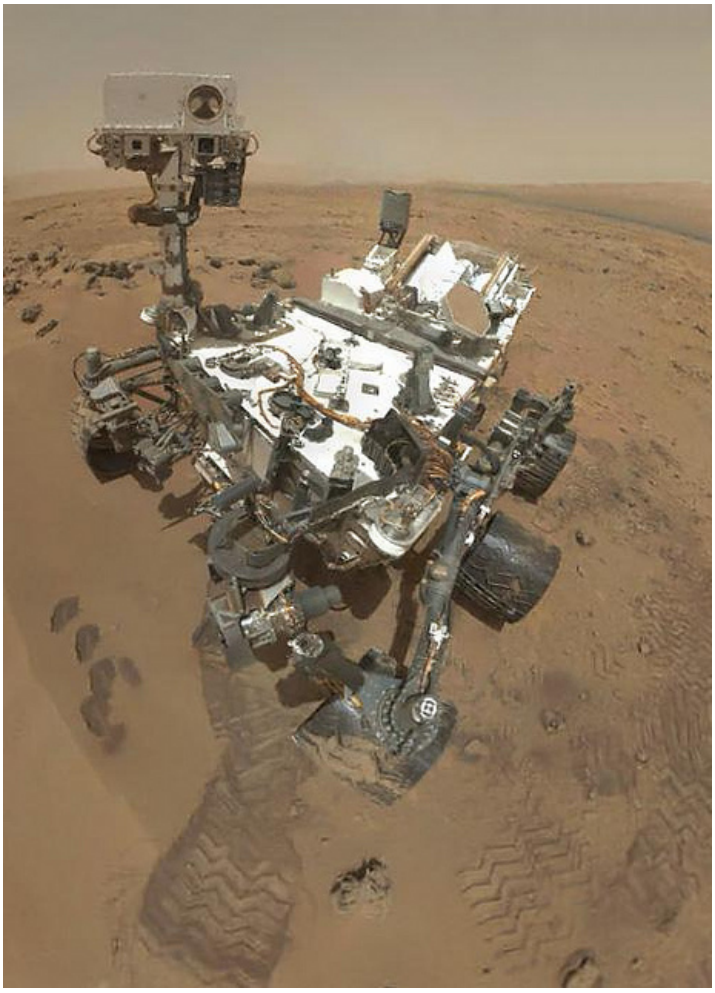
Mars Rover Curiosity Measures Red Plant's Air Quality, Finds Evidence of Large Gas Escape

By Erik Derr | First Posted: Apr 09, 2013 08:48 PM EDT

Tags curiosity rover



(Photo : Creative Commons)

Mars likely lost a majority of its original atmosphere to space a long time ago, researchers have announced.

Curiosity, the robotic, roving probe sent to the Red Planet by the national Aeronautics and Space Administration, has discovered traces of argon gas in the thin Martian air, seeming to support the longstanding belief the current atmosphere there is just a remnant of what it once was.

"We found arguably the clearest and most robust signature of atmospheric loss on Mars," Sushil Atreya, a co-investigator with the Sample Analysis at Mars (SAM) program at the University of Michigan, said in a statement.

A SAM device attached to Curiosity sampled some Martian air, which is only about which is just 1 percent as thick as that of Earth.

The instrument measured the ratio of different chemicals still present in the Mars atmosphere. That data from that testing seemed to be consistent with the notion gases escaped from the top of the Martian atmosphere sometime in the distant past, with lighter atoms and molecules lifting into space more readily than heavier ones.

The Curiosity rover team reported their finidngs about the Martian atmosphere, along with other observations made by the probe, at the 2013 European Geosciences Union General Assembly today in Vienna.