

An Investigation of the Correlation of Lunar Sodium Distribution between its Surface and Atmosphere

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Sodium (Na) is one of major elements of the Moon. But it is difficult to directly measure the distribution of Na on the lunar surface by in-situ observations. On the other hand, the distribution of Na in the lunar atmosphere, surface bounded exosphere, is able to be obtained by groundbased optical observations.^[1] The Na distribution at the surface might be derived from that in the atmosphere, so authors focused the lunar Na atmosphere on the discussion on the Na distribution on the surface. The correlation of lunar Na distribution between its surface and atmosphere was examined by numerical calculations used for studies of lunar Na exosphere. The result shows the distribution in the exosphere is low sensitive to that on the surface. The distribution of Na on the surface is found to be difficult to estimate by that in the exosphere obtained by groundbased observations.

Reference:

[1] Potter and Morgan, 1988, *Science* **214**, 4866, 675-680.