

Tuesday, March 16, 2004
POSTER SESSION I: FUTURE MISSIONS TO THE MOON
7:00 p.m. Fitness Center

Whitby J. A. Rohner U. Schultz R. Romstedt J. Wurz P.

A Miniature Mass Spectrometer Module [#2066]

A highly miniaturized laser ablation time-of-flight mass spectrometer is described that has potential for use as a detector for, e.g., gas chromatography.

Kobayashi M.-N. Berezhnoy A. A. Fujii M. Hasebe N. Hiramoto T. Miyachi T. Murasawa S.
Okada H. Okudaira O. Shibamura E. Yamashita N. Takashima T. Narasaki K. Tsurumi K. Kaneko H.
Nakazawa M. Mori K. d'Uston C. Maurice S.

SELENE Gamma Ray Spectrometer Using Ge Detector Cooled by Stirling Cryocooler [#1523]

The GRS employing a Ge detector that will be on board SELENE lunar explorer has been developed. The flight model of SELENE GRS was built and achieved an energy resolution of ~3 keV @ 1.33 MeV in the GRS system.

Grande M. Dunkin S. Howe C. Browning R. Kellett B. Perry C. H. Swinyard B. Waltham N.
Kent B. Huovenin J. Thomas N. Mal U. Hughes D. Alleyne H. Russell S. Grady M. Lundin R.
Barabash S. Baker D. Murray C. D. Guest J. Casanova I. Maurice S. Foing B.

Lunar Elemental Composition and Investigations with D-CIXS X-Ray Mapping Spectrometer on SMART-1 [#1519]

The D-CIXS Compact X-ray Spectrometer on ESA SMART-1 successfully launched in Sept 2003 can derive 45 km resolution images of the Moon with a spectral resolution of 185 eV, providing the first high-resolution global map of rock forming element abundances.

Okada T. Shirai K. Yamamoto Y. Arai T. Ogawa K. Kato M.

X-Ray Fluorescence Spectrometer Onboard the SELENE Lunar Orbiter: Its Science and Instrument [#1503]

We have been developing an X-ray spectrometer for the SELENE mission to map major elemental composition of the Moon as well as to understand mechanism of X-ray excitation in the nightside and physical properties caused by surface materials.

Haruyama J. Ohtake M. Matunaga T.

Detectability of Degradation of Lunar Impact Craters by SELENE Terrain Camera [#1496]

The photometric data taken by the Terrain Camera (TC) installed on SELENE (SELEnological and ENgineering Explorer) of Japan will be useful for the investigation of degradation of lunar impact craters.

Ohtake M. Arai T. Takeda H.

Study of the Apollo 16 Landing Site: As a Standard Site for the SELENE Multiband Imager [#2104]

Purpose of this study is to re-evaluate optical properties of Apollo 16 landing site and its laboratory standard by studying correlation between their mineralogy and reflectance spectra and select a best standard area for the SELENE Mutiband Imager.

Keller H. U. Basilevsky A. T. Nathues A. Mall U. Rosiek M.

Selection of Targets for the SMART-1 Infrared Spectrometer (SIR) [#1061]

We suggest that scientific rationale for SIR can be met if half of the observation time it shall work in the regime of nadir tracking and during another half it will study ~130 targets using off-nadir pointing and off-nadir fixed tracking.

Saiki K. Nakamura R. Ichikawa F. Akiyama H. Takeda H.

Development of a Telescopic Imaging Spectrometer for the Moon [#1483]

ALIS (Akita Lunar Imaging Spectrometer) has been developed and examined through ground-based observation of the moon. The study of photometric characteristics of the lunar surface has been started.

Neal C. R. Banerdt W. B. Chenet H. Gagnepain-Beyneix J. Hood L. Jolliff B. Khan A. Lawrence D. J. Lognonné P. Mackwell S. Mendell W. Miller K. Nakamura Y. Schmitt H. H. Shearer C. K. Wiczorek M.

The Lunar Seismic Network: Mission Update [#2093]

The concept of a new mission to the Moon to deploy a seismic network was presented at LPSC 34. This paper gives an update of progress made over the last year.