Evolition of the lunar magmatism: An example of Mare Selenitatis (preliminary report)

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Mare Selenitatis , which is a lunar impact basin having complex magmatic history, was investigated to understand origin of the lunar magmatism and its temporal change. Magmatic history of the Mare Selenitatis is divided into three stages. The first stage unit can be recognized in only southern part of the basin, and is overlain by the second stage unit. Although the second unit exposes in the whole of basin, the central part of the unit is overlain by the third unit. As a result of analysis using clementine spectral image, it makes clear that these units are composed of the basalts having different chemical characteristics from each other, that is, TiO2 contents seem to decrease through the stages. This result is important to understand origin and evolution of the lunar magmatism.