Interactive comment on “Solar geoengineering using solid aerosol in the stratosphere” by D. K. Weisenstein and D. W. Keith

M. J. Tang
mingjintang@gmail.com

Received and published: 28 April 2015

This study is quite novel and interesting for the SRM research community. Congratulations.

In the manuscript it is stated that important reactions on the surface of these solid SRM particles are not studied. May I bring your attention to the laboratory measurements funded by the UK SPICE project? We have investigated the heterogeneous reactions of these SRM particles (mainly TiO2, but also SiO2 and other solid particles) with N2O5, ClONO2, and O3.

The work on N2O5 was published recently (Tang et al., 2014a; Tang et al., 2014b), and the effect of heterogeneous reactions of N2O5 with TiO2 particles on stratospheric
ozone was also assessed using a 3-D global model (Tang et al., 2014a). Our work on ClONO2 and O3 will be submitted soon.

Reference:


Interactive comment on Atmos. Chem. Phys. Discuss., 15, 11799, 2015.