Japan Geoscience Union Meeting 2013
(May 19-24 2013 at Makuhari, Chiba, Japan)

MTT38-11 Room:201A Time:May 22 17:00-17:15

Development on analysis of planetary materials by using negative muon cap-ture

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Recently, the intense pulsed muon source, J-PARC/MUSE has been constructed (Miyake et al. 2009), providing the potential of the 3-D elemental map from the near surface to the interior of the planetary materials. Last year, we successfully demonstrated the depth profile analysis of the four layered sample that consists of SiO2, C (graphite), BN (boron nitride) and SiO2 changing the Muon's momentum from 32.5MeV to 57.5MeV/c. Here, we report on Muonic X-ray from carbonaceous chondrites.

Keywords: Muon analysis, J-PARC, Non-destructive measurement, meteorite, chemical composition