Geophysical Research Abstracts, Vol. 9, 01202, 2007
SRef-ID: 1607-7962/gra/EGU2007-A-01202

Climatology of surface UV after one Martian year of Mars-Express observations from the point of view of Martian surface life.

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Mars observations performed by the SPICAM instrument since January 2004 in Martian orbit have failed to reveal a significant UV filter except the expected carbon dioxide cut off below 200 nm. A climatology of surface UV will be presented on the basis of the ozone results and the ESA Mars reference model which is globally in agreement with the observations. The doses received at the surface limit the number of resistant species as symbiotic lichens (Sancho, 2006) on the surface and near surface. However a global study does not cover the microscale effects and an attempt to model UV radiation in shaded locations and in open cavities will be presented.

The effects of dust did not either provide a significant filter in the first Martian year of observation but it is still hoped to observe a more important dust storm, unfortunately, recent studies (Rettberg, 2006) have pointed to possible toxic components in Martian dust, increasing again the environmental challenges to Martian surface life.