

東京大学微細構造解析プラットフォーム 公開講演会

## "Solving materials problems on Moon and Earth via "Lab in the Gap" approach"

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Our ability to image surface and bulk features of materials plays an important role in the field of nano-scaled materials research. Even more desirable is the capability to simultaneously image morphological and structural changes that occur on the surface and within the bulk of a material with additional stimuli, such as during in situ heating, in situ oxidation, or under tensile stress. In this presentation, I will give two examples of using electron microscopy for solving cosmochemistry and materials problems via an interdisciplinary approach. The first example is to simulate micrometeorite impacts via *in situ* heating of lunar soil collected from the Apollo Mission. I will then present *in situ* SEM/TEM tensile testing of carbon-linked graphene oxide nanosheets using a MEMS device. These studies have established new methodologies for materials science and lunar and planetary research.

Nov 20 (Tue), 2018 15:30~17:00 Main meeting room at Institute of Engineering Innovation, UT (工学部総合研究機構 9号館1階 大会議室) Organizer: Prof. Yuichi Ikuhara, Phone: 03-5841-7688