

Geological observation of 1989ML: what kind of information can we remotely obtain by Muses-C?

Jun Saito[1], Masanao Abe[2]

[1] Technical Research Inst., NISHIMATSU Construction Co., Ltd., [2] ISAS

Japanese asteroid mission Muses-C have three remote-sensing devices including UV-VIS multiband imager (AMICA), near-infrared spectrometer (NIRS) and X-ray fluorescence spectrometer (XRS). According to ground-based observations, the target asteroid, 1989ML, has similar spectral properties to those of type E, M, P and C asteroids, corresponding to various meteorite types from very primitive to heavily differentiated ones. In order to plan spacecraft observations of 1989ML geology, we must consider formation mechanisms previously studied and proposed for these candidate meteorite types. Here, we present the geological observation objectives of Muses-C AMICA and NIRS based on the review of studies about these candidate meteorites.