



## **The coupling between the dynamo shutdown and the water abundance on Mars: the mantle filter**

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The OMEGA imaging spectrometer onboard the MarExpress spacecraft has found two kinds of hydrated minerals on the martian surface, which suggest two episodes of water content on the martian surface. The formation of phyllosilicates is compatible with abundant water while the presence of sulfates requires acid pH. In the same period of time, the martian dynamo stopped. This study investigates how heat transfer in the martian mantle may explain the dynamo shutdown and the late release of water in the martian atmosphere.