

# Interpreting new findings of methane on Mars

September 26 2018

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New data from the Mars Science Laboratory demonstrating the presence of methane presents novel challenges to explain how it was formed and what it suggests about the potential for life to exist or be supported on Mars. A comprehensive overview of these new findings, their implications, and recommendations for future studies to help interpret the data is published in *Astrobiology*.

Pin Chen from the NASA Jet Propulsion Laboratory, California Institute of Technology (Pasadena, CA), and a large team of international researchers collaborated on the article entitled "Methane on Mars and Habitability: Challenges and Responses."

They share their perspectives on what the evidence of methane suggests in terms of geochemical processes within the Martian environment and whether it could indicate a biosignature for subsurface habitability.

The researchers present a series of recommendations for future studies and Mars exploration programs, including those that can advance our understanding of the potential for life and habitability on Mars, further clarify the chemical reactions and energy sources in the Martian atmosphere and on the Martian surface and subsurface, and add to our knowledge of the sources of [methane](#) on Mars.

**More information:** Yuk L. Yung et al, Methane on Mars and Habitability: Challenges and Responses, *Astrobiology* (2018). [DOI: 10.1089/ast.2018.1917](https://doi.org/10.1089/ast.2018.1917)

Provided by Mary Ann Liebert, Inc

Citation: Interpreting new findings of methane on Mars (2018, September 26) retrieved 15 July 2024 from <https://phys.org/news/2018-09-methane-mars.html>

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