

## List of Publications

### [Symbols]

- JE** in Japanese with English abstract
- ° The first author
  - \* Researchers belonging to University of Tsukuba, not to the Doctoral Program of Earth Evolution Sciences
  - \*\* Researchers not belonging to University of Tsukuba
  - \*\*\* Undergraduate students, graduate students and auditors belonging to University of Tsukuba

- Anma, R. (2007): Structural and fabric analyses of basal slip zone of the Jin'nosuke-dani landslide, northern central Japan: its application to the slip mechanism of decollement. *Landslides*, doi 10.1007/s10346-007-0094z. (with Kawamura, K.°, Ogawa, Y., Oyagi, N.\*\*, and Kitahara, T.\*\*)
- (2007): Paleocurrent patterns of the sedimentary sequence of the Taitao ophiolite constrained by anisotropy of magnetic susceptibility and paleomagnetic analyses. *Sedimentary Geology*, **201**, 446–460. (Veloso, E. E.°, Ota, T.\*\*\*, Komiya, T.\*\*, Kagashima, S.\*\* and Yamazaki, T.)
- (2007): Progressive metamorphism of the Taitao ophiolite; Evidence for axial and off-axis hydrothermal alterations. *Lithos*, **98**, 233–260. (Shibuya, T.°, Komiya, T.\*\*, Ota, T.\*\*\*, Omori, S.\*\*, and Kon, Y.\*\*)
- (2007): Zonal structure of initial Sr isotopic ratios in the Yakushima pluton, Kagoshima Prefecture. *MAGMA*, **88**, 1–16. (Kawano, Y.°\*\* and Yuhara, M.\*\*)(JE)
- Arakawa, Y. (2007). Paleoproterozoic U-Pb SHRIMP zircon age from basement rocks in Bangladesh: a possible remnant of the Columbia supercontinent. *COMPETES RENDUS, Geoscience*, **339**, 979–986 (with Hossain, I.°, Tsunogae, T., Rajesh, H. M.\*\*, Chen, B.\*\*)
- (2007). Allanites as an indicator of origin and tectonic setting for granitic rocks, Japan: implications for fractionation in manganese and rare earth elements, and for differences in Sr-Nd isotope compositions. *Canadian Mineralogist*, **45**, 1329–1336 (with Hoshino, M.°\*\*\*, Kimata, M., Nishida, N.\* and Shimizu, M.)
- (2007). Crystal chemistry and Strontium isotopic characteristics of anorthite megacrysts from West Japan volcanic belt: A peculiarity of the arc magmatism. *Abst., for Frontiers in Mineral Sciences*, **118** (with Matsui, T.°\*\*, Kimata, M., Nishida, N.\* and Hatta, T.\*\*)
- (2007). K-Ar age of high magnesian andesite in Gongenyama, Nishihara Village, Kumamoto Prefecture, Japan. *Journal of Kumamotogakuen Univ. (Faculty of Economics)*, **14**, 21–34 (with Shinmura, T.°\*\*, Miyoshi, M.°\*\* and Hasenak, T.°\*\*)
- Endo, K. (2008): In vitro regulation of CaCO<sub>3</sub> crystal polymorphism by the highly acidic molluscan shell protein Aspein. *FEBS Letters*, **582**, 591–596. (with Takeuchi, T.°\*\*\*, Sarashina, I. and Iijima, M.)
- (2007): A note on heterogeneity in northern Pacific populations of the brachiopod species *Lingula anatina* Lamarck. *Earth Evolution Sciences*, **1**, 33–36. (with Reyment, R. A.°\*\* and Tsujimoto, Y.\*\*\*)
- (2007): The template theory as a paradigm for shell biomineralization. *BioIndustry*, **24**, 21–28. (with Sarashina, I.) (in Japanese)
- (2007): Convergent evolution of molecules involved in animal biomineralization, *Iden*, **61**, 65–69. (with Sarashina, I.°) (in Japanese)
- (2007): Structure and function of matrix proteins contained in biominerals. *Chishitsu News*, **632**, 41–45. (with Sarashina, I.) (in Japanese)
- (2007): Kaimijinko ni kitakoto, a book review. *Fossils*, **81**, 106. (in Japanese)
- (2007): Cambrian explosion – a story of biological evolution. In, Miyamoto, H. and Kim, T. eds. *Series Monogatari 3 Kanata kara no koe*, 253–272, University of Tokyo Press, Tokyo. (in Japanese)
- (2007): The origin and body plan evolution of brachiopods. *Fossils*, **81**, 57–66. (in Japanese)
- (2008): Expression patterns of engrailed and dpp in the gastropod *Lymnaea stagnalis*. *Development, Genes and Evolution*, **218**, 237–251. (with Iijima, M.°, Sarashina, I. and Takeuchi, T.\*\*\*)
- Hayashi, K. (2007): Geology, wallrock alteration and vein paragenesis of the Bilimoia gold deposit, Kainantu metallogenic region, Papua New Guinea. *Resource Geology*, **57**, 249–268. (with Espi, J. O.°, Komuro, K., Murakami, H.\*\* and Kajiwar, Y.\*\*)
- Hirai, H (2007): High-pressure behavior of a SiO<sub>2</sub> clathrate observed by using various pressure media, *Physical Review B*, **75**, 174115. (with Yagi,

- T.\*\*\*, Iida, E.\*\*, Miyajima, N.\*\*, Kikegawa, T.\*\* and Bunno, M.\*\*)
- (2008): Phase changes of solid methane under high pressure up to 86 GPa at room temperature. *Chemical Physics Letter*, **454**, 212–217. (with Konagai, K.\*\*\*, Kawamura, T.\*\*, Yamamoto, Y.\*\* and Yagi, T.\*\*)
- (2008): Structural changes and preferential cage occupancy of ethane hydrate and methane-ethane mixed gas hydrate under very high pressure. *J. Chem. Phys.*, **129**, 224503. (with Takahara, N.\*\*\*, Kawamura, T.\*\*, Yamamoto, Y.\*\* and Yagi, T.\*\*)
- (2008): Clathrate hydrates under high pressure, explanatory translation written by Mao, W., Sloan, E. D. *Parity*, **3**, 21–28.
- Hisada, K. (2007): Modal analysis of coastal sand in the Honshu arc - Izu arc collision zone, central Japan. *Journal of Sedimentological Society of Japan*, **64**, 107–109. (with Togami, A.\*\*\*\*) (JE)
- (2007): Stratigraphy of the Mae Sariang Group of Northwestern Thailand: Implication for Paleoenvironments and tectonic setting. *The Natural History Journal of Chulalongkorn University*, **7**(2), 87–108. (with Srinak, N.\*\*\*, Kamata, Y.\*\* and Charusiri, P.\*\*)
- (2007): A New Pennsylvanian fusuline fauna from Northern Laos. *Acta Micropalaeontologica Sinica*, **24**(4), 359–369. (with Ueno, K.\*\*\*, Charoentitirat, T.\*\*, Kamata, Y.\*\*, Hara, H., Ichise, M.\*\*, Charusiri, P.\*\* and Khamphavong, K.\*\*)
- (2007): Temporal changes in the composition of Miocene sandstone related to collision between the Honshu and Izu arcs, central Japan. In Amy E. Draut, Peter D. Clift, and David W. Scholl (Eds.), GSA Special Paper 436, *Formation and Applications of the Sedimentary Record in Arc Collision Zones*, 185–198. (with K. Okuzawa\*\*\*\*)
- (2007): Provenance of quartzarenite clasts in the Tetori Group (Middle Jurassic to Early Cretaceous), Japan: paleogeographic implications. *Journal of Asian Earth Sciences*, **29**, 116–126. (with Kim, Y.\*\*\* and Lee, Y. I.\*\*)
- (2008): 2004 Indian Ocean tsunami inflow and outflow at Phuket, Thailand. *Marine Geology*, **248**, 179–192. (with Choowong, M.\*\*\*, Murakoshi, N.\*\*, Charusiri, P.\*\*, Charoentitirat, T.\*\*, Chutakositkanon, V.\*\*, Jankaew, K.\*\*, Kanjanapayont, P.\*\* and Phantu Wongraj, S.\*\*)
- Kimata, M. (2007): Minor-Element Systematics of Fluorapatite and Zircon Inclusions in Allanite-(Ce) from three orogenic felsic rocks: Implications for the origin of their host magmas. *The Canadian Mineralogist*, **45**, 1337–1353. (Hoshino, M.\*\*\*\*, Shimizu, M. and Nishida, N.\*)
- (2007): Allanite as an indicator of the origin for granitic rocks, Japan: importance of Sr-Nd isotopic and chemical composition. *The Canadian Mineralogist*, **45**, 1329–1336. (Hoshino, M.\*\*\*\*, Arakawa, Y., Shimizu, M., Nishida, N.\* and Nakai, S.\*\*)
- (2007): Crystal-chemical and carbon-isotopic characteristics of karpaitite (C<sub>24</sub>H<sub>12</sub>) from the Picacho Peak Area, San Benito County, California: Evidences for the hydrothermal formation. *American Mineralogist*, **92**, 1262–1269. (Echigo, T.\*\*\*\* and Maruoka, T.\*)
- (2008): Crystal chemical significance of chemical zoning in dissakisite-(Ce). *Physics and Chemistry of Minerals*, **35**, 59–70. (Hoshino, M.\*\*\*\*, Shimizu, M. and Nishida, N.\*)
- Komuro, K. (2007): Geochemical microanalysis of minerals, rocks and groundwater: modeling the elemental behavior in sedimentary rocks by microstructural and microgeochemical analysis and rock-water interaction. JAEA-REVIEW 2007-028, 178–193. (with Shikazono, N.\*\*, Mizukami, M.\*\*, Nakata, M.\*\*, Kosaka, T.\*\*, Tomiyama, S.\*\*, Masudome, Y.\*\*, Sato, K.\*\*, Omori, S.\*\*, Tamura, I.\*\*, Saito, K.\*\*\*, Yoshida, H.\*\*, Ichii, R.\*\* and Matsuda, M.\*\*)
- (2007): Geology, wallrock alteration and vein paragenesis of the Bilimoia gold deposit, Kainantu metallogenic region, Papua New Guinea. *Resource Geology*, **57**, 249–268. (with Espi, J. O.\*, Hayashi, K., Murakami, H.\*\* and Kajiwara, Y.\*\*)
- (2007): Paleooceanographic environmental setting of Kuroko deposits, northeast Japan. Geological Society of America 2007 Annual Meeting, 234–13.
- (2008): Rare earth elements geochemistry of the Cambrian shallow marine manganese deposit at Wadi Dana, South Jordan. *The Jordan Journal of Earth and Environmental Sciences*, **1**, 45–52. (with El-Hasan, T.\*\*\*\* and Al-Malabeh, A.\*\*)
- Kurosawa, M. (2007): Quantitative PIXE analyses of fluid inclusions in quartz by using 1.92 MeV proton beam. *Ann. Rep., Tandem Accelerator Center, Univ. Tsukuba*, **76**, 41–42. (with Ishii, S.\* and Sasa, K.\*).
- (2008): Quantitative PIXE analyses of single fluid inclusions in quartz crystals with a 1.92-MeV tandemtron. *Nucl. Instr. Methods*, **B266**, 3633–3642. (with Ishii, S.\* and Sasa, K.\*)

- Kyono, A. (2007): Light-induced phase transformation mechanism from realgar to pararealgar. *Nippon Kessho Gakkaishi*, **49**, 321–327. (JE)
- (2008): Measurement error of chemical composition due to the mineral surface states. *Ganseki Kobutsu Kagaku*, **37**, 78–87. (JE)
- (2008): Compositional variability and crystal structural features of guanacoite. *American Mineralogist*, **93**, 501–507.
- Maruoka, T. (2007): Carbon isotopic compositions of organic matter across continental Cretaceous-Tertiary (K-T) boundary sections: Implications for paleoenvironment after the K-T impact event. *Earth and Planetary Science Letters*, **253**, 226–238 (with Koeberl, C.\*\* and Bruce F. Bohor, B. F.\*\*)
- (2007): Crystal-chemical and carbon-isotopic characteristics of karpaitite (C<sub>24</sub>H<sub>12</sub>) from the Pichacho Peak Area, San Benito County, California: Evidences for the hydrothermal formation. *American Mineralogist*, **92**, 1262–1269. (with Echigo, T.\*\*\*, Kimata M.\*\*)
- Motoyama, I. (2007): Orbital- and millennial-scale changes of radiolarian assemblages during the last 220 kyrs in the Japan Sea. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **247**(1–2), 115–130. (with Itaki, T.\*\*\* and Komatsu, N.\*\*)
- (2007): Effects of late Neogene climatic cooling on North Pacific radiolarian assemblages and oceanographic conditions. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **249**(3–4), 370–392. (with Kamikuri, S.\* and Nishi, H.\*\*)
- (2007): Radiolarian assemblage and environmental changes in the Japan Sea since the Late Miocene. *Fossils*, **82**, 35–42. (with Kamikuri, S.\*) (JE)
- Ogasawara, K. (2007): Isotopic ages of the Shinzan Rhyolites, Oga Peninsula, NE Japan. *Journal of the Japanese Association for Petroleum Technology*, **72**, 608–616. (with Kano, K.\*\*\*, Sato, Y.\*\*\*, Kobayashi, N.\*\* and Ohguchi, T.\*\*)
- (2007): Abstract volume of the IX International congress on Pacific Neogene stratigraphy, October 1–3 in Tsukuba. 9<sup>th</sup> RCPNS Tsukuba, organizing Committee, 59 pp. (with Oda, M.\*\* and Kano, K.\*\*)
- (2008): Chronostratigraphic correlation of the Shiose-no-misaki Sandstone and Conglomerate, Oga Peninsula, NE Japan. *Journal of the Japanese Association for Petroleum Technology*, **73**, 86–96. (with Kano, K.\*\*\*, Obuse, A.\*\*, Sato, Y.\*\*\* and Ohguchi, T.\*\*)
- Ogawa, Y. (2008): Vein structures, like ripple marks, are formed by short-wavelength shear waves. *Journal of Structural Geology*, **30**(6), 719–724, doi: 10.1016/j.jsg.2008.02.002, 2008. (with Ohsumi, T.\*\*\*\*)
- (2008): Oblique subduction in an island arc collision setting: Unique sedimentation, accretion, and deformation processes in the Boso TTT-type triple junction area, NW Pacific, in Draut, A.E., Clift, P.D., and Scholl, D.W., eds., Formation and Applications of the Sedimentary Record in Arc Collision Zones: *Geological Society of America Special Paper*, **436**, 155–170, doi: 10.1130/2008.2436(07), 2008. (with Takami, Y.\*\* and Takazawa, S.\*\*)
- Sashida, K. (2007): Late Devonian to Early Carboniferous radiolarian fauna from the Pak Chom area, Loei Province, north-eastern Thailand. *Paleontological Research*, **11**, no.2, 109–121. (with Saesaengseerung, D.\*\*\*\* and Sardud, A.\*\*)
- (2007): Devonian to Triassic radiolarian faunas from northern and northeastern Thailand. In Tantiwanit, W. ed., *GEOTHAI' 2007 Proceedings of the International Conference on Geology of Thailand: towards sustainable development and sufficiency economy*, 54–71. (with Saesaengseerung, D.\*\*\*\* and Sardud, A.\*\*)
- (2007): Discovery of Permian radiolarian faunas from the Nakhon Sawan and Uthai Thani areas, central Thailand. In Tantiwanit, W. ed., *GEOTHAI' 2007 Proceedings of the International Conference on Geology of Thailand: towards sustainable development and sufficiency economy*, 72. (with Saesaengseerung, D.\*\*\*\* and Sardud, A.\*\*)
- Takizawa, S. (2007): Amorphous material formed by the mechanochemical effect in natural pseudotachylyte of crushing origin: A case study of the Iida-Matsukawa Fault, Nagano Prefecture, Central Japan. *Journal of Structural Geology*, **29**, 1855–1869. (with Ozawa, K.°)
- Tsunogae, T. (2007): Sodicgedrite in ultrahigh-temperature Mg-Al-rich rocks from the Palghat-Cauvery Shear Zone system, southern India. *Journal of Mineralogical and Petrological Sciences*, **102**, 39–42. (with Santosh, M.\*\* and Shimpo, M.\*\*\*)
- (2007): Carbonic fluid inclusions in sapphirine + quartz bearing garnet granulite from the Limpopo Belt, southern Africa. *Petrological Sciences*, **102**, 57–60. (with van Reenen, D. D.\*\*)
- (2007): Discovery of sapphirine-bearing Mg-Al granulites in the North China Craton: Implications for Paleoproterozoic ultrahigh temperature

- metamorphism. *Gondwana Research*, **11**, 263–285. (with Santosh, M.<sup>o\*\*</sup>, Li, J. H.<sup>\*\*</sup> and Liu, S. J.<sup>\*\*</sup>)
- (2007): First report of the spinel + quartz assemblage from Kodaikanal in the Madurai Block, southern India: implications for ultrahigh-temperature metamorphism. *International Geology Review*, **49**, 1050–1068. (with Tadokoro, H.<sup>o\*\*\*</sup>, Santosh, M.<sup>\*\*</sup> and Yoshimura, Y.<sup>\*\*</sup>)
- (2007): Crustal anatexis and formation of two types of granitic magmas in the Kontum massif, central Vietnam: Implications for magma processes in collision zones. *Gondwana Research*, **12**, 428–437. (with Owada, M.<sup>o\*\*</sup>, Osanai, Y.<sup>\*\*</sup>, Nakano, N.<sup>\*\*</sup>, Matsushita, T.<sup>\*\*</sup>, Nam, T. N.<sup>\*\*</sup>, Toyoshima, T.<sup>\*\*</sup>, Binh, P.<sup>\*\*</sup> and Kagami, H.<sup>\*\*</sup>)
- (2007): Geologic and metamorphic evolution of the basement complexes in the Kontum Massif, central Vietnam. *Gondwana Research*, **12**, 438–453. (with Nakano, N.<sup>o\*\*</sup>, Osanai, Y.<sup>\*\*</sup>, Owada, M.<sup>\*\*</sup>, Nam, T. N.<sup>\*\*</sup>, Toyoshima, T.<sup>\*\*</sup>, Binh, P.<sup>\*\*</sup> and Kagami, H.<sup>\*\*</sup>)
- (2007): Palaeoproterozoic U-Pb SHRIMP zircon age from basement rocks in Bangladesh: A possible remnant of the Columbia Supercontinent. *Comptes Rendus Geoscience*, **339**, 979–986. (with Hossain, I.<sup>o\*\*\*</sup>, Rajesh, H. M.<sup>\*\*</sup>, Chen, B.<sup>\*\*</sup> and Arakawa, Y.<sup>\*</sup>)
- (2007): Ultrahigh-temperature metamorphism in Southern Indian Granulite Terrane. Memoir of the International Association for *Gondwana Research*, **10**, 55–75. (with Santosh, M.<sup>\*\*</sup>)
- (2007): Fluid inclusions study of Abukuma metamorphic rocks from the Hanazono district, northeast Japan. *Journal of Mineralogical and Petrological Sciences*, **102**, 325–336. (with Ohyama, H.<sup>o\*\*\*</sup>)
- (2007): Ultrahigh-temperature metamorphism during Gondwana assembly: evidence from southern India. *International Association for Gondwana Research Conference Series*, **4**, 167–170. (with Santosh, M.<sup>\*\*</sup>)
- (2007): Carbonic fluid inclusions in corundum- and sapphirine-bearing high-pressure and ultrahigh-temperature rocks from the Palghat-Cauvery Shear Zone System, southern India. *International Association for Gondwana Research Conference Series*, **4**, 119–121. (with Ohyama, H.<sup>o\*\*\*</sup> and Santosh, M.<sup>\*\*</sup>)
- (2007): Contrasting P-T paths from the western and eastern parts of the Trivandrum Granulite Block, southern India. *International Association for Gondwana Research Conference Series*, **4**, 148–150. (with Tadokoro, H.<sup>o\*\*\*</sup> and Santosh, M.<sup>\*\*</sup>)
- (2007): The stability and origin of gedrite in ultrahigh-temperature Mg-Al-rich rocks from southern India. *International Association for Gondwana Research Conference Series*, **4**, 73–75. (with Kanazawa, T.<sup>o\*\*\*</sup>, Ohyama, H.<sup>\*\*\*</sup> and Santosh, M.<sup>\*\*</sup>)
- (2007): Laser Raman spectroscopic study of Kerala khondalite from southern India. *International Association for Gondwana Research Conference Series*, **4**, 136–138. (with Sato, K.<sup>o\*\*</sup> and Santosh, M.<sup>\*\*</sup>)
- (2008): High-pressure and ultrahigh-temperature metamorphism in Southern Indian Granulite Terrane. *International Association for Gondwana Research Conference Series*, **5**, p. 211. (with Santosh, M.<sup>\*\*</sup>)
- (2008): High-P-T experiments of Mg-Al rocks from the Palghat-Cauvery Shear Zone System, southern India: implications for the stability of gedrite. *International Association for Gondwana Research Conference Series*, **5**, 188–189. (with Kanazawa, T.<sup>o\*\*\*</sup>, Sato, K.<sup>\*\*</sup> and Santosh, M.<sup>\*\*</sup>)
- (2008): Sulphide minerals in ultrahigh-temperature granulites from the Southern Granulite Terrane, India. *International Association for Gondwana Research Conference Series*, **5**, 207–208. (with Tadokoro, H.<sup>o\*\*\*</sup> and Santosh, M.<sup>\*\*</sup>)
- (2008): Relation between Raman spectra of quartz inclusion within garnet and volume change of minerals during retrograde metamorphism: Implication for P-T condition of Kerala khondalite belt in southern India. *International Association for Gondwana Research Conference Series*, **5**, 196–197. (with Sato, K.<sup>o\*\*</sup> and Santosh, M.<sup>\*\*</sup>)
- (2008): Carbonic metamorphism at ultrahigh-temperatures: Evidence from North China Craton. *Earth and Planetary Science Letters*, **266**, 149–165. (with Santosh, M.<sup>o\*\*</sup>, Ohyama, H.<sup>\*\*\*</sup>, Sato, K.<sup>\*\*</sup>, Li, J. H.<sup>\*\*</sup> and Liu, S. J.<sup>\*\*</sup>)
- (2008): CO<sub>2</sub>-rich fluid inclusions in staurolite and associated minerals in a high-pressure ultrahigh-temperature granulite from the Gondwana suture in southern India. *Lithos*, **101**, 177–190. (with Ohyama, H.<sup>o\*\*\*</sup> and Santosh, M.<sup>\*\*</sup>)
- (2008): Fluid characteristics of high- to ultrahigh-temperature metamorphism in southern India: A quantitative Raman spectroscopic study. *Precambrian Research*, doi: 10.1016/j.precamres.2007.07.026. (with Santosh, M.<sup>\*\*</sup> and Dubessy, J.<sup>\*\*</sup>)

- (2008): Fluid inclusion study of pegmatite and aplite veins of the Palaeoproterozoic basement rocks in Bangladesh: implications for magmatic fluid compositions and crystallization depth. *Journal of Mineralogical and Petrological Sciences*, doi: 10.2465/jmps.071022j. (with Hossain, I.\*\*\*)
- Yagi, Y. (2007): Coseismic slip distribution of the 2005 Miyagi-Oki (M7.2) earthquake estimated by inversion of strong-motion and teleseismic waveforms –Its relation with the 1978 Miyagi-Oki Earthquake (M 7.4)–, *Zisin* (2), 60, 43–53. (with Yaginuma, T.\*\*\*, Okada, T.\*\*\*, Hasegawa A.\*\*\*, Kato, K.\*\* and Takenaka, M.\*\*\*) (EJ).