

## New GANSEKI: Major System Revision and Improved Usability

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Every year, Japan Agency for Marine-Earth Science and Technology (JAMSTEC) collects hundreds of rock samples from deep seafloor using its research vessels and submersibles. Deep seafloor is one of the fields which are not easily accessible for individual researchers. Seafloor rock samples are precious materials because they are rare, costly, and technically difficult to obtain. Recent researches related to seafloor mineral resource exploring and its industrial development attract broad public attention. People from various fields other than natural history sciences are getting interested in seafloor rock samples.

For the better use of JAMSTEC rock samples and associated data, it is important that they are utilized for not only specific research plans of individual cruises but also other general scientific and educational purposes. JAMSTEC has been maintaining rock sample collection and associated databases, and publicizing them to domestic/foreign activities of research, education, and public relation. Users can access these rock samples and associated data through the rock sample database "GANSEKI [1]". GANSEKI was established on the Internet in 2006 and its contents and functions have been continuously enriched and upgraded since then.

JAMSTEC also maintains various samples and data other than rock samples, including such as sediment core samples, biological samples, cruise and dive information, visual images and movies. Close relationship among these databases is important for better usability and wider application. In 2012, the whole cruise information database "DARWIN [2]" was released on the Internet, replacing the previous data site for research cruises. The major revision of GANSEKI in 2013 was planned to deal with the various improvements in JAMSTEC data management.

The previous GANSEKI already had functions to exhibit meta-data of sample recovery, inventory data of rock sample collection and associated data such as geochemical data and photo images. Samples in the previous GANSEKI were also searchable from the international geochemical portal site "EarthChem [3]". In spite of these advantages, there were some points to be improved in the previous GANSEKI, such as absence of linkage to cruise and dive information databases, inflexibility of available geochemistry data types, and awkward procedures for image browsing. The major revision of GANSEKI includes replacement of database core system. The newly designed interface provides much improved searchability and visibility for both users and curatorial staffs. Multiple references to other databases such as DARWIN, numerical search of geochemical data, and thumbnail browsing of thin-section images and sample photos are comfortably available in the new GANSEKI.

**References:** [1] "GANSEKI (Geochemistry and Archives of Ocean Floor Rocks on Networks for Solid Earth Knowledge Information)" <http://www.godac.jamstec.go.jp/ganseki/>. [2] "DARWIN (Data Research System for Whole Cruise Information in JAMSTEC)" <http://www.godac.jamstec.go.jp/darwin/e>. [3] "EarthChem" <http://www.earthchem.org/>.

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