

Review of “Source attribution of Arctic black carbon and sulfate aerosols and associated Arctic surface warming during 1980–2018” by Ren et al.

This is my second review of this paper, which presents a modelling study of the impacts of changing SO₄ and BC on the Arctic atmospheric composition, radiative forcing, and temperature. Modelled and measured SO₄ and BC are presented in the Arctic from 1980-2018 at a handful of surface measurement sites. A tagged version of CAM5 is used to quantify the source contributions from different continental geographic regions to the Arctic BC and SO₄ concentrations both at the surface and in the vertical column. The paper present interesting results that are important for understanding the rapidly warming Arctic. The authors addressed all reviewers comments thoughtfully and thoroughly. I have no further suggestions for improvement, and recommend that the revised manuscript be published as is.