EPSC Abstracts
Vol. 16, EPSC2022-868, 2022
https://doi.org/10.5194/epsc2022-868
Europlanet Science Congress 2022
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# Preliminary results of nadir retrievals from NOMAD/UVIS using new dust properties from lab measurements

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Aerosols are key components of the Martian radiative transfer. For instance, airborne dust is ubiquitous on the planet and influences the climate by absorbing shortwave radiation, resulting in a local warming of the atmosphere. While ice clouds are related to the water cycle, forming due to adiabatic cooling of upward flows where the water vapor condenses on dust particles as the temperature is low enough. Nadir UV measurements are commonly used to monitor the aerosol loading and the ozone abundance in the Martian atmosphere and study their seasonal cycles [e.g. Perrier et al., 2006; Mateshvili et al., 2009; Clancy et al., 2016; Willame et al., 2017; Wolff et al., 2019].

The analysis of UV nadir measurements, from MEX/SPICAM in a previous work [Willame et al., 2017] and currently from the NOMAD/UVIS data, were performed using the canonical dust scattering properties obtained in [Wolff et al., 2010]. In the frame of the RoadMap project, we will assess the impact on the nadir retrievals of using new sets of dust properties derived from laboratory measurements (see related presentation/poster of Martikainen et al. about lab measurements). In the present work, we will present preliminary results of the retrieval analysis.

**Acknowledgements**

The NOMAD experiment is led by the Royal Belgian Institute for Space Aeronomy (IASB-BIRA), assisted by Co-PI teams from Spain (IAA-CSIC), Italy (INAF-IAPS), and the United Kingdom (Open University). This project acknowledges funding by the Belgian Science Policy Office (BELSPO), with the financial and contractual coordination by the ESA Prodex Office (PEA 4000103401, 4000121493), by Spanish Ministry of Science and Innovation (MCIU) and by European funds under grants PGC2018-101836-B-I00 and ESP2017-87143-R (MINECO/FEDER), as well as by UK Space Agency through grants ST/V002295/1, ST/V005332/1 and ST/S00145X/1 and Italian Space Agency through grant 2018-2-HH.0. This work was supported by the Belgian Fonds de la Recherche Scientifique – FNRS under grant number 30442502 (ET_HOME). The IAA/CSIC team acknowledges

financial support from the State Agency for Research of the Spanish MCIU through the 'Center of Excellence Severo Ochoa' award for the Instituto de Astrofísica de Andalucía (SEV-2017-0709). US investigators were supported by the National Aeronautics and Space Administration. Canadian investigators were supported by the Canadian Space Agency. The ROADMAP project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101004052.

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