

Atmos. Chem. Phys. Discuss., author comment AC1  
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## Comment on acp-2021-654

Jennifer Schallock et al.

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Author comment on "Radiative forcing by volcanic eruptions since 1990, calculated with a chemistry-climate model and a new emission inventory based on vertically resolved satellite measurements" by Jennifer Schallock et al., Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2021-654-AC1>, 2021

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Short reply to the referees

We thank the referees for their constructive suggestions. The SO<sub>2</sub>-inventory will be available soon at the WDCC-CERA-database at DKRZ in Hamburg, Germany in form of netcdf and Fortran-readable ascii files, similar to the previous version provided for ISA-MIP in the framework of SSIRC ([https://doi.org/10.1594/WDCC/SSIRC\\_1](https://doi.org/10.1594/WDCC/SSIRC_1)). This will also include the radiative forcing by stratospheric aerosol as calculated by EMAC (as netcdf, Figure 10).

ISA-MIP and GLOSSAC will be addressed in the introduction. For some reason, this discussion was lost in the submitted version which was published without any corrections during the access phase. We also noticed some typos in the volcano-table which could not be corrected. We apologize for this.

We will provide more details how SO<sub>2</sub> is derived from the different data sets. We will also present in the Appendix some examples of cross validation for SO<sub>2</sub> estimates for eruptions where all or at least 3 satellite instruments were available, as suggested by referee 1.

More detailed replies will follow soon.