Supplemental Materials for Source Sector and Region Contributions to Black Carbon and PM$_{2.5}$ in the Arctic

Negin Sobhani$^{1,2}$, Sarika Kulkarni$^{2,3}$, and Gregory R. Carmichael$^{2}$

$^{1}$ National Center for Atmospheric Research, Boulder (NCAR), Colorado, USA
$^{2}$ Center for Global and Regional Environmental Research (CGRER), University of Iowa, Iowa City, Iowa, USA
$^{3}$ California Air Resources Board (CARB), Sacramento, California, USA

Correspondence to: Negin Sobhani (negins@ucar.edu)
Figure SM 1: WRF-STEM modeling domain setup and source regions defined for this study.
Figure SM 2: NASA ARCTAS DC-8 flight tracks during a) Spring 2008 and b) Summer 2008.
Figure SM 3: Vertical profile and comparison of STEM model aerosols with ARCTAS DC8 aircraft observations.
Figure SM 4: Vertical profile and comparison of simulated vs measured metrological variables for ARCTAS flight categories.
Figure SM 5: Spatial distribution of source sector contributions (%) to annual SO$_4$ surface concentration
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Figure SM 8: Seasonality % contributions of different economic sectors from China to surface BC
Figure SM 9: Seasonality % contributions of different economic sectors from Europe to surface BC