Space weathering on the Moon and SELENE

Sho Sasaki[1]; Takahiro Hiroi[2]

[1] Earth and Planetary Sci., Univ. Tokyo; [2] Geological Sci., Brown Univ

Space weathering is a process to cause darkening of overall reflectance, spectral reddening, and weakening of absorption bands on atmosphereless bodies such as the moon and asteroids. Formation of nanophase iron particles through high velocity impacts of dust particles is the most essential cause of space weathering. Possible scientific topics of lunar space weathering by SELENE are discussed here.