

PPS003-P09

Room: Convention Hall

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Preliminary result of optical maturity of small rayed lunar craters

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The purpose of our work is to estimate the age of small rayed lunar craters using OMAT (Optical MATurity) parameter developed by Lucey et al (2000). The OMAT parameter is the optical index of degree of space weathering. Therefore, OMAT could be an index of relative surface age, but it is necessary to examine correlation between OMAT and surface age for constructing an OMAT chronometer.

We focus on lunar highland which, materials are almost uniform, and investigate the correlation between the ages of rayed lunar craters (Jackson crater, Tycho crater, and Giordano Bruno crater) estimated by crater chronology and OMAT values of these craters. Based on this result investigation, we will be able to estimate ages of small rayed craters from OMAT of them. We also expect the crater production rate function might be refined by age estimation of small craters.