

Geodynamics Seminar

第316回ジオダイナミクスセミナー

Spin transitions of iron in the lower mantle minerals

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主催: 愛媛大学地球深部ダイナミクス研究センター

日時: 2/3(金) 午後 4時30分～

場所: 総合研究棟 4F 会議室



Abstract

It is now widely recognized that spin transitions of iron in the lower mantle minerals are very important to understand the structures and physical properties of those minerals, iron-partitioning between those minerals, and thereby dynamics of the lower mantle. However, spin transitions of iron in the lower mantle minerals have been still unclear. In particular, the spin transition of iron in Mg-perovskite has been the issue of a lot of controversy because there are large discrepancies among the previous reports. However, very recently, a sign that this chaotic situation may be improved or settled seems to be appearing through the theoretical works on the quadrupole splitting of Mössbauer spectra of Fe^{2+} at the A-site and the experimental works (including our group) on the cation exchange reaction of Fe^{3+} and Al between the A- and B-sites. In my presentation, I would like to talk about these new trends on the spin transition problem of iron in the lower mantle minerals.

詳細は当センターホームページ: <http://www.ehime-u.ac.jp/~grc/>をご覧ください

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