Speaker: Prof. A. El Goresy
Affiliation: Bayerisches Geoinstitut, Universität Bayreuth
Title: A novel natural shock-induced high-pressure polymorph of FeTiO3 ilmenite with the Li-niobate structure from the Ries Crater, Germany: First evidence for back transformation from perovskite.
Date & Time: 2009 / 10 / 06 16:20 – 17:50
Place: Chigaku-building Room 503
Contact: ohtani@mail.tains.tohoku.ac.jp

Report:

（講演者の紹介）
Prof. A. El Goresy worked for Max-Planck-Institute and Carnegie Institution of Washington, and is now a member of Bayerisches Geoinstitut. His major research projects are oxygen isotopic compositions of the solar nebula and high-pressure phase transitions in meteorites and in terrestrial impact craters. Now, he is focusing on a dynamic event on Mars.

（講演内容）
High-pressure polymorph of FeTiO3 ilmenite with Li-niobate structure was found from the Ries crater, Germany. Their studies clarified that this phase was formed from FeTiO3 with perovskite structure by retrograde metamorphism. The existence of the phase indicates that perovskite did exist previously.

（報告）
The discovery of high-pressure polymorph of FeTiO3 ilmenite with Li-niobate structure was achieved only by very careful optical microscopic observations because this phase is very similar to other phases under back-scattered electron (BSE) images. We confirmed that careful optical microscopic observation is very important although it is conventional and basic.