

**P140-012**

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## Subsurface structure of a giant basin on the Moon

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The South Pole-Aitken basin (SPA) is a major topographical and geochemical feature on the Moon associated with a huge (~2500km) impact structure on the southern farside. Although a simple scaling for impact cratering process predicts complete excavation of the feldspathic upper crust, no definite exposure of the mantle cumulate has been identified previously. Using Spectral Profiler onboard Kaguya, we obtained visible-near-infrared continuous spectra of several crater central peaks inside. The derived high mafic fraction indicates that central peaks are composed of a huge impact melt sheet derived from the lunar mantle.