

Hawai`i and the Frontiers of Planetary Sciences

G. Jeffrey Taylor



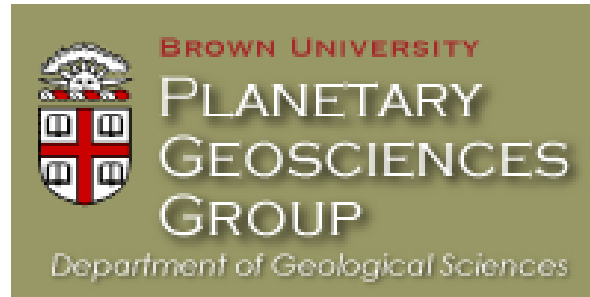
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SCHOOL OF OCEAN AND EARTH
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UNIVERSITY OF HAWAII AT MĀNOA

HIGP Hawai'i Institute of
Geophysics & Planetology

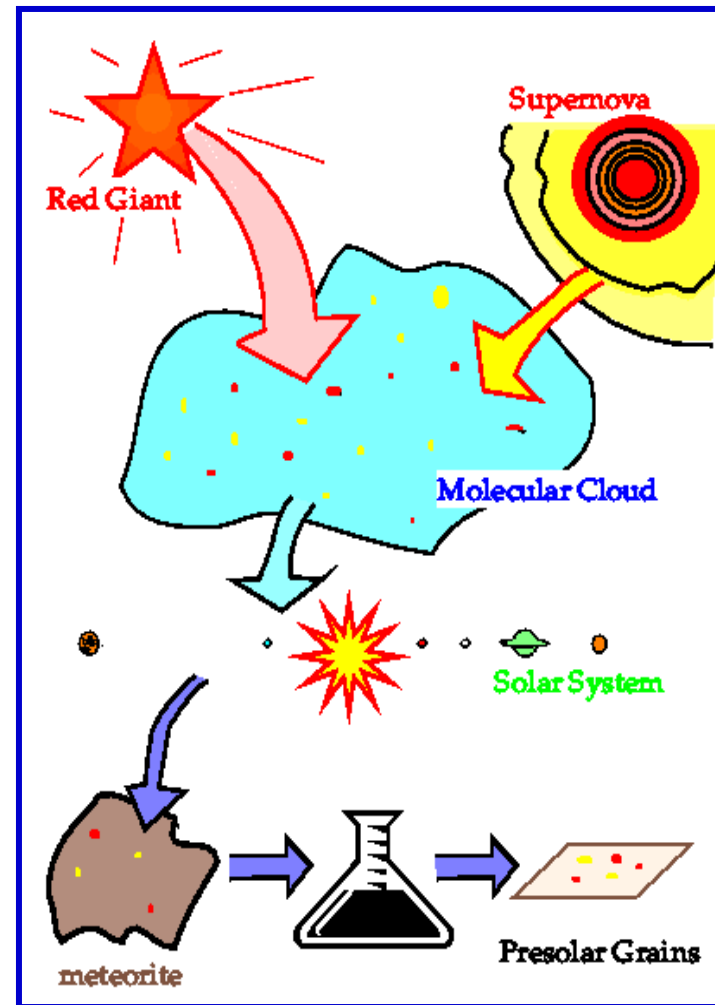
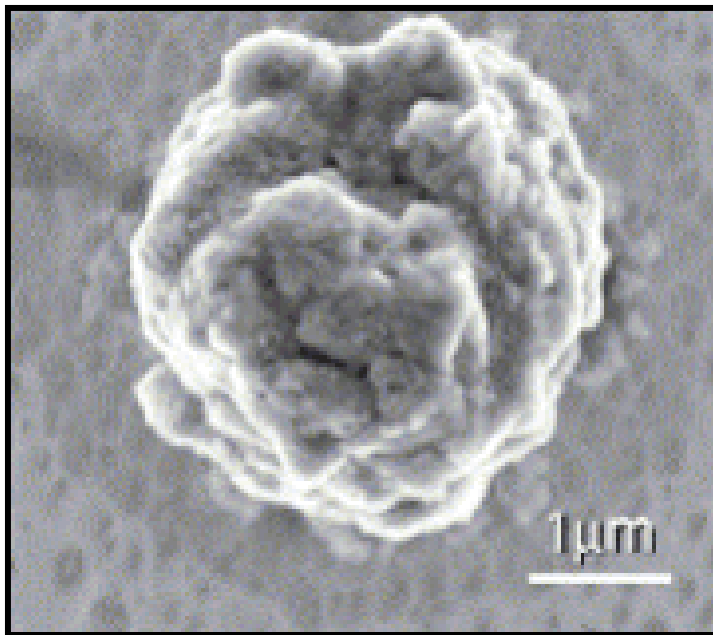
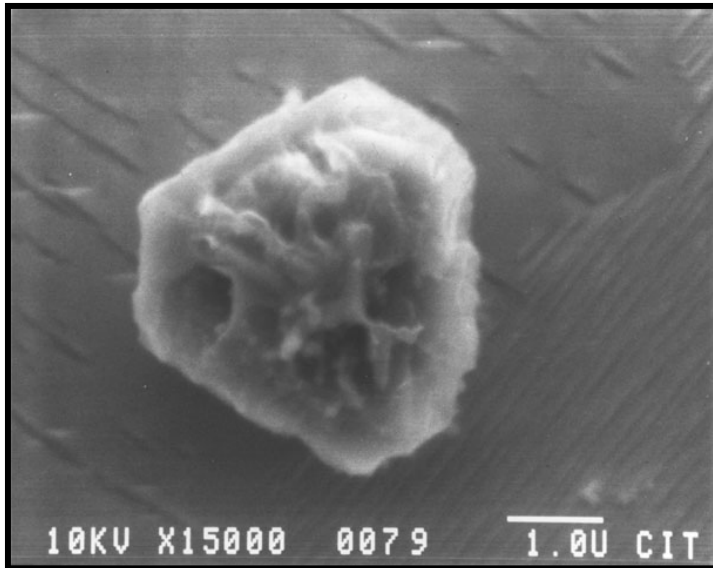
We compete successfully against the other world-class planetary science programs...



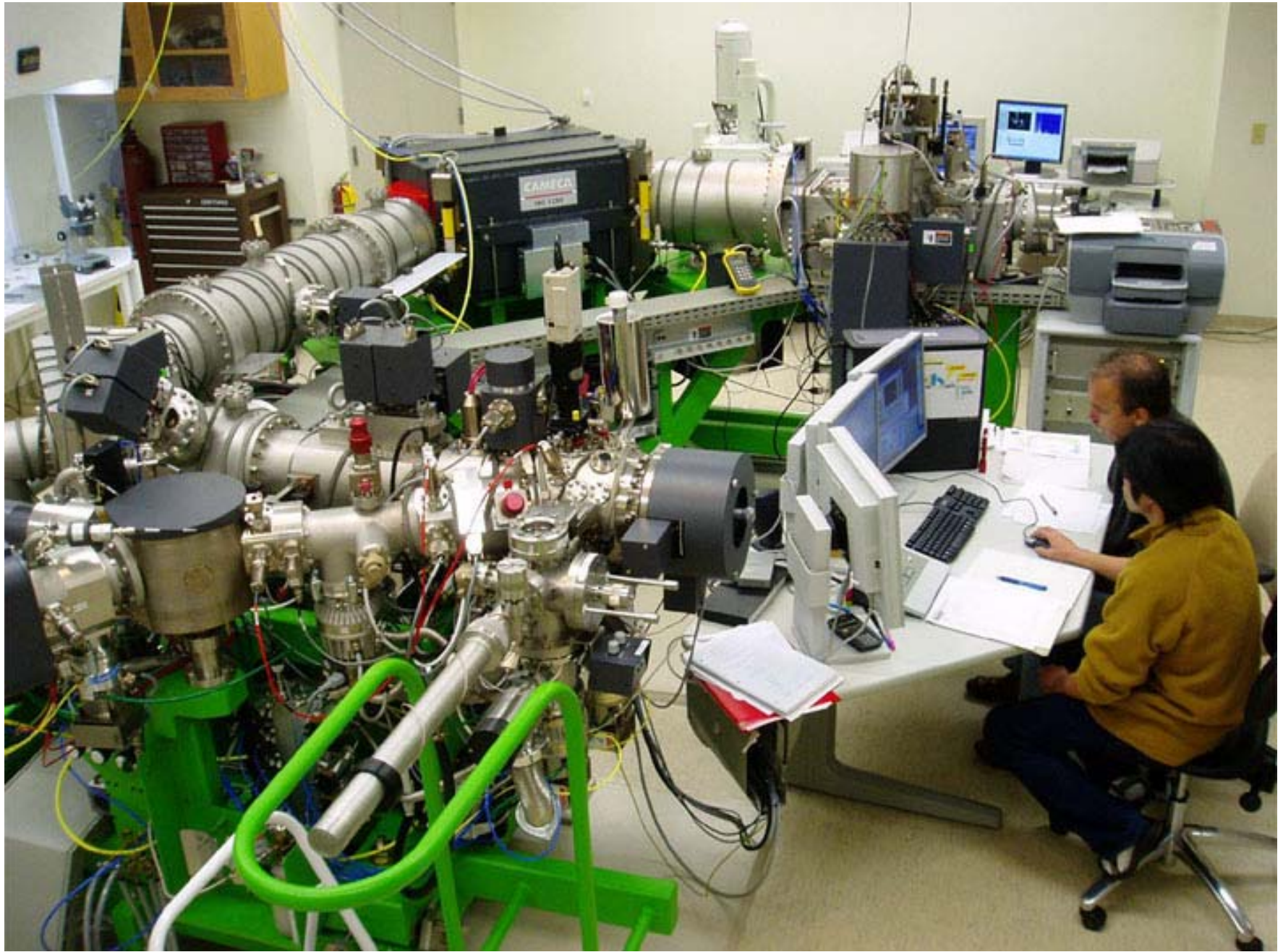
 **Washington University in St. Louis**

...because we do big-picture planetary science. And we're in Hawai`i.

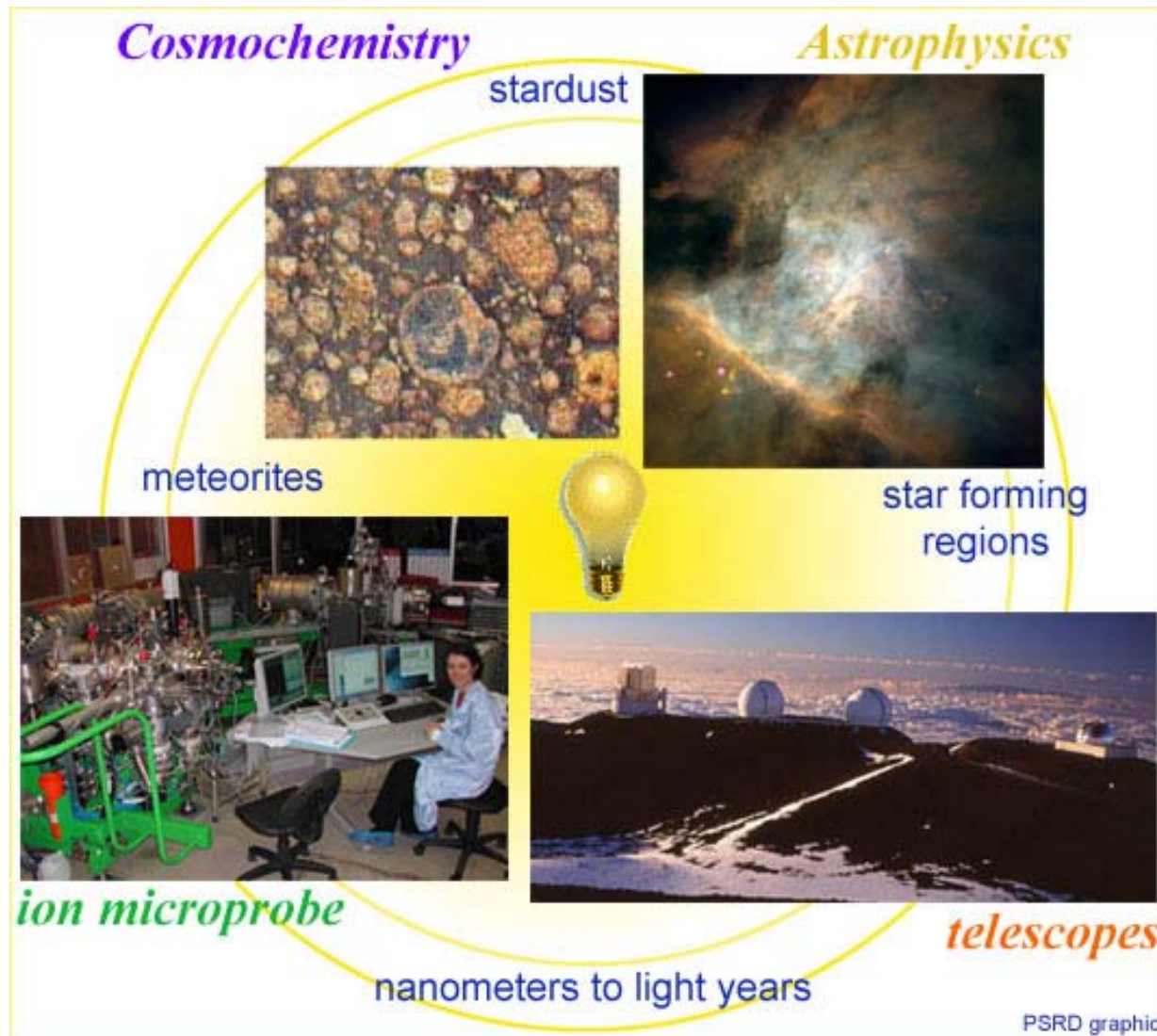


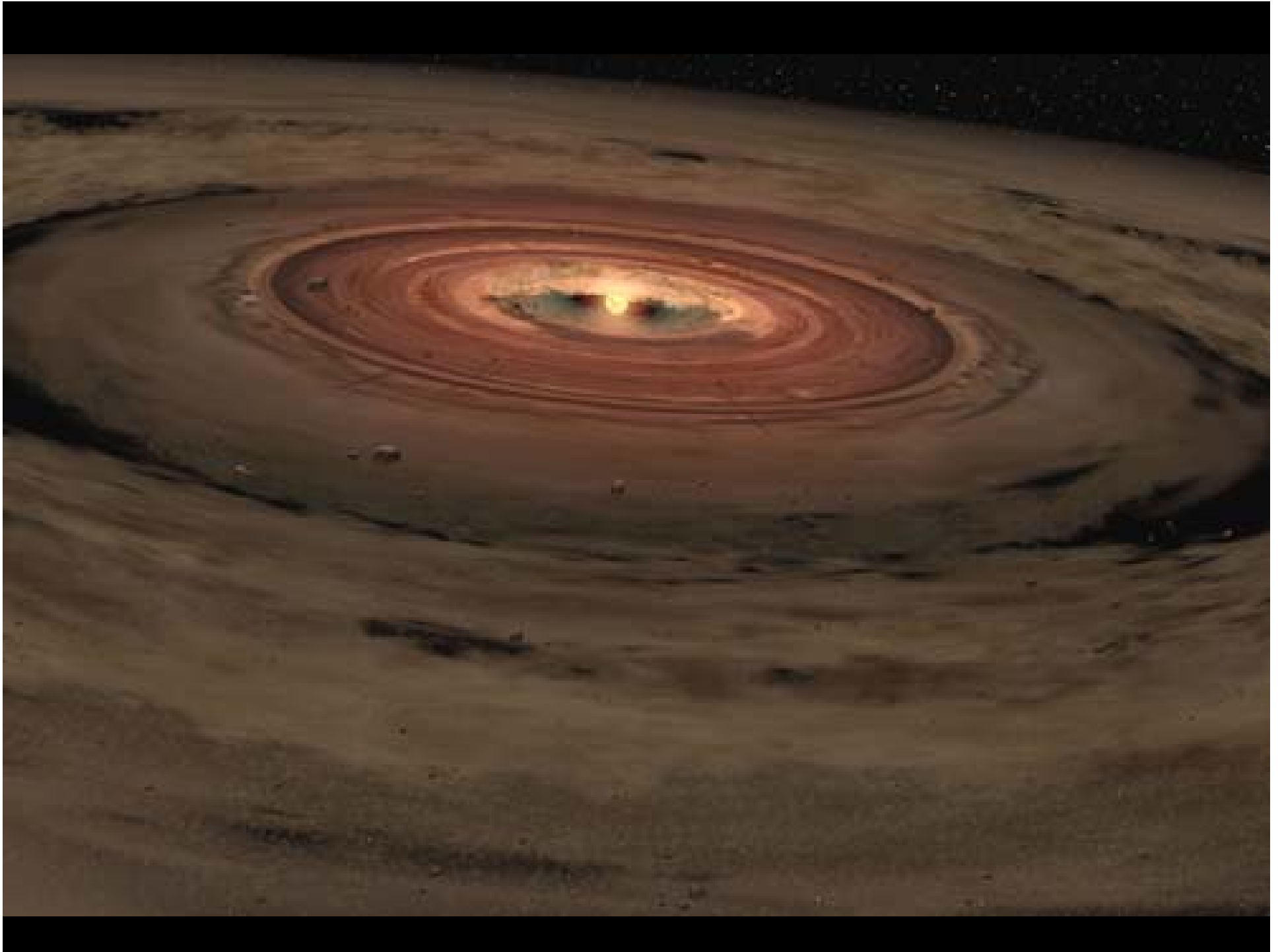


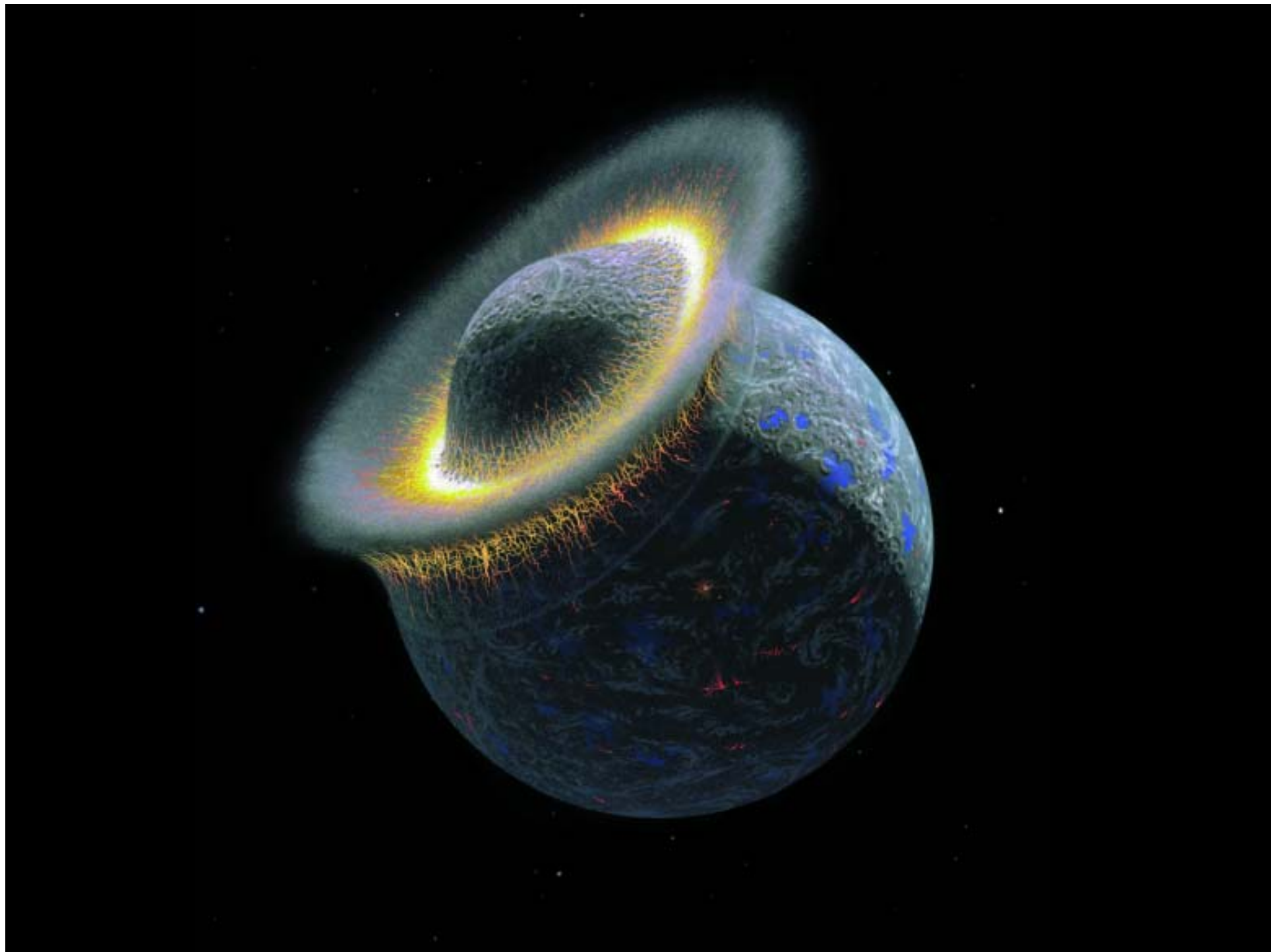
Stardust in the lab!

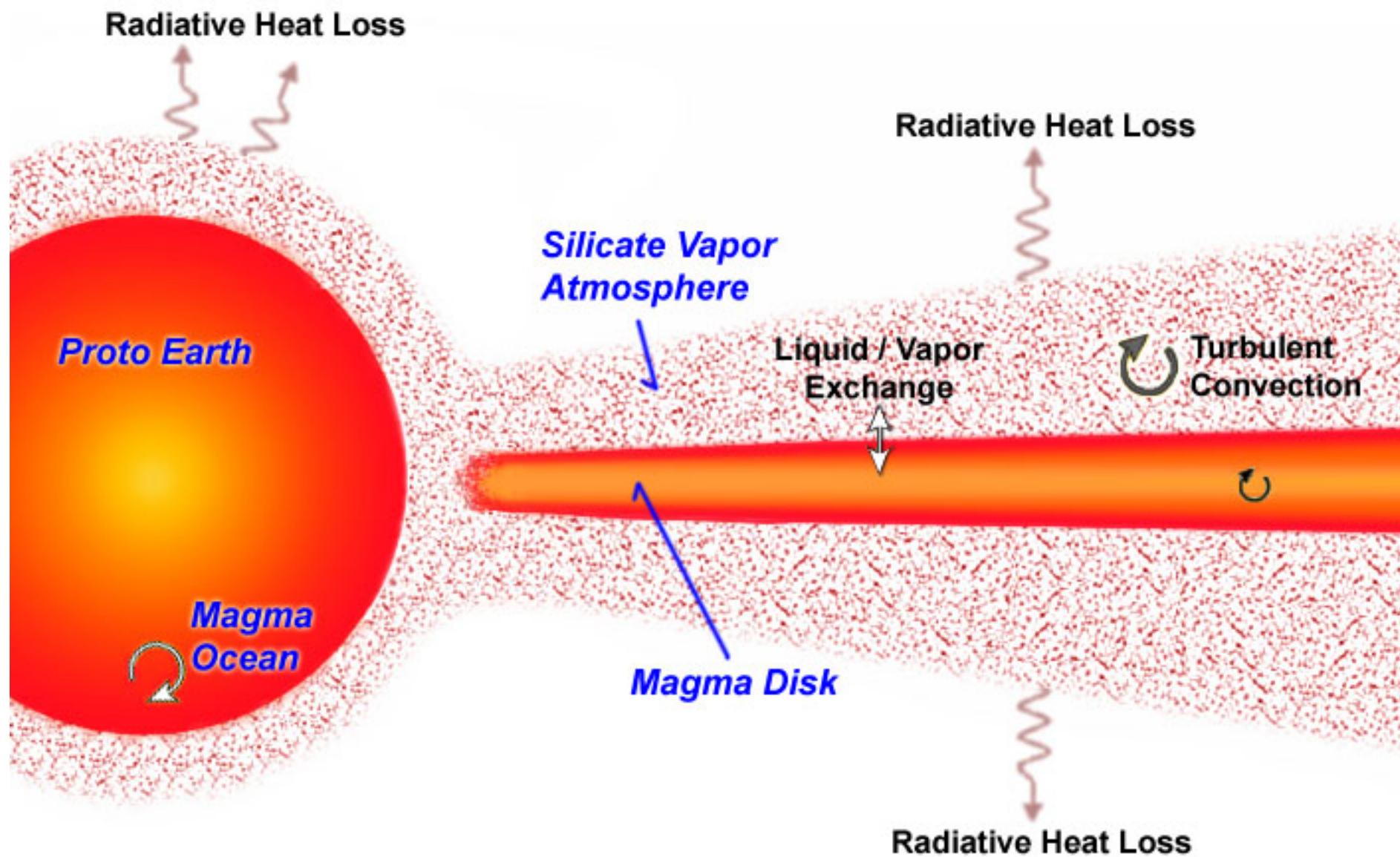


Interdisciplinary research...





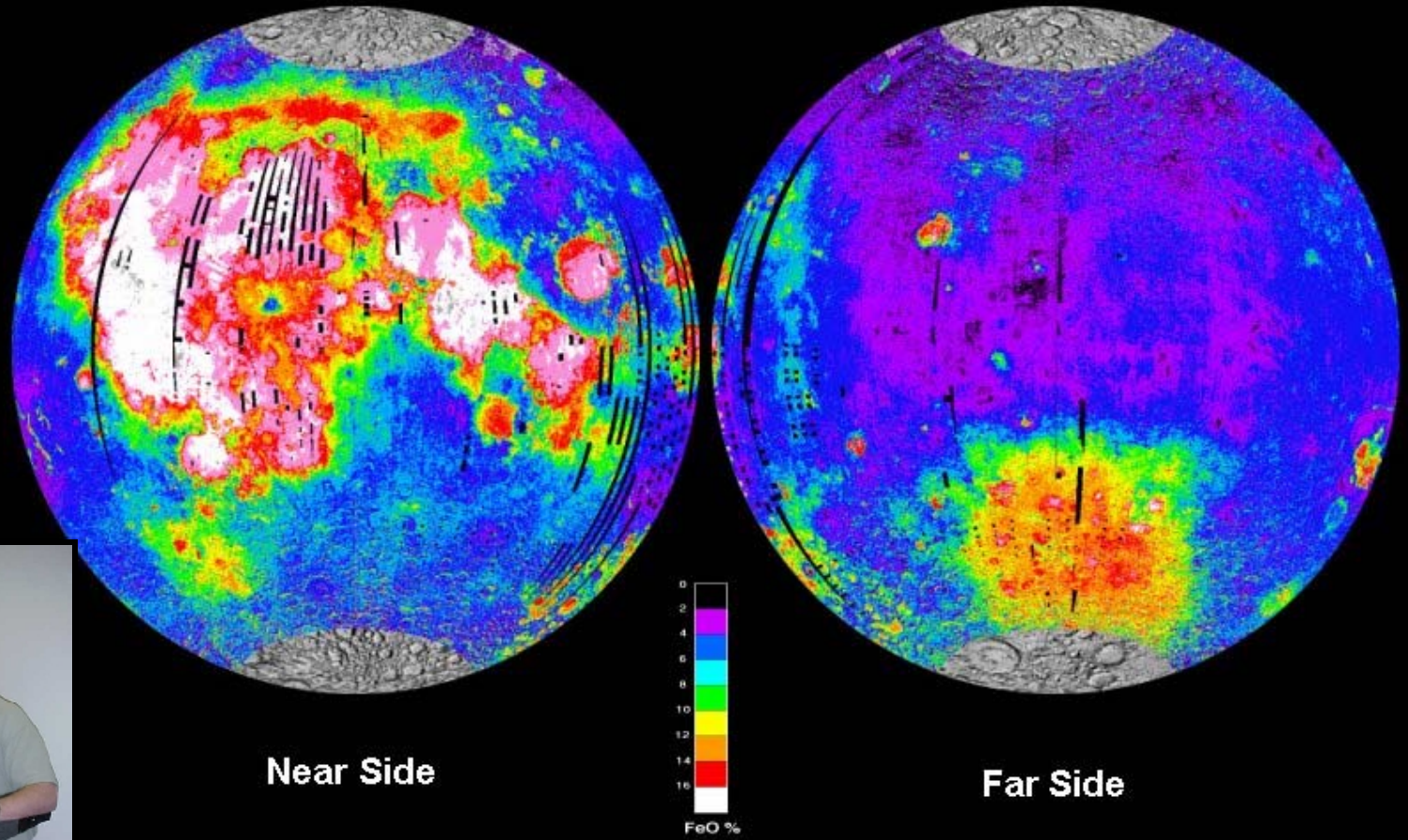




(PSRD graphic based on Pahlevan and Stevenson, 2007, *EPSL*, v. 262, p.438-449, Fig. 3.)

Clementine Fe Map of the Moon

Equal-Area Projection



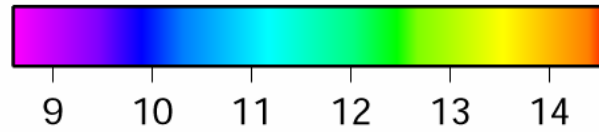
Paul Lucey and his iron map

Comparing planets to each other...

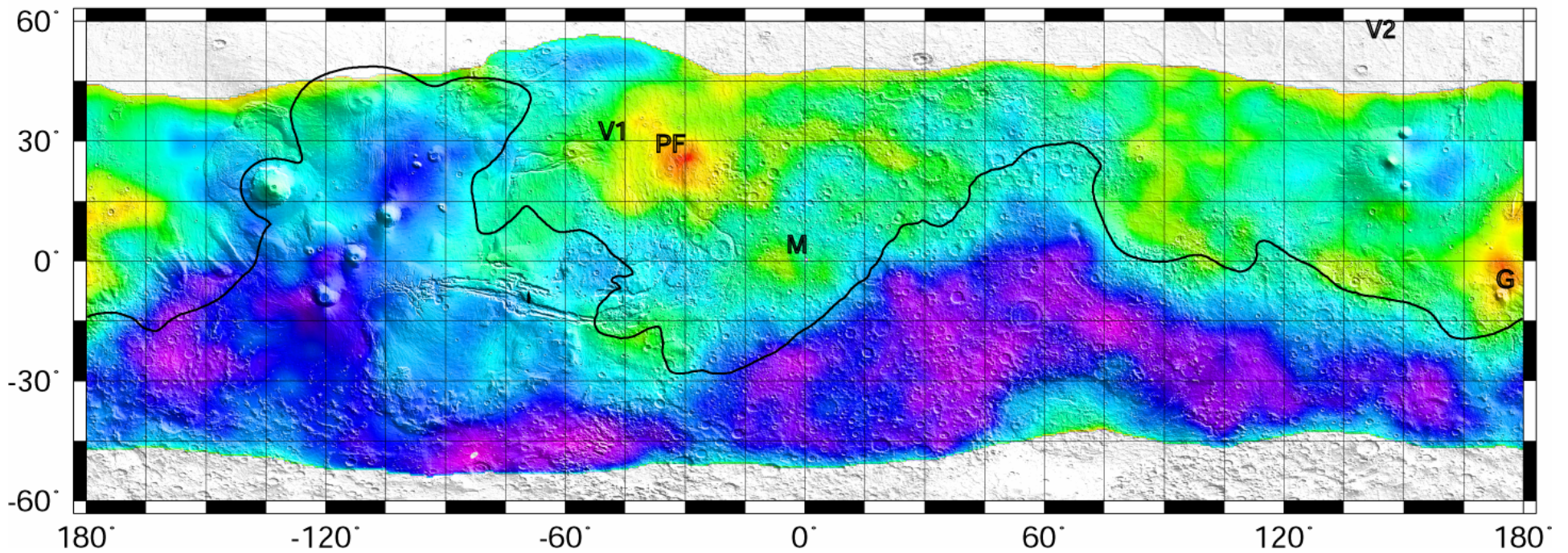


Martian Bulk Composition: FeO

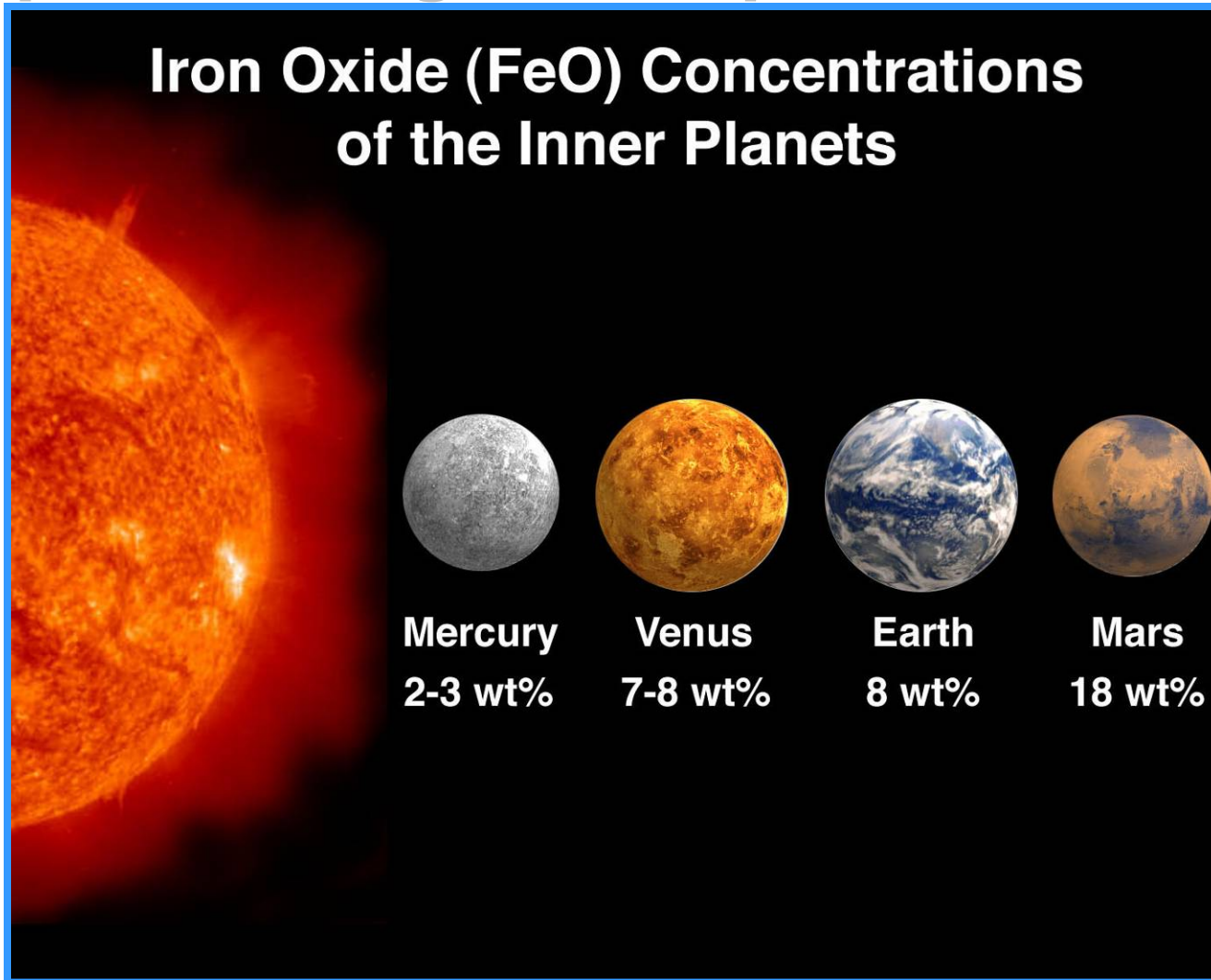
Fe (Wt%)



Typical 1σ is 1 wt%



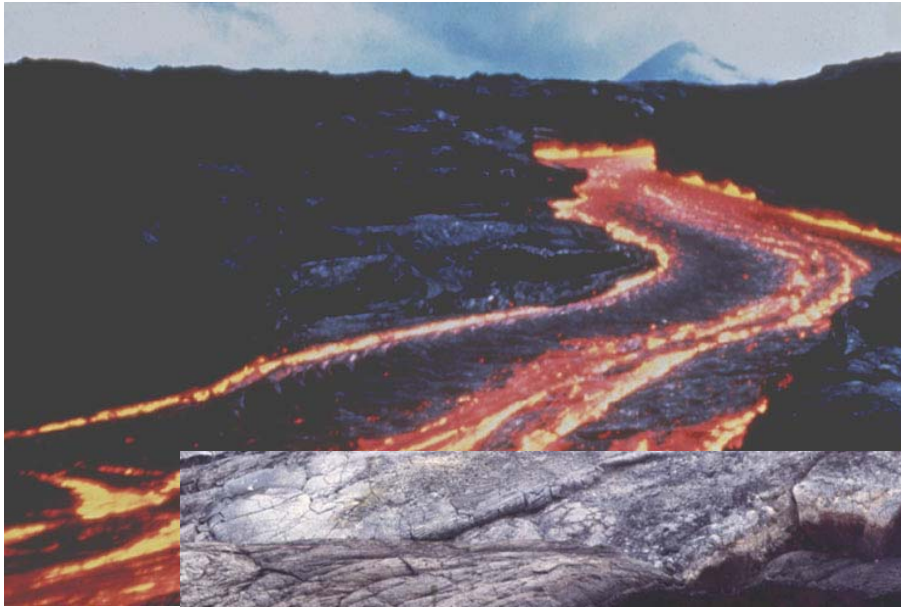
Compositional gradient preserved?



Where did Earth's water come from?



Planetary processes...



Sharing our discoveries...



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