

## References

- Ando, H. and Tomosugi, T., 2005, Unconformity between the Upper Maastrichtian and Upper Paleocene in the Hakobuchi Formation, north Hokkaido, Japan: a major time gap within the Yezo forearc basin sediments. *Cretaceous Res.*, **26**, 85–95.
- Ando, M. and Ando, H., 2002, Depositional facies and megafossil biostratigraphy of the Upper Cretaceous Hakobuchi Group in the Soya Hill area, northern Hokkaido. *Bull. Nakagawa Mus. Nat. Hist.*, **5**, 1–21.<sup>1)</sup>
- Cohen, K. M., Harper, D. A. T. and Gibbard, P. L., 2023, *ICS International Chronostratigraphic Chart 2023/06*. Int. Commission Stratigr., IUGS, <https://stratigraphy.org/> (visited: 2023/07/11).
- Hayashi, K., Nishi, H., Takashima, R., Tomosugi, T. and Kawabe, H., 2011, Geology and foraminiferal biostratigraphy of Upper Cretaceous sequences in southern central Hokkaido, Japan. *J. Geol. Soc. Japan*, **117**, 14–34.<sup>1)</sup>
- Horn, I. and von Blanckenburg, F., 2007, Investigation on elemental and isotopic fractionation during 196 nm femtosecond laser ablation multiple collector inductively coupled plasma mass spectrometry. *Spectrochim. Acta, Part B*, **62**, 410–422.
- Hoyanagi, K., Kawakami, G. and Miyasaka, S., 2007, One of the birthplaces of geology in Japan: Paleocene and Neogene strata in Yubari, Hokkaido, Japan. *J. Geol. Soc. Japan*, **113**, S205–S215.<sup>1)</sup>
- Iwano, H., Orihashi, Y., Hirata, T., Ogasawara, M., Danhara, T., Horie, K., Yamamoto, K., 2013, An interlaboratory evaluation of OD-3 zircon for use as a secondary U–Pb dating standard. *Isl. Arc*, **22**, 382–394.
- Kanie, Y. and Sakai, A., 2002, Geology of the Urakawa District. Quadrangle Series, 1: 50000, Geol. Surv. Japan, AIST, 43p.<sup>1)</sup>
- Kouchi, Y., Orihashi, Y., Obara, H., Fujimoto, T., Haruta, Y. and Yamamoto, K., 2015, Zircon U–Pb dating by 213 nm Nd: YAG laser ablation inductively coupled plasma mass spectrometry: Optimization of the analytical condition to use NIST SRM 610 for Pb/U fractionation correction. *Chikyukagaku (Geochemistry)*, **49**, 19–35.<sup>1)</sup>

- Ludwig, K. R., 2012, *User's Manual for Isoplot 3.75-4.15: Geochronological Toolkit for Microsoft Excel*. Berkeley Geochronol. Center Spec. Publ. 5, 77p.
- Matsui, K., Kimura, Y., Nagata, M., Inose, H., Ikeda, K., Beatty, B. L., ... Sashida, K., 2018, A long-forgotten 'dinosaur' bone from a museum cabinet, uncovered to be a Japan's iconic extinct mammal, *Paleoparadoxia* (Desmostylia, Mammalia). *Royal Soc. Open Sci.*, **5**, 172441, doi: 10.1098/rsos.172441.
- Miyata, K., Nagata, M., Niki, S., Hattori, K., Obayashi, H., Hirata, T. and Otoh, S., 2020, U–Pb zircon ages of the lower part of the Eocene Nogata Group in the Chikuho Coalfield, Fukuoka Prefecture, northern Kyushu, Japan. *J. Geol. Soc. Japan*, **126**, 251–266.<sup>1)</sup>
- Nagata, M., Hayashi, Y., Sakashita, T., Kawagoe, Y., Kouchi, Y., Hirasawa, S. ... Otoh, S., 2018. When did the deposition of the Tetori Group terminate? *Mem. Fukui Pref. Dinosaur Mus.*, **17**, 9–26.
- Nagata, M., Kouchi, Y. and Otoh, S., 2020, Early Cretaceous U–Pb dates of zircons from the Kabashima Granite in the Nomo Peninsula, Nagasaki Prefecture, SW Japan. *J. Geol. Soc. Japan*, **126**, 333–339.<sup>1)</sup>
- Nagata, M., Miyazaki, K., Iwano, H., Danhara, T., Obayashi, H., Hirata, T., ... Otoh, S., 2019, Timescale of material circulation in subduction zone: U–Pb zircon and K–Ar phengite double - dating of the Sanbagawa metamorphic complex in the Ikeda district, central Shikoku, southwest Japan. *Isl. Arc*, **28**, e12306, doi: 10.1111/iar.12306.
- Nagata, M. and Otoh, S., 2021, The U–Pb zircon dates from the Maeshima Granodiorite in Amakusa City, Kumamoto Prefecture, Southwest Japan. *J. Geol. Soc. Japan*, **127**, 237–243.<sup>1)</sup>
- Orihashi, Y., Nakai, S. I. and Hirata, T., 2008, U–Pb age determination for seven standard zircons using inductively coupled plasma-mass spectrometry coupled with frequency quintupled Nd-YAG ( $\lambda = 213$  nm) laser ablation system: Comparison with LA - ICP - MS zircon analyses with a NIST glass reference material. *Resour. Geol.*, **58**, 101–123.
- Takahashi, A., Hirano, H. and Sato, H., 2003, Stratigraphy and fossil assemblage of the Upper Cretaceous in the Teshionakagawa area, Hokkaido, northern Japan. *J.*

*Geol. Soc. Japan*, **109**, 77–95.<sup>1)</sup>

- Takashima, R., Kawabe, F., Nishi, H., Moriya, K., Wani, R. and Ando, H., 2004, Geology and stratigraphy of forearc basin sediments in Hokkaido, Japan: Cretaceous environmental events on the north-west Pacific margin. *Cretaceous Res.*, **25**, 365–390.
- Takeuchi, M., Tokiwa, T., Kumazaki, N., Yokota, H. and Yamamoto, K., 2017, Depositional age of the Lower Jurassic Kuruma Group based on zircon U–Pb age. *J. Geol. Soc. Japan*, **123**, 335–350.<sup>1)</sup>
- Tsutsumi, Y., Miyake, Y. and Komatsu, T., 2017, Depositional age of the Himenoura Group on the Amakusa-Kamishima area, Kyushu, southwest Japan: Using zircon U–Pb dating of the acidic tuffs. *Isl. Arc*, **26**, e12194, doi: 10.1111/iar.12194.
- Wetherill, G. W., 1956, Discordant uranium - lead ages, I. *Eos, Trans. Am. Geophys. Union*, **37**, 320–326.
- Wiedenbeck, M., Alle, P., Corfu, F., Griffin, W. L., Meier, M., Oberli, F., ...Spiegel, W., 1995, Three natural zircon standards for U–Th–Pb, Lu–Hf, trace element and REE analyses. *Geostand. Newsl.*, **19**, 1–23.

1) in Japanese with English abstract