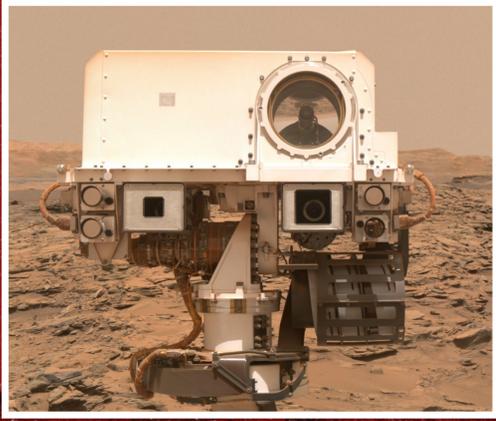
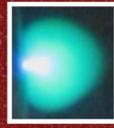


# CHEMCAM ON THE MARS CURIOSITY ROVER

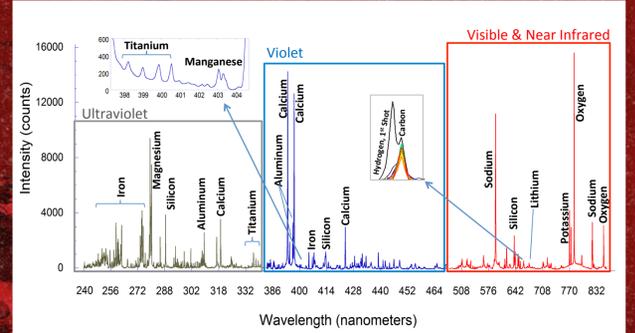


The Chemistry and Camera (ChemCam) instrument is the first to use a laser to measure the chemical composition of the surface of another planet. Using its laser, ChemCam zaps rocks (called targets), producing spectra that reveal the "chemical fingerprints" of different elements present in the rocks on Mars. The camera on ChemCam takes up-close images of the laser's targets showing fine-scale details. The camera has the capability of imaging objects as small as a pinhead from a distance of 33 feet! Spectra and images obtained by ChemCam are helping scientists understand the geologic history of the surface of Mars.



## The "Fingerprints" of Rocks and Soils on Mars

Sparks produced when ChemCam zaps rocks are bright (left). When captured in ChemCam's spectrometers, light from a spark reveals the elements contained in the rock, its "chemical fingerprint," and is displayed in a spectrum. The spectrum below, from the first rock targeted on Mars, indicates that the dust on the rock contains hydrogen (inset), i.e., the dust is hydrated. Water in soils could potentially be used by future human missions to the planet Mars.



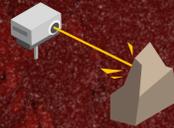
**2,500** DIFFERENT ROCKS ANALYZED



**10,000** HIGH-RESOLUTION IMAGES



**600,000** LASER SHOTS



**22 GB** DOWNLOADED DATA VOLUME



Totals from the first six years on Mars: 06 August 2012 to 06 August 2018.

The term "sol" is used by planetary scientists to refer to the duration of a day on Mars, which is approximately 24 hours and 40 minutes.

