

REFERENCES

- Arai, S. (1992) Chemistry of chromian spinel in volcanic rocks as a potential guide to magma chemistry. *Mineral. Mag.*, **56**, 173-184.
- Bemis, K. G. and D. K. Smith (1993) Production of small volcanoes in the Superswell region of the south Pacific. *Earth Planet. Sci. Lett.*, **118**, 251-262.
- Bergersen, D. D. (1995) Cretaceous hotspot tracks through the Marshall Islands, In: J. A. Haggerty, I. Premoli Silva, F. Rack and M. K. McNutt (eds.), *Proceedings of the Ocean Drilling Program, Scientific Results*, **144**, Ocean Drilling Program, Collage Station: 605-613.
- Cadet, J. P., K. Kobayashi, J. Aubouin, J. Boulegue, C. Deplus, R. Von Huene, L. Jolivet, T. Kanazawa, J. Kasahara, K. Koizumi, S. Lallemand, Y. Nakamura, G. Pautoto, K. Suyehiro, S. Tani, H. Tokuyama and T. Yamazaki (1987) The Japan Trench and its juncture with the Kuril Trench: cruise results of the Kaiko project, Leg 3, *Earth Planet. Sci. Lett.*, **83**, 267-284.
- Caroff, M., H. Guillou, M. Lamiaux, R. C. Maury, G. Guille and J. Cotten (1999) Assimilation of ocean crust by hawaiitic and mugearitic magmas: an example from Eiao (Marquesas), *Lithos*, **46**, 235-258.
- Clague, D. A. and R. D. Jarrard (1973) Tertiary Pacific Plate motion deduced from the Hawaii-Emperor chain. *Geol. Soc. Am. Bull.*, **84**, 1135-1154.
- Clague, D. A. and G. B. Darlymple (1988) Age and petrology of alkalic post-shield and rejuvenated stage lava from Kauai, Hawaii, *Contrib. Mineral. Petrol.*, **99**, 202-218.

- Cox, K. G. (1991) A superplume in the mantle, *Nature*, **352**, 564-565.
- Dalrymple, G. B. and M. A. Lanphere (1974) $^{40}\text{Ar}/^{39}\text{Ar}$ age spectra of some undisturbed terrestrial samples. *Geochim. Cosmochim. Acta.*, **38**, 715-738.
- Dalrymple, G. B., M. A. Lanphere and D. A. Clague (1980) Conventional and Ar/Ar K-Ar ages of volcanic rocks from Ojin (site 430), Nintoku (site 432), and Suiko (site 433) seamounts and the chronology of volcanic propagation along the Hawaiian-Emperor chain, *Init. Rep. DSDP*, Vol. LV, 659-676.
- Davis, A. S., M. S. Pringle, L. B. G. Pickthorn and D. A. Clague (1989) Petrology and age of alkalic lava from the Ratak Chain of the Marshall Islands. *J. Geophys. Res.*, **94**, 5757-5774.
- Duncan, R. A. and D. A. Clague (1985) Pacific Plate motion recorded by linear volcanic chains. In Narin, A. E. M., F. G. Stehli and S. Uyeda (eds.), *The ocean basins and margins* (Vol. 7A): The Pacific ocean, pp. 89-121, New York (Plenum).
- Engelbreton, D. C., A. Cox and R. G. Gordon (1985) Relative motions between oceanic and continental plates in the Pacific Basin. *Geol. Soc. Am. Special Paper*, **206**, pp.59.
- Epp, D. (1984) Possible perturbations to hotspot traces and implications for the origin and structure of the Line Islands, *J. Geophys. Res.*, **89**, 11273-286.
- Floyd, P. (1991) Oceanic islands and seamounts. In: P. A. Floyd (Ed.), *Oceanic basalts*, Blackie, Glasgow, 174-218.
- Freundt, A. and H. U. Schmincke (1995) Petrogenesis of rhyolite-basalt composite gneimbrite P1, Gran Canaria, Canary Islands. *J. Geophys. Res.*, **100**, 455-474.
- Fukuyama, H. (1982) *Chikyu Monthly*, **14**, 92-98. (in Japanese)
- Fuller, M. and R. Weeks (1991) Superplumes and superchrons, *Nature*, **356**, 16-17.
- Gradstein, F. M., F. P. Agterberg, J. G. Ogg, J. Hardenbol, P. V. Veen, J. Thierry and Z.

- Huang (1994) A Mesozoic time scale, *J. Geophys. Res.*, **99**, 24051-24074.
- Gripp, A. E. and R. G. Gordon (1990) Current plate velocities relative to the hotspots incorporating the NUVEL-1 global plate motion model, *Geophys. Res. Lett.*, **17**, 1109-1112.
- Gordon, R. G. (1995) Present plate motions and plate boundaries. In: T. J. Ahrens (ed.), *Global Earth physics: a handbook of physical constants*, AGU, Washington, 66-87.
- Haggerty, J. A. and I. Premoli Silva (1995) Comparison of the origin and evolution of northwest Pacific guyots. In Haggerty, J. A., Premoli Silva, I., Rack, F., and McNutt, M. K. (eds.), *Proc. ODP, Sci. Results*, **144**: College Station, TX (Ocean Drilling Program), pp. 935-949.
- Handschumacher, D. W., W. W. Sager, T. W. C. Hilde and D. R. Bracey (1988) Pre-Cretaceous tectonic evolution of the Pacific plate and extension of the geomagnetic polarity reversal time scale with implications for the origin of the Jurassic "Quiet Zone". *Tectonophysics*, **155**, 365-380.
- Kaneoka, I. (1971) K-Ar ages of seamounts along the Japan Trench and the effect of acid leaching on the K-Ar age of a dredged submarine rock. *Geochem. J.*, **5**, 113-120.
- Kobayashi, K. (1992) *Preliminary report of the Hakuho Maru Cruise KH92-3, geophysical and geological investigation of western Kuril Trench and eastern Nankai Trough*. Ocean Research Institute, University of Tokyo, pp.137.
- Hawkins, J. W. and J. H. Natland (1975) Nephelinites and basanites of the Samoan linear volcanic chain: their possible tectonic significance, *Earth Planet. Sci. Lett.*, **24**, 427-439.
- Henderson, L. J., R. G. Gordon and D.C. Engebretson (1984) Mesozoic aseismic ridges

- on the Frallaon Plate and southward migration of shallow subduction during the Laramide orogeny. *Tectonics*, **3**(2), 121-132.
- Hilde, T. W. C., N. Isezaki and J. M. Wageman (1976) Mesozoic seafloor spreading in the north Pacific, In: G. H. Sutton, R. Moberly and M. Manghanani (eds.), *The geophysics of the Pacific ocean basin and its margin*, *Geophys. Monogr. AGU*, **19**, 205-226.
- Hirano, N., K. Saito and Y. Ogawa (submitted a) ^{40}Ar - ^{39}Ar ages and volcanic and sedimentation history of an unnamed seamount at Mariana Trench, *Marine Geol.*.
- Hirano, N., K. Kawamura, M. Hattori, K. Saito and Y. Ogawa (submitted b) Young alkaline pillow basalts discovered from the subducting Pacific Plate, northern Japan Trench. *Geophys. Res. Lett.*.
- Jackson, E. D., E. A. Silver and G. B. Dalrymple (1972) Hawaiian-Emperor Chain and its relation to Cenozoic circumpacific tectonics. *Geol. Soc. Am. Bull.*, **83**, 601-618.
- Jackson, H. R., and I. Reid (1983) Oceanic magnetic anomaly amplitudes: variation with sea-floor spreading rate and possible implications. *Earth Planet. Sci. Lett.*, **9**, 311-344.
- Jarrard, R. D. and D. A. Clague (1977) Implications of Pacific island and seamount ages for the origin of volcanic chains. *Review Geophys. Space Phys.*, **15**, 57-76.
- Koppers, A. A. P. (1998MS) ^{40}Ar - ^{39}Ar geochronology and isotope geochemistry of the West Pacific Seamount Province: implications for absolute Pacific Plate motions and the motion of hotspots. *Thesis of Ph.D., Proefschrift Vrije Universiteit Amsterdam*, pp.263.
- Koppers, A. A. P., H. Staudigel, D. M. Christie, J. J. Dieu and M. S. Pringle (1995) Sr-Nd-Pb isotope geochemistry of Leg 144 west Pacific guyots: implications for the

- geochemical evolution of the "SOPITA" mantle anomaly, In: J. A. Haggerty, I. Premoli Silva, F. Rack and M. K. McNutt (eds.), *Proceedings of the Ocean Drilling Program, Scientific Results*, 144, Ocean Drilling Program, College Station, 535-545.
- Koppers, A. A. P., H. Staudigel, J. R. Wijbrans and M. S. Pringle (1998) The Magellan seamount trail: implications for Cretaceous hotspot volcanism and absolute Pacific Plate motion. *Earth Planet. Sci. Lett.*, **163**, 53-68.
- Kobayashi, K. (1990) *Chikyu Monthly*, **3**, 90-95. (in Japanese)
- Kobayashi, K., J. P. Cadet, J. Aubouin, J. Boulegue, J. Dubois, R. Von Huene, L. Jolivet, T. Kanazawa, J. Kasahara, K. Koizumi, S. Lallemand, Y. Nakamura, G. Pautot, K. Suyehiro, S. Tani and H. Tokuyama, T. Yamazaki (1987) Normal faulting of the Daiichi-Kashima Seamount in the Japan Trench revealed by the Kaiko I cruise, Leg 3., *Earth Planet. Sci. Lett.*, **83**, 257-266.
- Kobayashi, K., M. Nakanishi, K. Tamaki and Y. Ogawa (1998) Outerslope faulting associated with the eastern Kuril and Japan Trenches, *Geophysical Journal International*, **134**, 356-372.
- Kroenke, L.W. and P. Wessel (1997) Pacific plate motion between 125 and 90 Ma and the formation of the Ontong Java plateau. *Conference on the history and dynamics of global plate motions*. AGU Marshall, California, 22.
- Larson, R. L. (1991) Latest pulse of earth: evidence for a mid-Cretaceous superplume. *Geology*, **19**, 547-550.
- Larson, R. L. (1995) The mid-Cretaceous superplume episode. *Scientific American*, **272**, 82-86.
- Larson, R. L. and C. G. Chase (1972) Late Mesozoic evolution of the western Pacific ocean. *Geol. Soc. Am. Bull.*, **83**, 3,627-3,644.

- Larson R. L. and C. Kincaid (1996) Onset of mid-Cretaceous volcanism by elevation of the 670 km boundary layer. *Geology*, **24**(6), 551-554.
- Larson, R. L., M. B. Steiner, E. Erba and Y. Lancelot (1992) Paleolatitudes and tectonic reconstructions of the oldest portion of the Pacific Plate: a comparative study. In Larson, R. L. *et al.*: *Proc. ODP, Sci. Results*, **129**: College Station, TX (Ocean Drilling Program), pp. 615-631.
- Le Bas, M. J. (1962) The role of aluminum in igneous clinopyroxenes with relation to their percentage, *Am. J. Sci.*, **260**, 267-288.
- Le Bas, M. J., R. W. Le Maitre, A. Streckeisen and B. Zanettin (1986) A chemical classification of volcanic rocks based on the total alkali-silica diagram. *J. Petrol.*, **27**, 745-750.
- Lincoln, J. M., M. S. Pringle and I. P. Silva (1993) Early and Late Cretaceous volcanism and reef-building in the Marshall Islands. *Geophys. Monogr., AGU*, **77**, 279-305.
- Losdale, P. (1988) Geography and history of the Louisville hotspot chain in the southwest Pacific. *J. Geophys. Res.*, **93**, 3,078-3,104.
- Maaløe, S., D. James, P. Smedley, S. Pertersen and L. B. Garmann (1992) The Koloa volcanic suite of Kauai, Hawaii, *J. Petrol.*, **33**, 761-784.
- Macdonald, G. A. and T. Katsura (1964) Chemical composition of Hawaiian lavas. *J. Petrol.*, **5**, 82-133.
- Masalu, D. C. P. and K. Tamaki (1997) Paleomagnetism of the Joban Seamount Chain: its origin and tectonic implications for the Pacific Plate, *J. Geophys. Res.*, **102**, 5145-5155.
- Matsuoka, A., H. Okada, Y. Ogawa and K. Fujioka (1997) Extremely well-preserved Berriasian radiolarian fauna from the Mariana Trench in the western Pacific.

- InterRads conference at Strasbourg 1997. 9.
- McNutt, M. K., D. W. Caress, J. Reynolds, K. A. Jordahl and R. A. Duncan (1997) Failure of plume theory to explain midplate volcanism in the southern Austral Islands. *Nature*, **389**, 479-482.
- Mitchell, J. G. (1968) The argon-40/argon-39 method for potassium-argon determination. *Geochem. Cosmochim. Acta*, **32**, 781-790.
- Moberly, R. (1971) Volcanic rocks cored from the western and central Pacific, Leg 7, Deep Sea Drilling Project, *Initial Reports DSDP*, **7**, 1001-1026.
- Morgan, W. J. (1971) Convection plumes in the lower mantle. *Nature*, **230**, 42-43.
- Morgan, W. J. (1972) Plate motions and deep mantle convection. *Geol. Soc. Am. Mem.*, **132**, 7-22.
- Nakamura, K. (1986) Volcanology and plate tectonics. *Bull. Volcano. Soc. Japan*, *special issue*, **30**, S1-S16 (in Japanese, with English Abstract).
- Nakanishi, M. (1993) Topographic expression of five fracture zones in the northwestern Pacific Ocean. *Geophys. Monogr., AGU*, **77**, 121-135.
- Nakanishi, M., K. Tamaki and K. Kobayashi (1992) A new Mesozoic isochron chart of the northwestern Pacific Ocean: paleomagnetic and tectonic implications. *Geophys. Res. Lett.*, **19**, 693-696.
- Nakanishi, M., K. Tamaki and K. Kobayashi (1989) Mesozoic magnetic anomaly lineations and seafloor spreading history of the northwestern Pacific, *J. Geophys. Res.*, **94**, 15437-15462.
- Nakanishi, M., K. Tamaki and K. Kobayashi (1992) Magnetic anomaly lineations from late Jurassic to Early Cretaceous in the west-central Pacific Ocean. *Geophys. J. International*, **144**, 535-545.

- Nakanishi, M., W. W. Sager and A. Klaus (1999) Magnetic lineations within Shatsky Rise, northwest Pacific Ocean: implications for hotspot-triple junction interaction and oceanic plateau formation. *J. Geophys. Res.*, **104**, 7359-7556.
- Natland, J. H. (1980) The progression of volcanism in the Samoan linear volcanic chain, *American Journal of Science*, **280-A**, 709-735.
- Ogawa, Y. and T. Kawata (1998) Preservation of biogenic opal-A in earliest Cretaceous radiolarian claystone from the western Pacific. *J. Sedimentary Res.*, **68**, 435-439.
- Ogawa, Y. and K. Kobayashi (1993) Mud ridge on the crest of the outerswell off Japan Trench. *Marine Geology*, **111**, 1-6.
- Ogawa, Y., K. Fujioka, A. Oshida, H. Nishimura, T. Kawata, A. Matsuoka, K. Sashida, T. Kanamatsu and T. Ito (1994) Pacific Plate Jurassic to Cretaceous seamount and chert stratigraphy, rock paleomagnetism and clayey seabottom cracks. *JAMSTEC J. Deep Sea Res.*, **10**, 123-151 (in Japanese, with English Abstr.).
- Ogawa, Y., K. Kobayashi, H. Hotta and K. Fujioka (1996a) Tension cracks on the oceanward slopes of the northern Japan and Mariana Trenches, *Marine Geology*, **114**, 111-123, 1996.
- Ogawa, Y., K. Sashida and T. Kawata (1996b) Silica mineralization of Jurassic/Cretaceous cherts and claystone from a seamount flank at the Mariana Trench oceanward slope. *Sci. Rept., Inst. Geosci., Univ. Tsukuba, Sec. B*, **17**, 1-24.
- Ozima, M., I. Kaneoka and S. Aramaki (1970) K-Ar ages of submarine basalts dredged from seamounts in the western Pacific area and discussion of oceanic crust. *Earth Planet. Sci. Lett.*, **8**, 237-249.
- Ozima, M., M. Honda and K. Saito (1977) $^{40}\text{Ar}/^{39}\text{Ar}$ ages of guyots in the western Pacific and discussion of their evolution. *Earth Planet. Sci. Lett.*, **51**, 475-485.

- Pringle, M. S. (1993) Age progressive volcanism in the Musicians seamounts: a test of the hotspot hypothesis for the Late Cretaceous Pacific. *Geophys. Monogr. AGU*, **77**, 187-216.
- Pringle, M. S. and R. A. Duncan (1995a) Radiometric ages of basement lavas recovered at Sites 865, 866 and 869. In: E. L. Dager, J. V. Firth and J. M. Sinton (Eds.), *Proceedings of the Ocean Drilling Program, Scientific Results*, **143**. Ocean Drilling Program, College Station, 277-283.
- Pringle, M. S. and R. A. Duncan (1995b) Radiometric ages of basement lavas recovered at Lo-En, Wodejebato, MIT, and Takuyo-Daisan guyots, ODP Leg 144, northwestern Pacific Ocean. In: E. L. Dager, J. V. Firth and J. M. Sinton (Eds.), *Proceedings of the Ocean Drilling Program, Scientific Results*, **144**. Ocean Drilling Program, College Station, 547-557.
- Rea, D. K. and T. L. Vallier (1983) Two Cretaceous volcanic episodes in the western Pacific Ocean. *Geol. Soci. Am. Bull.*, **94**, 1430-1437.
- Ribe, N. M. and U. R. Christensen (1999) The dynamical origin of Hawaiian volcanism. *Earth Planet. Sci. Lett.*, **171**, 517-531.
- Roden, M. F., F. A. Frey and D. A. Clague (1984) Geochemistry of tholeiitic and alkalic lavas from the Koolau Range, Oahu, Hawaii: implications for Hawaiian volcanism, *Earth Planet. Sci. Lett.*, **69**, 141-158.
- Saito, K. (1994) Excess Ar in some metamorphic and plutonic rocks and reduction of thermal neutron-induced ^{40}Ar by Cd-shielding. *Sci. Rep. RITU*, **A40**, **1**, 185-189.
- Sato, H. (1977) Nickel content of basaltic magma: identification of primary magmas and a measure of the degree of olivine fractionation, *Lithos*, **10**, 113-120.
- Shiba, M. (1979) Geological history of the Yabe guyot to the east of the Ogasawara Islands. *J. Geol. Soc. Jpn.*, **85**, 209-220. (in Japanese with English abstract)

- Sandwell, D. T. and W. H. F. Smith (1997) Marine gravity anomaly from Geosat and ERS 1 satellite altimetry, *J. Geophys. Res.*, **102**, 10039-10054.
- Smith, W. H. F., and D. T. Sandwell (1997) Global seafloor topography from satellite altimetry and ship depth soundings. *Science*, **277**, 1957-1962.
- Smith, W. H. F., H. Staudigel, A. B. Watts and M. S. Pringle (1989) The Magellan seamounts: Early Cretaceous record of the south Pacific isotopic and thermal anomaly. *J. Geophys. Res.*, **94**, 10501-10523.
- Smoot, N. C. (1983) Guyots of the Dutton Ridge at the Bonin/Mariana trench juncture as shown by multi-beam surveys. *J. Geol.*, **91**, 211-220.
- Smoot, N. C. and J. H. Heffner (1986) Bathymetry and possible tectonic interaction of the Uyeda Ridge with its environment. *Tectonophysics*, **124**, 23-36.
- Staudigel, H., K. H. Park, M. S. Pringle, J. L. Rubenstone, W. H. F. Smith and A. Zindler (1991) The longevity of the south Pacific isotope and thermal anomaly, *Earth Planet. Sci. Lett.*, **102**, 24-44.
- Steiger, R. H. and Jager, E. (1977) Subcommittee on geochronology: convection on the use of decay constants in geo- and cosmochemistry, *Earth Planet. Sci. Lett.*, **36**, 359-362.
- Strong D. F. (1972) The petrology of the lavas of Grande Comore. *J. Petrol.*, **13**, 181-217.
- Sugimura, A., Y. Nakamura and Y. Ida (1988) *Zusetsu-Chikyukagaku*. Iwanami, Tokyo, pp.266 (in Japanese).
- Takahashi, K., K. Uto and J. G. Schilling (1987) Primary magma compositions and Mg/Fe ratio of their mantle residues along Mid Atlantic Ridge 29-N to 73-N, *Technical Report of ISEI, Okayama Univ.*, 1-4.

- Takigami, Y, I. Kaneoka, T. Ishi, Y. Nakamura (1989) ^{40}Ar - ^{39}Ar ages of igneous rocks recovered from Daiichi-Kashima and Erimo Seamounts during the KAIKO project, *Palaeogeography, Palaeoclimatology, Palaeoecology*, **71**, 71-81.
- Tetly, N., I. McDougall and H. R. Heydegger (1980) Thermal neutron interferences in the $^{40}\text{Ar}/^{39}\text{Ar}$ dating technique, *J. Geophys. Res.*, **85**, 7201-7205.
- Tokuyama, H. (1980) Cretaceous volcanism in the central Pacific Ocean. *J. Geogr., Tokyo Geogr. Soc. Jpn.*, **89**, 31-49 (in Japanese, with English Abstr.).
- Turcotte, D. L. and G. Schubert (1982) *Geodynamics: applications of continuum physics to geological problems*. John Wiley & Sons, New York, pp.437.
- Watts, A. B., J. K. Weissel, R. A. Duncan and R. L. Rarson (1988) Origin of the Louisville ridge and its relationship to the Eltanin fracture zone system. *J. Geophys. Res.*, **93**, 3,051-3,077.
- Wessel, P. and W. H. F. Smith (1991) Free software helps map and display data. *EOS Trans. AGU*, **72**, 441.
- Wessel, P. and W. H. F. Smith (1998) New, improved version of the Generic Mapping Tools released. *EOS Trans. AGU*, **79**, 579.
- Wijibrans, J. R., M. S. Pringle, A. A. P. Koppers and R. Scheveers (1995) Argon geochronology of small samples using the Vulkaan argon laserprobe. *Proceedings Koninklijke Nederlandse Akademie van Wetenschappen*, **98**, 185-218.
- Wilson, J. T. (1963) A possible origin of the Hawaiian islands. *Canadian J. Phys.*, **41**, 863-870.
- Winterer, E. L. & C. V. Metzler (1984) Origin and subsidence of guyots in Mid-Pacific Mountains, *J. Geophys. Res.*, **89**, 9969-9979.
- Winterer, L. E., J. H. Natland and R. J. V. Waasbergen (1993) Cretaceous guyots in the

northwest Pacific: an overview of their geology and geophysics. *Geophys. Monogr. AGU*, **77**, 307-334.

York, D. (1969) Least squares fitting of a straight line with correlated errors. *Earth Planet. Sci. Lett.*, **5**, 320-324.