

SMP057-14

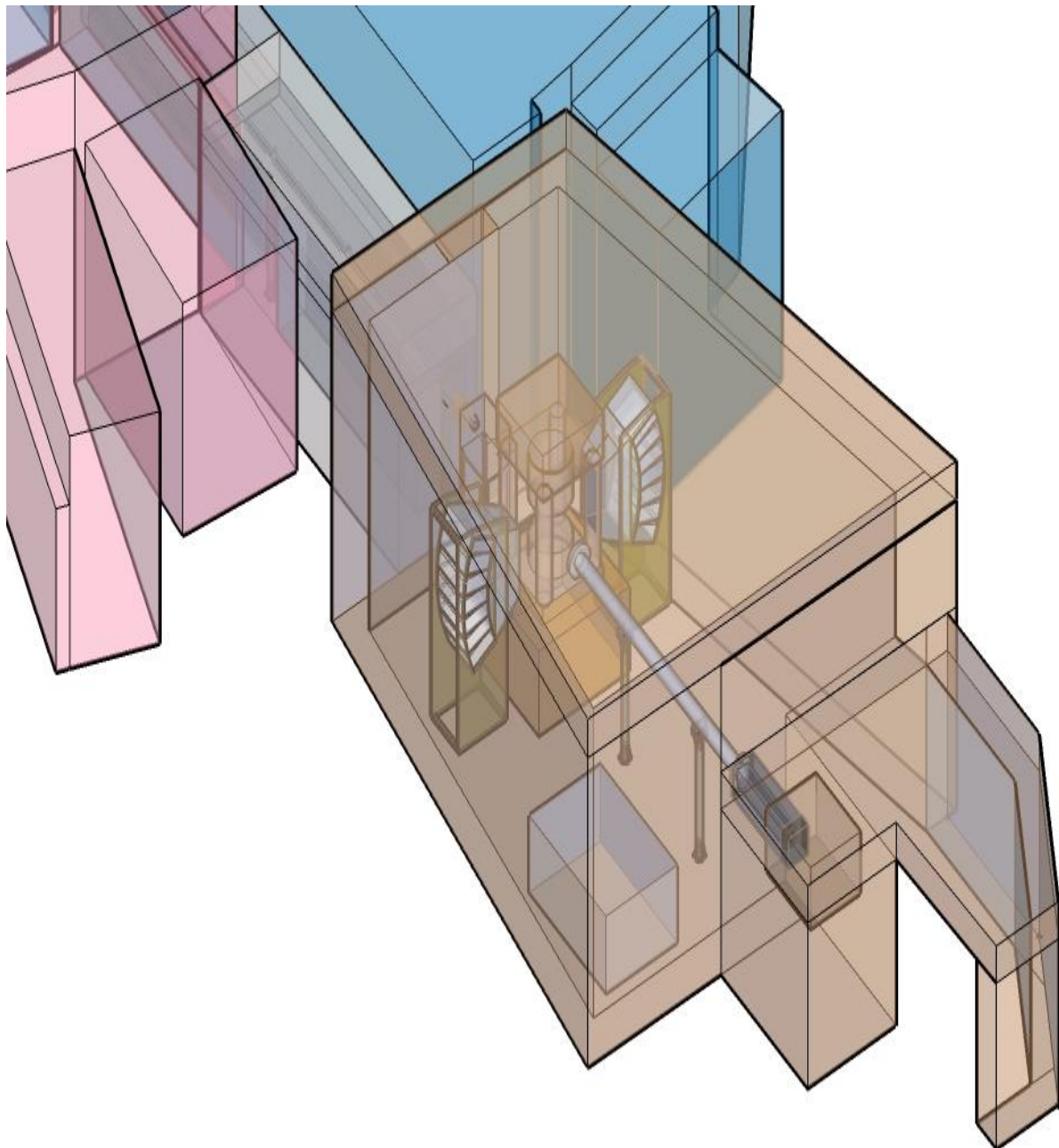
Room: 301A

Time: May 23 16:48-17:00

Overview and current construction state of J-PARC high-pressure neutron diffractometer PLANET

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The new beamline dedicated to high-pressure studies, PLANET is now being constructed at BL11 in MLF/J-PARC. The design concept and the current construction state are introduced. The most characteristic feature of this beamline is a huge press with the maximum load of 1500ton. The coupling this with the state of the art neutron techniques reveals hydrogen positions and its effects on the physical properties of materials and minerals at tens of gigapascals and a few thousand Kelvins. This opens the door to explore deep interior of the hydrous Earth and Planets

Keywords: Neutron diffraction, High pressure, PLANET