

Research project of the Multiband Imager and a candidate subject of the SELENE integrated science

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The Lunar Imager/SpectroMeter (LISM) is an instrument being developed for the SELENE project that will be launched in 2007. LISM consists of the three subsystems, the Terrain Camera (TC), Multiband Imager (MI), and Spectral Profiler (SP). Those three systems share some components and electronics.

MI is a high-resolution multiband imaging instrument and will obtain the lunar global mapping of mineral distribution in nine bands. Biggest advantage of the LISM data is its capability of combination of topographic (TC), spectral mapping (MI) and hyper-spectral (SP) data to understand precise lunar surface mineralogy and chemical composition. From scientific priority viewpoints and to maximize MI's instrumental advantage, we are planning to investigate steep slope area such as crater central peak and newly emphasized undiscovered Mg-rich lunar highland rocks in the lunar far side region.

In addition to the LISM data SELENE will obtain multiple data such as chemical composition by X-ray and gamma-ray measurements, gravity model, subsurface structure information and magnetic field data. In our presentation we will discuss research plan of South Pole-Aitken basin as a candidate subject of the SELENE integrated science along with the research project for MI.