

# Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

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SMP045-16

Room:301B

Time:May 24 18:15-18:30

## Here comes first beam in high-pressure neutron diffractometer PLANET

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The high-pressure neutron diffractometer PLANET is the new spectrometer dedicated for high-pressure experiments, which is now being constructed in MLF at J-PARC. The main purpose is to investigate the effect of the water on the Earth's dynamics with the help of the neutron. One of the most characteristic features is the huge 6m 6axes press with the maximum centric load to 3000 tonf, which enables us to investigate the structure of crystals, liquids and amorphous solids under high-pressure and high-temperature conditions of 30GPa and 2000K. We have installed several optical devices, such as choppers, supermirror guides, 4-dimensional slit, and data acquisition system. On the last March, we received FIRST NEUTRON BEAM. In the talk, we overview the spectrometer and introduce the current construction state.



Keywords: High Pressure, Neutron, High-Pressure Diffractometer