

Monday, October 24, 2016
MARS 2020 ROVER INSTRUMENTS
1:30 p.m. San Gabriel Ballroom

Chair: Ken Farley

- 1:30 p.m. Hamran S.-E. * Amundsen H. E. F. Asak L. Berger T. Brovoll S. Buskenes J. I. Carter L. Damsgård L. Diaz C. Ghent R. Helleren Ø. Kohler J. Mellon M. Nunez D. Paige D. Plettemeier D. Rowe K. Russell P. Sagsveen B. Ødegaard N. Øyan M. J. [The RIMFAX GPR Instrument Development for the Mars 2020 Rover Mission](#) [#4031]
The Radar Imager for Mars' subsurface eXperiment (RIMFAX) ground penetrating radar (GPR) experiment for the Mars 2020 Rover will add a new dimension to the rover's toolset by providing the capability to image the shallow subsurface beneath the rover.
- 1:45 p.m. Beegle L. B. * Bhartia R. DeFlores L. Miller E. Pollack R. Abbey W. Carrier B. [SHERLOC: On the Road to Mars](#) [#4117]
SHERLOC is a Deep UV (DUV) native fluorescence and resonance Raman spectrometer that was selected as part of the Mars 2020 payload. It is a robotic arm mounted instrument that generates Raman and fluorescence photons from a targeted 100 µm spot.
- 2:00 p.m. Rodriguez-Manfredi J. A. de la Torre Juárez M. * Boland J. S. Bridges N. T. Conrad P. Ferri F. Genzer M. Gómez-Gómez F. Gómez-Elvira J. Harri A.-M. Kemppinen O. Lemmon M. T. Martínez G. Navarro S. Newman C. E. Pérez-Hoyos S. Prieto O. Ramos M. Saiz-López A. Sánchez-Lavega A. Schofield J. T. Sebastián E. Smith M. D. Tamppari L. K. MEDA Team [MEDA: The Mars Environmental Dynamics Analyzer for Mars 2020](#) [#4114]
We describe the status of the Mars Environmental Dynamics Analyzer (MEDA), a suite of environmental sensors that compose one of seven instruments being developed for the science investigations from the Mars 2020 rover.
- 2:15 p.m. Allwood A. * Wade L. A. Hurowitz J. A. [PIXL Investigation on the Mars 2020 Rover](#) [4138]
PIXL data, together with other instruments on the 2020 Mars rover, will make it possible to carry out astrobiological field investigations with sufficient detail and quality to credibly address the search for signs of ancient life on Mars.
- 2:30 p.m. Bell J. F. III * Maki J. N. Mehall G. L. Ravine M. A. Caplinger M. A. Mastcam-Z Team [Mastcam-Z: Designing a Geologic, Stereoscopic, and Multispectral Pair of Zoom Cameras for the NASA Mars 2020 Rover](#) [#4126]
Mastcam-Z is a stereoscopic, multispectral imaging investigation selected for flight on the Mars 2020 rover mission. In this presentation we review our science goals and requirements and describe our CDR-level design and operational plans.
- 2:45 p.m. Hecht M. H. * Hoffman J. A. The MOXIE team [The Mars Oxygen ISRU Experiment \(MOXIE\) on the Mars 2020 Rover](#) [#4130]
The Mars Oxygen ISRU Experiment (MOXIE) is a technology experiment on the Mars 2020 Rover mission that will demonstrate the production of oxygen from atmospheric carbon dioxide as a precursor to a future human mission.
- 3:00 p.m. Maki J. N. * McKinney C. M. Sellar R. G. Copley-Woods D. S. Gruel D. C. Nuding D. L. Valvo M. Goodsall T. McGuire J. Litwin T. E. [Enhanced Engineering Cameras \(EECAMs\) for the Mars 2020 Rover](#) [#4132]
The Mars 2020 Rover will be equipped with a next-generation engineering camera imaging system that represents an upgrade over the previous Mars rover engineering cameras flown on the Mars Exploration Rover (MER) mission and the Mars Science Laboratory (MSL) rover mission.

3:15 p.m. Wiens R. C. * Maurice S. Rull F. SuperCam Team

[SuperCam Remote Sensing on the Mars 2020 Rover: Science Goals and Overview](#) [#4136]

The Mars 2020 Science Definition Team (SDT) report emphasized the importance of fine-scale measurements, suggesting that the numerous pin-point observations made at remote distances by ChemCam was a very desirable capability.

3:30 p.m. *Coffee Break*