

PPS003-P06

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Mineral distribution in the lunar South Pole-Aitken basin derived from SELENE Multiband Imager

Kisara Uemoto^{1*}, Makiko Ohtake², Junichi Haruyama², Tsuneco Matsunaga³, Yasuhiro Yokota², Tomokatsu Morota², Satoru Yamamoto³, Ryosuke Nakamura⁴, Takahiro Iwata²

¹Tokyo university, ²Japan Aerospace Exploration Agency, ³National Institute for Environmental Stu,

⁴National Institute of Advanced Industri

Many studies suggest that the South Pole-Aitken basin on the farside of the Moon was formed by a large impact. It is assumed that the plagioclase-rich crust ejected to the outside by the excavation. However, Pieters et al.(2001) reported that anorthosite exists in the southern part of Alder rim. And Ohtake et al. (2009) reported that the purest anorthosite (>98 vol.% plagioclase) exposed in the Leibnitz crater. Both craters locate within the transient cavity of the SPA basin. In this study, we confirmed the presence of the anorthosite (>98 vol.% plagioclase) in other locations and analyzed the rock types of the SPA basin. These results possibly suggest common presence of anorthosite within the transient cavity of the SPA basin.

Keywords: farside of the moon, crater, South Pole-Aitken basin