

Supporting Information for "Thermal evolution and Urey ratio of Mars"

A.-C. Plesa¹, N. Tosi^{1,2}, M. Grott¹, D. Breuer¹

Contents of this file

D. Breuer, Department of Planetary Physics, German Aerospace Center (DLR), Rutherford Strasse 2 12489 Berlin, Germany. (doris.breuer@dlr.de)

M. Grott, Department of Planetary Physics, German Aerospace Center (DLR), Rutherford Strasse 2 12489 Berlin, Germany. (matthias.grott@dlr.de)

A.-C. Plesa, Department of Planetary Physics, German Aerospace Center (DLR), Rutherford Strasse 2 12489 Berlin, Germany. (ana.plesa@dlr.de)

N. Tosi, Department of Astronomy and Astrophysics, Technische Universität Berlin, Hardenberg Strasse 36 10623 Berlin, Germany. (nicola.tosi@tu-berlin.de)

¹Department of Planetary Physics,
German Aerospace Center (DLR), Berlin,
Germany

²Department of Astronomy and
Astrophysics, Technische Universität Berlin,
Germany

1. Figures S1

Introduction In this additional material we show a comparison between results obtained using 1D parametrized models and 2D fully dynamical models for a variety of parameters.

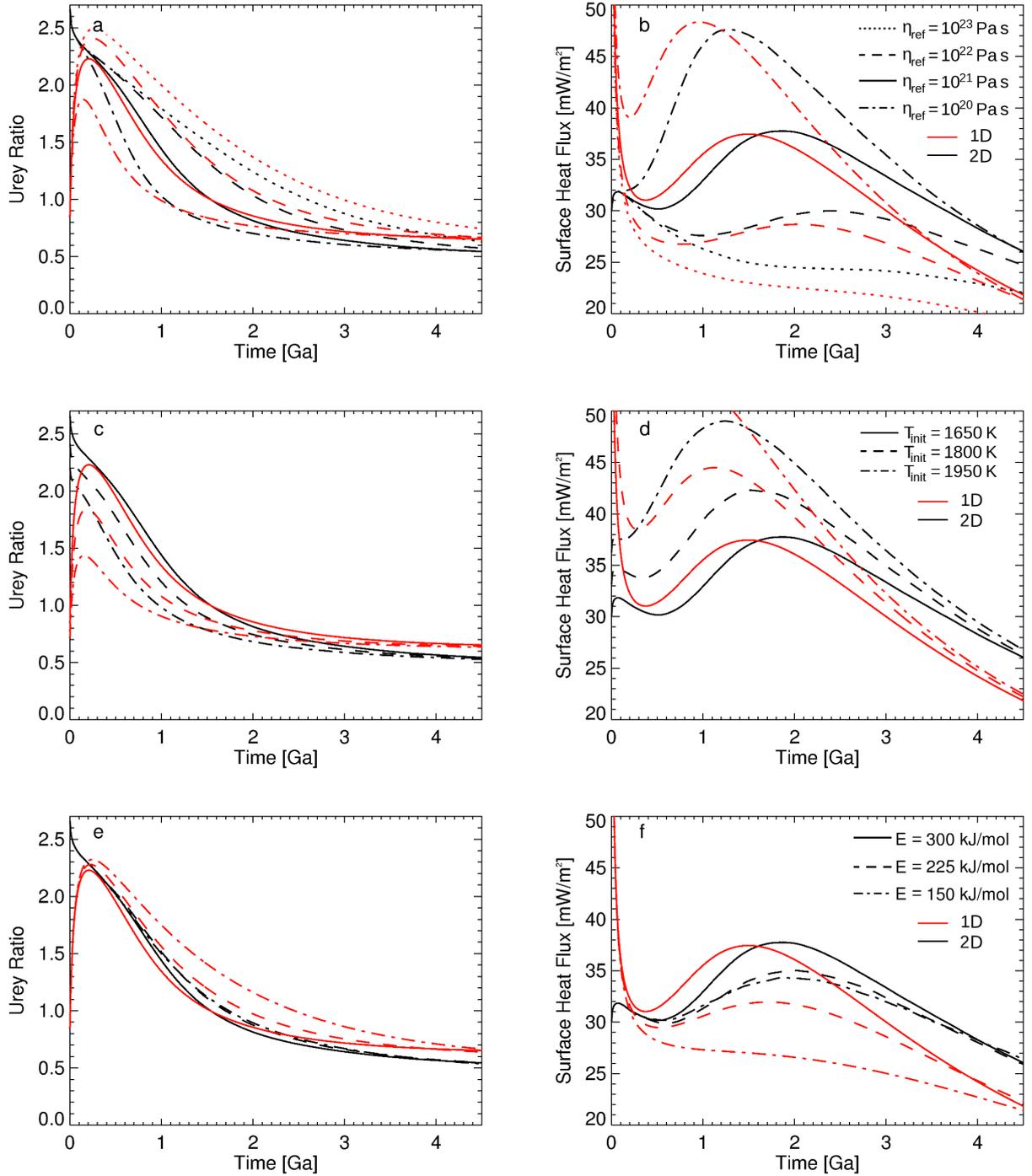


Figure S1. Urey ratio (a, c, e) and surface heat flux (b, d, f) calculated with 2D fully dynamical models (black curves) and 1D parametrized models (red curves) using reference viscosities from 10^{23} to 10^{20} Pa s (panels a and b, and cases 1, 2, 3, and 5 in Table 5 of the manuscript), initial mantle temperatures from 1650 to 1950 K (panels c and d, and cases 3, 14, and 15), and activation energy from 150 to 300 kJ/mol (panels e and f, and cases 3, 20, and 21).