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Top-down freezing in a Fe-FeS core and Ganymede's present-day magnetic field

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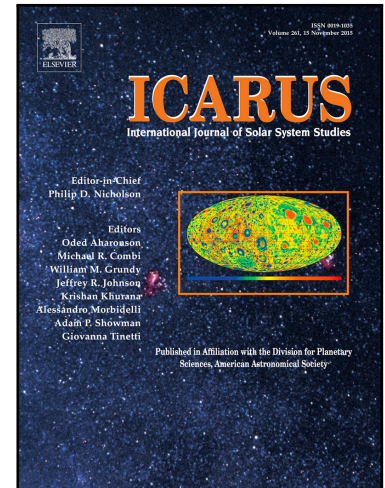
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**Highlights**

- Top-down freezing in either the Fe snow or the FeS layer regime in Ganymede's core
- The Fe snow or FeS layer regime can explain Ganymede's present-day magnetic field
- Dynamos in the Fe snow regime are young ( $\leq 1000$  Myr)
- Dynamos in the FeS layer regime can be old (up to 3800 Myr)
- Sulfur concentration and mantle viscosity are correlated for successful dynamo models

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