

Atmos. Chem. Phys. Discuss., community comment CC1
<https://doi.org/10.5194/acp-2021-678-CC1>, 2021
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Comment on acp-2021-678

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Community comment on "Limitations of assuming internal mixing between different aerosol species: a case study with sulfate geoengineering simulations" by Daniele Visioni et al., Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2021-678-CC1>, 2021

There are a couple of other references relevant to this manuscript which are not cited by the authors:

Kokkola, H., Hommel, R., Kazil, J., Niemeier, U., Partanen, A.-I., Feichter, J., and Timmreck, C.: Aerosol microphysics modules in the framework of the ECHAM5 climate model – intercomparison under stratospheric conditions, *Geosci. Model Dev.*, 2, 97–112, doi:10.5194/gmd-2-97-2009, 2009.

Weisenstein, D. K., Penner, J. E., Herzog, M., and Liu, X.: Global 2D intercomparison of sectional and modal aerosol modules, *Atmos. Chem. Phys.*, 7, 2339–2355, doi:10.5194/acp-7-2339-2007, 2007.

Kleinschmitt, C., Boucher, O., Bekki, S., Lott, F., and Platt, U.: The Sectional Stratospheric Sulfate Aerosol module (S3A-v1) within the LMDZ general circulation model: description and evaluation against stratospheric aerosol observations, *Geosci. Model Dev.*, 10, 3359–3378, doi:10.5194/gmd-10-3359-2017, 2017.

In this last paper we do not compare modal and sectional schemes but there is a good discussion of the pros and cons of each.