

Dear Mars Clay Scientists,

We are excited to share news of a session covering many aspects of martian phyllosilicate investigations at the International Clay Conference (ICC) in Dublin, Ireland July 13-18, 2025.

<https://icc.aipea.org/>

Abstracts are due April 11th.

We look forward to meeting you there!

Session Organizers:

Janice L. Bishop, SETI Institute, USA. jbishop@seti.org

Slavka Andrejkovičová, University of Aveiro, Portugal. slavka@ua.pt

Aditi Pandey, Lunar and Planetary Institute, USA. apandey@lpi.usra.edu

Brad Sutter, Amentum, NASA-JSC, USA. brad.sutter-2@nasa.gov

Session 11: Identification and Characterization of Phyllosilicates on Mars through Remote Sensing, Rover Instruments, and Analog Studies

Phyllosilicates are significant markers of aqueous alteration on Mars, providing key information for constraining the ancient geochemical history of that planet. This session aims to discuss advancements in understanding martian phyllosilicate assemblages through investigations of orbital remote sensing, analyses of rover instrument data, and studies of terrestrial analog materials containing phyllosilicates. Smectites and other clay minerals are observed in a variety of locations on Mars, frequently associated with sulfates, iron oxides/hydroxides, or carbonates. Investigating these sites through orbital and surface missions provides information on the geochemical environments present during their formation and potential indicators of past habitability. Studies of phyllosilicates on Mars using orbital or rover data, geochemical modelling, and characterization of clay-bearing analogs or martian meteorites are encouraged. By integrating these methods, the session aims to deepen our understanding of the conditions that shaped clay mineral assemblages and their implications for Mars' habitability.

