Japan Geoscience Union Meeting 2010

(May 23-28 2010 at Makuhari, Chiba, Japan)

©2009. Japan Geoscience Union. All Rights Reserved.



PPS003-P15 Room: Convention Hall Time: May 24 17:15-18:45

Mare volcanism on the farside and in the Orientale region of the Moon

Tomokatsu Morota^{1*}, Junichi Haruyama¹, Makiko Ohtake¹, Tsuneo Matsunaga², Yasuhiro Yokota¹, Takamitsu Sugihara³, Kazuto Saiki⁴, Jun Kimura⁵, Yoshiaki Ishihara⁶, Chikatoshi Honda⁷, Akira Iwasaki⁸, Taichi Kawamura¹, Naru Hirata⁷, Hirohide Demura⁷, Ryosuke Nakamura⁹, Hiroshi Takeda¹⁰

¹ISAS/JAXA, ²NIES, ³JAMSTEC, ⁴Osaka Univ., ⁵Hokkaido Univ., ⁶NAOJ, ⁷Univ. Aizu, ⁸Univ. Tokyo, ⁹AIST, ¹⁰Chiba Inst. Tech.

Age determinations of lunar mare basalts are essential for understanding the volcanic history of the Moon. Here we performed new crater counts in mare deposits on the farside, which had been previously undated, and in the Orientale region, using new images obtained by SELENE/Terrain Camera. Based on our new crater counts, we will discuss how long mare volcanism was active on the farside and in the Orientale region. We will also discuss whether a difference existed in the durations of mare volcanisms within the South Pole-Aitken basin and in the central region of the northern farside, i.e., the so-called Feldspathic Highland Terrane (FHT), which corresponds to the highest parts of the topography and the thickest parts of the lunar crust.

Keywords: moon, lunar farside, mare, mare volcanism, cratering chronology