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SÉMINAIRE

Lundi 16 septembre, 10h30

*Salle de conférence, 3ème étage, Tour 22-23
INSP, Université P. et M. Curie, 4, Place Jussieu, 75005 Paris*

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Dynamics of D'' inferred from low-pressure MgSiO₃ analogues

The physical properties of the post-perovskite phase of MgSiO₃ have a significant effect on the dynamics of the core-mantle boundary and therefore on mantle convection in the Earth. However, the extreme pressure and temperature at under which MgSiO₃ post-perovskite is stable makes measuring its thermo-mechanical properties at best extremely difficult. However, low-pressure analogue materials exist which take both the perovskite and post-perovskite structures, at conditions accessible by standard multi anvil techniques. We have made physical property measurements of these analogue materials which give insight into the physical properties of MgSiO₃ post-perovskite and therefore the dynamics of mantle's lower thermal boundary layer and mantle convection.