



Mars global mineralogical History derived from the OMEGA/Mars Express data

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During the first Martian year of operations, OMEGA/MEx has acquired hyperspectral (0.35 – 5.1 μm) images of the surface and the atmosphere of Mars covering almost the entire surface at 2 – 5 km spatial sampling, with some 5% covered at high resolution (300 m footprint). From the minerals identified and mapped, we can describe the Mars History in three distinct periods, characterized by the formation of phyllosilicates first, then sulfates, then anhydrated ferric oxides. We will present and discuss these results, which indicate that the Mars climate and environment evolved drastically over time, as did the role played by water.