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Geology of central Libya Montes, Mars: Aqueous alteration history from mineralogical and morphological mapping

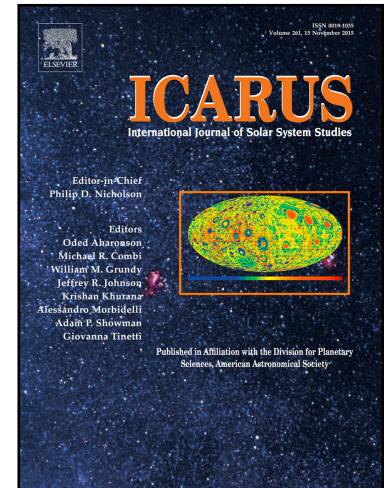
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Highlights

- Olivine-rich layered unit at Libya Montes is consistent with a volcanic origin
- Aqueous alteration results from hydrothermal, lacustrine and evaporative processes
- Fe/Mg-smectites and carbonates mixtures hint at alternating atmospheric CO₂ content
- Dolomite formed from altered bedrock, triggered by the induction of heat from lavas
- Beidellite, opal and CaCl-bearing salts formed in pool of a fan delta

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