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会場:コンベンションホール

時間:5月26日 16:15-18:45

”Small is beautiful” planetary missions: 小型軽量多地点の化学探査が目指す惑星の化学と生物学 ”Small is beautiful” planetary missions

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Micro-Total Analysis System (micro-TAS) describes a miniaturized chip-sized device that automates all necessary steps for chemical analysis of a sample, such as sampling, transport, filtering, dilution, reactions, separation, and detection. Such micro-TAS technology has been originally developed in analytical chemistry and recently has started to be widely applied in many fields, e.g., medical care, marine technology, and police investigation. Because of its very small size, micro-TAS can be placed close to a sampling site, where human cannot reach easily. In this paper, we discuss possible applications of micro-TAS to space and planetary explorations. Together with our small and distributed FS landers, we propose a new type of planetary explorations with the aim of detection of biomarkers and volcanic gases on Mars, Titan and Enceladus.

キーワード: 惑星探査, 化学分析, 火星, タイタン, メタン, 火山

Keywords: planetary explorations, chemical analysis, Mars, Titan, methane, volcano