.02 | 0.01 | 101.98 | 47.95 | 17.83 | 1.92 | 32.27 | 0.00 | 0.04 |
| | *CH01 | G18 | 38.57 | 21.36 | 0.01 | 0.02 | 30.87 | 0.00 | 2.76 | 0.87 | 6.26 | 0.07 | 0.00 | 100.79 | 71.40 | 3.58 | 6.46 | 18.51 | 0.00 | 0.05 |
| | *CH01 | G19 | 38.50 | 21.55 | 0.00 | 0.00 | 31.42 | 0.02 | 4.13 | 2.83 | 2.38 | 0.07 | 0.01 | 100.92 | 71.91 | 11.53 | 9.58 | 6.99 | 0.00 | 0.00 |
| | *CH01 | G20 | 36.52 | 21.67 | 0.00 | 0.00 | 35.59 | 0.06 | 0.77 | 2.59 | 2.99 | 0.04 | 0.00 | 100.24 | 78.74 | 10.63 | 1.81 | 3.99 | 4.84 | 0.00 |
| | *CH01 | G21 | 37.65 | 20.85 | 0.02 | 0.17 | 29.57 | 0.00 | 2.96 | 0.78 | 8.95 | 0.03 | 0.01 | 100.99 | 64.70 | 3.08 | 6.69 | 23.26 | 1.73 | 0.54 |
| | *CH01 | G22 | 38.36 | 21.63 | 0.05 | 0.00 | 34.99 | 0.00 | 2.04 | 3.04 | 1.51 | 0.07 | 0.01 | 101.70 | 78.78 | 12.21 | 4.66 | 4.36 | 0.00 | 0.00 |
| *CH01 | G23 | 38.52 | 20.92 | 0.07 | 0.08 | 26.48 | 0.00 | 4.63 | 1.30 | 7.85 | 0.02 | 0.02 | 99.88 | 60.81 | 5.34 | 10.76 | 22.85 | 0.00 | 0.24 | |
| *CH01 | G24 | 39.21 | 20.91 | 0.04 | 0.00 | 28.18 | 0.00 | 1.05 | 2.35 | 9.92 | 0.02 | 0.00 | 101.68 | 59.37 | 9.47 | 2.42 | 28.74 | 0.00 | 0.00 | |
| *CH01 | G25 | 37.99 | 21.60 | 0.01 | 0.03 | 34.90 | 0.00 | 3.93 | 2.08 | 1.55 | 0.00 | 0.00 | 102.09 | 78.32 | 8.30 | 8.93 | 4.35 | 0.00 | 0.11 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (3)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | *FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|-------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Bhuban Fm. | *CH01 | G26 | 38.35 | 20.80 | 0.03 | 0.00 | 35.08 | 0.02 | 1.50 | 3.64 | 1.68 | 0.02 | 0.02 | 101.13 | 76.89 | 14.74 | 3.46 | 4.91 | 0.00 | 0.00 |
| (Chittagong area) | *CH01 | G27 | 38.84 | 22.01 | 0.04 | 0.00 | 32.38 | 0.00 | 1.26 | 4.51 | 2.95 | 0.04 | 0.00 | 102.01 | 71.21 | 17.69 | 2.80 | 8.30 | 0.00 | 0.00 |
| | *CH01 | G28 | 38.96 | 21.54 | 0.00 | 0.00 | 33.88 | 0.01 | 0.74 | 4.12 | 2.50 | 0.00 | 0.00 | 101.74 | 75.02 | 16.25 | 1.66 | 7.08 | 0.00 | 0.00 |
| | *CH01 | G29 | 40.17 | 20.61 | 0.35 | 0.06 | 3.85 | 0.00 | 0.42 | 0.05 | 36.19 | 0.02 | 0.01 | 101.72 | 0.84 | 0.19 | 0.90 | 90.07 | 7.83 | 0.18 |
| | *CH01 | G30 | 39.11 | 21.93 | 0.05 | 0.05 | 31.02 | 0.02 | 0.78 | 4.77 | 3.70 | 0.03 | 0.00 | 101.44 | 68.86 | 18.88 | 1.75 | 10.36 | 0.00 | 0.15 |
| | *CH01 | G31 | 37.56 | 21.11 | 0.10 | 0.00 | 38.25 | 0.03 | 1.97 | 0.46 | 1.13 | 0.00 | 0.00 | 100.60 | 89.98 | 1.93 | 4.70 | 3.39 | 0.00 | 0.00 |
| | *CH01 | G32 | 37.99 | 21.54 | 0.02 | 0.08 | 34.00 | 0.00 | 2.29 | 3.13 | 1.95 | 0.03 | 0.00 | 101.02 | 76.58 | 12.58 | 5.23 | 5.36 | 0.00 | 0.26 |
| | *CH58 | G1 | 39.42 | 20.96 | 0.00 | 0.06 | 33.55 | 0.02 | 0.04 | 5.24 | 0.69 | 0.02 | 0.02 | 99.99 | 76.59 | 21.32 | 0.08 | 1.83 | 0.00 | 0.19 |
| | *CH58 | G2 | 37.34 | 21.20 | 0.03 | 0.05 | 37.23 | 0.01 | 1.79 | 1.48 | 1.71 | 0.00 | 0.00 | 100.84 | 84.84 | 6.03 | 4.13 | 4.83 | 0.00 | 0.17 |
| | *CH58 | G3 | 39.35 | 21.84 | 0.04 | 0.00 | 32.25 | 0.03 | 0.62 | 2.83 | 4.27 | 0.02 | 0.00 | 101.24 | 74.34 | 11.62 | 1.44 | 12.61 | 0.00 | 0.00 |
| | *CH58 | G4 | 38.30 | 21.45 | 0.04 | 0.08 | 31.68 | 0.00 | 5.81 | 1.37 | 3.08 | 0.06 | 0.01 | 101.87 | 72.08 | 5.54 | 13.39 | 8.73 | 0.00 | 0.25 |
| | *CH58 | G5 | 38.94 | 21.08 | 0.03 | 0.05 | 36.14 | 0.00 | 0.71 | 3.01 | 1.31 | 0.00 | 0.00 | 101.28 | 82.32 | 12.22 | 1.64 | 3.66 | 0.00 | 0.17 |
| | *CH58 | G6 | 39.19 | 21.52 | 0.04 | 0.09 | 32.05 | 0.01 | 2.73 | 3.54 | 2.70 | 0.00 | 0.00 | 101.86 | 71.90 | 14.15 | 6.20 | 7.45 | 0.00 | 0.30 |
| | *CH58 | G7 | 39.38 | 21.88 | 0.05 | 0.06 | 28.95 | 0.00 | 1.16 | 2.00 | 8.55 | 0.00 | 0.00 | 101.82 | 64.86 | 7.99 | 2.62 | 24.34 | 0.00 | 0.20 |
| | *CH58 | G8 | 40.68 | 22.80 | 0.05 | 0.11 | 26.23 | 0.04 | 0.75 | 10.19 | 1.34 | 0.00 | 0.00 | 102.18 | 55.95 | 38.77 | 1.61 | 3.35 | 0.00 | 0.32 |
| | *CH58 | G9 | 38.99 | 21.60 | 0.05 | 0.05 | 32.73 | 0.00 | 0.44 | 4.00 | 2.86 | 0.00 | 0.01 | 100.72 | 74.46 | 16.21 | 1.01 | 8.18 | 0.00 | 0.15 |
| | *CH58 | G10 | 38.80 | 21.93 | 0.01 | 0.05 | 30.92 | 0.00 | 1.16 | 5.41 | 2.02 | 0.00 | 0.00 | 100.30 | 69.76 | 21.75 | 2.64 | 5.70 | 0.00 | 0.15 |
| | *CH58 | G11 | 38.54 | 21.49 | 0.01 | 0.00 | 27.66 | 0.03 | 10.16 | 1.75 | 1.44 | 0.00 | 0.00 | 101.08 | 64.46 | 7.25 | 23.98 | 4.31 | 0.00 | 0.00 |
| | *CH58 | G12 | 38.94 | 21.25 | 0.13 | 0.00 | 28.31 | 0.00 | 5.18 | 1.22 | 5.85 | 0.02 | 0.00 | 100.90 | 65.49 | 5.04 | 12.13 | 17.33 | 0.00 | 0.01 |
| | *CH58 | G13 | 38.68 | 21.60 | 0.07 | 0.06 | 31.16 | 0.00 | 0.20 | 0.97 | 8.32 | 0.00 | 0.00 | 101.06 | 71.21 | 3.96 | 0.46 | 24.20 | 0.00 | 0.18 |
| | *CH58 | G14 | 38.60 | 21.28 | 0.03 | 0.05 | 34.93 | 0.00 | 1.62 | 2.43 | 2.24 | 0.05 | 0.00 | 101.21 | 79.81 | 9.88 | 3.76 | 6.40 | 0.00 | 0.15 |
| | *CH58 | G15 | 38.83 | 21.16 | 0.00 | 0.03 | 30.85 | 0.00 | 5.16 | 2.84 | 1.68 | 0.02 | 0.00 | 100.56 | 71.28 | 11.69 | 12.07 | 4.85 | 0.00 | 0.11 |
| | *CH58 | G16 | 39.14 | 21.76 | 0.03 | 0.04 | 32.33 | 0.02 | 0.91 | 2.82 | 4.72 | 0.00 | 0.00 | 101.75 | 72.96 | 11.33 | 2.07 | 13.50 | 0.00 | 0.14 |
| | *CH58 | G17 | 38.45 | 21.41 | 0.03 | 0.00 | 31.82 | 0.01 | 3.11 | 3.43 | 2.26 | 0.00 | 0.01 | 100.52 | 72.34 | 13.91 | 7.15 | 6.60 | 0.00 | 0.00 |
| | *CH58 | G18 | 38.79 | 21.43 | 0.00 | 0.06 | 27.96 | 0.00 | 7.49 | 1.39 | 4.18 | 0.02 | 0.02 | 101.36 | 64.45 | 5.71 | 17.50 | 12.15 | 0.00 | 0.20 |
| | *CH58 | G19 | 39.13 | 21.68 | 0.06 | 0.04 | 33.05 | 0.00 | 1.37 | 3.39 | 3.34 | 0.05 | 0.00 | 102.11 | 73.84 | 13.50 | 3.10 | 9.44 | 0.00 | 0.11 |
| | *CH58 | G20 | 40.79 | 22.67 | 0.05 | 0.04 | 26.76 | 0.03 | 0.30 | 9.52 | 2.13 | 0.00 | 0.00 | 102.29 | 57.24 | 36.28 | 0.65 | 5.72 | 0.00 | 0.11 |
| | *CH58 | G21 | 39.57 | 21.94 | 0.04 | 0.03 | 29.98 | 0.01 | 0.69 | 4.01 | 5.99 | 0.01 | 0.00 | 102.27 | 65.88 | 15.72 | 1.54 | 16.77 | 0.00 | 0.09 |
| | *CH58 | G22 | 39.04 | 21.30 | 0.04 | 0.04 | 32.18 | 0.01 | 3.05 | 2.18 | 2.81 | 0.01 | 0.00 | 100.66 | 75.27 | 9.09 | 7.23 | 8.30 | 0.00 | 0.12 |
| | *CH58 | G23 | 38.88 | 21.46 | 0.04 | 0.04 | 21.71 | 0.02 | 8.17 | 1.92 | 8.72 | 0.03 | 0.00 | 101.99 | 48.70 | 7.68 | 18.56 | 24.94 | 0.00 | 0.12 |
| | *CH58 | G24 | 40.19 | 22.49 | 0.03 | 0.07 | 30.86 | 0.01 | 0.96 | 6.84 | 1.27 | 0.00 | 0.02 | 102.73 | 67.61 | 26.71 | 2.13 | 3.35 | 0.00 | 0.21 |
| | *CH58 | G25 | 39.04 | 22.36 | 0.06 | 0.11 | 31.03 | 0.00 | 0.86 | 6.49 | 1.43 | 0.00 | 0.00 | 101.37 | 68.51 | 25.53 | 1.92 | 3.70 | 0.00 | 0.35 |
| | *CH58 | G26 | 38.78 | 21.39 | 0.00 | 0.10 | 32.61 | 0.00 | 1.89 | 1.75 | 5.26 | 0.02 | 0.00 | 101.80 | 73.48 | 7.01 | 4.32 | 14.87 | 0.00 | 0.32 |
| | *CH58 | G27 | 38.84 | 21.48 | 0.04 | 0.07 | 33.77 | 0.01 | 1.11 | 2.79 | 1.92 | 0.04 | 0.01 | 100.06 | 79.81 | 11.74 | 2.65 | 5.56 | 0.00 | 0.25 |
| | *CH58 | G28 | 38.77 | 17.46 | 0.30 | 0.00 | 5.56 | 0.02 | 0.14 | 0.07 | 34.37 | 0.02 | 0.00 | 96.70 | 0.00 | 0.31 | 0.33 | 87.42 | 11.94 | 0.00 |
| | *CH58 | G29 | 40.53 | 22.19 | 0.01 | 0.03 | 27.38 | 0.00 | 1.24 | 7.11 | 3.66 | 0.00 | 0.00 | 102.15 | 59.53 | 27.54 | 2.73 | 10.10 | 0.00 | 0.10 |
| | *CH59 | G1 | 39.59 | 21.99 | 0.02 | 0.04 | 29.89 | 0.02 | 1.03 | 4.93 | 4.15 | 0.00 | 0.01 | 101.67 | 66.37 | 19.49 | 2.32 | 11.68 | 0.00 | 0.14 |
| | *CH59 | G2 | 38.63 | 21.31 | 0.10 | 0.00 | 30.36 | 0.00 | 5.91 | 1.46 | 3.59 | 0.02 | 0.01 | 101.39 | 69.71 | 5.99 | 13.75 | 10.55 | 0.00 | 0.00 |
| | *CH59 | G3 | 39.60 | 22.02 | 0.00 | 0.03 | 28.10 | 0.04 | 1.23 | 8.31 | 1.30 | 0.00 | 0.01 | 100.64 | 61.33 | 32.33 | 2.71 | 3.53 | 0.00 | 0.10 |
| | *CH59 | G4 | 38.34 | 21.30 | 0.07 | 0.00 | 27.67 | 0.03 | 8.46 | 2.16 | 3.04 | 0.00 | 0.01 | 101.08 | 62.92 | 8.74 | 19.49 | 8.83 | 0.00 | 0.01 |
| | *CH59 | G5 | 37.61 | 21.23 | 0.06 | 0.04 | 32.30 | 0.00 | 0.09 | 2.63 | 5.08 | 0.00 | 0.01 | 99.03 | 74.12 | 10.75 | 0.21 | 14.78 | 0.00 | 0.14 |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (4)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grns(%) | And(%) | Uvr(%) | |
|------------------------------------|--------------------------------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|------|-------|-------------------|------------------|-------------|--------|--------|--------|---------|--------|--------|------|
| Bhuban Fm. (Chittagong area) | *CH59 | G6 | 39.36 | 21.78 | 0.00 | 0.00 | 28.28 | 0.00 | 6.55 | 3.91 | 1.39 | 0.05 | 0.00 | 101.32 | 64.77 | 15.97 | 15.20 | 4.07 | 0.00 | 0.00 | |
| | *CH59 | G7 | 38.90 | 21.69 | 0.02 | 0.06 | 34.22 | 0.01 | 2.10 | 3.25 | 1.33 | 0.00 | 0.02 | 101.60 | 78.04 | 13.22 | 4.85 | 3.69 | 0.00 | 0.21 | |
| | *CH59 | G8 | 40.24 | 22.22 | 0.09 | 0.13 | 29.22 | 0.00 | 0.92 | 8.50 | 1.11 | 0.06 | 0.00 | 102.48 | 62.53 | 32.44 | 2.00 | 2.65 | 0.00 | 0.39 | |
| | *CH59 | G9 | 39.63 | 22.11 | 0.03 | 0.09 | 28.51 | 0.00 | 0.89 | 8.42 | 1.21 | 0.00 | 0.02 | 100.90 | 62.03 | 32.64 | 1.96 | 3.08 | 0.00 | 0.29 | |
| | *CH59 | G10 | 39.18 | 21.33 | 0.16 | 0.02 | 29.32 | 0.00 | 0.51 | 3.03 | 7.50 | 0.03 | 0.01 | 101.09 | 65.38 | 12.05 | 1.14 | 21.38 | 0.00 | 0.05 | |
| | *CH59 | G11 | 39.16 | 21.65 | 0.09 | 0.10 | 25.99 | 0.03 | 1.39 | 4.07 | 7.10 | 0.01 | 0.00 | 99.60 | 59.39 | 16.59 | 3.21 | 20.47 | 0.00 | 0.33 | |
| | *CH59 | G12 | 38.23 | 21.41 | 0.08 | 0.10 | 27.42 | 0.01 | 0.56 | 2.50 | 7.79 | 0.00 | 0.00 | 98.09 | 64.64 | 10.50 | 1.33 | 23.22 | 0.00 | 0.32 | |
| | *CH59 | G13 | 39.29 | 21.27 | 0.09 | 0.03 | 25.01 | 0.00 | 0.83 | 1.94 | 12.44 | 0.00 | 0.00 | 100.90 | 55.05 | 7.67 | 1.88 | 35.31 | 0.00 | 0.10 | |
| | *CH59 | G14 | 38.25 | 20.52 | 0.13 | 0.05 | 32.02 | 0.01 | 8.95 | 0.81 | 1.27 | 0.03 | 0.01 | 102.04 | 72.09 | 3.30 | 20.87 | 3.59 | 0.00 | 0.15 | |
| | *CH59 | G15 | 39.27 | 21.42 | 0.05 | 0.02 | 28.87 | 0.00 | 1.74 | 3.63 | 5.87 | 0.01 | 0.00 | 100.88 | 64.71 | 14.48 | 3.95 | 16.79 | 0.00 | 0.07 | |
| | *CH59 | G16 | 37.13 | 20.38 | 0.06 | 0.02 | 28.99 | 0.00 | 8.68 | 1.15 | 2.45 | 0.00 | 0.02 | 98.88 | 67.45 | 4.79 | 20.45 | 7.25 | 0.00 | 0.06 | |
| | *CH59 | G17 | 40.25 | 22.28 | 0.08 | 0.00 | 28.42 | 0.04 | 0.88 | 8.47 | 1.90 | 0.00 | 0.01 | 102.33 | 60.67 | 32.23 | 1.91 | 5.19 | 0.00 | 0.00 | |
| | *CH59 | G18 | 38.72 | 21.20 | 0.07 | 0.03 | 30.77 | 0.00 | 0.08 | 1.29 | 8.98 | 0.04 | 0.01 | 101.17 | 68.92 | 5.14 | 0.17 | 25.69 | 0.00 | 0.08 | |
| | *CH59 | G19 | 39.32 | 21.59 | 0.09 | 0.00 | 14.48 | 0.00 | 15.32 | 3.92 | 6.77 | 0.00 | 0.01 | 101.51 | 31.69 | 15.32 | 34.00 | 18.98 | 0.00 | 0.01 | |
| | *CH59 | G20 | 38.80 | 21.51 | 0.03 | 0.00 | 36.01 | 0.00 | 1.42 | 2.00 | 1.85 | 0.04 | 0.01 | 101.66 | 83.01 | 8.22 | 3.32 | 5.45 | 0.00 | 0.00 | |
| | *CH59 | G21 | 39.20 | 21.85 | 0.00 | 0.00 | 34.68 | 0.00 | 0.29 | 5.30 | 0.46 | 0.03 | 0.00 | 101.80 | 77.06 | 20.98 | 0.65 | 1.32 | 0.00 | 0.00 | |
| | *CH59 | G22 | 37.88 | 21.60 | 0.12 | 0.04 | 31.53 | 0.03 | 0.78 | 2.56 | 4.50 | 0.00 | 0.00 | 99.03 | 73.94 | 10.69 | 1.86 | 13.39 | 0.00 | 0.12 | |
| | *CH59 | G23 | 37.66 | 21.81 | 0.08 | 0.04 | 26.94 | 0.04 | 1.83 | 2.04 | 8.68 | 0.02 | 0.01 | 99.14 | 61.85 | 8.36 | 4.26 | 25.40 | 0.00 | 0.13 | |
| | *CH59 | G24 | 38.36 | 21.37 | 0.06 | 0.04 | 30.30 | 0.04 | 0.13 | 1.17 | 8.20 | 0.01 | 0.00 | 99.66 | 70.44 | 4.83 | 0.30 | 24.31 | 0.00 | 0.12 | |
| | *CH59 | G25 | 38.52 | 21.40 | 0.14 | 0.00 | 33.13 | 0.00 | 4.33 | 2.74 | 0.62 | 0.03 | 0.00 | 100.91 | 76.70 | 11.30 | 10.16 | 1.84 | 0.00 | 0.00 | |
| | *CH59 | G26 | 39.08 | 21.56 | 0.11 | 0.05 | 32.53 | 0.00 | 0.88 | 3.16 | 4.02 | 0.02 | 0.00 | 101.42 | 73.57 | 12.75 | 2.03 | 11.51 | 0.00 | 0.15 | |
| | *CH59 | G27 | 37.99 | 21.16 | 0.00 | 0.02 | 30.02 | 0.00 | 7.79 | 1.22 | 1.79 | 0.02 | 0.00 | 100.00 | 70.85 | 5.12 | 18.63 | 5.35 | 0.00 | 0.06 | |
| | *CH59 | G28 | 41.34 | 20.71 | 0.07 | 0.08 | 2.92 | 0.02 | 0.06 | 0.09 | 36.62 | 0.04 | 0.01 | 101.95 | 0.00 | 0.37 | 0.14 | 96.66 | 2.57 | 0.26 | |
| | *CH59 | G29 | 38.67 | 21.36 | 0.13 | 0.00 | 31.96 | 0.00 | 1.57 | 0.91 | 5.14 | 0.04 | 0.00 | 99.78 | 76.52 | 3.89 | 3.81 | 15.77 | 0.00 | 0.00 | |
| | *CH59 | G30 | 38.94 | 21.56 | 0.02 | 0.03 | 34.86 | 0.00 | 0.60 | 3.72 | 1.21 | 0.02 | 0.00 | 100.95 | 79.89 | 15.19 | 1.39 | 3.46 | 0.00 | 0.08 | |
| | Boka Bil Fm. (Chittagong area) | *CH03 | G1 | 38.00 | 21.39 | 0.00 | 0.03 | 32.91 | 0.01 | 2.23 | 3.90 | 2.10 | 0.01 | 0.03 | 100.61 | 73.43 | 15.53 | 5.05 | 5.89 | 0.00 | 0.10 |
| | | *CH03 | G2 | 38.18 | 22.22 | 0.00 | 0.01 | 35.11 | 0.00 | 0.96 | 4.23 | 0.82 | 0.10 | 0.00 | 101.62 | 78.59 | 16.88 | 2.18 | 2.32 | 0.00 | 0.04 |
| | | *CH03 | G3 | 38.13 | 21.70 | 0.12 | 0.00 | 26.32 | 0.00 | 3.20 | 2.36 | 8.96 | 0.03 | 0.01 | 100.82 | 58.19 | 9.28 | 7.16 | 25.37 | 0.00 | 0.00 |
| | | *CH03 | G4 | 39.01 | 19.41 | 1.16 | 0.02 | 4.33 | 0.01 | 0.17 | 0.09 | 35.17 | 0.00 | 0.02 | 99.38 | 0.00 | 0.38 | 0.39 | 92.06 | 7.11 | 0.07 |
| | | *CH03 | G5 | 38.16 | 21.74 | 0.09 | 0.00 | 25.61 | 0.00 | 4.49 | 2.08 | 9.16 | 0.04 | 0.00 | 101.37 | 56.12 | 8.14 | 9.99 | 25.56 | 0.20 | 0.00 |
| *CH03 | | G6 | 38.45 | 22.01 | 0.03 | 0.03 | 27.30 | 0.00 | 5.44 | 4.42 | 4.32 | 0.00 | 0.00 | 102.01 | 58.85 | 17.15 | 11.97 | 11.17 | 0.78 | 0.09 | |
| *CH03 | | G7 | 37.62 | 21.39 | 0.00 | 0.02 | 32.38 | 0.00 | 6.20 | 1.30 | 2.75 | 0.02 | 0.01 | 101.69 | 72.77 | 5.21 | 14.11 | 7.86 | 0.00 | 0.06 | |
| *CH03 | | G8 | 37.69 | 19.82 | 0.00 | 0.04 | 24.94 | 0.00 | 11.91 | 1.87 | 3.12 | 0.00 | 0.00 | 99.38 | 53.77 | 7.96 | 28.76 | 9.40 | 0.00 | 0.12 | |
| *CH03 | | G9 | 38.37 | 21.61 | 0.03 | 0.02 | 21.65 | 0.00 | 10.10 | 2.36 | 6.30 | 0.05 | 0.00 | 100.48 | 49.03 | 9.54 | 23.16 | 18.22 | 0.00 | 0.05 | |
| *CH03 | | G10 | 38.26 | 21.90 | 0.01 | 0.00 | 33.60 | 0.02 | 0.27 | 2.55 | 5.43 | 0.03 | 0.01 | 102.07 | 74.06 | 10.01 | 0.60 | 15.33 | 0.00 | 0.00 | |
| *CH03 | | G11 | 38.33 | 22.18 | 0.01 | 0.05 | 31.93 | 0.00 | 0.61 | 5.85 | 1.75 | 0.05 | 0.00 | 100.75 | 70.63 | 23.07 | 1.36 | 4.80 | 0.00 | 0.14 | |
| *CH03 | | G12 | 37.94 | 22.03 | 0.04 | 0.00 | 31.71 | 0.00 | 1.87 | 3.29 | 4.21 | 0.00 | 0.00 | 101.10 | 70.68 | 13.07 | 4.22 | 12.01 | 0.00 | 0.01 | |
| *CH03 | | G13 | 38.42 | 21.98 | 0.03 | 0.00 | 30.19 | 0.00 | 0.72 | 3.75 | 5.61 | 0.00 | 0.00 | 100.71 | 67.40 | 14.94 | 1.63 | 16.04 | 0.00 | 0.00 | |
| *CH03 | | G14 | 38.20 | 21.88 | 0.07 | 0.05 | 30.70 | 0.03 | 1.63 | 0.99 | 8.19 | 0.04 | 0.02 | 101.79 | 68.81 | 3.97 | 3.70 | 23.37 | 0.00 | 0.15 | |
| *CH03 | | G15 | 38.28 | 21.67 | 0.14 | 0.05 | 25.44 | 0.00 | 1.10 | 1.48 | 11.25 | 0.05 | 0.00 | 99.45 | 58.33 | 6.07 | 2.56 | 32.90 | 0.00 | 0.15 | |
| *CH03 | | G16 | 39.41 | 22.10 | 0.00 | 0.00 | 28.29 | 0.04 | 0.76 | 6.56 | 4.24 | 0.00 | 0.01 | 101.40 | 61.26 | 25.31 | 1.67 | 11.76 | 0.00 | 0.00 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (5)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|--------------------------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Boka Bil Fm. (Chittagong area) | *CH03 | G17 | 37.33 | 20.94 | 0.06 | 0.08 | 26.23 | 0.03 | 11.69 | 0.34 | 3.82 | 0.05 | 0.01 | 100.57 | 60.21 | 1.37 | 27.18 | 10.97 | 0.00 | 0.27 |
| | *CH03 | G18 | 38.57 | 20.99 | 0.13 | 0.00 | 24.64 | 0.00 | 0.23 | 0.29 | 16.13 | 0.00 | 0.00 | 100.97 | 51.76 | 1.16 | 0.53 | 46.56 | 0.00 | 0.00 |
| | *CH03 | G19 | 38.18 | 21.67 | 0.00 | 0.00 | 31.88 | 0.00 | 2.24 | 3.15 | 3.06 | 0.02 | 0.03 | 100.24 | 72.97 | 12.86 | 5.20 | 8.97 | 0.00 | 0.00 |
| | *CH03 | G20 | 39.79 | 19.81 | 0.46 | 0.00 | 4.38 | 0.05 | 0.08 | 0.50 | 35.36 | 0.00 | 0.00 | 100.43 | 0.00 | 1.94 | 0.17 | 88.96 | 8.93 | 0.00 |
| | *CH03 | G21 | 38.19 | 21.54 | 0.16 | 0.03 | 20.52 | 0.02 | 3.85 | 0.77 | 15.65 | 0.00 | 0.01 | 100.74 | 44.37 | 3.02 | 8.56 | 43.71 | 0.26 | 0.08 |
| | *CH03 | G22 | 37.75 | 21.95 | 0.06 | 0.04 | 30.73 | 0.01 | 6.65 | 2.39 | 1.67 | 0.00 | 0.01 | 101.25 | 70.05 | 9.72 | 15.36 | 4.75 | 0.00 | 0.13 |
| | *CH03 | G23 | 38.11 | 22.29 | 0.01 | 0.03 | 30.51 | 0.00 | 5.79 | 4.97 | 0.46 | 0.03 | 0.00 | 102.20 | 66.26 | 19.51 | 12.92 | 0.00 | 1.22 | 0.09 |
| | *CH03 | G24 | 37.52 | 21.58 | 0.06 | 0.03 | 29.39 | 0.00 | 0.19 | 2.55 | 8.32 | 0.02 | 0.00 | 99.65 | 65.63 | 10.14 | 0.43 | 23.72 | 0.00 | 0.08 |
| | *CH03 | G25 | 38.66 | 22.12 | 0.02 | 0.01 | 27.53 | 0.00 | 1.41 | 6.15 | 4.48 | 0.00 | 0.00 | 100.37 | 60.31 | 24.00 | 3.12 | 12.52 | 0.00 | 0.04 |
| | *CH03 | G26 | 37.78 | 20.96 | 0.66 | 0.03 | 34.02 | 0.00 | 3.25 | 1.77 | 2.48 | 0.08 | 0.00 | 101.01 | 77.96 | 7.24 | 7.53 | 7.19 | 0.00 | 0.08 |
| | *CH03 | G27 | 37.27 | 21.26 | 0.05 | 0.00 | 30.07 | 0.00 | 4.47 | 2.10 | 3.82 | 0.02 | 0.00 | 98.85 | 69.98 | 8.71 | 10.54 | 10.78 | 0.00 | 0.00 |
| | *CH03 | G28 | 36.57 | 19.10 | 0.27 | 0.00 | 11.23 | 0.00 | 24.89 | 1.19 | 5.16 | 0.00 | 0.02 | 98.42 | 19.69 | 5.00 | 59.67 | 11.20 | 4.44 | 0.00 |
| | *CH03 | G29 | 38.35 | 21.57 | 0.04 | 0.06 | 33.64 | 0.03 | 2.42 | 2.98 | 2.36 | 0.00 | 0.00 | 101.44 | 75.71 | 11.97 | 5.51 | 6.63 | 0.00 | 0.18 |
| | *CH03 | G30 | 37.69 | 21.82 | 0.03 | 0.00 | 32.91 | 0.03 | 1.06 | 5.18 | 1.20 | 0.00 | 0.01 | 99.94 | 73.53 | 20.64 | 2.39 | 3.43 | 0.00 | 0.01 |
| | *CH03 | G31 | 37.82 | 20.66 | 0.16 | 0.00 | 27.72 | 0.04 | 5.52 | 2.00 | 5.57 | 0.00 | 0.00 | 99.48 | 62.72 | 8.15 | 12.80 | 16.33 | 0.00 | 0.00 |
| | *CH03 | G32 | 38.09 | 21.34 | 0.06 | 0.00 | 24.82 | 0.04 | 3.78 | 1.10 | 10.74 | 0.03 | 0.00 | 99.99 | 55.94 | 4.42 | 8.63 | 31.01 | 0.00 | 0.00 |
| | *CH03 | G33 | 37.28 | 21.76 | 0.01 | 0.15 | 36.79 | 0.03 | 1.05 | 1.99 | 1.29 | 0.00 | 0.00 | 100.34 | 85.45 | 8.23 | 2.48 | 3.34 | 0.00 | 0.51 |
| | *CH11 | G1 | 40.96 | 22.01 | 0.06 | 0.00 | 21.74 | 0.03 | 0.60 | 6.60 | 10.22 | 0.04 | 0.01 | 102.27 | 45.29 | 25.27 | 1.31 | 28.12 | 0.00 | 0.00 |
| | *CH11 | G2 | 37.71 | 21.03 | 0.20 | 0.04 | 28.33 | 0.01 | 7.34 | 2.07 | 3.14 | 0.04 | 0.00 | 99.89 | 65.15 | 8.49 | 17.10 | 9.14 | 0.00 | 0.12 |
| | *CH11 | G3 | 38.79 | 22.08 | 0.13 | 0.02 | 29.39 | 0.00 | 0.81 | 7.10 | 1.41 | 0.00 | 0.00 | 99.73 | 65.78 | 28.33 | 1.84 | 3.98 | 0.00 | 0.06 |
| | *CH11 | G4 | 37.26 | 20.93 | 3.29 | 0.08 | 33.24 | 0.00 | 0.50 | 3.76 | 2.04 | 0.07 | 0.00 | 101.16 | 77.04 | 15.66 | 1.19 | 5.84 | 0.00 | 0.28 |
| | *CH11 | G5 | 38.26 | 21.19 | 0.08 | 0.00 | 25.51 | 0.00 | 4.79 | 1.52 | 8.62 | 0.06 | 0.00 | 100.02 | 57.83 | 6.15 | 10.99 | 25.03 | 0.00 | 0.00 |
| | *CH11 | G6 | 37.49 | 21.55 | 0.05 | 0.03 | 36.05 | 0.05 | 0.25 | 2.78 | 2.03 | 0.04 | 0.00 | 100.34 | 82.17 | 11.30 | 0.59 | 5.85 | 0.00 | 0.09 |
| | *CH11 | G7 | 37.86 | 21.69 | 0.08 | 0.03 | 29.80 | 0.00 | 0.84 | 1.11 | 8.56 | 0.07 | 0.00 | 100.03 | 68.37 | 4.54 | 1.95 | 25.06 | 0.00 | 0.09 |
| *CH11 | G8 | 39.85 | 22.30 | 0.07 | 0.00 | 26.93 | 0.00 | 0.38 | 8.93 | 2.83 | 0.02 | 0.00 | 101.31 | 57.47 | 33.96 | 0.83 | 7.74 | 0.00 | 0.00 | |
| *CH11 | G9 | 38.42 | 21.86 | 0.12 | 0.01 | 25.36 | 0.00 | 0.91 | 2.20 | 11.26 | 0.04 | 0.00 | 100.16 | 56.85 | 8.77 | 2.06 | 32.30 | 0.00 | 0.02 | |
| *CH11 | G10 | 37.99 | 21.65 | 0.14 | 0.00 | 33.00 | 0.02 | 2.39 | 4.09 | 1.44 | 0.02 | 0.00 | 100.73 | 74.06 | 16.35 | 5.44 | 4.14 | 0.00 | 0.00 | |
| *CH11 | G11 | 38.68 | 21.62 | 0.07 | 0.00 | 30.55 | 0.00 | 1.37 | 2.28 | 5.89 | 0.08 | 0.00 | 100.54 | 70.14 | 9.34 | 3.20 | 17.32 | 0.00 | 0.00 | |
| *CH11 | G12 | 37.24 | 21.51 | 0.07 | 0.05 | 29.87 | 0.04 | 7.52 | 2.60 | 1.09 | 0.00 | 0.00 | 99.98 | 68.65 | 10.65 | 17.50 | 3.05 | 0.00 | 0.15 | |
| *CH11 | G13 | 39.37 | 22.00 | 0.00 | 0.03 | 27.08 | 0.00 | 1.56 | 5.25 | 5.80 | 0.01 | 0.00 | 101.10 | 59.60 | 20.58 | 3.47 | 16.25 | 0.00 | 0.10 | |
| *CH11 | G14 | 38.06 | 21.38 | 0.10 | 0.03 | 31.32 | 0.00 | 0.15 | 1.02 | 8.04 | 0.00 | 0.01 | 100.10 | 71.86 | 4.16 | 0.35 | 23.53 | 0.00 | 0.09 | |
| *CH11 | G15 | 38.33 | 21.42 | 0.04 | 0.07 | 31.74 | 0.00 | 2.80 | 2.43 | 3.55 | 0.00 | 0.00 | 100.38 | 73.06 | 9.96 | 6.52 | 10.23 | 0.00 | 0.24 | |
| *CH11 | G16 | 37.91 | 21.38 | 0.08 | 0.03 | 35.73 | 0.00 | 1.30 | 1.75 | 1.89 | 0.03 | 0.00 | 100.12 | 83.88 | 7.33 | 3.10 | 5.59 | 0.00 | 0.11 | |
| *CH11 | G17 | 38.01 | 21.01 | 0.06 | 0.01 | 29.65 | 0.00 | 8.27 | 2.10 | 1.96 | 0.02 | 0.00 | 101.08 | 66.97 | 8.44 | 18.93 | 5.64 | 0.00 | 0.02 | |
| *CH11 | G18 | 38.71 | 21.93 | 0.07 | 0.01 | 27.88 | 0.00 | 0.19 | 2.20 | 8.94 | 0.01 | | 99.93 | 64.17 | 9.02 | 0.44 | 26.34 | 0.00 | 0.04 | |
| *CH11 | G19 | 39.26 | 22.31 | 0.02 | 0.00 | 27.49 | 0.00 | 0.93 | 9.12 | 1.45 | 0.00 | 0.00 | 100.57 | 59.06 | 34.91 | 2.03 | 4.00 | 0.00 | 0.00 | |
| *CH11 | G20 | 37.12 | 21.15 | 0.02 | 0.00 | 33.96 | 0.00 | 0.76 | 3.28 | 1.47 | 0.08 | 0.01 | 97.86 | 79.99 | 13.75 | 1.82 | 4.45 | 0.00 | 0.00 | |
| *CH11 | G21 | 40.19 | 21.98 | 0.04 | 0.03 | 1.50 | 0.00 | 0.40 | 0.09 | 36.61 | 0.01 | 0.00 | 100.86 | 0.89 | 0.34 | 0.85 | 94.92 | 2.90 | 0.10 | |
| *CH11 | G22 | 38.59 | 21.60 | 0.08 | 0.00 | 30.12 | 0.00 | 1.86 | 4.03 | 4.34 | 0.07 | 0.00 | 100.69 | 67.31 | 16.05 | 4.21 | 12.43 | 0.00 | 0.00 | |
| *CH11 | G23 | 38.15 | 21.45 | 0.03 | 0.04 | 36.67 | 0.00 | 1.45 | 1.88 | 1.34 | 0.01 | 0.00 | 101.00 | 84.89 | 7.74 | 3.39 | 3.86 | 0.00 | 0.12 | |
| *CH11 | G24 | 38.98 | 21.86 | 0.16 | 0.05 | 30.30 | 0.01 | 0.39 | 3.66 | 5.49 | 0.00 | 0.00 | 100.90 | 68.49 | 14.74 | 0.90 | 15.72 | 0.00 | 0.16 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (6)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | *FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|--------------------------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Boka Bil Fm. (Chittagong area) | *CH11 | G25 | 38.85 | 21.65 | 0.12 | 0.00 | 31.67 | 0.00 | 0.69 | 2.45 | 5.60 | 0.03 | 0.00 | 101.05 | 72.13 | 9.94 | 1.59 | 16.34 | 0.00 | 0.00 |
| | *CH11 | G26 | 39.15 | 21.27 | 0.14 | 0.02 | 21.38 | 0.03 | 7.14 | 1.39 | 10.26 | 0.00 | 0.02 | 100.77 | 48.32 | 5.60 | 16.36 | 29.67 | 0.00 | 0.06 |
| | *CH11 | G27 | 37.51 | 21.38 | 0.09 | 0.03 | 26.66 | 0.00 | 5.74 | 1.21 | 6.82 | 0.00 | 0.00 | 99.44 | 61.48 | 4.97 | 13.40 | 20.04 | 0.00 | 0.11 |
| | *CH11 | G28 | 38.00 | 21.83 | 0.00 | 0.06 | 33.65 | 0.00 | 3.08 | 2.75 | 1.35 | 0.00 | 0.00 | 100.73 | 77.53 | 11.30 | 7.20 | 3.78 | 0.00 | 0.20 |
| | *CH11 | G29 | 38.36 | 21.81 | 0.07 | 0.00 | 31.77 | 0.00 | 0.29 | 1.69 | 7.16 | 0.03 | 0.01 | 101.17 | 71.81 | 6.81 | 0.66 | 20.72 | 0.00 | 0.00 |
| | *CH11 | G30 | 39.46 | 22.38 | 0.05 | 0.05 | 27.86 | 0.00 | 0.66 | 9.46 | 1.36 | 0.00 | 0.00 | 101.29 | 59.13 | 35.77 | 1.41 | 3.54 | 0.00 | 0.15 |
| | *CH11 | G31 | 38.08 | 21.28 | 0.07 | 0.00 | 31.21 | 0.02 | 0.17 | 1.81 | 7.42 | 0.00 | 0.00 | 100.07 | 70.75 | 7.30 | 0.39 | 21.56 | 0.00 | 0.00 |
| | *CH56 | G1 | 38.60 | 21.71 | 0.01 | 0.03 | 34.66 | 0.01 | 1.38 | 2.70 | 2.09 | 0.02 | 0.00 | 101.21 | 79.58 | 11.04 | 3.22 | 6.06 | 0.00 | 0.10 |
| | *CH56 | G2 | 38.79 | 21.58 | 0.02 | 0.07 | 33.80 | 0.04 | 3.06 | 2.98 | 1.07 | 0.00 | 0.00 | 101.40 | 77.58 | 12.19 | 7.10 | 2.90 | 0.00 | 0.23 |
| | *CH56 | G3 | 40.17 | 22.03 | 0.00 | 0.02 | 29.29 | 0.00 | 1.15 | 6.44 | 3.51 | 0.02 | 0.00 | 102.62 | 63.10 | 24.73 | 2.50 | 9.61 | 0.00 | 0.07 |
| | *CH56 | G4 | 40.49 | 22.21 | 0.04 | 0.04 | 24.27 | 0.01 | 0.67 | 4.62 | 9.51 | 0.00 | 0.00 | 101.85 | 53.51 | 18.16 | 1.49 | 26.73 | 0.00 | 0.12 |
| | *CH56 | G5 | 39.24 | 21.58 | 0.04 | 0.00 | 31.77 | 0.06 | 1.79 | 4.17 | 3.44 | 0.01 | 0.00 | 102.10 | 69.93 | 16.38 | 3.98 | 9.71 | 0.00 | 0.00 |
| | *CH56 | G6 | 39.29 | 21.74 | 0.02 | 0.01 | 30.67 | 0.03 | 0.52 | 6.26 | 2.79 | 0.04 | 0.01 | 101.36 | 66.77 | 24.30 | 1.15 | 7.76 | 0.00 | 0.02 |
| | *CH56 | G7 | 39.36 | 21.62 | 0.05 | 0.03 | 32.67 | 0.00 | 1.30 | 4.57 | 1.95 | 0.00 | 0.00 | 101.55 | 73.20 | 18.25 | 2.94 | 5.51 | 0.00 | 0.10 |
| | *CH56 | G8 | 39.44 | 21.88 | 0.08 | 0.00 | 26.74 | 0.01 | 2.18 | 1.34 | 10.09 | 0.03 | 0.00 | 101.80 | 60.40 | 5.40 | 4.99 | 29.21 | 0.00 | 0.00 |
| | *CH56 | G9 | 39.55 | 21.96 | 0.04 | 0.03 | 29.95 | 0.00 | 0.93 | 5.57 | 3.23 | 0.01 | 0.00 | 101.27 | 66.61 | 22.09 | 2.09 | 9.11 | 0.00 | 0.10 |
| | *CH56 | G10 | 39.81 | 21.21 | 0.17 | 0.00 | 26.64 | 0.00 | 2.98 | 4.39 | 6.94 | 0.00 | 0.00 | 102.16 | 55.96 | 17.47 | 6.73 | 19.83 | 0.00 | 0.01 |
| | *CH56 | G11 | 40.13 | 21.99 | 0.00 | 0.11 | 27.81 | 0.00 | 2.81 | 5.90 | 3.77 | 0.00 | 0.00 | 102.51 | 60.44 | 22.87 | 6.18 | 10.18 | 0.00 | 0.32 |
| | *CH56 | G12 | 39.58 | 22.40 | 0.03 | 0.03 | 29.15 | 0.01 | 0.69 | 8.52 | 1.32 | 0.00 | 0.01 | 101.75 | 62.38 | 32.50 | 1.49 | 3.55 | 0.00 | 0.08 |
| | *CH56 | G13 | 38.67 | 21.57 | 0.00 | 0.00 | 30.14 | 0.02 | 4.41 | 4.09 | 2.75 | 0.06 | 0.00 | 101.70 | 66.36 | 16.05 | 9.84 | 7.76 | 0.00 | 0.00 |
| | *CH56 | G14 | 39.11 | 21.36 | 0.09 | 0.00 | 16.32 | 0.04 | 11.74 | 0.48 | 12.25 | 0.00 | 0.00 | 101.38 | 36.46 | 1.92 | 26.56 | 35.06 | 0.00 | 0.00 |
| | *CH56 | G15 | 39.08 | 21.33 | 0.05 | 0.00 | 33.63 | 0.00 | 0.87 | 1.25 | 6.05 | 0.00 | 0.01 | 102.27 | 75.60 | 5.02 | 1.97 | 17.42 | 0.00 | 0.00 |
| | *CH56 | G16 | 40.04 | 22.21 | 0.01 | 0.07 | 27.40 | 0.00 | 0.84 | 8.89 | 1.84 | 0.03 | 0.00 | 101.34 | 58.98 | 34.11 | 1.84 | 4.86 | 0.00 | 0.21 |
| | *CH56 | G17 | 38.51 | 20.79 | 0.07 | 0.00 | 30.16 | 0.00 | 5.69 | 1.13 | 4.47 | 0.00 | 0.02 | 100.85 | 69.07 | 4.61 | 13.21 | 13.11 | 0.00 | 0.00 |
| | *CH56 | G18 | 38.93 | 21.50 | 0.00 | 0.00 | 36.58 | 0.04 | 0.61 | 2.94 | 0.64 | 0.07 | 0.00 | 101.31 | 84.58 | 12.10 | 1.42 | 1.91 | 0.00 | 0.00 |
| | *CH56 | G19 | 38.71 | 19.01 | 0.02 | 0.00 | 34.65 | 0.01 | 0.34 | 5.23 | 0.55 | 0.07 | 0.00 | 98.58 | 74.20 | 23.19 | 0.86 | 1.75 | 0.00 | 0.00 |
| | *CH56 | G20 | 38.89 | 21.49 | 0.06 | 0.35 | 16.43 | 0.07 | 3.04 | 0.64 | 19.33 | 0.03 | 0.00 | 101.34 | 36.18 | 2.50 | 6.78 | 53.44 | 0.00 | 1.10 |
| | *CH56 | G21 | 39.36 | 21.93 | 0.08 | 0.03 | 29.02 | 0.00 | 1.09 | 6.02 | 3.95 | 0.00 | 0.00 | 101.48 | 63.21 | 23.36 | 2.41 | 10.94 | 0.00 | 0.09 |
| | *CH56 | G22 | 40.25 | 22.26 | 0.04 | 0.06 | 26.31 | 0.00 | 1.08 | 5.89 | 6.90 | 0.03 | 0.02 | 102.83 | 56.28 | 22.47 | 2.33 | 18.73 | 0.00 | 0.19 |
| | *CH56 | G23 | 39.21 | 21.71 | 0.12 | 0.02 | 32.22 | 0.02 | 0.12 | 2.52 | 5.17 | 0.00 | 0.00 | 101.11 | 74.15 | 10.32 | 0.28 | 15.17 | 0.00 | 0.07 |
| | *CH56 | G24 | 38.96 | 20.16 | 0.00 | 0.03 | 35.88 | 0.00 | 1.37 | 2.67 | 1.43 | 0.00 | 0.01 | 100.51 | 81.30 | 11.16 | 3.24 | 4.19 | 0.00 | 0.11 |
| | *CH56 | G25 | 39.01 | 22.04 | 0.06 | 0.09 | 25.92 | 0.00 | 9.32 | 4.51 | 0.57 | 0.02 | 0.00 | 101.53 | 58.75 | 18.21 | 21.40 | 1.35 | 0.00 | 0.29 |
| | *CH56 | G26 | 38.46 | 21.64 | 0.07 | 0.04 | 28.63 | 0.00 | 8.76 | 1.79 | 1.56 | 0.00 | 0.01 | 100.95 | 67.07 | 7.45 | 20.79 | 4.56 | 0.00 | 0.13 |
| | *CH56 | G27 | 39.40 | 21.58 | 0.05 | 0.01 | 27.50 | 0.00 | 4.60 | 1.73 | 6.17 | 0.00 | 0.01 | 101.03 | 63.76 | 7.13 | 10.80 | 18.29 | 0.00 | 0.02 |
| | *CH56 | G28 | 40.39 | 22.11 | 0.07 | 0.00 | 23.76 | 0.00 | 1.90 | 4.96 | 9.67 | 0.01 | 0.02 | 102.89 | 50.47 | 18.90 | 4.12 | 26.51 | 0.00 | 0.00 |
| *CH56 | G29 | 39.57 | 21.87 | 0.06 | 0.05 | 32.21 | 0.00 | 1.51 | 2.21 | 5.50 | 0.03 | 0.00 | 102.99 | 72.03 | 8.80 | 3.43 | 15.58 | 0.00 | 0.17 | |
| *CH56 | G30 | 40.23 | 22.17 | 0.03 | 0.01 | 29.65 | 0.00 | 0.83 | 7.03 | 1.34 | 0.01 | 0.01 | 101.29 | 66.29 | 28.01 | 1.87 | 3.80 | 0.00 | 0.04 | |
| *CH57 | G1 | 38.53 | 21.43 | 0.14 | 0.02 | 30.38 | 0.00 | 3.99 | 1.10 | 5.43 | 0.00 | 0.00 | 101.03 | 70.09 | 4.54 | 9.32 | 15.99 | 0.00 | 0.06 | |
| *CH57 | G2 | 38.11 | 21.03 | 0.28 | 0.03 | 27.27 | 0.00 | 11.73 | 0.46 | 3.12 | 0.00 | 0.00 | 102.03 | 62.03 | 1.87 | 27.01 | 9.02 | 0.00 | 0.08 | |
| *CH57 | G3 | 38.75 | 20.69 | 0.41 | 0.00 | 15.73 | 0.03 | 18.32 | 0.70 | 5.55 | 0.00 | 0.02 | 100.18 | 36.89 | 2.93 | 43.51 | 16.68 | 0.00 | 0.00 | |
| *CH57 | G4 | 39.40 | 13.53 | 1.49 | 0.00 | 8.91 | 0.00 | 0.12 | 0.08 | 36.26 | 0.00 | 0.00 | 99.79 | 0.00 | 0.35 | 0.31 | 72.00 | 27.34 | 0.00 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (7)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | *FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) | |
|--------------------------------------|----------------------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|------|
| Boka Bil Fm. (Chittagong area) | *CH57 | G5 | 40.89 | 22.49 | 0.03 | 0.09 | 27.36 | 0.00 | 1.22 | 6.72 | 3.90 | 0.04 | 0.00 | 102.73 | 60.05 | 26.28 | 2.71 | 10.68 | 0.00 | 0.28 | |
| | *CH57 | G6 | 39.08 | 21.90 | 0.04 | 0.00 | 28.78 | 0.00 | 0.77 | 3.74 | 7.05 | 0.03 | 0.00 | 101.40 | 63.60 | 14.71 | 1.73 | 19.96 | 0.00 | 0.00 | |
| | *CH57 | G7 | 39.11 | 21.58 | 0.04 | 0.07 | 35.23 | 0.00 | 0.95 | 3.75 | 1.39 | 0.00 | 0.00 | 102.12 | 78.90 | 14.96 | 2.16 | 3.77 | 0.00 | 0.21 | |
| | *CH57 | G8 | 40.75 | 19.87 | 0.17 | 0.00 | 28.92 | 0.01 | 6.93 | 1.60 | 2.43 | 0.02 | 0.01 | 100.70 | 69.00 | 6.81 | 16.76 | 7.43 | 0.00 | 0.00 | |
| | *CH57 | G9 | 39.09 | 21.58 | 0.20 | 0.10 | 27.52 | 0.02 | 7.90 | 3.46 | 1.97 | 0.00 | 0.00 | 101.83 | 62.24 | 13.96 | 18.09 | 5.39 | 0.00 | 0.32 | |
| | *CH57 | G10 | 39.68 | 21.54 | 0.16 | 0.00 | 21.74 | 0.00 | 2.62 | 1.55 | 14.47 | 0.07 | 0.00 | 101.84 | 47.36 | 6.07 | 5.84 | 40.73 | 0.00 | 0.00 | |
| | *CH57 | G11 | 39.02 | 21.43 | 0.03 | 0.08 | 30.35 | 0.00 | 4.40 | 3.09 | 3.10 | 0.00 | 0.00 | 101.50 | 68.53 | 12.44 | 10.07 | 8.70 | 0.00 | 0.26 | |
| | *CH57 | G12 | 39.55 | 21.84 | 0.05 | 0.08 | 21.47 | 0.01 | 3.48 | 2.29 | 12.64 | 0.00 | 0.02 | 101.42 | 47.43 | 9.01 | 7.78 | 35.51 | 0.00 | 0.26 | |
| | *CH57 | G13 | 36.96 | 21.69 | 0.00 | 0.00 | 32.69 | 0.00 | 2.79 | 3.32 | 1.98 | 0.00 | 0.00 | 101.43 | 74.34 | 13.46 | 6.44 | 5.77 | 0.00 | 0.00 | |
| | *CH57 | G14 | 39.51 | 21.16 | 0.11 | 0.00 | 23.92 | 0.02 | 2.17 | 1.42 | 12.53 | 0.00 | 0.00 | 100.83 | 53.52 | 5.67 | 4.91 | 35.91 | 0.00 | 0.00 | |
| | *CH57 | G15 | 39.20 | 21.37 | 0.02 | 0.00 | 23.47 | 0.00 | 5.35 | 5.70 | 5.80 | 0.06 | 0.00 | 100.97 | 49.10 | 22.47 | 11.99 | 16.45 | 0.00 | 0.00 | |
| | *CH57 | G16 | 38.44 | 21.04 | 0.08 | 0.00 | 23.73 | 0.03 | 3.31 | 0.87 | 12.08 | 0.00 | 0.02 | 99.61 | 53.80 | 3.50 | 7.60 | 35.10 | 0.00 | 0.00 | |
| | *CH57 | G17 | 37.10 | 21.13 | 0.13 | 0.00 | 25.57 | 0.00 | 12.72 | 0.65 | 2.09 | 0.05 | 0.00 | 99.43 | 60.47 | 2.73 | 30.48 | 6.32 | 0.00 | 0.00 | |
| | *CH57 | G18 | 40.63 | 22.32 | 0.02 | 0.07 | 22.58 | 0.00 | 0.77 | 9.48 | 5.96 | 0.03 | 0.00 | 101.87 | 46.47 | 35.74 | 1.64 | 15.94 | 0.00 | 0.21 | |
| | *CH57 | G19 | 38.38 | 27.90 | 0.17 | 0.00 | 7.07 | 0.00 | 0.05 | 0.05 | 22.95 | 0.03 | 0.02 | 96.60 | 19.30 | 0.25 | 0.14 | 80.31 | 0.00 | 0.00 | |
| | *CH57 | G20 | 39.54 | 21.81 | 0.02 | 0.01 | 25.53 | 0.00 | 1.80 | 2.72 | 10.07 | 0.00 | 0.00 | 101.50 | 56.60 | 10.75 | 4.05 | 28.57 | 0.00 | 0.04 | |
| | *CH57 | G21 | 38.67 | 21.72 | 0.01 | 0.02 | 33.39 | 0.00 | 2.61 | 3.54 | 1.57 | 0.04 | 0.00 | 101.57 | 75.27 | 14.24 | 5.96 | 4.46 | 0.00 | 0.07 | |
| | *CH57 | G22 | 38.73 | 22.49 | 0.01 | 0.06 | 26.27 | 0.00 | 0.12 | 5.52 | 7.39 | 0.00 | 0.00 | 100.59 | 57.50 | 21.52 | 0.26 | 20.55 | 0.00 | 0.17 | |
| | *CH57 | G23 | 37.61 | 20.57 | 0.04 | 0.00 | 28.00 | 0.00 | 8.91 | 1.86 | 2.60 | 0.01 | 0.00 | 99.60 | 63.97 | 7.62 | 20.76 | 7.66 | 0.00 | 0.00 | |
| | *CH57 | G24 | 38.89 | 21.20 | 0.04 | 0.01 | 14.34 | 0.00 | 17.06 | 0.09 | 9.79 | 0.00 | 0.02 | 101.45 | 32.35 | 0.37 | 38.98 | 28.27 | 0.00 | 0.04 | |
| | *CH57 | G25 | 40.88 | 21.00 | 0.33 | 0.01 | 4.31 | 0.00 | 0.21 | 0.15 | 34.82 | 0.00 | 0.00 | 101.71 | 0.00 | 0.58 | 0.48 | 98.14 | 0.76 | 0.04 | |
| | *CH57 | G26 | 41.08 | 20.18 | 0.02 | 0.02 | 3.46 | 0.04 | 0.28 | 0.01 | 36.42 | 0.00 | 0.00 | 101.51 | 0.00 | 0.02 | 0.64 | 94.89 | 4.39 | 0.06 | |
| | *CH57 | G27 | 39.49 | 21.65 | 0.11 | 0.05 | 30.25 | 0.00 | 0.60 | 2.93 | 5.00 | 0.02 | 0.00 | 100.09 | 71.21 | 12.30 | 1.42 | 14.90 | 0.00 | 0.18 | |
| | *CH57 | G28 | 40.44 | 21.02 | 0.39 | 0.05 | 3.64 | 0.05 | 0.22 | 0.09 | 35.29 | 0.01 | 0.01 | 101.20 | 0.00 | 0.34 | 0.49 | 96.95 | 2.08 | 0.14 | |
| | *CH57 | G29 | 39.51 | 21.54 | 0.09 | 0.06 | 30.73 | 0.04 | 0.33 | 5.30 | 3.43 | 0.00 | 0.00 | 101.02 | 68.44 | 21.03 | 0.74 | 9.60 | 0.00 | 0.19 | |
| | *CH57 | G30 | 39.28 | 20.20 | 0.10 | 0.00 | 18.82 | 0.03 | 1.10 | 0.23 | 20.83 | 0.00 | 0.00 | 100.60 | 33.93 | 0.97 | 2.62 | 62.43 | 0.06 | 0.00 | |
| | Tipam Gr. (Sylhet area) | *00042102 | G1 | 38.14 | 21.78 | 0.17 | 0.02 | 28.80 | 0.01 | 2.81 | 1.35 | 8.61 | 0.00 | 0.00 | 101.69 | 63.89 | 5.33 | 6.32 | 24.42 | 0.00 | 0.06 |
| | | *00042102 | G2 | 38.46 | 22.22 | 0.00 | 0.00 | 30.76 | 0.00 | 0.53 | 7.59 | 1.24 | 0.03 | 0.00 | 100.84 | 65.86 | 29.51 | 1.17 | 1.60 | 1.85 | 0.00 |
| | | *00042102 | G3 | 38.77 | 21.19 | 0.05 | 0.03 | 29.76 | 0.00 | 1.49 | 2.40 | 6.62 | 0.04 | 0.00 | 100.36 | 67.59 | 9.73 | 3.42 | 19.16 | 0.00 | 0.10 |
| | | *00042102 | G4 | 38.75 | 22.00 | 0.02 | 0.00 | 29.07 | 0.05 | 1.41 | 4.05 | 6.11 | 0.00 | 0.00 | 101.46 | 63.83 | 15.84 | 3.13 | 17.20 | 0.00 | 0.00 |
| *00042102 | | G5 | 37.98 | 21.35 | 0.18 | 0.02 | 24.75 | 0.02 | 6.83 | 0.71 | 8.92 | 0.03 | 0.01 | 100.80 | 55.80 | 2.84 | 15.59 | 25.70 | 0.00 | 0.07 | |
| *00042102 | | G6 | 37.80 | 21.12 | 0.14 | 0.05 | 27.51 | 0.11 | 9.78 | 0.80 | 2.55 | 0.08 | 0.00 | 99.94 | 65.31 | 3.40 | 23.53 | 7.61 | 0.00 | 0.16 | |
| *00042102 | | G7 | 38.00 | 20.86 | 0.05 | 0.00 | 28.07 | 0.02 | 13.60 | 0.70 | 0.57 | 0.01 | 0.00 | 101.90 | 64.07 | 2.85 | 31.43 | 1.66 | 0.00 | 0.00 | |
| *00042102 | | G8 | 37.90 | 22.05 | 0.00 | 0.04 | 26.00 | 0.04 | 7.49 | 3.20 | 3.99 | 0.03 | 0.01 | 100.74 | 58.56 | 12.83 | 17.10 | 11.38 | 0.00 | 0.14 | |
| *00042102 | | G9 | 38.82 | 21.46 | 0.04 | 0.00 | 34.60 | 0.01 | 0.34 | 3.15 | 2.30 | 0.02 | 0.00 | 100.74 | 79.52 | 12.92 | 0.79 | 6.77 | 0.00 | 0.00 | |
| *00042102 | | G10 | 38.56 | 16.16 | 0.53 | 0.00 | 9.46 | 0.00 | 0.98 | 0.11 | 34.17 | 0.00 | 0.00 | 99.98 | 1.11 | 0.44 | 2.18 | 70.36 | 25.91 | 0.00 | |
| *00042102 | | G11 | 38.59 | 9.61 | 0.31 | 0.00 | 16.50 | 0.04 | 1.79 | 0.08 | 32.69 | 0.00 | 0.00 | 99.61 | 0.00 | 0.35 | 4.39 | 44.53 | 50.73 | 0.00 | |
| *00042102 | | G12 | 37.67 | 21.15 | 0.03 | 0.00 | 31.27 | 0.00 | 8.91 | 0.82 | 1.22 | 0.05 | 0.00 | 101.12 | 72.18 | 3.39 | 20.83 | 3.60 | 0.00 | 0.00 | |
| *00042102 | | G13 | 39.33 | 21.95 | 0.03 | 0.02 | 26.96 | 0.00 | 2.77 | 4.91 | 5.24 | 0.01 | 0.00 | 101.23 | 59.60 | 19.34 | 6.20 | 14.78 | 0.00 | 0.07 | |
| *00042102 | | G14 | 39.48 | 23.84 | 0.06 | 0.02 | 20.09 | 0.05 | 1.47 | 0.60 | 15.36 | 0.02 | 0.01 | 101.01 | 47.47 | 2.52 | 3.52 | 46.44 | 0.00 | 0.06 | |
| *00042102 | | G15 | 37.61 | 20.80 | 0.34 | 0.00 | 16.35 | 0.00 | 25.06 | 1.02 | 0.95 | 0.00 | 0.02 | 102.15 | 35.36 | 4.15 | 57.72 | 2.78 | 0.00 | 0.00 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (8)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | *FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grns(%) | And(%) | Uvr(%) |
|----------------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|------|-------|-------------------|------------------|-------------|--------|--------|--------|---------|--------|--------|
| Tipam Gr. (Sylhet area) | *00042102 | G16 | 37.60 | 20.41 | 0.09 | 0.00 | 27.25 | 0.00 | 13.70 | 0.23 | 2.07 | 0.05 | 0.00 | 101.39 | 60.74 | 0.93 | 32.17 | 6.16 | 0.00 | 0.00 |
| | *00042102 | G17 | 39.31 | 21.84 | 0.02 | 0.06 | 27.70 | 0.00 | 1.04 | 2.81 | 7.89 | 0.05 | 0.00 | 100.72 | 63.14 | 11.41 | 2.39 | 22.87 | 0.00 | 0.19 |
| | *00042102 | G18 | 37.70 | 20.85 | 0.01 | 0.03 | 29.22 | 0.00 | 3.12 | 0.37 | 9.63 | 0.01 | 0.00 | 100.93 | 63.76 | 1.49 | 7.09 | 26.50 | 1.06 | 0.09 |
| | *00042102 | G19 | 39.78 | 22.00 | 0.01 | 0.01 | 25.72 | 0.00 | 2.69 | 6.55 | 2.49 | 0.06 | 0.01 | 99.32 | 59.38 | 26.96 | 6.28 | 7.36 | 0.00 | 0.02 |
| | *00042102 | G20 | 38.94 | 21.42 | 0.16 | 0.00 | 17.81 | 0.00 | 13.94 | 0.50 | 8.02 | 0.00 | 0.02 | 100.81 | 41.32 | 2.08 | 32.76 | 23.84 | 0.00 | 0.00 |
| | *00042102 | G21 | 39.09 | 21.84 | 0.06 | 0.07 | 29.99 | 0.02 | 4.35 | 1.98 | 3.78 | 0.05 | 0.00 | 101.21 | 70.14 | 8.25 | 10.29 | 11.09 | 0.00 | 0.24 |
| | *00042102 | G22 | 39.15 | 21.94 | 0.04 | 0.02 | 30.86 | 0.02 | 1.09 | 4.81 | 3.58 | 0.00 | 0.01 | 101.51 | 68.40 | 18.99 | 2.46 | 10.10 | 0.00 | 0.06 |
| | *00042103 | G1 | 37.83 | 21.05 | 0.00 | 0.00 | 34.81 | 0.00 | 0.46 | 2.75 | 1.85 | 0.00 | 0.00 | 98.75 | 81.82 | 11.52 | 1.08 | 5.58 | 0.00 | 0.00 |
| | *00042103 | G2 | 37.91 | 21.43 | 0.00 | 0.05 | 34.86 | 0.00 | 0.39 | 2.37 | 3.60 | 0.00 | 0.00 | 100.60 | 79.08 | 9.57 | 0.90 | 10.31 | 0.00 | 0.15 |
| | *00042103 | G3 | 38.41 | 21.41 | 0.07 | 0.03 | 22.38 | 0.03 | 1.11 | 0.92 | 14.32 | 0.05 | 0.00 | 98.72 | 51.46 | 3.75 | 2.59 | 42.10 | 0.00 | 0.09 |
| | *00042103 | G4 | 37.51 | 21.64 | 0.03 | 0.01 | 34.49 | 0.00 | 2.35 | 3.41 | 0.86 | 0.00 | 0.01 | 100.31 | 78.31 | 13.78 | 5.40 | 2.47 | 0.00 | 0.03 |
| | *00042103 | G5 | 37.64 | 21.13 | 0.07 | 0.04 | 32.51 | 0.01 | 5.52 | 3.09 | 0.94 | 0.05 | 0.00 | 101.00 | 72.48 | 12.32 | 12.51 | 2.56 | 0.00 | 0.13 |
| | *00042103 | G6 | 35.50 | 21.20 | 0.00 | 0.01 | 29.89 | 0.00 | 6.14 | 1.04 | 3.98 | 0.01 | 0.00 | 97.76 | 68.94 | 4.37 | 14.66 | 9.65 | 2.36 | 0.02 |
| | *00042103 | G7 | 36.99 | 21.34 | 0.04 | 0.04 | 38.05 | 0.00 | 1.55 | 1.00 | 1.22 | 0.03 | 0.00 | 100.26 | 88.56 | 4.17 | 3.65 | 3.51 | 0.00 | 0.13 |
| | *00042103 | G8 | 39.51 | 22.34 | 0.01 | 0.04 | 26.67 | 0.00 | 1.21 | 9.86 | 1.02 | 0.00 | 0.00 | 100.67 | 57.01 | 37.58 | 2.62 | 2.67 | 0.00 | 0.12 |
| | *00042103 | G9 | 37.31 | 21.52 | 0.00 | 0.02 | 32.43 | 0.00 | 2.16 | 2.75 | 3.54 | 0.04 | 0.00 | 99.77 | 73.63 | 11.12 | 4.96 | 10.24 | 0.00 | 0.06 |
| | *00042103 | G10 | 38.05 | 21.83 | 0.01 | 0.00 | 26.80 | 0.03 | 1.09 | 5.48 | 6.07 | 0.03 | 0.00 | 99.38 | 58.87 | 21.54 | 2.43 | 16.75 | 0.41 | 0.00 |
| | *00042103 | G11 | 37.52 | 21.40 | 0.04 | 0.00 | 32.79 | 0.00 | 5.12 | 2.19 | 1.45 | 0.00 | 0.01 | 100.51 | 74.98 | 8.92 | 11.85 | 4.23 | 0.00 | 0.01 |
| | *00042103 | G12 | 37.19 | 21.11 | 0.11 | 0.05 | 26.48 | 0.00 | 10.03 | 1.00 | 4.60 | 0.00 | 0.00 | 100.56 | 59.77 | 4.02 | 22.92 | 13.13 | 0.00 | 0.17 |
| | *00042103 | G13 | 38.40 | 19.22 | 0.05 | 0.02 | 26.04 | 0.07 | 0.54 | 4.61 | 8.18 | 0.00 | 0.00 | 97.13 | 52.63 | 20.23 | 1.35 | 25.73 | 0.00 | 0.06 |
| | *00042103 | G14 | 37.12 | 20.65 | 0.03 | 0.03 | 36.58 | 0.02 | 0.92 | 2.67 | 1.47 | 0.01 | 0.02 | 99.52 | 82.68 | 10.87 | 2.13 | 4.23 | 0.00 | 0.09 |
| | *00042103 | G15 | 37.68 | 20.96 | 0.02 | 0.00 | 31.62 | 0.02 | 6.07 | 1.47 | 2.95 | 0.00 | 0.00 | 100.79 | 71.59 | 5.93 | 13.92 | 8.57 | 0.00 | 0.00 |
| | *00042103 | G16 | 37.69 | 21.63 | 0.00 | 0.00 | 34.42 | 0.01 | 2.58 | 3.03 | 1.64 | 0.01 | 0.01 | 101.00 | 77.29 | 12.12 | 5.86 | 4.73 | 0.00 | 0.00 |
| | *00042103 | G17 | 35.91 | 21.53 | 0.00 | 0.00 | 29.90 | 0.00 | 6.05 | 2.25 | 2.49 | 0.08 | 0.00 | 98.21 | 68.68 | 9.42 | 14.40 | 5.13 | 2.38 | 0.00 |
| | *00042103 | G18 | 38.38 | 20.64 | 0.17 | 0.04 | 25.35 | 0.04 | 1.37 | 4.76 | 8.09 | 0.01 | 0.02 | 98.87 | 53.68 | 19.42 | 3.18 | 23.57 | 0.00 | 0.14 |
| | *00042103 | G19 | 37.61 | 21.77 | 0.00 | 0.00 | 33.08 | 0.05 | 3.48 | 3.28 | 1.60 | 0.00 | 0.00 | 100.86 | 74.36 | 13.13 | 7.92 | 4.59 | 0.00 | 0.00 |
| | *00042103 | G20 | 37.93 | 21.30 | 0.03 | 0.03 | 30.39 | 0.01 | 3.19 | 1.88 | 5.04 | 0.04 | 0.00 | 99.84 | 69.98 | 7.71 | 7.44 | 14.78 | 0.00 | 0.11 |
| | *00042103 | G21 | 37.17 | 21.09 | 0.04 | 0.00 | 35.25 | 0.00 | 4.93 | 0.64 | 0.94 | 0.03 | 0.01 | 100.10 | 82.75 | 2.68 | 11.73 | 2.84 | 0.00 | 0.00 |
| | *00042103 | G22 | 37.72 | 21.58 | 0.00 | 0.00 | 35.67 | 0.03 | 0.41 | 2.61 | 2.01 | 0.02 | 0.01 | 100.06 | 82.35 | 10.73 | 0.96 | 5.95 | 0.00 | 0.01 |
| | *00042103 | G23 | 38.19 | 21.91 | 0.03 | 0.06 | 31.10 | 0.00 | 1.38 | 6.39 | 1.20 | 0.00 | 0.01 | 100.26 | 68.48 | 25.08 | 3.07 | 3.18 | 0.00 | 0.19 |
| | *00042103 | G24 | 37.88 | 21.72 | 0.00 | 0.02 | 35.84 | 0.00 | 0.44 | 3.41 | 1.42 | 0.05 | 0.00 | 100.78 | 81.11 | 13.76 | 1.02 | 4.04 | 0.00 | 0.08 |
| | *00042103 | G25 | 37.77 | 21.05 | 0.01 | 0.03 | 29.39 | 0.00 | 1.93 | 3.05 | 5.92 | 0.05 | 0.01 | 99.21 | 66.25 | 12.27 | 4.40 | 16.99 | 0.00 | 0.09 |
| | *00042103 | G26 | 37.49 | 21.41 | 0.09 | 0.01 | 31.50 | 0.00 | 0.81 | 1.75 | 5.77 | 0.00 | 0.00 | 98.83 | 73.54 | 7.28 | 1.92 | 17.22 | 0.00 | 0.04 |
| | *00042103 | G27 | 36.98 | 21.17 | 0.00 | 0.04 | 31.16 | 0.09 | 9.60 | 0.23 | 1.58 | 0.06 | 0.00 | 100.89 | 71.94 | 0.94 | 22.45 | 4.53 | 0.00 | 0.14 |
| | *00042103 | G28 | 38.53 | 22.20 | 0.00 | 0.05 | 30.92 | 0.00 | 0.84 | 5.38 | 2.93 | 0.02 | 0.00 | 100.87 | 68.55 | 21.24 | 1.88 | 8.18 | 0.00 | 0.15 |
| | *00042103 | G29 | 37.61 | 21.50 | 0.01 | 0.00 | 30.51 | 0.02 | 5.48 | 2.88 | 1.98 | 0.00 | 0.01 | 99.99 | 69.77 | 11.73 | 12.70 | 5.81 | 0.00 | 0.00 |
| | *00042103 | G30 | 38.16 | 21.89 | 0.02 | 0.00 | 31.38 | 0.02 | 2.12 | 4.63 | 2.23 | 0.04 | 0.00 | 100.48 | 70.32 | 18.47 | 4.81 | 6.40 | 0.00 | 0.00 |
| | *00042103 | G31 | 37.24 | 20.96 | 0.05 | 0.03 | 33.29 | 0.00 | 5.82 | 0.78 | 1.30 | 0.05 | 0.00 | 99.52 | 78.79 | 3.31 | 13.95 | 3.86 | 0.00 | 0.09 |
| | *00042108 | G1 | 38.66 | 21.40 | 0.16 | 0.00 | 29.99 | 0.00 | 1.86 | 2.42 | 6.82 | 0.00 | 0.00 | 101.31 | 66.76 | 9.60 | 4.19 | 19.43 | 0.00 | 0.01 |
| | *00042108 | G2 | 38.00 | 21.48 | 0.03 | 0.03 | 36.31 | 0.04 | 0.86 | 2.00 | 1.59 | 0.00 | 0.01 | 100.34 | 84.86 | 8.34 | 2.04 | 4.67 | 0.00 | 0.09 |
| | *00042108 | G3 | 38.13 | 21.67 | 0.03 | 0.06 | 35.52 | 0.00 | 1.16 | 3.11 | 1.41 | 0.02 | 0.00 | 101.12 | 80.64 | 12.60 | 2.67 | 3.89 | 0.00 | 0.21 |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (9)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) | |
|----------------------------|-----------------------------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|------|
| Tipam Gr. (Sylhet area) | *00042108 | G4 | 38.64 | 21.82 | 0.08 | 0.00 | 28.48 | 0.00 | 0.58 | 4.21 | 7.34 | 0.00 | 0.01 | 101.16 | 61.94 | 16.33 | 1.28 | 20.45 | 0.00 | 0.00 | |
| | *00042108 | G5 | 37.91 | 21.07 | 0.00 | 0.08 | 31.42 | 0.00 | 6.17 | 1.05 | 2.69 | 0.08 | 0.01 | 100.48 | 73.10 | 4.35 | 14.53 | 7.75 | 0.00 | 0.26 | |
| | *00042108 | G6 | 38.55 | 21.86 | 0.06 | 0.00 | 35.70 | 0.00 | 0.33 | 3.20 | 1.72 | 0.05 | 0.00 | 101.47 | 81.25 | 12.98 | 0.77 | 5.01 | 0.00 | 0.00 | |
| | *00042108 | G7 | 37.95 | 21.09 | 0.01 | 0.00 | 34.74 | 0.02 | 1.17 | 2.51 | 1.64 | 0.00 | 0.00 | 99.13 | 81.76 | 10.51 | 2.79 | 4.94 | 0.00 | 0.00 | |
| | *00042108 | G8 | 38.66 | 21.56 | 0.05 | 0.00 | 27.97 | 0.03 | 0.31 | 1.23 | 11.55 | 0.03 | 0.00 | 101.40 | 61.79 | 4.83 | 0.69 | 32.70 | 0.00 | 0.00 | |
| | *00042108 | G9 | 38.44 | 22.60 | 0.08 | 0.00 | 18.07 | 0.00 | 0.20 | 6.88 | 13.15 | 0.01 | 0.00 | 99.44 | 36.23 | 26.68 | 0.45 | 32.02 | 4.62 | 0.00 | |
| | *00042108 | G10 | 38.01 | 21.27 | 0.07 | 0.00 | 27.72 | 0.02 | 9.35 | 1.47 | 3.17 | 0.00 | 0.00 | 101.08 | 63.18 | 5.97 | 21.59 | 9.27 | 0.00 | 0.00 | |
| | *00042108 | G11 | 34.65 | 21.64 | 0.09 | 0.08 | 32.54 | 0.03 | 1.35 | 1.05 | 6.87 | 0.01 | 0.01 | 98.31 | 70.93 | 4.53 | 3.30 | 9.47 | 11.51 | 0.27 | |
| | *00042108 | G12 | 37.50 | 21.06 | 0.01 | 0.00 | 37.16 | 0.01 | 0.41 | 2.94 | 0.65 | 0.00 | 0.00 | 99.73 | 85.15 | 12.01 | 0.94 | 1.90 | 0.00 | 0.00 | |
| | *00042108 | G13 | 38.66 | 20.17 | 0.01 | 0.00 | 27.11 | 0.05 | 0.71 | 1.28 | 11.42 | 0.02 | 0.00 | 99.42 | 58.69 | 5.34 | 1.68 | 34.30 | 0.00 | 0.00 | |
| | *00042108 | G14 | 37.86 | 21.59 | 0.05 | 0.00 | 36.20 | 0.00 | 0.96 | 1.97 | 1.99 | 0.00 | 0.01 | 100.63 | 83.74 | 8.14 | 2.24 | 5.89 | 0.00 | 0.00 | |
| | *00042108 | G15 | 38.28 | 21.75 | 0.00 | 0.00 | 34.13 | 0.00 | 1.02 | 1.79 | 3.29 | 0.00 | 0.00 | 100.26 | 80.18 | 7.50 | 2.44 | 9.89 | 0.00 | 0.00 | |
| | *00042108 | G16 | 37.76 | 21.51 | 0.03 | 0.01 | 31.52 | 0.00 | 1.09 | 2.18 | 3.96 | 0.00 | 0.00 | 98.06 | 75.79 | 9.35 | 2.66 | 12.16 | 0.00 | 0.05 | |
| | *00042108 | G17 | 37.46 | 20.08 | 0.03 | 0.04 | 35.11 | 0.01 | 0.55 | 2.22 | 3.25 | 0.00 | 0.00 | 98.74 | 79.60 | 9.30 | 1.30 | 9.66 | 0.00 | 0.13 | |
| | *00042108 | G18 | 38.65 | 25.18 | 0.13 | 0.04 | 9.92 | 0.04 | 0.20 | 0.05 | 23.55 | 0.00 | 0.01 | 97.75 | 24.57 | 0.20 | 0.51 | 74.60 | 0.00 | 0.13 | |
| | *00042108 | G19 | 39.62 | 22.71 | 0.00 | 0.00 | 26.39 | 0.00 | 0.55 | 8.70 | 3.86 | 0.00 | 0.00 | 101.83 | 55.67 | 32.73 | 1.17 | 10.38 | 0.03 | 0.01 | |
| | *00042108 | G20 | 35.79 | 21.48 | 0.09 | 0.08 | 32.69 | 0.00 | 0.96 | 1.08 | 7.07 | 0.02 | 0.00 | 99.25 | 72.07 | 4.49 | 2.27 | 14.45 | 6.46 | 0.25 | |
| | *00042108 | G21 | 38.41 | 21.41 | 0.00 | 0.03 | 31.13 | 0.02 | 4.92 | 2.21 | 2.23 | 0.00 | 0.00 | 100.35 | 72.54 | 9.20 | 11.61 | 6.57 | 0.00 | 0.08 | |
| | *00042108 | G22 | 39.43 | 22.37 | 0.02 | 0.06 | 29.54 | 0.00 | 0.76 | 6.73 | 2.59 | 0.02 | 0.03 | 101.54 | 64.74 | 26.30 | 1.69 | 7.09 | 0.00 | 0.17 | |
| | *00042108 | G23 | 38.49 | 21.56 | 0.02 | 0.00 | 29.72 | 0.00 | 1.64 | 1.08 | 9.24 | 0.00 | 0.01 | 101.73 | 65.86 | 4.25 | 3.67 | 26.22 | 0.00 | 0.00 | |
| | *00042108 | G24 | 37.94 | 21.10 | 0.00 | 0.00 | 28.64 | 0.07 | 7.30 | 2.93 | 2.57 | 0.01 | 0.02 | 100.56 | 64.30 | 11.71 | 16.60 | 7.39 | 0.00 | 0.00 | |
| | Tipam Gr. (Chittagong area) | *CH07 | G1 | 37.66 | 10.02 | 0.51 | 0.00 | 21.02 | 0.02 | 0.49 | 0.18 | 29.16 | 0.02 | 0.00 | 99.08 | 8.84 | 0.76 | 1.19 | 39.77 | 49.42 | 0.01 |
| | | *CH07 | G2 | 37.99 | 21.68 | 0.11 | 0.00 | 32.09 | 0.00 | 0.66 | 2.38 | 5.12 | 0.04 | 0.00 | 100.06 | 73.67 | 9.73 | 1.54 | 15.06 | 0.00 | 0.00 |
| | | *CH07 | G3 | 39.08 | 22.14 | 0.11 | 0.04 | 25.45 | 0.00 | 0.66 | 6.88 | 6.35 | 0.02 | 0.01 | 100.72 | 54.71 | 26.36 | 1.44 | 17.36 | 0.00 | 0.13 |
| *CH07 | | G4 | 37.17 | 20.86 | 0.11 | 0.00 | 22.45 | 0.00 | 17.13 | 1.20 | 1.20 | 0.01 | 0.01 | 100.14 | 51.63 | 4.92 | 39.91 | 3.55 | 0.00 | 0.00 | |
| *CH07 | | G5 | 34.50 | 22.13 | 0.14 | 0.18 | 25.32 | 0.01 | 0.94 | 6.61 | 8.44 | 0.04 | 0.01 | 96.31 | 49.02 | 28.63 | 2.32 | 0.67 | 18.73 | 0.63 | |
| *CH07 | | G6 | 38.48 | 22.30 | 0.05 | 0.03 | 28.81 | 0.00 | 0.93 | 7.44 | 2.69 | 0.00 | 0.00 | 100.73 | 61.68 | 28.78 | 2.05 | 6.10 | 1.30 | 0.09 | |
| *CH07 | | G7 | 38.45 | 21.69 | 0.01 | 0.00 | 34.10 | 0.02 | 1.36 | 2.22 | 3.52 | 0.00 | 0.00 | 101.36 | 77.59 | 8.99 | 3.14 | 10.27 | 0.00 | 0.00 | |
| *CH07 | | G8 | 37.96 | 21.41 | 0.04 | 0.04 | 33.47 | 0.00 | 1.96 | 2.76 | 3.00 | 0.00 | 0.00 | 100.65 | 75.69 | 11.11 | 4.49 | 8.56 | 0.00 | 0.14 | |
| *CH07 | | G9 | 37.98 | 21.87 | 0.00 | 0.21 | 31.87 | 0.04 | 2.61 | 4.66 | 1.01 | 0.00 | 0.00 | 100.25 | 72.25 | 18.82 | 5.99 | 2.28 | 0.00 | 0.66 | |
| *CH07 | | G10 | 37.89 | 21.96 | 0.05 | 0.01 | 33.00 | 0.00 | 2.05 | 3.30 | 2.11 | 0.05 | 0.00 | 100.42 | 75.59 | 13.47 | 4.75 | 6.15 | 0.00 | 0.04 | |
| *CH07 | | G11 | 38.35 | 21.41 | 0.01 | 0.00 | 28.12 | 0.00 | 2.19 | 5.47 | 5.20 | 0.00 | 0.00 | 100.76 | 59.38 | 21.25 | 4.85 | 11.63 | 2.90 | 0.00 | |
| *CH07 | | G12 | 38.35 | 21.51 | 0.04 | 0.01 | 31.87 | 0.02 | 0.61 | 1.87 | 6.78 | 0.05 | 0.00 | 101.09 | 71.63 | 7.47 | 1.38 | 19.47 | 0.00 | 0.05 | |
| *CH07 | | G13 | 37.88 | 21.56 | 0.01 | 0.02 | 38.38 | 0.00 | 0.06 | 1.41 | 0.74 | 0.02 | 0.00 | 100.08 | 91.58 | 6.01 | 0.15 | 2.19 | 0.00 | 0.07 | |
| *CH07 | | G14 | 37.46 | 21.68 | 0.01 | 0.08 | 36.24 | 0.02 | 0.94 | 1.97 | 1.30 | 0.03 | 0.00 | 99.73 | 85.52 | 8.30 | 2.24 | 3.66 | 0.00 | 0.28 | |
| *CH07 | | G15 | 37.77 | 21.75 | 0.01 | 0.00 | 33.69 | 0.03 | 1.87 | 2.36 | 2.15 | 0.00 | 0.00 | 99.61 | 79.20 | 9.88 | 4.46 | 6.46 | 0.00 | 0.00 | |
| *CH07 | | G16 | 39.77 | 21.94 | 0.03 | 0.02 | 23.89 | 0.04 | 0.26 | 8.70 | 5.50 | 0.04 | 0.03 | 100.21 | 50.85 | 33.40 | 0.57 | 15.12 | 0.00 | 0.07 | |
| *CH07 | | G17 | 37.57 | 21.68 | 0.16 | 0.00 | 29.22 | 0.00 | 0.40 | 1.52 | 9.28 | 0.05 | 0.00 | 99.88 | 66.08 | 6.13 | 0.91 | 26.88 | 0.00 | 0.00 | |
| *CH07 | | G18 | 38.31 | 21.50 | 0.06 | 0.01 | 32.06 | 0.00 | 2.10 | 4.45 | 1.97 | 0.00 | 0.00 | 100.47 | 71.80 | 17.77 | 4.77 | 5.62 | 0.00 | 0.04 | |
| *CH07 | | G19 | 37.99 | 21.30 | 0.01 | 0.00 | 32.85 | 0.00 | 2.62 | 3.50 | 1.34 | 0.00 | 0.00 | 99.60 | 75.59 | 14.36 | 6.10 | 3.95 | 0.00 | 0.00 | |
| *CH07 | | G20 | 38.56 | 21.41 | 0.04 | 0.03 | 29.39 | 0.00 | 1.17 | 6.10 | 2.84 | 0.03 | 0.00 | 99.57 | 65.19 | 24.12 | 2.64 | 7.96 | 0.00 | 0.10 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (10)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|------------------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Tpm Gr. (Chittagong area) | *CH07 | G21 | 38.06 | 21.75 | 0.10 | 0.04 | 33.58 | 0.00 | 0.61 | 3.01 | 2.16 | 0.02 | 0.01 | 99.34 | 79.33 | 12.69 | 1.46 | 6.40 | 0.00 | 0.13 |
| | *CH07 | G22 | 38.40 | 21.89 | 0.02 | 0.04 | 33.45 | 0.00 | 2.01 | 3.69 | 2.04 | 0.00 | 0.00 | 101.55 | 74.87 | 14.73 | 4.56 | 5.71 | 0.00 | 0.14 |
| | *CH07 | G23 | 37.96 | 21.59 | 0.04 | 0.00 | 33.95 | 0.02 | 0.10 | 0.80 | 6.09 | 0.00 | 0.01 | 100.56 | 78.44 | 3.31 | 0.23 | 18.02 | 0.00 | 0.00 |
| | *CH07 | G24 | 37.72 | 21.63 | 0.03 | 0.00 | 34.65 | 0.00 | 0.10 | 2.59 | 3.94 | 0.00 | 0.00 | 100.68 | 78.01 | 10.39 | 0.22 | 11.38 | 0.00 | 0.00 |
| | *CH07 | G25 | 37.61 | 21.68 | 0.01 | 0.08 | 33.25 | 0.04 | 4.34 | 2.49 | 1.39 | 0.03 | 0.00 | 100.92 | 75.80 | 10.12 | 10.01 | 3.82 | 0.00 | 0.25 |
| | *CH07 | G26 | 38.44 | 21.61 | 0.03 | 0.06 | 26.67 | 0.02 | 3.12 | 3.59 | 6.96 | 0.02 | 0.02 | 100.53 | 59.10 | 14.16 | 7.00 | 19.55 | 0.00 | 0.20 |
| | *CH07 | G27 | 38.33 | 21.67 | 0.00 | 0.00 | 30.15 | 0.00 | 2.71 | 2.86 | 5.22 | 0.00 | 0.00 | 100.93 | 67.49 | 11.39 | 6.13 | 14.98 | 0.00 | 0.00 |
| | *CH07 | G28 | 38.65 | 21.88 | 0.02 | 0.01 | 29.76 | 0.00 | 1.50 | 4.07 | 4.12 | 0.03 | 0.00 | 100.04 | 67.95 | 16.55 | 3.46 | 11.99 | 0.00 | 0.05 |
| | *CH07 | G29 | 38.98 | 21.79 | 0.03 | 0.05 | 26.61 | 0.00 | 0.91 | 5.98 | 6.55 | 0.00 | 0.01 | 100.90 | 56.70 | 23.11 | 2.00 | 18.05 | 0.00 | 0.15 |
| | *CH07 | G30 | 37.93 | 21.57 | 0.05 | 0.00 | 33.42 | 0.00 | 2.52 | 3.43 | 1.55 | 0.00 | 0.00 | 100.48 | 75.82 | 13.89 | 5.79 | 4.49 | 0.00 | 0.01 |
| | *CH07 | G31 | 38.90 | 21.98 | 0.07 | 0.01 | 26.68 | 0.00 | 0.82 | 3.88 | 8.65 | 0.00 | 0.00 | 100.97 | 58.63 | 15.19 | 1.81 | 24.34 | 0.00 | 0.02 |
| | *CH07 | G32 | 37.35 | 21.46 | 0.00 | 0.00 | 34.41 | 0.00 | 3.37 | 1.48 | 1.97 | 0.08 | 0.01 | 100.12 | 80.05 | 6.14 | 7.93 | 5.88 | 0.00 | 0.00 |
| | *CH13 | G1 | 39.46 | 21.72 | 0.35 | 0.00 | 2.20 | 0.00 | 0.25 | 0.27 | 36.37 | 0.04 | 0.00 | 100.66 | 0.00 | 1.03 | 0.53 | 91.45 | 6.98 | 0.00 |
| | *CH13 | G2 | 40.57 | 19.78 | 0.25 | 0.03 | 3.16 | 0.02 | 0.20 | 0.00 | 36.70 | 0.00 | 0.00 | 100.72 | 0.00 | 0.00 | 0.46 | 93.80 | 5.65 | 0.09 |
| | *CH13 | G3 | 39.35 | 19.79 | 0.57 | 0.04 | 3.24 | 0.00 | 0.05 | 0.13 | 36.99 | 0.05 | 0.02 | 100.20 | 0.00 | 0.49 | 0.11 | 88.67 | 10.63 | 0.12 |
| | *CH13 | G4 | 37.76 | 20.67 | 0.05 | 0.00 | 20.45 | 0.00 | 19.24 | 0.99 | 1.42 | 0.02 | 0.00 | 100.60 | 46.99 | 4.04 | 44.79 | 4.17 | 0.00 | 0.01 |
| | *CH13 | G5 | 37.63 | 21.03 | 0.21 | 0.00 | 22.12 | 0.00 | 18.61 | 1.11 | 0.60 | 0.00 | 0.00 | 101.31 | 50.60 | 4.51 | 43.13 | 1.77 | 0.00 | 0.00 |
| | *CH13 | G6 | 37.71 | 20.02 | 0.00 | 0.06 | 21.62 | 0.00 | 15.10 | 1.71 | 2.07 | 0.00 | 0.01 | 98.30 | 50.47 | 7.21 | 36.07 | 6.04 | 0.00 | 0.21 |
| | *CH13 | G7 | 38.84 | 21.58 | 0.03 | 0.02 | 15.35 | 0.05 | 17.05 | 2.89 | 5.65 | 0.01 | 0.00 | 101.47 | 34.10 | 11.45 | 38.36 | 16.03 | 0.00 | 0.06 |
| | *CH13 | G8 | 40.59 | 20.85 | 0.15 | 0.03 | 3.51 | 0.00 | 0.16 | 0.06 | 35.63 | 0.01 | 0.00 | 100.98 | 0.00 | 0.23 | 0.35 | 96.63 | 2.71 | 0.08 |
| | *CH13 | G9 | 38.59 | 18.39 | 0.42 | 0.01 | 4.78 | 0.00 | 0.11 | 0.59 | 36.25 | 0.01 | 0.00 | 99.15 | 0.00 | 2.34 | 0.25 | 81.26 | 16.13 | 0.03 |
| | *CH13 | G10 | 38.83 | 20.66 | 0.06 | 0.05 | 15.92 | 0.00 | 15.45 | 1.75 | 8.69 | 0.04 | 0.00 | 101.45 | 31.66 | 7.12 | 35.76 | 25.29 | 0.00 | 0.16 |
| | *CH13 | G11 | 38.24 | 20.93 | 0.02 | 0.04 | 14.69 | 0.02 | 26.14 | 1.19 | 0.97 | 0.01 | 0.01 | 102.26 | 32.67 | 4.77 | 59.76 | 2.68 | 0.00 | 0.12 |
| | *CH13 | G12 | 40.49 | 21.46 | 0.25 | 0.03 | 1.64 | 0.00 | 0.07 | 0.35 | 37.16 | 0.00 | 0.01 | 101.46 | 0.00 | 1.31 | 0.16 | 94.25 | 4.20 | 0.09 |
| | *CH13 | G13 | 40.46 | 21.06 | 0.22 | 0.00 | 3.53 | 0.02 | 0.42 | 0.11 | 35.35 | 0.05 | 0.00 | 101.22 | 0.70 | 0.41 | 0.93 | 94.28 | 3.69 | 0.00 |
| | *CH13 | G14 | 37.17 | 19.14 | 0.19 | 0.00 | 19.37 | 0.00 | 19.23 | 0.12 | 5.03 | 0.05 | 0.00 | 100.30 | 38.01 | 0.51 | 46.19 | 11.27 | 4.02 | 0.00 |
| | *CH13 | G15 | 37.48 | 21.64 | 0.00 | 0.04 | 22.05 | 0.01 | 14.68 | 3.07 | 2.32 | 0.00 | 0.01 | 101.30 | 47.97 | 12.21 | 33.19 | 4.61 | 1.89 | 0.13 |
| | *CH13 | G16 | 39.45 | 18.89 | 0.37 | 0.01 | 5.76 | 0.02 | 0.39 | 0.09 | 34.71 | 0.00 | 0.00 | 99.69 | 0.00 | 0.35 | 0.89 | 87.73 | 11.02 | 0.03 |
| | *CH13 | G17 | 40.56 | 21.37 | 0.21 | 0.00 | 1.26 | 0.00 | 0.02 | 0.08 | 37.08 | 0.02 | 0.01 | 100.61 | 0.00 | 0.32 | 0.04 | 98.39 | 1.26 | 0.00 |
| *CH13 | G18 | 36.71 | 5.70 | 0.58 | 0.01 | 23.76 | 0.01 | 0.74 | 0.08 | 30.59 | 0.00 | 0.00 | 98.18 | 2.87 | 0.33 | 1.82 | 24.20 | 70.74 | 0.04 | |
| *CH13 | G19 | 40.76 | 22.10 | 0.12 | 0.00 | 0.76 | 0.00 | 0.04 | 0.00 | 37.49 | 0.02 | 0.00 | 101.30 | 0.00 | 0.00 | 0.09 | 99.69 | 0.22 | 0.00 | |
| *CH13 | G20 | 39.64 | 18.38 | 0.29 | 0.04 | 6.43 | 0.00 | 0.24 | 0.23 | 35.11 | 0.00 | 0.00 | 100.35 | 0.00 | 0.91 | 0.53 | 83.90 | 14.55 | 0.12 | |
| *CH13 | G21 | 37.63 | 18.69 | 0.36 | 0.00 | 23.53 | 0.00 | 2.75 | 1.51 | 13.13 | 0.00 | 0.00 | 97.60 | 44.69 | 6.68 | 6.91 | 39.77 | 1.95 | 0.00 | |
| *CH13 | G22 | 37.92 | 18.41 | 0.15 | 0.00 | 16.59 | 0.00 | 8.63 | 0.68 | 18.58 | 0.02 | 0.01 | 100.98 | 25.59 | 2.67 | 19.27 | 36.01 | 16.46 | 0.00 | |
| *CH13 | G23 | 39.89 | 21.75 | 0.06 | 0.00 | 13.38 | 0.03 | 1.39 | 0.28 | 25.10 | 0.00 | 0.01 | 101.87 | 25.91 | 1.10 | 3.06 | 69.93 | 0.00 | 0.00 | |
| *CH13 | G24 | 40.36 | 21.48 | 0.22 | 0.00 | 3.35 | 0.02 | 4.06 | 0.10 | 31.96 | 0.00 | 0.00 | 101.55 | 0.90 | 0.40 | 9.01 | 89.19 | 0.51 | 0.00 | |
| *CH13 | G25 | 36.96 | 9.80 | 0.93 | 0.00 | 14.81 | 0.00 | 0.49 | 0.07 | 34.87 | 0.00 | 0.00 | 97.92 | 0.00 | 0.29 | 1.14 | 45.01 | 53.57 | 0.00 | |
| *CH13 | G26 | 40.45 | 19.67 | 0.90 | 0.03 | 3.36 | 0.00 | 0.07 | 0.06 | 36.61 | 0.04 | 0.00 | 101.20 | 0.00 | 0.23 | 0.17 | 94.59 | 4.90 | 0.11 | |
| *CH13 | G27 | 38.83 | 20.38 | 0.07 | 0.08 | 30.38 | 0.07 | 0.29 | 3.04 | 4.96 | 0.07 | 0.00 | 98.17 | 71.57 | 12.77 | 0.69 | 14.71 | 0.00 | 0.27 | |
| *CH13 | G28 | 39.78 | 19.25 | 0.44 | 0.10 | 5.92 | 0.00 | 0.59 | 0.26 | 33.89 | 0.00 | 0.00 | 100.23 | 0.06 | 1.05 | 1.33 | 89.03 | 8.22 | 0.31 | |
| *CH13 | G29 | 38.14 | 21.33 | 0.03 | 0.00 | 23.84 | 0.00 | 11.85 | 1.48 | 4.61 | 0.03 | 0.03 | 101.33 | 53.71 | 5.94 | 27.04 | 13.31 | 0.00 | 0.00 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (11)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|-----------------------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Tipam Gr. (Chittagong area) | *CH13 | G30 | 38.85 | 21.41 | 0.07 | 0.00 | 23.09 | 0.06 | 4.54 | 1.48 | 12.48 | 0.00 | 0.00 | 101.98 | 48.70 | 5.83 | 10.16 | 35.32 | 0.00 | 0.00 |
| | *CH13 | G31 | 39.37 | 19.68 | 0.26 | 0.00 | 6.41 | 0.00 | 1.21 | 0.12 | 33.44 | 0.00 | 0.02 | 100.50 | 5.02 | 0.46 | 2.63 | 80.88 | 11.02 | 0.00 |
| | *CH53 | G1 | 38.55 | 22.96 | 0.11 | 0.06 | 11.77 | 0.05 | 0.35 | 0.03 | 22.82 | 0.00 | 0.00 | 96.69 | 28.43 | 0.11 | 0.85 | 70.40 | 0.00 | 0.22 |
| | *CH53 | G2 | 40.12 | 19.57 | 0.28 | 0.02 | 4.21 | 0.00 | 0.10 | 0.21 | 35.94 | 0.00 | 0.01 | 100.45 | 0.00 | 0.81 | 0.23 | 90.53 | 8.37 | 0.06 |
| | *CH53 | G3 | 37.67 | 21.35 | 0.00 | 0.00 | 36.53 | 0.01 | 2.00 | 2.06 | 1.10 | 0.01 | 0.00 | 100.73 | 83.73 | 8.41 | 4.64 | 3.22 | 0.00 | 0.00 |
| | *CH53 | G4 | 39.93 | 18.84 | 0.39 | 0.05 | 4.54 | 0.00 | 0.00 | 0.17 | 36.15 | 0.00 | 0.00 | 100.08 | 0.00 | 0.70 | 0.00 | 88.78 | 10.38 | 0.14 |
| | *CH53 | G5 | 37.78 | 21.33 | 0.04 | 0.02 | 38.03 | 0.00 | 0.16 | 3.05 | 0.66 | 0.00 | 0.01 | 101.08 | 85.53 | 12.21 | 0.37 | 1.81 | 0.00 | 0.08 |
| | *CH53 | G6 | 38.19 | 20.80 | 0.17 | 0.05 | 15.17 | 0.02 | 8.63 | 0.27 | 16.83 | 0.00 | 0.00 | 100.13 | 30.47 | 1.07 | 19.75 | 48.08 | 0.47 | 0.16 |
| | *CH53 | G7 | 36.90 | 20.48 | 0.09 | 0.00 | 14.71 | 0.00 | 22.62 | 1.02 | 2.07 | 0.05 | 0.00 | 97.93 | 34.95 | 4.33 | 54.44 | 6.27 | 0.00 | 0.01 |
| | *CH53 | G8 | 39.21 | 15.82 | 0.29 | 0.00 | 9.23 | 0.00 | 3.54 | 0.19 | 31.39 | 0.01 | 0.00 | 99.69 | 0.00 | 0.79 | 8.37 | 68.90 | 21.95 | 0.00 |
| | *CH53 | G9 | 37.61 | 21.21 | 0.40 | 0.00 | 38.43 | 0.02 | 1.26 | 0.98 | 1.45 | 0.01 | 0.00 | 101.37 | 88.73 | 4.03 | 2.95 | 4.29 | 0.00 | 0.00 |
| | *CH53 | G10 | 38.80 | 13.80 | 0.43 | 0.00 | 11.36 | 0.00 | 0.36 | 0.19 | 34.10 | 0.00 | 0.00 | 99.03 | 0.00 | 0.79 | 0.85 | 66.76 | 31.60 | 0.00 |
| | *CH53 | G11 | 37.26 | 6.76 | 0.45 | 0.02 | 21.36 | 0.00 | 0.35 | 0.10 | 32.22 | 0.00 | 0.00 | 98.52 | 0.00 | 0.43 | 0.86 | 33.02 | 65.61 | 0.08 |
| | *CH53 | G12 | 36.27 | 21.38 | 0.08 | 0.06 | 38.79 | 0.02 | 0.11 | 2.80 | 0.38 | 0.00 | 0.00 | 99.89 | 87.13 | 11.50 | 0.25 | 0.00 | 0.92 | 0.19 |
| | *CH53 | G13 | 37.83 | 21.42 | 0.00 | 0.00 | 36.15 | 0.00 | 1.58 | 1.73 | 0.93 | 0.02 | 0.02 | 99.68 | 86.04 | 7.32 | 3.81 | 2.84 | 0.00 | 0.00 |
| | *CH53 | G14 | 37.46 | 21.26 | 0.03 | 0.00 | 36.02 | 0.00 | 1.19 | 0.91 | 3.63 | 0.02 | 0.00 | 100.51 | 82.80 | 3.73 | 2.77 | 10.70 | 0.00 | 0.00 |
| | *CH53 | G15 | 40.08 | 19.72 | 0.36 | 0.00 | 4.06 | 0.06 | 0.16 | 0.13 | 35.89 | 0.03 | 0.00 | 100.50 | 0.00 | 0.52 | 0.36 | 91.15 | 7.97 | 0.00 |
| | *CH53 | G16 | 38.99 | 18.65 | 0.61 | 0.00 | 7.51 | 0.00 | 0.05 | 0.05 | 35.52 | 0.02 | 0.00 | 99.38 | 0.00 | 0.20 | 0.12 | 79.14 | 20.55 | 0.00 |
| | *CH53 | G17 | 40.52 | 21.38 | 0.34 | 0.05 | 1.47 | 0.00 | 0.04 | 0.11 | 36.81 | 0.02 | 0.00 | 100.73 | 0.00 | 0.42 | 0.09 | 98.68 | 0.66 | 0.15 |
| | *CH53 | G18 | 37.99 | 21.07 | 0.02 | 0.09 | 36.79 | 0.00 | 0.89 | 1.90 | 1.67 | 0.00 | 0.00 | 100.42 | 85.14 | 7.83 | 2.09 | 4.64 | 0.00 | 0.30 |
| | *CH53 | G19 | 38.13 | 21.20 | 0.08 | 0.00 | 37.68 | 0.00 | 1.25 | 1.07 | 1.43 | 0.00 | 0.01 | 100.85 | 88.26 | 4.48 | 2.97 | 4.29 | 0.00 | 0.00 |
| | *CH53 | G20 | 40.07 | 22.17 | 0.09 | 0.03 | 1.29 | 0.01 | 0.12 | 0.14 | 36.62 | 0.00 | 0.00 | 100.54 | 1.01 | 0.51 | 0.24 | 96.27 | 1.87 | 0.10 |
| | *CH53 | G21 | 39.36 | 19.44 | 0.23 | 0.01 | 4.75 | 0.04 | 0.11 | 0.18 | 34.93 | 0.00 | 0.00 | 99.05 | 0.00 | 0.72 | 0.24 | 90.05 | 8.97 | 0.03 |
| | *CH53 | G22 | 39.17 | 20.45 | 0.26 | 0.09 | 6.32 | 0.00 | 0.49 | 0.11 | 32.71 | 0.00 | 0.00 | 99.59 | 7.66 | 0.41 | 1.09 | 84.55 | 6.04 | 0.26 |
| | *CH53 | G23 | 38.68 | 21.90 | 0.05 | 0.00 | 31.91 | 0.00 | 0.27 | 5.31 | 2.84 | 0.04 | 0.00 | 101.00 | 70.46 | 20.91 | 0.61 | 8.02 | 0.00 | 0.00 |
| | *CH53 | G24 | 37.51 | 21.54 | 0.06 | 0.00 | 38.05 | 0.00 | 0.39 | 2.19 | 0.81 | 0.00 | 0.00 | 100.55 | 87.71 | 8.99 | 0.92 | 2.38 | 0.00 | 0.00 |
| | *CH53 | G25 | 38.55 | 14.77 | 0.36 | 0.02 | 12.41 | 0.01 | 0.77 | 0.14 | 31.58 | 0.00 | 0.00 | 98.60 | 2.35 | 0.57 | 1.84 | 68.78 | 26.39 | 0.08 |
| *CH53 | G26 | 32.73 | 21.29 | 0.01 | 0.01 | 35.65 | 0.00 | 1.09 | 1.75 | 2.19 | 0.04 | 0.00 | 99.75 | 81.95 | 8.01 | 2.83 | 0.00 | 7.19 | 0.03 | |
| *CH53 | G27 | 39.35 | 19.20 | 0.46 | 0.00 | 5.56 | 0.00 | 0.28 | 0.34 | 34.74 | 0.00 | 0.00 | 99.93 | 0.94 | 1.32 | 0.62 | 85.69 | 11.43 | 0.00 | |
| *CH53 | G28 | 37.49 | 21.57 | 0.02 | 0.00 | 37.29 | 0.06 | 1.35 | 1.83 | 0.96 | 0.07 | 0.00 | 100.64 | 86.40 | 7.57 | 3.17 | 2.85 | 0.00 | 0.01 | |
| *CH54 | G1 | 37.90 | 21.46 | 0.00 | 0.00 | 33.31 | 0.00 | 3.70 | 1.58 | 1.86 | 0.00 | 0.00 | 99.81 | 78.85 | 6.65 | 8.88 | 5.63 | 0.00 | 0.00 | |
| *CH54 | G2 | 37.98 | 21.00 | 0.15 | 0.04 | 31.78 | 0.00 | 3.12 | 0.66 | 6.26 | 0.01 | 0.02 | 101.02 | 72.00 | 2.65 | 7.17 | 18.05 | 0.00 | 0.14 | |
| *CH54 | G3 | 39.11 | 21.67 | 0.08 | 0.03 | 31.21 | 0.03 | 0.69 | 2.90 | 4.54 | 0.00 | 0.00 | 100.25 | 72.78 | 12.03 | 1.63 | 13.48 | 0.00 | 0.08 | |
| *CH54 | G4 | 37.00 | 21.59 | 0.04 | 0.04 | 36.21 | 0.00 | 1.43 | 1.60 | 2.16 | 0.05 | 0.00 | 100.11 | 83.67 | 6.59 | 3.35 | 6.29 | 0.00 | 0.12 | |
| *CH54 | G5 | 38.57 | 22.16 | 0.07 | 0.06 | 27.04 | 0.00 | 1.15 | 5.24 | 5.83 | 0.03 | 0.00 | 100.15 | 60.06 | 20.76 | 2.59 | 16.40 | 0.00 | 0.20 | |
| *CH54 | G6 | 38.94 | 21.60 | 0.05 | 0.02 | 25.23 | 0.00 | 0.81 | 1.24 | 13.54 | 0.02 | 0.00 | 101.45 | 55.30 | 4.86 | 1.80 | 37.97 | 0.00 | 0.07 | |
| *CH54 | G7 | 37.81 | 21.57 | 0.10 | 0.00 | 29.59 | 0.00 | 0.38 | 1.76 | 7.42 | 0.00 | 0.02 | 98.64 | 69.43 | 7.37 | 0.91 | 22.29 | 0.00 | 0.00 | |
| *CH54 | G8 | 38.35 | 21.70 | 0.03 | 0.00 | 34.03 | 0.02 | 1.37 | 3.51 | 1.61 | 0.02 | 0.00 | 100.63 | 77.83 | 14.30 | 3.17 | 4.71 | 0.00 | 0.00 | |
| *CH54 | G9 | 38.10 | 21.20 | 0.11 | 0.00 | 30.18 | 0.00 | 1.04 | 1.31 | 7.48 | 0.00 | 0.00 | 99.41 | 69.95 | 5.40 | 2.44 | 22.20 | 0.00 | 0.00 | |
| *CH54 | G10 | 37.77 | 21.21 | 0.01 | 0.04 | 35.27 | 0.07 | 1.34 | 2.22 | 1.70 | 0.00 | 0.00 | 99.62 | 82.50 | 9.24 | 3.17 | 4.97 | 0.00 | 0.12 | |
| *CH54 | G11 | 39.18 | 28.08 | 0.09 | 0.00 | 7.18 | 0.04 | 0.14 | 0.08 | 23.37 | 0.02 | 0.00 | 98.17 | 19.19 | 0.40 | 0.38 | 80.04 | 0.00 | 0.00 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (12)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|-----------------------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Tipam Gr. (Chittagong area) | *CH54 | G12 | 38.46 | 20.98 | 0.05 | 0.07 | 29.68 | 0.00 | 0.72 | 1.01 | 9.81 | 0.00 | 0.01 | 100.79 | 66.05 | 4.03 | 1.63 | 28.07 | 0.00 | 0.22 |
| | *CH54 | G13 | 38.19 | 21.33 | 0.00 | 0.01 | 32.05 | 0.00 | 3.64 | 2.32 | 2.46 | 0.06 | 0.00 | 100.06 | 74.49 | 9.62 | 8.57 | 7.31 | 0.00 | 0.02 |
| | *CH54 | G14 | 38.58 | 21.60 | 0.04 | 0.00 | 35.74 | 0.00 | 1.01 | 1.37 | 3.31 | 0.03 | 0.00 | 101.68 | 82.25 | 5.63 | 2.36 | 9.76 | 0.00 | 0.00 |
| | *CH54 | G15 | 38.20 | 21.72 | 0.02 | 0.01 | 31.18 | 0.01 | 3.96 | 1.89 | 2.28 | 0.00 | 0.00 | 99.27 | 75.19 | 8.10 | 9.66 | 7.00 | 0.00 | 0.05 |
| | *CH54 | G16 | 39.27 | 22.27 | 0.00 | 0.00 | 30.47 | 0.02 | 1.07 | 5.68 | 2.50 | 0.04 | 0.00 | 101.32 | 67.89 | 22.57 | 2.40 | 7.14 | 0.00 | 0.00 |
| | *CH54 | G17 | 38.82 | 20.61 | 0.01 | 0.07 | 26.53 | 0.07 | 0.81 | 6.37 | 5.37 | 0.07 | 0.00 | 98.74 | 56.37 | 26.00 | 1.89 | 15.51 | 0.00 | 0.24 |
| | *CH54 | G18 | 39.32 | 21.99 | 0.04 | 0.04 | 22.29 | 0.00 | 2.27 | 4.31 | 10.69 | 0.01 | 0.00 | 100.96 | 48.49 | 16.71 | 5.00 | 29.67 | 0.00 | 0.13 |
| | *CH54 | G19 | 37.74 | 20.95 | 0.00 | 0.05 | 32.91 | 0.00 | 1.43 | 2.97 | 2.84 | 0.00 | 0.00 | 98.89 | 76.03 | 12.24 | 3.34 | 8.24 | 0.00 | 0.15 |
| | *CH54 | G20 | 39.25 | 22.04 | 0.03 | 0.02 | 28.78 | 0.00 | 0.63 | 6.82 | 1.42 | 0.00 | 0.00 | 98.98 | 66.34 | 28.01 | 1.47 | 4.12 | 0.00 | 0.07 |
| | *CH54 | G21 | 38.67 | 20.37 | 0.03 | 0.00 | 30.48 | 0.00 | 1.42 | 4.80 | 2.93 | 0.00 | 0.00 | 98.71 | 68.06 | 19.88 | 3.34 | 8.71 | 0.00 | 0.01 |
| | *CH54 | G22 | 38.79 | 22.27 | 0.06 | 0.00 | 30.65 | 0.00 | 0.35 | 3.42 | 6.27 | 0.01 | 0.00 | 101.81 | 67.93 | 13.50 | 0.78 | 17.79 | 0.00 | 0.00 |
| | *CH54 | G23 | 38.79 | 21.92 | 0.05 | 0.00 | 31.25 | 0.01 | 1.24 | 5.19 | 2.41 | 0.00 | 0.00 | 100.86 | 69.69 | 20.62 | 2.81 | 6.89 | 0.00 | 0.00 |
| | *CH54 | G24 | 38.59 | 21.50 | 0.05 | 0.00 | 27.77 | 0.00 | 2.31 | 2.75 | 7.88 | 0.01 | 0.00 | 100.86 | 61.57 | 10.87 | 5.18 | 22.38 | 0.00 | 0.00 |
| | *CH54 | G25 | 38.20 | 21.38 | 0.00 | 0.00 | 33.42 | 0.00 | 1.85 | 2.30 | 3.63 | 0.02 | 0.01 | 100.81 | 75.88 | 9.31 | 4.26 | 10.55 | 0.00 | 0.00 |
| | *CH54 | G26 | 38.27 | 21.37 | 0.20 | 0.01 | 33.16 | 0.03 | 4.03 | 1.19 | 3.79 | 0.00 | 0.00 | 102.05 | 75.00 | 4.79 | 9.23 | 10.94 | 0.00 | 0.05 |
| | *CH54 | G27 | 40.06 | 31.60 | 0.04 | 0.00 | 2.18 | 0.01 | 0.16 | 0.02 | 24.30 | 0.04 | 0.00 | 98.41 | 6.51 | 0.12 | 0.48 | 92.90 | 0.00 | 0.00 |
| | *CH54 | G28 | 38.67 | 21.64 | 0.21 | 0.00 | 27.15 | 0.03 | 1.50 | 1.83 | 8.92 | 0.02 | 0.00 | 99.96 | 62.62 | 7.54 | 3.50 | 26.35 | 0.00 | 0.00 |
| | *CH54 | G29 | 38.00 | 21.49 | 0.00 | 0.00 | 32.60 | 0.00 | 3.98 | 2.62 | 1.91 | 0.02 | 0.01 | 100.62 | 74.52 | 10.66 | 9.22 | 5.61 | 0.00 | 0.00 |
| | *CH54 | G30 | 38.15 | 21.81 | 0.03 | 0.00 | 31.63 | 0.00 | 0.98 | 2.20 | 5.84 | 0.03 | 0.00 | 100.68 | 71.84 | 8.91 | 2.25 | 17.00 | 0.00 | 0.00 |
| | *CH55 | G1 | 40.18 | 20.75 | 0.43 | 0.00 | 4.34 | 0.00 | 0.41 | 0.26 | 34.42 | 0.00 | 0.00 | 100.79 | 0.48 | 1.01 | 0.92 | 94.68 | 2.92 | 0.00 |
| | *CH55 | G2 | 40.43 | 21.77 | 0.05 | 0.00 | 0.97 | 0.00 | 0.00 | 0.11 | 37.44 | 0.00 | 0.01 | 100.77 | 0.00 | 0.42 | 0.00 | 97.06 | 2.51 | 0.00 |
| | *CH55 | G3 | 39.07 | 20.16 | 0.15 | 0.00 | 6.71 | 0.00 | 1.52 | 0.12 | 31.04 | 0.00 | 0.00 | 98.78 | 7.10 | 0.48 | 3.45 | 84.30 | 4.66 | 0.00 |
| | *CH55 | G4 | 39.62 | 20.97 | 0.42 | 0.01 | 1.99 | 0.01 | 0.07 | 0.05 | 36.00 | 0.02 | 0.01 | 99.16 | 0.00 | 0.19 | 0.15 | 97.54 | 2.08 | 0.04 |
| | *CH55 | G5 | 39.63 | 20.23 | 0.15 | 0.00 | 4.27 | 0.00 | 1.17 | 0.06 | 33.81 | 0.00 | 0.00 | 99.31 | 0.44 | 0.25 | 2.65 | 92.09 | 4.58 | 0.00 |
| | *CH55 | G6 | 38.96 | 19.73 | 0.76 | 0.03 | 4.04 | 0.03 | 0.33 | 0.04 | 35.01 | 0.02 | 0.00 | 98.93 | 0.00 | 0.16 | 0.75 | 91.89 | 7.11 | 0.09 |
| | *CH55 | G7 | 37.55 | 20.32 | 0.13 | 0.03 | 14.37 | 0.02 | 22.91 | 1.04 | 3.88 | 0.00 | 0.00 | 100.25 | 30.16 | 4.31 | 53.97 | 11.47 | 0.00 | 0.09 |
| | *CH55 | G8 | 37.45 | 21.13 | 0.08 | 0.00 | 24.07 | 0.00 | 13.60 | 1.73 | 0.87 | 0.02 | 0.00 | 98.97 | 57.25 | 7.35 | 32.75 | 2.65 | 0.00 | 0.00 |
| | *CH55 | G9 | 38.14 | 13.25 | 0.43 | 0.00 | 17.65 | 0.00 | 0.41 | 0.32 | 28.84 | 0.02 | 0.01 | 99.06 | 10.91 | 1.36 | 0.96 | 52.59 | 34.19 | 0.00 |
| | *CH55 | G10 | 38.86 | 20.01 | 0.36 | 0.01 | 6.07 | 0.03 | 1.74 | 0.10 | 32.14 | 0.00 | 0.00 | 99.33 | 5.85 | 0.38 | 3.85 | 81.89 | 8.00 | 0.03 |
| | *CH55 | G11 | 39.33 | 17.73 | 0.57 | 0.05 | 7.41 | 0.01 | 0.66 | 0.28 | 33.96 | 0.00 | 0.00 | 100.00 | 0.00 | 1.13 | 1.50 | 81.80 | 15.41 | 0.17 |
| *CH55 | G12 | 40.00 | 20.87 | 0.31 | 0.00 | 2.22 | 0.03 | 0.62 | 0.03 | 36.75 | 0.00 | 0.00 | 100.84 | 0.00 | 0.11 | 1.33 | 92.46 | 6.10 | 0.00 | |
| *CH55 | G13 | 38.18 | 21.37 | 0.01 | 0.02 | 21.72 | 0.00 | 14.27 | 0.34 | 5.35 | 0.03 | 0.00 | 101.28 | 49.77 | 1.40 | 33.12 | 15.65 | 0.00 | 0.06 | |
| *CH55 | G14 | 39.14 | 21.20 | 0.13 | 0.00 | 14.16 | 0.00 | 4.69 | 0.36 | 20.82 | 0.00 | 0.00 | 100.51 | 28.46 | 1.41 | 10.61 | 59.52 | 0.00 | 0.00 | |
| *CH55 | G15 | 36.43 | 16.48 | 0.41 | 0.00 | 10.71 | 0.04 | 0.70 | 0.07 | 32.21 | 0.01 | 0.01 | 97.06 | 3.96 | 0.29 | 1.62 | 63.43 | 30.70 | 0.00 | |
| *CH55 | G16 | 37.79 | 20.52 | 0.27 | 0.00 | 15.53 | 0.02 | 16.66 | 1.77 | 6.18 | 0.00 | 0.00 | 98.74 | 35.58 | 7.27 | 38.90 | 18.26 | 0.00 | 0.00 | |
| *CH55 | G17 | 38.45 | 20.94 | 0.22 | 0.04 | 17.75 | 0.01 | 10.88 | 1.87 | 9.21 | 0.01 | 0.00 | 99.38 | 40.43 | 7.61 | 25.10 | 26.74 | 0.00 | 0.13 | |
| *CH55 | G18 | 38.72 | 17.27 | 0.43 | 0.02 | 7.40 | 0.00 | 0.17 | 0.20 | 35.44 | 0.00 | 0.01 | 99.65 | 0.23 | 0.76 | 0.36 | 76.84 | 21.76 | 0.05 | |
| *CH55 | G19 | 38.05 | 21.13 | 0.28 | 0.00 | 7.14 | 0.00 | 25.36 | 0.73 | 6.80 | 0.02 | 0.03 | 99.53 | 16.67 | 3.05 | 59.95 | 20.32 | 0.00 | 0.00 | |
| *CH55 | G20 | 39.56 | 19.02 | 0.49 | 0.00 | 4.69 | 0.00 | 0.22 | 0.05 | 35.85 | 0.01 | 0.00 | 99.89 | 0.00 | 0.18 | 0.50 | 88.62 | 10.70 | 0.00 | |
| *CH55 | G21 | 39.19 | 19.47 | 0.44 | 0.00 | 3.67 | 0.01 | 0.30 | 0.07 | 36.18 | 0.00 | 0.00 | 99.30 | 0.00 | 0.27 | 0.65 | 88.62 | 10.47 | 0.00 | |
| *CH55 | G22 | 38.06 | 14.55 | 0.42 | 0.02 | 13.05 | 0.02 | 0.48 | 0.17 | 31.99 | 0.00 | 0.00 | 98.75 | 5.50 | 0.67 | 1.09 | 62.33 | 30.34 | 0.08 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (13)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|-----------------------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Tipam Gr. (Chittagong area) | *CH55 | G23 | 40.18 | 20.64 | 0.17 | 0.00 | 3.11 | 0.00 | 0.09 | 0.14 | 36.20 | 0.01 | 0.02 | 100.57 | 0.00 | 0.54 | 0.19 | 93.61 | 5.87 | 0.00 |
| | *CH55 | G24 | 39.67 | 18.77 | 0.40 | 0.00 | 4.91 | 0.04 | 0.11 | 0.13 | 35.55 | 0.02 | 0.00 | 99.60 | 0.00 | 0.53 | 0.25 | 88.60 | 10.62 | 0.00 |
| | *CH55 | G25 | 40.29 | 20.42 | 0.37 | 0.00 | 2.76 | 0.02 | 0.05 | 0.10 | 36.67 | 0.00 | 0.00 | 100.67 | 0.00 | 0.40 | 0.11 | 94.58 | 4.91 | 0.00 |
| | *CH55 | G26 | 38.85 | 28.52 | 0.14 | 0.04 | 5.25 | 0.00 | 0.08 | 0.04 | 23.67 | 0.01 | 0.00 | 96.59 | 14.70 | 0.20 | 0.22 | 84.74 | 0.00 | 0.14 |
| | *CH55 | G27 | 37.91 | 12.64 | 0.40 | 0.03 | 17.50 | 0.03 | 0.49 | 0.17 | 29.10 | 0.03 | 0.01 | 98.30 | 9.05 | 0.72 | 1.18 | 52.90 | 36.06 | 0.11 |
| | *CH55 | G28 | 38.14 | 20.69 | 0.10 | 0.00 | 12.18 | 0.00 | 9.72 | 0.24 | 17.94 | 0.00 | 0.01 | 99.00 | 23.97 | 0.96 | 22.50 | 52.57 | 0.00 | 0.00 |
| | *CH55 | G29 | 39.14 | 21.12 | 0.09 | 0.00 | 15.47 | 0.02 | 2.11 | 0.25 | 22.00 | 0.01 | 0.00 | 100.20 | 31.10 | 0.99 | 4.79 | 63.12 | 0.00 | 0.00 |
| | *CH55 | G30 | 39.21 | 18.69 | 0.18 | 0.00 | 6.41 | 0.01 | 0.97 | 0.00 | 33.72 | 0.00 | 0.00 | 99.18 | 1.52 | 0.00 | 2.19 | 84.37 | 11.92 | 0.00 |
| | *CH55 | G31 | 38.80 | 21.97 | 0.06 | 0.00 | 27.65 | 0.02 | 3.04 | 6.78 | 2.02 | 0.00 | 0.00 | 100.34 | 60.91 | 28.62 | 6.78 | 5.69 | 0.00 | 0.00 |
| | *CH55 | G32 | 40.06 | 21.08 | 0.02 | 0.00 | 2.31 | 0.02 | 0.22 | 0.00 | 36.81 | 0.00 | 0.00 | 100.51 | 0.00 | 0.00 | 0.47 | 93.84 | 5.69 | 0.00 |
| Dupi Tila Fm. (Sylhet area) | *00042110 | G1 | 37.74 | 21.18 | 0.14 | 0.00 | 21.35 | 0.00 | 20.72 | 0.64 | 0.57 | 0.06 | 0.00 | 102.41 | 48.28 | 2.59 | 47.47 | 1.65 | 0.00 | 0.00 |
| | *00042110 | G2 | 38.56 | 21.70 | 0.01 | 0.04 | 31.75 | 0.03 | 5.46 | 2.02 | 2.75 | 0.03 | 0.00 | 102.35 | 71.50 | 8.10 | 12.45 | 7.82 | 0.00 | 0.13 |
| | *00042110 | G3 | 40.13 | 21.53 | 0.05 | 0.09 | 27.09 | 0.00 | 1.05 | 8.99 | 2.30 | 0.00 | 0.00 | 101.23 | 56.12 | 35.09 | 2.32 | 6.19 | 0.00 | 0.28 |
| | *00042110 | G4 | 38.11 | 21.36 | 0.04 | 0.00 | 29.71 | 0.03 | 8.48 | 1.60 | 1.19 | 0.03 | 0.01 | 100.56 | 69.61 | 6.68 | 20.13 | 3.58 | 0.00 | 0.00 |
| | *00042110 | G5 | 38.42 | 21.32 | 0.08 | 0.00 | 33.74 | 0.00 | 3.87 | 1.27 | 3.10 | 0.01 | 0.02 | 101.83 | 76.86 | 5.15 | 8.94 | 9.04 | 0.00 | 0.01 |
| | *00042110 | G6 | 38.26 | 21.93 | 0.04 | 0.01 | 32.07 | 0.05 | 0.11 | 4.86 | 2.90 | 0.00 | 0.00 | 101.23 | 71.95 | 19.44 | 0.26 | 8.32 | 0.00 | 0.02 |
| | *00042110 | G7 | 39.59 | 21.96 | 0.07 | 0.02 | 30.12 | 0.00 | 0.65 | 6.00 | 2.86 | 0.00 | 0.00 | 101.26 | 66.74 | 23.68 | 1.45 | 8.07 | 0.00 | 0.06 |
| | *00042110 | G8 | 37.27 | 21.56 | 0.00 | 0.00 | 34.35 | 0.00 | 5.90 | 0.24 | 1.19 | 0.00 | 0.00 | 100.51 | 81.25 | 1.00 | 14.14 | 3.61 | 0.00 | 0.00 |
| | *00042110 | G9 | 38.62 | 21.70 | 0.00 | 0.00 | 36.60 | 0.00 | 1.86 | 1.78 | 1.31 | 0.01 | 0.00 | 101.87 | 84.47 | 7.31 | 4.34 | 3.89 | 0.00 | 0.00 |
| | *00042110 | G10 | 38.66 | 21.72 | 0.14 | 0.00 | 27.77 | 0.02 | 2.74 | 1.11 | 9.15 | 0.06 | 0.00 | 101.38 | 62.76 | 4.47 | 6.28 | 26.48 | 0.00 | 0.01 |
| | *00042110 | G11 | 38.64 | 21.25 | 0.05 | 0.08 | 36.48 | 0.00 | 1.35 | 1.83 | 2.61 | 0.00 | 0.00 | 102.29 | 62.06 | 7.35 | 3.08 | 7.25 | 0.00 | 0.27 |
| | *00042110 | G12 | 39.87 | 22.51 | 0.05 | 0.03 | 27.90 | 0.01 | 0.84 | 8.27 | 1.34 | 0.03 | 0.00 | 100.84 | 61.72 | 32.61 | 1.88 | 3.71 | 0.00 | 0.08 |
| | *00042110 | G13 | 39.67 | 22.10 | 0.30 | 0.00 | 26.37 | 0.05 | 0.70 | 3.00 | 7.86 | 0.00 | 0.00 | 100.05 | 62.06 | 12.57 | 1.66 | 23.71 | 0.00 | 0.00 |
| | *00042110 | G14 | 36.88 | 21.43 | 0.04 | 0.00 | 27.38 | 0.00 | 13.23 | 0.56 | 0.51 | 0.08 | 0.00 | 100.10 | 64.54 | 2.33 | 31.57 | 1.55 | 0.00 | 0.00 |
| | *00042110 | G15 | 39.50 | 22.24 | 0.00 | 0.00 | 31.54 | 0.00 | 0.44 | 4.61 | 3.01 | 0.03 | 0.00 | 101.38 | 71.58 | 18.65 | 1.01 | 8.76 | 0.00 | 0.00 |
| | *00042110 | G16 | 38.85 | 21.85 | 0.03 | 0.00 | 30.42 | 0.06 | 6.47 | 3.11 | 0.76 | 0.00 | 0.00 | 101.55 | 69.95 | 12.76 | 15.06 | 2.22 | 0.00 | 0.00 |
| | *00042110 | G17 | 38.06 | 21.71 | 0.02 | 0.00 | 27.01 | 0.05 | 1.31 | 0.59 | 11.95 | 0.05 | 0.00 | 100.75 | 60.42 | 2.36 | 2.97 | 34.24 | 0.00 | 0.00 |
| | *00042110 | G18 | 39.20 | 21.57 | 0.24 | 0.00 | 26.52 | 0.03 | 6.01 | 2.01 | 6.58 | 0.02 | 0.00 | 102.18 | 59.43 | 8.04 | 13.65 | 18.87 | 0.00 | 0.01 |
| | *00042110 | G19 | 39.65 | 22.22 | 0.02 | 0.03 | 30.78 | 0.03 | 0.85 | 6.75 | 1.62 | 0.00 | 0.00 | 101.96 | 67.29 | 26.29 | 1.88 | 4.44 | 0.00 | 0.10 |
| | *00042110 | G20 | 39.35 | 22.65 | 0.06 | 0.03 | 28.45 | 0.00 | 0.80 | 8.55 | 1.23 | 0.00 | 0.00 | 101.12 | 61.75 | 33.08 | 1.75 | 3.34 | 0.00 | 0.08 |
| | *00042110 | G21 | 38.70 | 21.83 | 0.06 | 0.00 | 28.98 | 0.02 | 0.23 | 1.59 | 9.51 | 0.02 | 0.01 | 100.95 | 65.53 | 6.40 | 0.52 | 27.56 | 0.00 | 0.00 |
| | *00042110 | G22 | 38.92 | 22.36 | 0.05 | 0.05 | 33.11 | 0.00 | 0.26 | 3.16 | 4.52 | 0.00 | 0.01 | 102.44 | 73.92 | 12.58 | 0.58 | 12.76 | 0.00 | 0.16 |
| | *00042110 | G23 | 38.71 | 21.74 | 0.06 | 0.04 | 29.32 | 0.06 | 2.01 | 1.01 | 9.10 | 0.00 | 0.00 | 102.05 | 65.43 | 4.03 | 4.54 | 25.87 | 0.00 | 0.14 |
| | *00042111 | G1 | 38.21 | 21.29 | 0.03 | 0.00 | 35.65 | 0.06 | 2.61 | 1.71 | 1.44 | 0.00 | 0.00 | 101.01 | 82.52 | 7.07 | 6.12 | 4.28 | 0.00 | 0.00 |
| | *00042111 | G2 | 37.55 | 21.59 | 0.01 | 0.00 | 35.60 | 0.00 | 2.82 | 1.81 | 1.35 | 0.03 | 0.02 | 100.59 | 82.38 | 7.47 | 6.15 | 4.00 | 0.00 | 0.00 |
| | *00042111 | G3 | 38.27 | 21.44 | 0.00 | 0.00 | 35.41 | 0.00 | 2.57 | 1.93 | 1.44 | 0.00 | 0.00 | 101.05 | 81.79 | 7.94 | 6.02 | 4.26 | 0.00 | 0.00 |
| | *00042111 | G4 | 37.16 | 21.40 | 0.08 | 0.00 | 29.01 | 0.00 | 6.83 | 0.77 | 4.76 | 0.05 | 0.01 | 100.07 | 66.84 | 3.18 | 15.94 | 14.04 | 0.00 | 0.00 |
| | *00042111 | G5 | 40.08 | 21.51 | 0.15 | 0.04 | 8.19 | 0.00 | 9.40 | 0.76 | 22.07 | 0.04 | 0.01 | 102.34 | 14.41 | 2.97 | 20.80 | 61.71 | 0.00 | 0.11 |
| *00042111 | G6 | 40.64 | 20.01 | 0.29 | 0.00 | 6.08 | 0.01 | 0.74 | 0.09 | 34.03 | 0.02 | 0.00 | 101.92 | 1.11 | 0.34 | 1.67 | 90.86 | 6.02 | 0.00 | |
| *00042111 | G7 | 40.34 | 19.74 | 0.35 | 0.00 | 5.43 | 0.04 | 0.30 | 0.25 | 34.94 | 0.00 | 0.01 | 101.40 | 0.00 | 0.98 | 0.66 | 90.21 | 8.15 | 0.00 | |
| *00042111 | G8 | 39.26 | 25.60 | 0.12 | 0.04 | 9.09 | 0.00 | 0.12 | 0.06 | 23.60 | 0.00 | 0.00 | 97.89 | 22.97 | 0.27 | 0.32 | 76.29 | 0.00 | 0.16 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (14)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | *FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grn(%) | And(%) | Uvr(%) |
|------------------------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|-------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| Dupi Tila Fm. (Syihet area) | *00042111 | G9 | 40.00 | 28.36 | 0.16 | 0.00 | 6.08 | 0.00 | 0.11 | 0.07 | 24.08 | 0.00 | 0.00 | 98.85 | 16.37 | 0.34 | 0.29 | 83.01 | 0.00 | 0.00 |
| | *00042111 | G10 | 39.41 | 29.01 | 0.16 | 0.04 | 5.32 | 0.01 | 0.12 | 0.09 | 24.40 | 0.00 | 0.00 | 98.55 | 14.43 | 0.43 | 0.32 | 84.69 | 0.00 | 0.14 |
| | *00042111 | G11 | 39.40 | 18.63 | 0.71 | 0.03 | 5.94 | 0.03 | 1.43 | 0.08 | 34.68 | 0.00 | 0.00 | 100.94 | 0.00 | 0.30 | 3.19 | 82.44 | 13.99 | 0.09 |
| | *00042111 | G12 | 38.54 | 21.70 | 0.00 | 0.00 | 28.75 | 0.00 | 2.39 | 3.08 | 6.97 | 0.00 | 0.00 | 101.42 | 63.07 | 12.04 | 5.32 | 19.58 | 0.00 | 0.00 |
| | *00042111 | G13 | 39.59 | 20.91 | 0.24 | 0.00 | 2.56 | 0.00 | 0.06 | 0.05 | 37.42 | 0.00 | 0.00 | 100.83 | 0.00 | 0.20 | 0.12 | 91.48 | 8.21 | 0.00 |
| | *00042111 | G14 | 40.59 | 19.96 | 0.70 | 0.02 | 2.31 | 0.03 | 0.17 | 0.02 | 36.86 | 0.01 | 0.00 | 100.65 | 0.00 | 0.07 | 0.40 | 97.30 | 2.18 | 0.05 |
| | *00042111 | G15 | 38.87 | 21.90 | 0.00 | 0.04 | 28.88 | 0.00 | 7.30 | 2.95 | 1.62 | 0.04 | 0.00 | 101.58 | 66.23 | 12.07 | 16.95 | 4.63 | 0.00 | 0.12 |
| | *00042111 | G16 | 36.85 | 2.18 | 0.12 | 0.00 | 25.81 | 0.00 | 0.15 | 0.03 | 33.20 | 0.00 | 0.00 | 98.34 | 0.00 | 0.13 | 0.36 | 10.71 | 88.81 | 0.00 |
| | *00042111 | G17 | 39.22 | 22.23 | 0.03 | 0.05 | 32.59 | 0.02 | 0.78 | 5.56 | 2.12 | 0.03 | 0.01 | 102.65 | 70.84 | 21.55 | 1.71 | 5.75 | 0.00 | 0.15 |
| | *00042111 | G18 | 39.27 | 21.48 | 0.02 | 0.00 | 35.45 | 0.00 | 0.06 | 4.66 | 0.61 | 0.03 | 0.00 | 101.57 | 79.48 | 18.63 | 0.13 | 1.76 | 0.00 | 0.00 |
| | *00042111 | G19 | 37.99 | 21.68 | 0.22 | 0.05 | 4.40 | 0.03 | 29.68 | 0.65 | 6.19 | 0.00 | 0.00 | 100.88 | 10.11 | 2.67 | 69.02 | 18.05 | 0.00 | 0.15 |
| | *00042111 | G20 | 39.22 | 22.28 | 0.00 | 0.00 | 33.74 | 0.00 | 0.09 | 5.83 | 0.99 | 0.00 | 0.00 | 102.15 | 74.17 | 22.86 | 0.20 | 2.77 | 0.00 | 0.00 |
| | *00042111 | G21 | 38.96 | 21.70 | 0.01 | 0.05 | 34.27 | 0.00 | 1.37 | 3.96 | 1.83 | 0.00 | 0.00 | 102.13 | 76.07 | 15.65 | 3.08 | 5.06 | 0.00 | 0.15 |
| | *00042111 | G22 | 38.30 | 20.83 | 0.06 | 0.00 | 23.92 | 0.02 | 16.89 | 1.35 | 0.90 | 0.00 | 0.00 | 102.26 | 53.09 | 5.45 | 38.85 | 2.62 | 0.00 | 0.00 |
| *00042111 | G23 | 38.59 | 24.47 | 0.16 | 0.01 | 9.80 | 0.00 | 0.22 | 0.05 | 23.61 | 0.00 | 0.00 | 96.91 | 24.29 | 0.21 | 0.56 | 74.92 | 0.00 | 0.03 | |
| *00042111 | G24 | 36.77 | 20.14 | 0.16 | 0.02 | 5.20 | 0.02 | 0.31 | 0.09 | 35.27 | 0.00 | 0.01 | 97.98 | 0.00 | 0.37 | 0.68 | 81.47 | 17.43 | 0.05 | |
| Dupi Tila Fm. (Chittagong area) | *CH51 | G1 | 38.04 | 21.35 | 0.05 | 0.00 | 8.48 | 0.00 | 33.70 | 0.00 | 0.81 | 0.03 | 0.00 | 102.16 | 19.42 | 0.00 | 78.19 | 2.39 | 0.00 | 0.00 |
| | *CH51 | G2 | 34.54 | 22.06 | 0.08 | 0.03 | 3.24 | 0.05 | 40.74 | 0.00 | 0.92 | 0.00 | 0.00 | 103.65 | 0.00 | 0.00 | 97.23 | 0.00 | 2.69 | 0.09 |
| | *CH52 | G1 | 37.36 | 21.03 | 0.14 | 0.00 | 26.76 | 0.02 | 15.21 | 0.15 | 0.43 | 0.02 | 0.00 | 101.11 | 62.26 | 0.62 | 35.85 | 1.27 | 0.00 | 0.00 |
| Beach sand (Chittagong City) | *CH14 | G1 | 38.74 | 21.83 | 0.04 | 0.00 | 28.57 | 0.00 | 0.86 | 5.56 | 4.33 | 0.00 | 0.00 | 99.93 | 63.63 | 22.06 | 1.95 | 12.36 | 0.00 | 0.00 |
| | *CH14 | G2 | 38.43 | 26.37 | 0.11 | 0.00 | 8.79 | 0.00 | 0.13 | 0.09 | 23.21 | 0.02 | 0.00 | 97.14 | 22.64 | 0.42 | 0.33 | 76.61 | 0.00 | 0.00 |
| | *CH14 | G3 | 38.15 | 21.84 | 0.03 | 0.05 | 30.21 | 0.02 | 5.51 | 4.11 | 0.93 | 0.00 | 0.00 | 100.84 | 68.21 | 16.52 | 12.59 | 2.51 | 0.00 | 0.17 |
| | *CH14 | G4 | 38.79 | 21.76 | 0.10 | 0.00 | 26.35 | 0.03 | 1.38 | 2.51 | 9.15 | 0.00 | 0.01 | 100.08 | 59.98 | 10.18 | 3.17 | 26.67 | 0.00 | 0.00 |
| | *CH14 | G5 | 37.49 | 18.55 | 0.07 | 0.12 | 13.20 | 0.03 | 19.40 | 0.24 | 8.68 | 0.00 | 0.00 | 97.78 | 20.73 | 1.11 | 49.91 | 27.84 | 0.00 | 0.42 |
| | *CH14 | G6 | 37.88 | 21.81 | 0.03 | 0.00 | 32.59 | 0.00 | 2.77 | 1.41 | 4.27 | 0.01 | 0.00 | 100.78 | 75.14 | 5.78 | 6.47 | 12.61 | 0.00 | 0.00 |
| | *CH14 | G7 | 37.94 | 21.30 | 0.17 | 0.02 | 29.94 | 0.00 | 0.23 | 1.13 | 9.14 | 0.03 | 0.00 | 99.90 | 68.22 | 4.58 | 0.52 | 26.62 | 0.00 | 0.06 |
| | *CH14 | G8 | 38.26 | 22.14 | 0.04 | 0.02 | 32.32 | 0.00 | 1.81 | 3.91 | 2.87 | 0.06 | 0.00 | 101.43 | 72.12 | 15.57 | 4.10 | 8.14 | 0.00 | 0.07 |
| | *CH14 | G9 | 39.28 | 22.22 | 0.08 | 0.00 | 30.27 | 0.04 | 0.97 | 7.77 | 0.87 | 0.02 | 0.01 | 101.52 | 65.51 | 29.97 | 2.12 | 2.40 | 0.00 | 0.00 |
| | *CH14 | G10 | 37.72 | 22.15 | 0.06 | 0.11 | 29.83 | 0.04 | 2.32 | 1.61 | 7.73 | 0.03 | 0.02 | 101.61 | 66.33 | 6.37 | 5.24 | 21.56 | 0.15 | 0.34 |
| | *CH14 | G11 | 38.81 | 26.80 | 0.03 | 0.02 | 8.41 | 0.00 | 0.33 | 0.06 | 23.28 | 0.02 | 0.01 | 97.76 | 21.76 | 0.28 | 0.85 | 77.04 | 0.00 | 0.07 |
| | *CH14 | G12 | 38.22 | 21.82 | 0.03 | 0.06 | 33.37 | 0.00 | 2.13 | 2.90 | 2.01 | 0.10 | 0.00 | 100.63 | 77.13 | 11.93 | 4.99 | 5.76 | 0.00 | 0.20 |
| | *CH14 | G13 | 37.61 | 21.26 | 0.14 | 0.01 | 23.93 | 0.00 | 5.70 | 1.27 | 8.80 | 0.00 | 0.00 | 98.71 | 55.35 | 5.22 | 13.35 | 26.05 | 0.00 | 0.04 |
| | *CH14 | G14 | 39.18 | 22.69 | 0.01 | 0.05 | 28.93 | 0.00 | 0.68 | 8.42 | 1.31 | 0.02 | 0.00 | 101.29 | 62.48 | 32.42 | 1.49 | 3.46 | 0.00 | 0.15 |
| *CH14 | G15 | 37.06 | 20.61 | 0.07 | 0.04 | 25.74 | 0.00 | 15.40 | 0.79 | 0.84 | 0.00 | 0.01 | 100.54 | 58.56 | 3.22 | 35.75 | 2.34 | 0.00 | 0.12 | |
| *CH14 | G16 | 38.76 | 22.29 | 0.00 | 0.03 | 30.35 | 0.00 | 1.07 | 7.00 | 1.36 | 0.00 | 0.00 | 100.85 | 66.49 | 27.33 | 2.38 | 3.72 | 0.00 | 0.09 | |
| *CH14 | G17 | 38.76 | 21.74 | 0.10 | 0.01 | 25.37 | 0.02 | 1.65 | 3.30 | 8.59 | 0.03 | 0.00 | 99.57 | 57.76 | 13.37 | 3.81 | 25.03 | 0.00 | 0.04 | |
| *CH14 | G18 | 35.95 | 21.69 | 0.11 | 0.00 | 17.64 | 0.04 | 6.68 | 0.99 | 15.28 | 0.00 | 0.00 | 98.38 | 34.71 | 4.10 | 15.73 | 36.05 | 9.41 | 0.00 | |
| *CH14 | G19 | 38.77 | 22.05 | 0.08 | 0.03 | 31.12 | 0.01 | 0.83 | 4.80 | 3.64 | 0.02 | 0.01 | 101.36 | 68.88 | 18.93 | 1.87 | 10.23 | 0.00 | 0.09 | |
| *CH14 | G20 | 38.26 | 22.15 | 0.06 | 0.04 | 32.97 | 0.04 | 1.94 | 3.25 | 2.75 | 0.02 | 0.01 | 101.49 | 74.48 | 13.11 | 4.45 | 7.84 | 0.00 | 0.13 | |
| *CH14 | G21 | 38.38 | 21.91 | 0.05 | 0.00 | 34.09 | 0.00 | 0.91 | 3.12 | 3.00 | 0.01 | 0.00 | 104.46 | 76.76 | 12.52 | 2.06 | 8.65 | 0.00 | 0.00 | |
| *CH14 | G22 | 36.37 | 22.05 | 0.09 | 0.04 | 29.27 | 0.04 | 0.06 | 2.77 | 8.07 | 0.00 | 0.00 | 98.76 | 64.77 | 11.35 | 0.14 | 19.86 | 3.75 | 0.14 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (15)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) | |
|------------------------------------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|------|
| Beach sand (Chittagong City) | *CH14 | G23 | 38.24 | 21.63 | 0.03 | 0.03 | 33.21 | 0.01 | 0.81 | 2.01 | 4.69 | 0.00 | 0.00 | 100.64 | 76.14 | 8.20 | 1.88 | 13.70 | 0.00 | 0.08 | |
| | *CH14 | G24 | 37.86 | 21.42 | 0.36 | 0.02 | 21.07 | 0.03 | 7.53 | 1.17 | 10.22 | 0.03 | 0.00 | 99.70 | 48.02 | 4.74 | 17.38 | 29.78 | 0.00 | 0.07 | |
| | *CH14 | G25 | 39.63 | 19.71 | 0.26 | 0.00 | 7.27 | 0.00 | 1.49 | 0.06 | 32.30 | 0.00 | 0.00 | 100.73 | 5.79 | 0.23 | 3.31 | 81.99 | 8.69 | 0.00 | |
| | *CH14 | G26 | 39.65 | 22.12 | 0.06 | 0.00 | 25.88 | 0.00 | 0.38 | 6.45 | 7.05 | 0.01 | 0.00 | 101.56 | 55.34 | 24.57 | 0.79 | 19.31 | 0.00 | 0.00 | |
| | *CH14 | G27 | 37.49 | 21.76 | 0.04 | 0.01 | 36.61 | 0.00 | 0.07 | 1.58 | 3.15 | 0.03 | 0.00 | 100.73 | 84.12 | 6.46 | 0.16 | 9.24 | 0.00 | 0.02 | |
| | *CH14 | G28 | 38.68 | 21.86 | 0.05 | 0.02 | 28.56 | 0.00 | 0.37 | 3.61 | 7.53 | 0.00 | 0.00 | 100.68 | 63.44 | 14.30 | 0.83 | 21.37 | 0.00 | 0.07 | |
| | *CH14 | G29 | 37.79 | 21.82 | 0.03 | 0.06 | 34.06 | 0.00 | 1.56 | 2.85 | 1.61 | 0.00 | 0.00 | 99.77 | 79.63 | 11.86 | 3.68 | 4.65 | 0.00 | 0.19 | |
| | *CH14 | G30 | 38.02 | 22.12 | 0.06 | 0.03 | 30.22 | 0.03 | 4.22 | 2.94 | 2.29 | 0.00 | 0.00 | 99.94 | 70.81 | 12.29 | 10.03 | 6.79 | 0.00 | 0.08 | |
| | *CH14 | G31 | 37.33 | 20.91 | 0.35 | 0.04 | 21.08 | 0.04 | 19.86 | 1.23 | 0.25 | 0.02 | 0.00 | 101.08 | 48.23 | 5.00 | 46.03 | 0.63 | 0.00 | 0.12 | |
| | *CH14 | G32 | 37.94 | 21.54 | 0.07 | 0.05 | 27.49 | 0.04 | 4.34 | 2.11 | 5.87 | 0.00 | 0.00 | 99.45 | 63.68 | 8.72 | 10.19 | 17.25 | 0.00 | 0.15 | |
| | *CH14 | G33 | 38.55 | 21.98 | 0.16 | 0.01 | 30.09 | 0.02 | 0.11 | 4.31 | 5.92 | 0.00 | 0.00 | 101.14 | 66.18 | 16.90 | 0.24 | 16.66 | 0.00 | 0.02 | |
| | *CH14 | G34 | 38.95 | 22.24 | 0.09 | 0.00 | 28.79 | 0.03 | 0.68 | 6.17 | 4.34 | 0.01 | 0.00 | 101.30 | 62.55 | 23.90 | 1.49 | 12.06 | 0.00 | 0.01 | |
| | *CH14 | G35 | 38.24 | 21.06 | 0.12 | 0.00 | 31.41 | 0.03 | 1.99 | 1.27 | 6.37 | 0.00 | 0.00 | 100.48 | 71.64 | 5.15 | 4.60 | 18.61 | 0.00 | 0.00 | |
| | *CH14 | G36 | 38.66 | 22.46 | 0.13 | 0.10 | 29.34 | 0.00 | 0.95 | 7.05 | 1.78 | 0.02 | 0.01 | 100.51 | 64.97 | 27.84 | 2.14 | 4.74 | 0.00 | 0.32 | |
| | *CH14 | G37 | 38.55 | 21.47 | 0.11 | 0.06 | 25.91 | 0.00 | 1.19 | 5.09 | 7.27 | 0.04 | 0.01 | 99.71 | 56.90 | 19.96 | 2.65 | 20.32 | 0.00 | 0.17 | |
| | *CH14 | G38 | 38.90 | 22.45 | 0.09 | 0.07 | 28.09 | 0.02 | 0.61 | 3.27 | 8.84 | 0.01 | 0.00 | 102.35 | 61.26 | 12.70 | 1.35 | 24.47 | 0.00 | 0.22 | |
| | BP1 | *8-1 | G1 | 37.49 | 21.72 | 0.03 | 0.00 | 37.65 | 0.00 | 0.42 | 1.69 | 2.35 | 0.00 | 0.00 | 101.33 | 85.40 | 6.81 | 0.96 | 6.83 | 0.00 | 0.00 |
| | | *8-1 | G2 | 38.26 | 21.95 | 0.07 | 0.09 | 25.57 | 0.00 | 3.13 | 2.72 | 8.77 | 0.00 | 0.00 | 100.56 | 57.04 | 10.83 | 7.08 | 24.76 | 0.00 | 0.29 |
| *8-1 | | G3 | 39.77 | 21.43 | 0.57 | 0.02 | 2.51 | 0.00 | 0.18 | 0.09 | 36.95 | 0.01 | 0.01 | 101.54 | 0.01 | 0.32 | 0.38 | 92.31 | 6.93 | 0.05 | |
| *8-1 | | G4 | 38.12 | 22.03 | 0.02 | 0.00 | 34.45 | 0.00 | 2.48 | 3.40 | 1.13 | 0.01 | 0.00 | 101.65 | 77.46 | 13.64 | 5.65 | 3.26 | 0.00 | 0.00 | |
| *8-1 | | G5 | 38.59 | 22.11 | 0.10 | 0.00 | 31.80 | 0.00 | 1.29 | 4.59 | 3.26 | 0.02 | 0.00 | 101.75 | 69.96 | 17.99 | 2.86 | 9.18 | 0.00 | 0.00 | |
| *8-1 | | G6 | 37.98 | 22.21 | 0.16 | 0.00 | 33.89 | 0.02 | 2.62 | 2.63 | 1.67 | 0.07 | 0.00 | 101.23 | 78.16 | 10.79 | 6.12 | 4.92 | 0.00 | 0.00 | |
| *8-1 | | G7 | 38.09 | 21.69 | 0.18 | 0.07 | 25.78 | 0.00 | 3.69 | 1.27 | 10.55 | 0.00 | 0.00 | 101.32 | 56.90 | 5.01 | 8.25 | 29.60 | 0.00 | 0.23 | |
| *8-1 | | G8 | 37.49 | 22.29 | 0.21 | 0.00 | 31.89 | 0.00 | 0.74 | 3.01 | 5.93 | 0.00 | 0.00 | 101.56 | 69.56 | 11.91 | 1.66 | 14.94 | 1.94 | 0.00 | |
| *8-1 | | G9 | 37.59 | 22.07 | 0.03 | 0.00 | 33.37 | 0.00 | 1.95 | 3.03 | 2.43 | 0.05 | 0.00 | 100.52 | 76.07 | 12.31 | 4.51 | 7.11 | 0.00 | 0.00 | |
| *8-1 | | G10 | 39.68 | 22.85 | 0.06 | 0.03 | 28.37 | 0.02 | 1.17 | 6.22 | 4.34 | 0.00 | 0.00 | 102.73 | 61.41 | 24.00 | 2.55 | 11.94 | 0.00 | 0.09 | |
| *8-1 | | G11 | 38.20 | 21.98 | 0.02 | 0.00 | 35.50 | 0.00 | 1.91 | 2.76 | 1.46 | 0.01 | 0.01 | 101.87 | 80.27 | 11.13 | 4.37 | 4.24 | 0.00 | 0.00 | |
| *8-1 | | G12 | 38.15 | 21.91 | 0.11 | 0.03 | 28.09 | 0.04 | 0.86 | 7.93 | 1.43 | 0.00 | 0.00 | 98.55 | 62.52 | 31.47 | 1.94 | 3.98 | 0.00 | 0.10 | |
| *8-1 | | G13 | 38.02 | 21.99 | 0.08 | 0.01 | 33.87 | 0.03 | 0.97 | 1.65 | 5.14 | 0.05 | 0.01 | 101.82 | 76.32 | 6.62 | 2.21 | 14.79 | 0.00 | 0.05 | |
| *8-1 | | G14 | 37.45 | 21.82 | 0.04 | 0.04 | 36.29 | 0.00 | 1.01 | 2.93 | 0.78 | 0.00 | 0.00 | 100.35 | 83.37 | 11.99 | 2.35 | 2.15 | 0.00 | 0.14 | |
| *8-1 | | G15 | 39.61 | 17.06 | 0.58 | 0.00 | 5.38 | 0.00 | 0.26 | 0.41 | 35.98 | 0.00 | 0.00 | 99.28 | 0.00 | 1.72 | 0.60 | 81.64 | 16.04 | 0.00 | |
| *8-1 | | G16 | 37.76 | 20.98 | 0.15 | 0.02 | 18.47 | 0.00 | 3.33 | 0.07 | 19.79 | 0.00 | 0.01 | 100.57 | 36.29 | 0.26 | 7.44 | 49.19 | 6.76 | 0.06 | |
| *8-1 | | G17 | 38.66 | 22.19 | 0.02 | 0.01 | 25.00 | 0.00 | 6.22 | 2.43 | 7.15 | 0.00 | 0.00 | 101.66 | 55.83 | 9.66 | 14.06 | 20.44 | 0.00 | 0.02 | |
| *8-1 | | G18 | 38.27 | 21.94 | 0.02 | 0.06 | 31.88 | 0.00 | 3.44 | 2.71 | 2.25 | 0.02 | 0.02 | 100.59 | 74.01 | 11.21 | 8.10 | 6.49 | 0.00 | 0.20 | |
| *8-1 | | G19 | 38.89 | 21.97 | 0.00 | 0.03 | 31.76 | 0.01 | 2.30 | 4.30 | 3.21 | 0.05 | 0.00 | 102.50 | 69.24 | 16.73 | 5.08 | 8.87 | 0.00 | 0.09 | |
| *8-1 | | G20 | 39.24 | 22.43 | 0.03 | 0.11 | 30.01 | 0.00 | 1.15 | 7.73 | 1.28 | 0.00 | 0.01 | 101.96 | 64.43 | 29.57 | 2.50 | 3.18 | 0.00 | 0.33 | |
| *8-1 | | G21 | 38.10 | 21.29 | 0.03 | 0.02 | 27.29 | 0.00 | 1.54 | 0.86 | 10.18 | 0.00 | 0.00 | 99.32 | 62.85 | 3.51 | 3.59 | 29.97 | 0.00 | 0.07 | |
| *8-1 | | G22 | 37.50 | 21.73 | 0.02 | 0.00 | 33.77 | 0.02 | 2.86 | 3.14 | 1.43 | 0.05 | 0.00 | 100.52 | 76.58 | 12.70 | 6.57 | 4.14 | 0.00 | 0.00 | |
| *8-1 | | G23 | 37.99 | 21.83 | 0.04 | 0.00 | 35.77 | 0.00 | 0.21 | 2.25 | 2.15 | 0.00 | 0.02 | 100.26 | 83.68 | 9.37 | 0.51 | 6.44 | 0.00 | 0.00 | |
| *8-1 | | G24 | 38.67 | 21.81 | 0.05 | 0.02 | 29.04 | 0.00 | 2.36 | 4.97 | 3.95 | 0.01 | 0.01 | 100.89 | 64.05 | 19.53 | 5.27 | 11.08 | 0.00 | 0.07 | |
| *8-1 | | G25 | 37.94 | 21.75 | 0.02 | 0.00 | 33.64 | 0.04 | 3.95 | 3.02 | 1.36 | 0.00 | 0.01 | 101.73 | 75.15 | 12.04 | 8.93 | 3.89 | 0.00 | 0.00 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (16)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|-----------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| BP1 | *8-1 | G26 | 38.37 | 21.98 | 0.01 | 0.06 | 31.42 | 0.00 | 2.72 | 4.46 | 1.93 | 0.00 | 0.00 | 100.95 | 70.45 | 17.84 | 6.18 | 5.34 | 0.00 | 0.19 |
| | *8-1 | G27 | 38.90 | 21.68 | 0.09 | 0.02 | 18.68 | 0.02 | 7.73 | 1.06 | 13.19 | 0.02 | 0.00 | 101.39 | 41.23 | 4.18 | 17.29 | 37.22 | 0.00 | 0.07 |
| | *8-1 | G28 | 38.61 | 21.83 | 0.01 | 0.07 | 31.60 | 0.00 | 0.89 | 3.96 | 3.65 | 0.00 | 0.00 | 100.62 | 71.42 | 15.97 | 2.04 | 10.36 | 0.00 | 0.21 |
| | *8-1 | G29 | 38.75 | 22.08 | 0.05 | 0.04 | 32.62 | 0.05 | 3.30 | 1.85 | 4.14 | 0.05 | 0.01 | 102.93 | 73.20 | 7.40 | 7.50 | 11.78 | 0.00 | 0.13 |
| | *8-1 | G30 | 39.47 | 22.48 | 0.01 | 0.01 | 28.60 | 0.00 | 1.40 | 7.96 | 1.22 | 0.00 | 0.01 | 101.15 | 62.50 | 30.99 | 3.11 | 3.37 | 0.00 | 0.03 |
| | *8-1 | G31 | 39.35 | 21.66 | 0.07 | 0.02 | 26.01 | 0.00 | 2.23 | 1.47 | 10.99 | 0.07 | 0.00 | 101.87 | 57.85 | 5.81 | 5.03 | 31.24 | 0.00 | 0.07 |
| BP3 | *4-1⑩-⑮ | G1 | 38.34 | 22.14 | 0.07 | 0.00 | 25.39 | 0.00 | 0.64 | 1.28 | 13.40 | 0.06 | 0.01 | 101.32 | 55.82 | 5.01 | 1.42 | 37.75 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G2 | 38.18 | 21.81 | 0.00 | 0.00 | 33.49 | 0.00 | 1.23 | 2.76 | 2.74 | 0.02 | 0.00 | 100.24 | 77.57 | 11.40 | 2.89 | 8.14 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G3 | 38.72 | 22.32 | 0.04 | 0.00 | 33.88 | 0.01 | 1.12 | 3.03 | 3.53 | 0.05 | 0.00 | 102.69 | 75.42 | 12.00 | 2.51 | 10.06 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G4 | 38.57 | 22.37 | 0.03 | 0.04 | 32.82 | 0.00 | 1.32 | 5.14 | 1.03 | 0.00 | 0.01 | 101.33 | 73.54 | 20.51 | 3.00 | 2.84 | 0.00 | 0.11 |
| | *4-1⑩-⑮ | G5 | 38.08 | 22.18 | 0.02 | 0.03 | 33.62 | 0.00 | 1.57 | 3.45 | 1.74 | 0.00 | 0.00 | 100.68 | 77.15 | 14.10 | 3.65 | 5.00 | 0.00 | 0.10 |
| | *4-1⑩-⑮ | G6 | 38.16 | 21.94 | 0.03 | 0.00 | 33.31 | 0.00 | 2.56 | 3.17 | 1.68 | 0.03 | 0.01 | 100.89 | 76.22 | 12.93 | 5.94 | 4.92 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G7 | 37.37 | 16.83 | 2.14 | 0.00 | 4.01 | 0.02 | 0.02 | 1.09 | 35.56 | 0.06 | 0.00 | 97.09 | 0.00 | 4.84 | 0.04 | 79.88 | 15.24 | 0.00 |
| | *4-1⑩-⑮ | G8 | 38.38 | 21.63 | 0.09 | 0.04 | 29.69 | 0.02 | 3.64 | 1.80 | 5.60 | 0.01 | 0.00 | 100.89 | 67.85 | 7.32 | 8.43 | 16.26 | 0.00 | 0.14 |
| | *4-1⑩-⑮ | G9 | 36.78 | 22.17 | 0.03 | 0.00 | 33.33 | 0.07 | 1.91 | 4.09 | 1.30 | 0.01 | 0.00 | 99.69 | 75.19 | 16.62 | 4.41 | 2.64 | 1.14 | 0.00 |
| | *4-1⑩-⑮ | G10 | 38.81 | 22.66 | 0.01 | 0.03 | 32.58 | 0.00 | 1.27 | 5.02 | 1.77 | 0.00 | 0.00 | 102.15 | 72.27 | 19.83 | 2.86 | 4.95 | 0.00 | 0.08 |
| | *4-1⑩-⑮ | G11 | 38.35 | 22.16 | 0.03 | 0.01 | 32.34 | 0.02 | 0.65 | 5.09 | 1.88 | 0.00 | 0.00 | 100.53 | 72.70 | 20.40 | 1.49 | 5.37 | 0.00 | 0.05 |
| | *4-1⑩-⑮ | G12 | 38.02 | 22.56 | 0.02 | 0.00 | 28.85 | 0.01 | 1.61 | 5.74 | 3.40 | 0.00 | 0.00 | 100.20 | 64.03 | 22.69 | 3.62 | 9.67 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G13 | 37.71 | 22.19 | 0.00 | 0.02 | 35.22 | 0.08 | 0.54 | 2.75 | 2.57 | 0.00 | 0.00 | 101.07 | 80.13 | 11.14 | 1.25 | 7.43 | 0.00 | 0.06 |
| | *4-1⑩-⑮ | G14 | 38.53 | 22.28 | 0.02 | 0.08 | 30.41 | 0.00 | 0.89 | 5.64 | 2.94 | 0.00 | 0.01 | 100.79 | 67.39 | 22.28 | 1.99 | 8.10 | 0.00 | 0.26 |
| | *4-1⑩-⑮ | G15 | 38.13 | 22.36 | 0.06 | 0.00 | 31.58 | 0.02 | 3.80 | 4.30 | 1.63 | 0.02 | 0.01 | 101.89 | 69.91 | 16.95 | 8.52 | 4.61 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G16 | 38.59 | 21.78 | 0.07 | 0.00 | 29.39 | 0.00 | 2.19 | 3.80 | 5.13 | 0.03 | 0.01 | 100.99 | 65.39 | 15.06 | 4.92 | 14.63 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G17 | 38.70 | 22.59 | 0.07 | 0.00 | 32.47 | 0.01 | 1.32 | 5.17 | 1.51 | 0.00 | 0.00 | 101.83 | 72.23 | 20.49 | 2.98 | 4.31 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G18 | 37.52 | 21.55 | 0.10 | 0.00 | 18.51 | 0.00 | 16.64 | 0.33 | 6.70 | 0.00 | 0.00 | 101.36 | 41.56 | 1.33 | 37.83 | 19.28 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G19 | 37.96 | 21.42 | 0.02 | 0.11 | 34.03 | 0.00 | 1.23 | 1.74 | 4.55 | 0.00 | 0.00 | 101.06 | 76.99 | 7.02 | 2.82 | 12.84 | 0.00 | 0.34 |
| | *4-1⑩-⑮ | G20 | 38.81 | 21.74 | 0.12 | 0.06 | 13.99 | 0.00 | 1.48 | 0.59 | 23.70 | 0.04 | 0.00 | 100.53 | 28.92 | 2.26 | 3.25 | 63.46 | 1.94 | 0.18 |
| | *4-1⑩-⑮ | G21 | 38.48 | 21.70 | 0.04 | 0.00 | 32.20 | 0.06 | 2.04 | 4.73 | 1.41 | 0.00 | 0.01 | 100.66 | 72.38 | 18.94 | 4.63 | 4.06 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G22 | 40.40 | 31.97 | 0.09 | 0.04 | 2.32 | 0.02 | 0.00 | 0.04 | 24.11 | 0.04 | 0.02 | 99.03 | 6.96 | 0.21 | 0.00 | 92.67 | 0.00 | 0.16 |
| | *4-1⑩-⑮ | G23 | 38.82 | 22.20 | 0.02 | 0.00 | 32.06 | 0.02 | 1.17 | 5.80 | 1.33 | 0.00 | 0.00 | 101.42 | 70.79 | 22.83 | 2.61 | 3.77 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G24 | 39.10 | 22.06 | 0.00 | 0.01 | 29.73 | 0.00 | 1.59 | 6.02 | 2.26 | 0.03 | 0.01 | 100.80 | 66.12 | 23.86 | 3.58 | 6.39 | 0.00 | 0.04 |
| | *4-1⑩-⑮ | G25 | 38.37 | 21.91 | 0.00 | 0.00 | 27.68 | 0.03 | 2.56 | 5.97 | 3.17 | 0.00 | 0.02 | 99.70 | 61.55 | 23.65 | 5.76 | 9.03 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G26 | 38.08 | 21.50 | 0.00 | 0.00 | 32.75 | 0.04 | 5.63 | 2.02 | 1.22 | 0.01 | 0.00 | 101.25 | 75.10 | 8.24 | 13.08 | 3.58 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G27 | 38.51 | 21.91 | 0.00 | 0.01 | 31.23 | 0.02 | 2.25 | 6.50 | 0.54 | 0.03 | 0.01 | 100.99 | 68.23 | 25.30 | 4.98 | 1.46 | 0.00 | 0.03 |
| | *4-1⑩-⑮ | G28 | 37.91 | 21.24 | 0.00 | 0.00 | 30.32 | 0.02 | 5.79 | 1.47 | 3.22 | 0.02 | 0.01 | 100.00 | 70.63 | 6.12 | 13.66 | 9.60 | 0.00 | 0.00 |
| | *4-1⑩-⑮ | G29 | 38.39 | 21.45 | 0.00 | 0.01 | 30.96 | 0.00 | 1.74 | 2.41 | 5.46 | 0.02 | 0.00 | 100.44 | 70.36 | 9.75 | 4.00 | 15.86 | 0.00 | 0.04 |
| | *4-1⑩-⑮ | G30 | 38.75 | 21.95 | 0.02 | 0.00 | 33.40 | 0.02 | 1.72 | 4.13 | 1.75 | 0.00 | 0.01 | 101.76 | 74.64 | 16.45 | 3.89 | 5.02 | 0.00 | 0.00 |
| *10-2③-⑧ | G1 | 37.81 | 21.71 | 0.13 | 0.02 | 23.02 | 0.00 | 13.22 | 0.76 | 4.92 | 0.03 | 0.01 | 101.61 | 52.25 | 3.06 | 30.39 | 14.25 | 0.00 | 0.05 | |
| *10-2③-⑧ | G2 | 38.35 | 22.75 | 0.04 | 0.05 | 31.03 | 0.03 | 1.02 | 6.56 | 1.27 | 0.00 | 0.00 | 101.10 | 68.37 | 25.78 | 2.29 | 3.43 | 0.00 | 0.14 | |
| *10-2③-⑧ | G3 | 37.79 | 22.09 | 0.04 | 0.00 | 28.40 | 0.04 | 3.24 | 4.46 | 5.24 | 0.00 | 0.00 | 101.29 | 60.29 | 17.59 | 7.26 | 11.00 | 3.85 | 0.00 | |
| *10-2③-⑧ | G4 | 38.68 | 22.75 | 0.04 | 0.04 | 31.20 | 0.00 | 1.30 | 6.26 | 1.11 | 0.00 | 0.00 | 101.39 | 69.19 | 24.73 | 2.93 | 3.02 | 0.00 | 0.14 | |
| *10-2③-⑧ | G5 | 38.36 | 22.11 | 0.03 | 0.06 | 28.16 | 0.05 | 3.41 | 4.15 | 4.27 | 0.00 | 0.00 | 100.59 | 63.30 | 16.64 | 7.76 | 12.11 | 0.00 | 0.19 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (17)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) | |
|-----------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|-------|-------|------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|------|
| BP3 | *10-2③-⑧ | G6 | 37.56 | 22.34 | 0.00 | 0.00 | 31.77 | 0.04 | 1.26 | 4.82 | 2.65 | 0.03 | 0.00 | 100.47 | 70.36 | 19.21 | 2.86 | 6.60 | 0.98 | 0.00 | |
| | *10-2③-⑧ | G7 | 37.46 | 22.80 | 0.03 | 0.06 | 30.15 | 0.01 | 1.02 | 5.70 | 3.34 | 0.01 | 0.00 | 100.59 | 65.42 | 22.69 | 2.31 | 6.47 | 2.90 | 0.20 | |
| | *10-2③-⑧ | G8 | 37.94 | 22.04 | 0.00 | 0.01 | 35.55 | 0.04 | 1.47 | 2.86 | 1.66 | 0.01 | 0.01 | 101.59 | 80.33 | 11.51 | 3.37 | 4.76 | 0.00 | 0.03 | |
| | *10-2③-⑧ | G9 | 38.26 | 22.39 | 0.00 | 0.03 | 32.77 | 0.00 | 1.79 | 5.02 | 1.43 | 0.00 | 0.00 | 101.69 | 72.24 | 19.73 | 3.99 | 3.95 | 0.00 | 0.09 | |
| | *10-2③-⑧ | G10 | 38.17 | 22.25 | 0.00 | 0.01 | 32.43 | 0.02 | 0.59 | 2.92 | 5.39 | 0.03 | 0.00 | 101.80 | 71.85 | 11.55 | 1.32 | 15.27 | 0.00 | 0.02 | |
| | *10-2③-⑧ | G11 | 38.83 | 22.37 | 0.01 | 0.00 | 26.54 | 0.00 | 2.38 | 5.63 | 3.97 | 0.01 | 0.00 | 99.72 | 60.23 | 22.76 | 5.47 | 11.54 | 0.00 | 0.00 | |
| | *10-2③-⑧ | G12 | 37.39 | 22.23 | 0.02 | 0.07 | 34.13 | 0.04 | 3.70 | 1.96 | 1.35 | 0.05 | 0.01 | 100.94 | 79.18 | 8.12 | 8.69 | 3.80 | 0.00 | 0.22 | |
| | *10-2③-⑧ | G13 | 38.42 | 22.20 | 0.03 | 0.00 | 33.87 | 0.00 | 0.73 | 3.74 | 2.63 | 0.00 | 0.00 | 101.62 | 75.88 | 14.93 | 1.65 | 7.53 | 0.00 | 0.01 | |
| | *10-2③-⑧ | G14 | 38.64 | 22.71 | 0.04 | 0.05 | 28.07 | 0.03 | 2.08 | 6.45 | 2.23 | 0.04 | 0.01 | 100.33 | 63.05 | 25.83 | 4.72 | 6.26 | 0.00 | 0.15 | |
| | *10-2③-⑧ | G15 | 39.09 | 22.73 | 0.03 | 0.01 | 30.39 | 0.02 | 1.42 | 6.25 | 2.19 | 0.00 | 0.02 | 102.15 | 66.39 | 24.35 | 3.13 | 6.09 | 0.00 | 0.04 | |
| | *10-2③-⑧ | G16 | 38.82 | 22.62 | 0.02 | 0.00 | 31.76 | 0.00 | 0.58 | 6.62 | 1.36 | 0.01 | 0.02 | 101.79 | 69.22 | 25.70 | 1.27 | 3.81 | 0.00 | 0.00 | |
| | *10-2③-⑧ | G17 | 38.53 | 21.61 | 0.21 | 0.00 | 18.95 | 0.00 | 11.44 | 0.46 | 10.82 | 0.00 | 0.00 | 102.03 | 41.89 | 1.83 | 25.62 | 30.66 | 0.00 | 0.00 | |
| | *10-2③-⑧ | G18 | 39.14 | 22.80 | 0.01 | 0.00 | 29.79 | 0.07 | 1.23 | 5.94 | 2.91 | 0.00 | 0.01 | 101.91 | 65.69 | 23.34 | 2.76 | 8.22 | 0.00 | 0.00 | |
| | *10-2③-⑧ | G19 | 37.74 | 21.65 | 0.15 | 0.04 | 24.44 | 0.00 | 8.02 | 0.39 | 8.84 | 0.00 | 0.01 | 101.27 | 54.83 | 1.54 | 18.23 | 25.29 | 0.00 | 0.12 | |
| | *10-2③-⑧ | G20 | 37.72 | 21.32 | 0.04 | 0.00 | 28.90 | 0.00 | 11.65 | 1.52 | 0.94 | 0.00 | 0.00 | 102.09 | 64.77 | 6.09 | 26.45 | 2.70 | 0.00 | 0.00 | |
| | *10-2③-⑧ | G21 | 38.67 | 22.17 | 0.01 | 0.03 | 31.99 | 0.00 | 1.16 | 4.28 | 3.63 | 0.00 | 0.00 | 101.96 | 70.39 | 16.77 | 2.59 | 10.14 | 0.00 | 0.10 | |
| | *10-2③-⑧ | G22 | 38.76 | 21.14 | 0.12 | 0.11 | 31.73 | 0.00 | 0.54 | 1.20 | 8.05 | 0.02 | 0.01 | 101.66 | 70.94 | 4.79 | 1.22 | 22.70 | 0.00 | 0.35 | |
| | *10-2③-⑧ | G23 | 38.50 | 21.46 | 0.00 | 0.00 | 32.78 | 0.00 | 1.36 | 1.88 | 4.87 | 0.00 | 0.01 | 100.84 | 74.96 | 7.65 | 3.14 | 14.25 | 0.00 | 0.00 | |
| | *10-2③-⑧ | G24 | 38.99 | 21.92 | 0.05 | 0.03 | 31.78 | 0.00 | 0.82 | 6.08 | 1.82 | 0.03 | 0.00 | 101.50 | 69.43 | 23.68 | 1.80 | 5.01 | 0.00 | 0.08 | |
| | *10-2③-⑧ | G25 | 37.92 | 20.31 | 0.01 | 0.00 | 33.08 | 0.00 | 2.35 | 3.24 | 2.74 | 0.08 | 0.00 | 99.73 | 72.82 | 13.46 | 5.54 | 8.19 | 0.00 | 0.00 | |
| | *10-2③-⑧ | G26 | 37.31 | 21.49 | 0.01 | 0.03 | 34.38 | 0.03 | 1.55 | 3.12 | 1.91 | 0.00 | 0.00 | 99.84 | 78.19 | 12.66 | 3.57 | 5.47 | 0.00 | 0.10 | |
| | *10-2③-⑧ | G27 | 38.67 | 21.85 | 0.00 | 0.04 | 33.06 | 0.00 | 0.75 | 5.07 | 1.84 | 0.04 | 0.00 | 101.32 | 73.12 | 19.99 | 1.68 | 5.10 | 0.00 | 0.11 | |
| | *10-2③-⑧ | G28 | 38.68 | 22.10 | 0.03 | 0.01 | 32.02 | 0.00 | 1.32 | 3.66 | 4.07 | 0.04 | 0.00 | 101.94 | 71.01 | 14.47 | 2.97 | 11.52 | 0.00 | 0.04 | |
| | *10-2③-⑧ | G29 | 37.67 | 22.14 | 0.04 | 0.02 | 34.54 | 0.01 | 0.45 | 4.93 | 1.19 | 0.03 | 0.00 | 101.03 | 76.02 | 19.56 | 1.02 | 2.04 | 1.31 | 0.06 | |
| | *10-2③-⑧ | G30 | 38.72 | 21.56 | 0.01 | 0.00 | 29.34 | 0.02 | 4.93 | 4.30 | 2.64 | 0.04 | 0.01 | 101.57 | 64.66 | 16.89 | 11.01 | 7.44 | 0.00 | 0.00 | |
| | BP4 | *9-2①-⑥ | G1 | 38.30 | 21.65 | 0.20 | 0.00 | 28.05 | 0.01 | 4.45 | 2.80 | 5.22 | 0.00 | 0.01 | 100.69 | 63.41 | 11.27 | 10.18 | 15.13 | 0.00 | 0.00 |
| | | *9-2①-⑥ | G2 | 38.01 | 22.20 | 0.10 | 0.08 | 33.56 | 0.00 | 1.27 | 1.87 | 3.05 | 0.00 | 0.01 | 100.14 | 79.75 | 7.90 | 3.06 | 9.03 | 0.00 | 0.26 |
| | | *9-2①-⑥ | G3 | 38.42 | 22.22 | 0.07 | 0.00 | 30.99 | 0.00 | 1.19 | 4.48 | 3.27 | 0.00 | 0.03 | 100.66 | 69.85 | 18.00 | 2.71 | 9.45 | 0.00 | 0.00 |
| | | *9-2①-⑥ | G4 | 37.57 | 22.34 | 0.02 | 0.18 | 34.25 | 0.02 | 3.87 | 1.38 | 1.48 | 0.00 | 0.00 | 101.10 | 80.54 | 5.77 | 9.22 | 3.89 | 0.00 | 0.58 |
| | | *9-2①-⑥ | G5 | 38.53 | 22.60 | 0.06 | 0.00 | 31.86 | 0.00 | 1.88 | 4.82 | 1.97 | 0.00 | 0.02 | 101.74 | 70.99 | 19.15 | 4.24 | 5.62 | 0.00 | 0.00 |
| *9-2①-⑥ | | G6 | 38.67 | 22.15 | 0.07 | 0.03 | 29.28 | 0.00 | 0.86 | 2.70 | 8.11 | 0.05 | 0.02 | 101.93 | 64.55 | 10.61 | 1.93 | 22.82 | 0.00 | 0.09 | |
| *9-2①-⑥ | | G7 | 37.45 | 21.70 | 0.11 | 0.03 | 32.94 | 0.00 | 2.10 | 3.16 | 3.14 | 0.03 | 0.00 | 100.67 | 73.64 | 12.60 | 4.75 | 8.88 | 0.02 | 0.10 | |
| *9-2①-⑥ | | G8 | 37.39 | 22.28 | 0.09 | 0.00 | 27.55 | 0.04 | 0.67 | 2.63 | 9.43 | 0.00 | 0.00 | 100.07 | 61.01 | 10.49 | 1.51 | 26.17 | 0.83 | 0.00 | |
| *9-2①-⑥ | | G9 | 38.28 | 22.36 | 0.01 | 0.03 | 33.08 | 0.00 | 1.51 | 4.08 | 1.96 | 0.00 | 0.01 | 101.32 | 74.51 | 16.39 | 3.44 | 5.57 | 0.00 | 0.09 | |
| *9-2①-⑥ | | G10 | 38.19 | 22.10 | 0.09 | 0.00 | 31.22 | 0.00 | 3.17 | 1.02 | 5.61 | 0.00 | 0.01 | 101.41 | 71.88 | 4.20 | 7.39 | 16.52 | 0.00 | 0.01 | |
| *9-2①-⑥ | | G11 | 37.90 | 22.19 | 0.06 | 0.00 | 32.28 | 0.00 | 1.24 | 2.91 | 3.22 | 0.03 | 0.00 | 99.83 | 75.34 | 12.09 | 2.94 | 9.64 | 0.00 | 0.00 | |
| *9-2①-⑥ | | G12 | 38.27 | 22.08 | 0.11 | 0.02 | 24.76 | 0.02 | 7.28 | 1.14 | 8.42 | 0.00 | 0.00 | 102.10 | 55.08 | 4.53 | 16.39 | 23.93 | 0.00 | 0.07 | |
| *9-2①-⑥ | | G13 | 38.66 | 22.47 | 0.08 | 0.04 | 31.52 | 0.00 | 1.31 | 5.68 | 1.49 | 0.00 | 0.00 | 101.24 | 70.22 | 22.57 | 2.95 | 4.13 | 0.00 | 0.12 | |
| *9-2①-⑥ | | G14 | 38.12 | 22.31 | 0.04 | 0.00 | 29.63 | 0.00 | 0.40 | 5.29 | 3.57 | 0.02 | 0.00 | 99.38 | 67.28 | 21.43 | 0.91 | 10.38 | 0.00 | 0.00 | |
| *9-2①-⑥ | | G15 | 38.66 | 22.18 | 0.04 | 0.02 | 32.41 | 0.04 | 1.28 | 5.42 | 1.46 | 0.01 | 0.00 | 101.53 | 71.64 | 21.37 | 2.87 | 4.07 | 0.00 | 0.06 | |
| *9-2①-⑥ | | G16 | 40.00 | 19.84 | 0.40 | 0.04 | 4.28 | 0.03 | 0.45 | 0.10 | 36.35 | 0.00 | 0.00 | 101.48 | 0.00 | 0.39 | 0.98 | 87.86 | 10.67 | 0.11 | |

Table C-5. Chemical compositions of detrital garnets from the Bengal basin. (18)

| formation | sample No. | grain No. | SiO ₂ | Al ₂ O ₃ | TiO ₂ | Cr ₂ O ₃ | **FeO | NiO | MnO | MgO | CaO | Na ₂ O | K ₂ O | Total (wt%) | Alm(%) | Pyr(%) | Sps(%) | Grs(%) | And(%) | Uvr(%) |
|-----------|------------|-----------|------------------|--------------------------------|------------------|--------------------------------|-------|------|------|------|-------|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|
| BP4 | *9-2①-⑥ | G17 | 39.00 | 21.92 | 0.20 | 0.00 | 25.63 | 0.00 | 1.77 | 1.43 | 11.75 | 0.02 | 0.02 | 101.74 | 56.92 | 5.65 | 3.99 | 33.44 | 0.00 | 0.00 |
| | *9-2①-⑥ | G18 | 38.63 | 22.60 | 0.03 | 0.01 | 33.19 | 0.00 | 1.11 | 4.33 | 2.00 | 0.03 | 0.00 | 101.92 | 74.44 | 17.31 | 2.52 | 5.69 | 0.00 | 0.05 |
| | *9-2①-⑥ | G19 | 37.95 | 21.59 | 0.16 | 0.01 | 29.88 | 0.00 | 3.07 | 0.80 | 8.16 | 0.00 | 0.00 | 101.42 | 66.45 | 3.19 | 6.97 | 23.35 | 0.00 | 0.04 |
| | *9-2①-⑥ | G20 | 38.64 | 22.11 | 0.05 | 0.01 | 32.01 | 0.00 | 0.14 | 2.47 | 4.49 | 0.00 | 0.00 | 99.90 | 75.69 | 10.40 | 0.33 | 13.55 | 0.00 | 0.04 |
| | *9-2①-⑥ | G21 | 39.43 | 22.16 | 0.05 | 0.02 | 28.18 | 0.00 | 1.12 | 6.39 | 3.70 | 0.00 | 0.00 | 101.03 | 62.02 | 25.06 | 2.50 | 10.36 | 0.00 | 0.06 |
| | *9-2①-⑥ | G22 | 37.67 | 21.57 | 0.13 | 0.06 | 29.38 | 0.00 | 8.56 | 2.00 | 0.99 | 0.02 | 0.00 | 100.37 | 68.52 | 8.31 | 20.23 | 2.75 | 0.00 | 0.20 |
| | *9-2①-⑥ | G23 | 38.80 | 20.54 | 0.59 | 0.00 | 3.19 | 0.02 | 0.27 | 0.03 | 36.58 | 0.00 | 0.02 | 100.04 | 0.00 | 0.13 | 0.58 | 88.97 | 10.33 | 0.00 |
| | *9-2①-⑥ | G24 | 38.70 | 22.20 | 0.03 | 0.03 | 29.97 | 0.03 | 1.82 | 5.03 | 3.55 | 0.03 | 0.01 | 100.37 | 66.14 | 19.78 | 4.06 | 9.94 | 0.00 | 0.08 |
| | *9-2①-⑥ | G25 | 39.13 | 21.45 | 0.34 | 0.04 | 31.16 | 0.03 | 1.21 | 2.65 | 5.33 | 0.00 | 0.00 | 101.35 | 70.91 | 10.76 | 2.78 | 15.43 | 0.00 | 0.12 |
| | *9-2①-⑥ | G26 | 38.95 | 21.75 | 0.06 | 0.09 | 30.31 | 0.02 | 1.83 | 4.67 | 3.39 | 0.00 | 0.01 | 101.07 | 67.62 | 18.57 | 4.13 | 9.41 | 0.00 | 0.28 |
| | *9-2①-⑥ | G27 | 40.76 | 22.35 | 0.03 | 0.00 | 0.92 | 0.01 | 0.05 | 0.08 | 36.94 | 0.00 | 0.02 | 101.16 | 0.00 | 0.29 | 0.10 | 99.60 | 0.00 | 0.00 |
| | *9-2①-⑥ | G28 | 38.90 | 21.78 | 0.13 | 0.21 | 33.90 | 0.00 | 0.49 | 1.81 | 5.19 | 0.00 | 0.00 | 102.41 | 76.59 | 7.28 | 1.12 | 14.33 | 0.00 | 0.68 |
| | *9-2①-⑥ | G29 | 39.00 | 22.07 | 0.00 | 0.08 | 27.36 | 0.01 | 3.02 | 2.72 | 7.03 | 0.06 | 0.01 | 101.36 | 61.80 | 10.93 | 6.92 | 20.09 | 0.00 | 0.26 |
| | *10-2①-⑥ | G1 | 37.93 | 21.40 | 0.17 | 0.08 | 29.25 | 0.01 | 1.27 | 0.88 | 8.20 | 0.00 | 0.00 | 99.20 | 68.66 | 3.66 | 3.02 | 24.40 | 0.00 | 0.27 |
| | *10-2①-⑥ | G2 | 37.58 | 22.13 | 0.10 | 0.10 | 34.29 | 0.00 | 4.88 | 1.17 | 0.98 | 0.03 | 0.01 | 101.26 | 80.56 | 4.89 | 11.60 | 2.61 | 0.00 | 0.34 |
| | *10-2①-⑥ | G3 | 38.72 | 22.18 | 0.10 | 0.00 | 31.83 | 0.00 | 1.79 | 3.44 | 1.67 | 0.00 | 0.00 | 99.53 | 75.81 | 14.71 | 4.35 | 5.14 | 0.00 | 0.00 |
| | *10-2①-⑥ | G4 | 38.53 | 22.37 | 0.03 | 0.02 | 29.52 | 0.00 | 0.75 | 7.18 | 1.78 | 0.00 | 0.00 | 100.18 | 65.09 | 28.21 | 1.68 | 4.97 | 0.00 | 0.06 |
| | *10-2①-⑥ | G5 | 38.83 | 22.79 | 0.05 | 0.07 | 23.23 | 0.00 | 1.49 | 2.48 | 12.87 | 0.02 | 0.01 | 101.83 | 50.88 | 9.69 | 3.31 | 35.92 | 0.00 | 0.21 |
| | *10-2①-⑥ | G6 | 38.73 | 22.01 | 0.08 | 0.00 | 23.43 | 0.00 | 5.54 | 3.09 | 7.04 | 0.03 | 0.00 | 99.95 | 53.77 | 12.64 | 12.87 | 20.71 | 0.00 | 0.00 |
| | *10-2①-⑥ | G7 | 39.99 | 32.41 | 0.05 | 0.00 | 2.01 | 0.00 | 0.15 | 0.02 | 24.52 | 0.02 | 0.00 | 99.17 | 5.99 | 0.09 | 0.46 | 93.47 | 0.00 | 0.00 |
| | *10-2①-⑥ | G8 | 38.62 | 22.16 | 0.09 | 0.03 | 34.00 | 0.03 | 1.43 | 4.18 | 0.99 | 0.00 | 0.00 | 101.53 | 76.98 | 16.87 | 3.28 | 2.79 | 0.00 | 0.09 |
| | *10-2①-⑥ | G9 | 38.84 | 22.01 | 0.15 | 0.00 | 29.23 | 0.02 | 0.47 | 2.72 | 8.26 | 0.05 | 0.01 | 101.76 | 64.75 | 10.75 | 1.05 | 23.45 | 0.00 | 0.00 |
| | *10-2①-⑥ | G10 | 38.14 | 21.87 | 0.10 | 0.03 | 32.90 | 0.00 | 1.36 | 3.05 | 3.29 | 0.00 | 0.00 | 100.74 | 74.91 | 12.37 | 3.14 | 9.48 | 0.00 | 0.10 |
| | *10-2①-⑥ | G11 | 39.11 | 21.38 | 0.03 | 0.08 | 23.84 | 0.06 | 5.11 | 2.79 | 9.78 | 0.01 | 0.01 | 102.20 | 49.95 | 10.96 | 11.43 | 27.41 | 0.00 | 0.24 |
| | *10-2①-⑥ | G12 | 38.26 | 21.68 | 0.06 | 0.06 | 31.16 | 0.00 | 5.30 | 1.23 | 4.28 | 0.00 | 0.00 | 102.04 | 70.48 | 4.97 | 12.15 | 12.20 | 0.00 | 0.21 |
| | *10-2①-⑥ | G13 | 38.14 | 22.09 | 0.07 | 0.11 | 29.67 | 0.02 | 5.47 | 2.94 | 2.69 | 0.01 | 0.02 | 101.22 | 67.61 | 11.92 | 12.63 | 7.50 | 0.00 | 0.35 |
| | *10-2①-⑥ | G14 | 38.98 | 22.40 | 0.09 | 0.08 | 22.50 | 0.00 | 2.79 | 1.20 | 14.34 | 0.00 | 0.01 | 102.39 | 49.08 | 4.68 | 6.17 | 39.85 | 0.00 | 0.23 |
| | *10-2①-⑥ | G15 | 38.313 | 22.70 | 0.06 | 0.00 | 32.38 | 0.02 | 1.70 | 4.82 | 2.04 | 0.00 | 0.02 | 102.05 | 71.45 | 18.96 | 3.81 | 5.78 | 0.00 | 0.00 |
| | *10-2①-⑥ | G16 | 38.57 | 21.97 | 0.03 | 0.05 | 32.88 | 0.05 | 2.53 | 3.03 | 2.36 | 0.05 | 0.00 | 101.50 | 74.98 | 12.30 | 5.83 | 6.73 | 0.00 | 0.16 |
| | *10-2①-⑥ | G17 | 39.73 | 20.80 | 0.27 | 0.03 | 3.91 | 0.00 | 0.38 | 0.08 | 36.18 | 0.00 | 0.01 | 101.39 | 1.78 | 0.31 | 0.80 | 87.39 | 9.63 | 0.10 |
| | *10-2①-⑥ | G18 | 38.21 | 22.40 | 0.03 | 0.00 | 33.74 | 0.00 | 0.23 | 4.14 | 2.81 | 0.00 | 0.00 | 101.57 | 75.07 | 16.40 | 0.51 | 8.01 | 0.00 | 0.00 |
| | *10-2①-⑥ | G19 | 38.56 | 22.56 | 0.04 | 0.16 | 31.11 | 0.00 | 4.49 | 2.82 | 2.69 | 0.02 | 0.01 | 102.47 | 70.50 | 11.38 | 10.30 | 7.30 | 0.00 | 0.51 |
| | *10-2①-⑥ | G20 | 38.71 | 21.92 | 0.05 | 0.09 | 27.90 | 0.02 | 4.23 | 2.42 | 5.50 | 0.02 | 0.00 | 100.86 | 64.06 | 9.91 | 9.85 | 15.89 | 0.00 | 0.29 |
| | *10-2①-⑥ | G21 | 38.68 | 21.70 | 0.01 | 0.00 | 28.95 | 0.00 | 2.10 | 4.55 | 3.08 | 0.00 | 0.02 | 99.09 | 67.12 | 18.80 | 4.92 | 9.16 | 0.00 | 0.00 |
| | *10-2①-⑥ | G22 | 38.16 | 21.53 | 0.01 | 0.00 | 34.13 | 0.04 | 4.01 | 2.09 | 1.36 | 0.02 | 0.01 | 101.36 | 78.17 | 8.54 | 9.31 | 3.98 | 0.00 | 0.00 |
| | *10-2①-⑥ | G23 | 38.79 | 21.65 | 0.07 | 0.00 | 31.96 | 0.04 | 0.15 | 4.17 | 3.85 | 0.00 | 0.00 | 100.68 | 71.88 | 16.70 | 0.33 | 11.09 | 0.00 | 0.00 |
| | *10-2①-⑥ | G24 | 38.17 | 21.74 | 0.04 | 0.00 | 30.86 | 0.00 | 4.82 | 2.75 | 2.58 | 0.02 | 0.04 | 101.02 | 70.23 | 11.16 | 11.11 | 7.51 | 0.00 | 0.00 |
| | *10-2①-⑥ | G25 | 38.77 | 22.30 | 0.11 | 0.09 | 30.87 | 0.00 | 0.95 | 6.46 | 1.91 | 0.00 | 0.00 | 101.44 | 67.42 | 25.14 | 2.10 | 5.07 | 0.00 | 0.27 |
| | *10-2①-⑥ | G26 | 39.06 | 21.85 | 0.17 | 0.00 | 31.69 | 0.00 | 0.41 | 6.78 | 1.48 | 0.05 | 0.00 | 101.48 | 68.77 | 26.23 | 0.89 | 4.11 | 0.00 | 0.00 |
| | *10-2①-⑥ | G27 | 39.25 | 21.93 | 0.07 | 0.08 | 30.09 | 0.00 | 0.78 | 5.91 | 2.63 | 0.02 | 0.01 | 100.74 | 67.21 | 23.51 | 1.76 | 7.28 | 0.00 | 0.24 |
| | *10-2①-⑥ | G28 | 38.07 | 21.46 | 0.08 | 0.00 | 32.58 | 0.02 | 2.82 | 1.26 | 4.58 | 0.00 | 0.00 | 100.86 | 74.84 | 5.14 | 6.55 | 13.47 | 0.00 | 0.00 |
| | *10-2①-⑥ | G29 | 37.52 | 21.19 | 0.08 | 0.00 | 27.90 | 0.00 | 9.12 | 0.17 | 4.70 | 0.02 | 0.02 | 100.71 | 64.21 | 0.69 | 21.26 | 13.85 | 0.00 | 0.00 |
| | *10-2①-⑥ | G30 | 37.71 | 21.26 | 0.10 | 0.00 | 25.54 | 0.00 | 6.99 | 3.18 | 3.06 | 0.05 | 0.00 | 97.88 | 60.53 | 13.42 | 16.77 | 9.28 | 0.00 | 0.00 |
| | *10-2①-⑥ | G31 | 38.36 | 21.67 | 0.02 | 0.11 | 30.11 | 0.02 | 3.15 | 4.57 | 2.88 | 0.01 | 0.01 | 100.90 | 66.72 | 18.04 | 7.07 | 7.83 | 0.00 | 0.34 |