

Modeling the evolution of the parent body of acapulcoites and lodranites: A case study for partially differentiated asteroids

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PII: S0019-1035(17)30546-8
DOI: [10.1016/j.icarus.2018.03.024](https://doi.org/10.1016/j.icarus.2018.03.024)
Reference: YICAR 12853

To appear in: *Icarus*

Received date: 19 August 2017
Revised date: 15 March 2018
Accepted date: 27 March 2018

Please cite this article as: Wladimir Neumann , Stephan Henke , Doris Breuer , Hans-Peter Gail , Winfried H. Schwarz , Mario Tieloff , Jens Hopp , Tilman Spohn , Modeling the evolution of the parent body of acapulcoites and lodranites: A case study for partially differentiated asteroids, *Icarus* (2018), doi: [10.1016/j.icarus.2018.03.024](https://doi.org/10.1016/j.icarus.2018.03.024)



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Highlights

- We model the thermo-chemical evolution of the acapulcoite-lodranite parent body.
- We fit the thermo-chronological data and the differentiation degree of meteorites.
- We derive optimized parameters (size, formation time, etc.) for the parent body.
- Final structure: Core, mantle, partially differentiated, and primordial layer.
- Primitive achondritic and differentiated material on a common parent body.

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