

SMP045-02

会場:301B

時間:5月24日 14:30-14:45

Mg(OD)₂ の高温下での D 原子の動的挙動について Dynamic behavior of D atoms in Mg(OD)₂ at high temperature

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We are now constructing a new beam line (PLANET) specially dedicated to neutron diffraction measurements at high pressure and high temperature in J-PARC under a Grant-in-Aid for Scientific Research on Innovative Areas from the MEXT (proposal: Earth Science Based on the High Pressure and Temperature Neutron Experiments). We hope to obtain the first data measured at PLANET in this fall. Before that, we measured neutron diffraction at high temperature and at atmospheric pressure to see the dynamic behavior of D atoms at the temperature just below the dehydration reaction. The neutron diffraction experiments from 202K to 600K were carried out at the Wide-Angle Neutron Diffractometer beamline (WAND) in the High Flux Isotope Reactor (HRIR), Oak Ridge National Laboratory, USA. In addition, we measured IR spectra on Mg(OD)₂ from room temperature to a dehydration temperature to obtain some complementary data to neutron diffraction data.

キーワード: ブルーサイト, 水素原子, 高温, 動的挙動, 赤外測定, 中性子回折実験

Keywords: brucite, hydrogen atom, high temperature, dynamic behavior, IR measurement, neutron diffraction