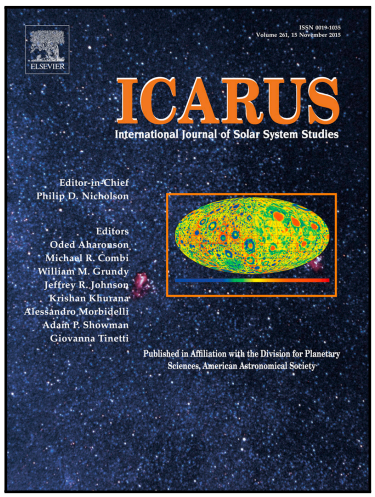

The Formation and Stability of Buried Polar CO_2 Deposits on Mars

Curtis V. Manning, Carver Bierson, Nathaniel E. Putzig, Christopher P. McKay

PII: S0019-1035(18)30236-7
DOI: https://doi.org/10.1016/j.icarus.2018.07.021
Reference: YICAR 12970

To appear in: *Icarus*

Received date: 6 April 2018
Revised date: 22 June 2018
Accepted date: 26 July 2018

Please cite this article as: Curtis V. Manning, Carver Bierson, Nathaniel E. Putzig, Christopher P. McKay, The Formation and Stability of Buried Polar CO_2 Deposits on Mars, *Icarus* (2018), doi: https://doi.org/10.1016/j.icarus.2018.07.021

HIGHLIGHTS

- The Clancy effect allows burial of CO2 deposits to preserve them during higher obliquity phases.
- Further stabilization of buried CO2 occurs at depth by close-off of pore space.
- The deepest CO2 deposits approach the triple point temp. making basal melting possible.