

PRINT ONLY: MISSIONS AND INSTRUMENTS

Anderson J. A. Robinson M. S.

[*Challenges Utilizing Pushframe Camera Images*](#) [#1905]

Processing and analyzing images from pushframe cameras poses a difficult challenge when compared to typical frame or pushbroom instruments.

Edgett K. S. Ravine M. A. Caplinger M. A. Ghaemi F. T. Schaffner J. A. Malin M. C.
Baker J. M. DiBiase D. R. Laramée J. Maki J. N. Willson R. G. Bell J. F. III Cameron J. F.
Dietrich W. E. Edwards L. J. Hallet B. Herkenhoff K. E. Heydari E. Kah L. C. Lemmon M. T.
Minitti M. E. Olson T. S. Parker T. J. Rowland S. K. Schieber J. Sullivan R. J. Sumner D. Y.
Thomas P. C. Yingst R. A.

[*The Mars Science Laboratory \(MSL\) Mars Hand Lens Imager \(MAHLI\) Flight Instrument*](#) [#1197]

The MSL Mars Hand Lens Imager (MAHLI) flight instrument has been completed and delivered to JPL for installation on the rover. MAHLI is a focusable color camera that can image geologic materials at resolutions as high as 14 microns per pixel.

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[*The Mars Science Laboratory \(MSL\) Mars Descent Imager \(MARDI\) Flight Instrument*](#) [#1199]

The MSL Mars Descent Imager (MARDI) flight instrument has been completed and installed on the rover. MARDI will provide hundreds of color images during the descent of MSL to the martian surface in 2012.

Mitrofanov I. G. Litvak M. L. Kozyrev A. S. Sanin A. B. Tretyakov V. I.

[*Nuclear Instruments and Methods for Space Planetology: Recent Results and New Developments*](#) [#1207]

New developments are presented of methods of nuclear physics for studies of celestial bodies. Using the heritage of instruments HEND for Mars Odyssey, LEND for LRO and DAN for MSL, the concepts of new instruments are discussed for future missions.

Zabalueva E. V. Shingareva T. V. Basilevsky A. T. Fedotov V. P. Ruzskiy E. G.

[*Russian "FOBOS-GRUNT" Mission. Examples of Surface Roughness Models for Phobos*](#) [#1243]

To support Russian Fobos-Grunt mission the digital model of Phobos surface was synthesized by combining the global model (P. Thomas) of the body with the geometry/abundances of typical landforms of Phobos and the Moon.