



Latge time-scales Mars evolutionary processes as derived from the OMEGA/Mars Express investigation

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After one terrestrial year of operations in orbit around Mars, OMEGA has mapped more than 50% of the surface, from medium (px size from 2 to 5 km) up to high resolution (px size < 400 m). The OMEGA hyperspectral capabilities enable to identify most surface constituents, as minerals (silicates, oxides, hydrated phases, salts), frosts and ices. When acquired at the lower resolution, the data show surface composition rather homogeneous, in agreement with previous findings. At higher (km) resolution, a wide diversity is revealed. We will present and discuss an overview of the results obtained, concerning the distribution of mafic minerals (olivine and pyroxene), their alteration products (oxides and hydroxides), and the sedimentary minerals. A global large time-scale evolution of Mars can be tentatively derived, both in terms of geological and climatic history.