

[M-TT42_2AM2]Frontiers in Geochemistry : Innovative approaches for Earth and Planetary Sciences

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A variety of innovative researches have been emerged in earth and planetary sciences by virtue of the development of new chemical methods associated with novel approaches. To conduct more detailed and complicated investigation in modern geosciences, highly precise and accurate scientific data are badly needed. This session is aimed to provide an opportunity to gather various geoscientists to have a strategic discussion on geochemical frontier, especially by people who work on devising new geochemical methods as well as those who would like to apply such innovative techniques. We welcome a wide range of cutting-edge geochemical topics regarding technical development, including exploratory researches that can potentially be a breakthrough of earth and planetary sciences.

11:45 AM - 11:55 AM

[MTT42-P02_PG]Development on submicron-scale U-Pb dating by Laser post-ionized SNMS

3-min talk in an oral session

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In order to decipher the history of the Solar System, in-situ U-Pb dating method using SIMS (Secondary Ion Mass Spectrometry) has been used over 40 years, of which spatial resolution is 2-10 micron. In general, the secondary ion yield of SIMS is so low (less than 1 %) that it has been the weak point of this in-situ analysis. Here, we report the performance of Pb isotope measurement using the Laser SNMS that consist of of Ga-ion source for primary beam, femto-second laser for post-ionization, and the multi-turn TOF-SIMS for mass spectroscopy (Ishihara et al. 2010).