

KOREA EXPEDITION AND CURATION FOR ANTARCTIC METEORITES

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Korea Polar Research Institute (KOPRI) has operated Antarctic meteorite recovery program (Korea Expedition for Antarctic Meteorites, KOREAMET) since 2006 with one exception 2009. During the first three seasons (2006-2008), KOREAMET recovered 29 meteorites at the blue ice fields of Thiel Mountains. During 2010 and 2012 seasons, the joint expeditions with Italy were carried out in the Victoria Land with the logistic support of Mario Zucchelli Station. About 150 meteorites were recovered by the joint expeditions. KOREAMET is currently searching for meteorites in the southern Victoria Land with the logistic support of Jang Bogo Station which is the new Korea Antarctic research station established in February 2014. In the last season (2014), 81 Antarctic meteorites were recovered from the blue ice fields in the southern Victoria Land, about 300km south of the Jang Bogo Station. Among them, one ordinary chondrite weighs about 36kg and is the biggest ever in the history of KOREAMET. One LL-group ordinary chondrite contains very primitive textures, thus it is expected to preserve the chemical and isotopic records when the chondrite had formed in the early Solar System. Several carbonaceous chondrites and differentiated meteorites including eucrites were identified. Currently, a total of 320 meteorites were collected during 8 seasons. For the study of Antarctic micrometeorites (AMMs), KOREAMET is collecting clean snow samples in the Victoria Land from 2012 season (52kg in 2012, 408kg in 2013, and 400kg in 2014 season). The melting of snow, separating of dust particles and identification of AMMs are carried out with collaboration of Tohoku University, Japan.

All the meteorites recovered by KOREAMET are stored at vacuum boxes in a clean room (class 1,000) at KOPRI. A curation system of Antarctic meteorites has been renovated since 2012 when the new KOPRI campus was built. A new curator who is responsible for storage, classification, registration and distribution of Antarctic meteorites was invited in 2014. Field-emission electron microprobe, secondary electron microscope, and laser-fluorination oxygen-isotope system at KOPRI are used for classifying Antarctic meteorites. All the meteorites will be registered in the Meteoritical Bulletin Database and distributed to researchers worldwide. KOPRI completely reveals any information about Antarctic meteorites in the website of Korea Curation of Antarctic Meteorites (<http://koreamet.kopri.re.kr>).