

Daerden, F., Crowley, J. N., & Wolff, M. J. (2023). Datasets and GEM-Mars simulations of ozone and H₂O₂ on Mars, for Daerden et al., 2023 [Data set]. Royal Belgian Institute for Space Aeronomy (BIRA-IASB), Brussels, Belgium. <https://doi.org/10.18758/71021085>

Dataset description.

The datasets include:

- the experimental results of Pouvesle et al. (2010) for H₂O₂ adsorption on water ice;
- MARCI/MRO total ozone column observations for Mars year 31;
- GEM-Mars simulations for ozone, H₂O₂, and HO_x.

All files are in hdfv5 format.

Data files:

- daerden_etal_2023_pouvesle_etal_2010_data.h5

This file contains the experimental results of Pouvesle et al. (2010), i.e. the H₂O₂ concentration (cm⁻³) and the adsorbed surface coverage (cm⁻²), for 4 temperatures (203, 213, 223, and 233 K). (This is used in Figure 1 and Figure 2.)

- daerdenetal2023_figureXX.h5

These files contain the data for Figures XX, with XX = 3, 4, 5, 7, 8, 9, 10.

- daerdenetal2023_o3_h2o2_hox.h5

This file contains the data for Figures 6, 11, 14, 15, 16, 17, 18.