We are also pleased to announce that drilling into the crust–mantle boundary, the Moho Transition Zone (MTZ), and into active serpentinization sites of the Samail ophiolite, were completed during Phase 2 of the Oman Drilling Project. The second phase was implemented from December 2017 to March 2018. We obtained 1.7 km of core, with 100% recovery. The detailed description of the Oman Drilling Project Phase 2 core will take place on board the D/V *Chikyu* between 5 July 2018 to 5 September 2018 while the ship is docked in Shimizu (Japan). The results of the Oman Drilling Project and ChikyuOman proved that D/V *Chikyu* is ready for hard-rock drilling, necessary on the Mohole to Mantle (M2M) project which aims to drill through a complete section of oceanic crust into the underlying mantle in the Pacific Ocean (Umino et al. 2013).

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REFERENCES

Araki E, 7 coauthors and IODP Expedition 365 shipboard scientists (2017) Recurring and triggered slow-slip events near the trench at the Nankai Trough subduction megathrust. Science 356: 1157-1160

Blum P (1997) Physical properties handbook. A guide to the shipboard measurement of physical properties of deep-sea cores. ODP Technical Note 26, doi:10.2973/odp.tn.26.1997

Inagaki F and 45 coauthors (2015) Exploring deep microbial life in coal-bearing sediment down to ~2.5 km below the ocean floor. Science 349: 420-424

Kelemen and 11 coauthors (2013) Scientific drilling and related research in the Samail ophiolite, Sultanate of Oman. Scientific Drilling 15: 64-71

Ujiie K, 9 coauthors and Expedition 343 and 343T scientists (2013) Low coseismic shear stress on the Tohoku-Oki megathrust determined from laboratory experiments. Science 342: 1211-1214

Umino T, Nealson K, Wood B (2013) Drilling to Earth's mantle. Physics Today 66: doi: 10.1063/PT.3.2082

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Original Articles

Dissolution of diamond crystals in a heterogeneous (metal–sulfide–silicate) medium at 4 GPa and 1400 °C – Anatoly I. CHEPUROV, Valeri M. SONIN, Egor I. ZHIMULEV, Aleksei A. CHEPUROV, Boris S. POMAZANSKY and Aleksei L. ZEMNUKHOV

Formation of triple-layer coronas between corundum and hornblende from the Lützow–Holm Complex at Akarui Point, East Antarctica – Yuki MORI and Takeshi IKEDA

Bayesian probabilistic reconstruction of metamorphic P–T paths using inclusion geothermobarometry – Tatsu KUWATANI, Kenji NAGATA, Kenta YOSHIDA, Masato OKADA and Mitsuhiro TORIUMI

Geochemical, structural and morphological characterization of vein graphite deposits of Sri Lanka: Witness to carbon-rich fluid activity – H.P.T. Sasanka HEWATHILAKE, N.W.B. BALASOORIYA, Yoshihiro NAKAMURA, H.M.T.G.A. PITAWALA, H.W.M. Athula Chandana WIJAYASINGHE and M. SATISH-KUMAR

Letter

In situ X-ray diffraction studies of hydrous aluminosilicate at high pressure and temperature – Ryota ABE, Yuki SHIBAZAKI, Shin OZAWA, Itaru OHIRA, Hiromu TOBE and Akio SUZUKI

Laboratory measurements of electrical conductivity in a gabbro of the Oman ophiolite at high pressures and high temperatures: implications for interpretation of resistivity structures of lower oceanic crust – Satoshi SAITO and Nikolai S. BAGDASSAROV

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MINERALOGICAL DATABASES AND DATA PLATFORMS: TOOLS SUPPORTING THE SPREAD OF MINERALOGICAL KNOWLEDGE IN THE EU

Collecting data into structured databases, managing these databases, and integrating them into larger units (platforms) are practices that are becoming increasingly urgent today. This urgency is due to the increasing demand for access to various types of data by a wide range of diverse users, from scientists to political decision-makers. Harmonizing data, organizing regular updates, and guaranteeing good data quality are now the tasks of many European Union (EU) projects. Keeping mineralogical databases up-to-date is becoming increasingly important.

Of the many operating mineralogical databases, the two best-known contain basic mineralogical data such as composition, structure, and geographic occurrence: Mindat (https://www.mindat.org) and WebMineral (http://webmineral.com/). A third database, Minerant (www.minerant.org/), consists of information relevant to collectors. Mindat and WebMin support newly generated databases that cover a wide thematic range. A more specialized database dedicated to spectral data is the RRUFF Project (http://rruff.info/about/about_general.php). This project has a complete set of high quality spectral data from well-characterized minerals. It is addressed to mineralogists, geoscientists, gemologists and the general public interested in Earth sciences and planetology.

New mineral databases expand the information needed to support decision-making in regard to mineral exploration, exploitation, production, trade activity, policy, and legislation. Such databases need to provide information regarding the location and spatial distribution of minerals. Both primary and secondary minerals are objects of industry interest. Exploration and exploitation of mineral resources, as both primary and secondary deposits, are critical issues for the modern economy. Within the EU, various institutions have emerged whose aim is to provide tools that will help in mineral exploration and exploitation. One of those is GeoERA (http://geoera.eu/), which its website says means, "Establishing the European Geological Surveys Research Area to deliver a geological service for Europe (GeoERA)". GeoERA regularly announces calls for European Geological Survey research projects. These calls have included "Raw Materials Specific Research Topics" and "Improving and Sustaining the Raw Materials Knowledge Base by Periodically Delivering a Minerals Yearbook and Inventory Information System". The idea of the mineral yearbook was introduced in 1933 in the US with the publication of an annual report that reviewed minerals and materials from the US and many other countries. The European Minerals Yearbook continues this idea and develops it for European needs.

Another EU minerals platform is the European Minerals Knowledge Data Platform (EU-EMKD) (http://minerals4eu.brgm-rec.fr/). This platform is defined on their website as "A simplified, user-friendly and efficient access to all available and new data related to mineral resources through the 'Minerals4EU' Knowledge Data Platform." Indeed, the Minerals4EU project was developed to implement the EU mineral intelligence network structure in a form suited to the EU-EMKD platform, the European Minerals Yearbook, and various predictive studies.

Two other platforms need to be mentioned: the Raw Materials Information System (RMIS) (http://rmis.jrc.ec.europa.eu/) and the more versatile system that is the European Geological Data Infrastructure (EGDI) (http://www.eurogeosurveys.org), which is governed by EuroGeoSurveys. However, all these mineral platforms and databases pose something of a challenge: how can we unify them and create useful and necessary connections between them? And then, of course, how can we manage that integrated system itself?