

Figure 2 Registered images (3 channels) from the area of investigation of Oppenheimer crater from SMART-1 (top) and Clementine (bottom). Green and red dots are comparison areas discussed above.

Figure 3 Spectral profiles obtained by AMIE (top) and Clementine (bottom) for the crater rim identified by the red dot in Figure 2; spectra are normalized to 1 at 750 nm.

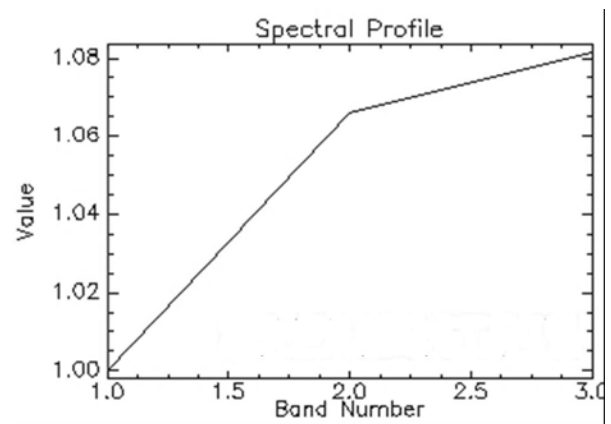
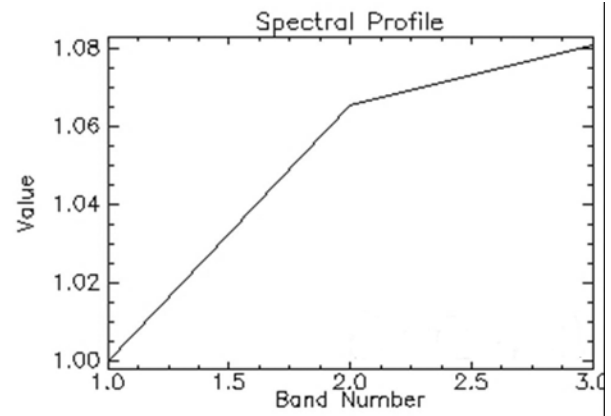
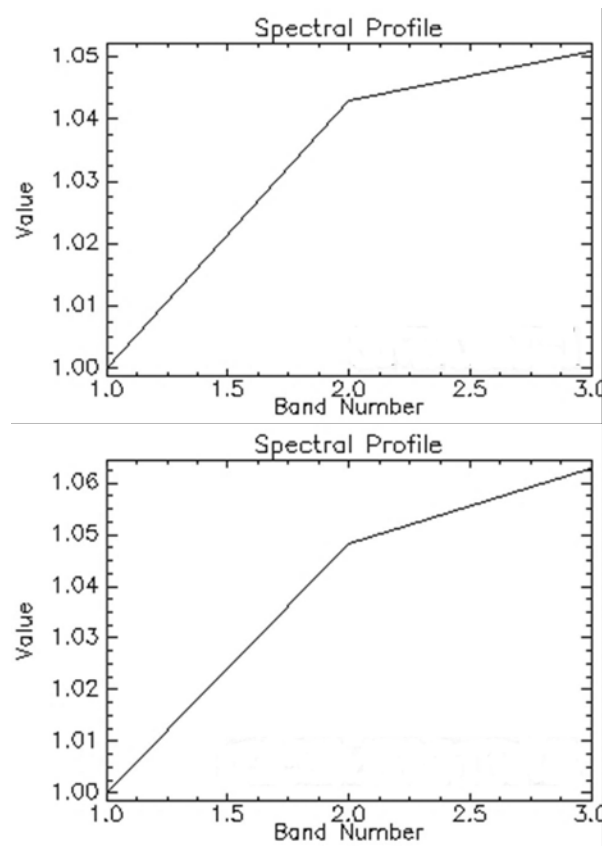


Figure 4 Spectral profiles obtained by AMIE (top) and Clementine (bottom) for the region of Oppenheimer floor identified by the green dot in Figure 2; spectra are normalized to 1 at 750 nm.

The spectra obtained by AMIE for the region of the rim of a crater (red dot in Figure 2) and for the floor of Oppenheimer (green dot in Figure 2) are shown in the top part of Figures 3 and 4 respectively, where they are compared with the spectral profiles of the same regions obtained by Clementine, shown in the bottom part of the figures: the spectral profiles are found to be remarkably similar.

Conclusions: AMIE data yield promising results for colour imaging of selected lunar regions; we plan to validate the approach described here by more extensive comparison with regions which are spectral standards for calibration, such as for example the Apollo 14 landing site, imaged in colour by AMIE during SMART1 second push-broom phase.

References: [1] Josset et al, (2006) *Advances in Space Res* 37, 14-20 [2] Pinet, P. et al. (2005) *PSS*, 53, 13091318 [3] P. Cerroni et al. *LPS XXXVII*, Abstract #1831 **Acknowledgements:** P. Cerroni and M. C. De Sanctis acknowledge the support given by ASI grant I/030/05/0