

Thursday, March 24, 2016

[R646]

POSTER SESSION II: INSTRUMENT CONCEPTS: XRF AND IN SITU DEVICES

6:00 p.m. Town Center Exhibit Area

Nagaoka H. Hasebe N. Kusano H. Naito M. Shibamura E. et al. **POSTER LOCATION #673**
[Active X-Ray Fluorescence Spectrometer On-Board Landing Rover for Future Lunar and Planetary Landing Missions](#) [#1837]

The present model of active X-ray spectrometer for future lunar and planetary landing missions and the specifications are reported.

Sarrazin P. Blake D. Thompson K. Gailhanou M. Chen J. et al. **POSTER LOCATION #674**
[The Map-X \$\mu\$ -XRF Imaging Spectrometer](#) [#2883]

MapX is a mapping X-ray fluorescence spectrometer concept for deployment on a rover/lander robotic arm.

Thompson K. A. Blake D. F. Sarrazin P. Bristow T. **POSTER LOCATION #675**
[Radioisotope Source Modeling for the Map-X \$\mu\$ -XRF Imaging Instrument](#) [#1829]

Map-X is a μ -XRF imager that maps compositional (elemental) features. We report empirical/modeling results to determine Map-X engineering requirements.

Schmeling M. Davidson J. **POSTER LOCATION #676**
[A Laboratory Based Grazing Incidence X-Ray Fluorescence Instrument to Study Genesis Solar Wind Samples](#) [#1540]

Development of a laboratory based grazing incidence X-ray fluorescence instrument to study Genesis solar wind samples.

Turner S. M. R. Hansford G. M. Bridges J. C. **POSTER LOCATION #677**
[X-Ray Diffraction on Unprepared Rock Samples: A Study of Sulphate Minerals](#) [#2274]

A novel energy dispersive XRD instrument with back-reflection geometry enables unprepared whole rock analysis, which we apply to sulphate minerals.

Edmunson J. Gaskin J. A. Jerman G. A. Harvey R. P. Doloboff I. J. et al. **POSTER LOCATION #678**
[A Miniaturized Variable Pressure Scanning Electron Microscope \(MVP-SEM\) for In-Situ Mars Surface Sample Analysis](#) [#2301]

Science requirements and initial testing to define operational constraints for a miniaturized variable pressure SEM for Mars surface sample analysis presented.

Miyamoto H. Tanaka H. Yoshimitsu T. Otsuki M. Taguchi M. et al. **POSTER LOCATION #679**
[Muography for Future Phobos Landing Mission](#) [#1684]

Subsurface structure of Phobos can be observed by Muography instrument, which utilizes muons generated from martian atmosphere.

Lim L. F. Southard A. E. Hess L. A. Getty S. A. Hagopian J. G. **POSTER LOCATION #680**
[A Miniature Electron Probe for In Situ Elemental Microanalysis](#) [#1701]

The Mini-EPMA will achieve efficient sub-millimeter compositional mapping via an array of individually addressable carbon nanotube microscale emitters.