

Supplementary Figures:

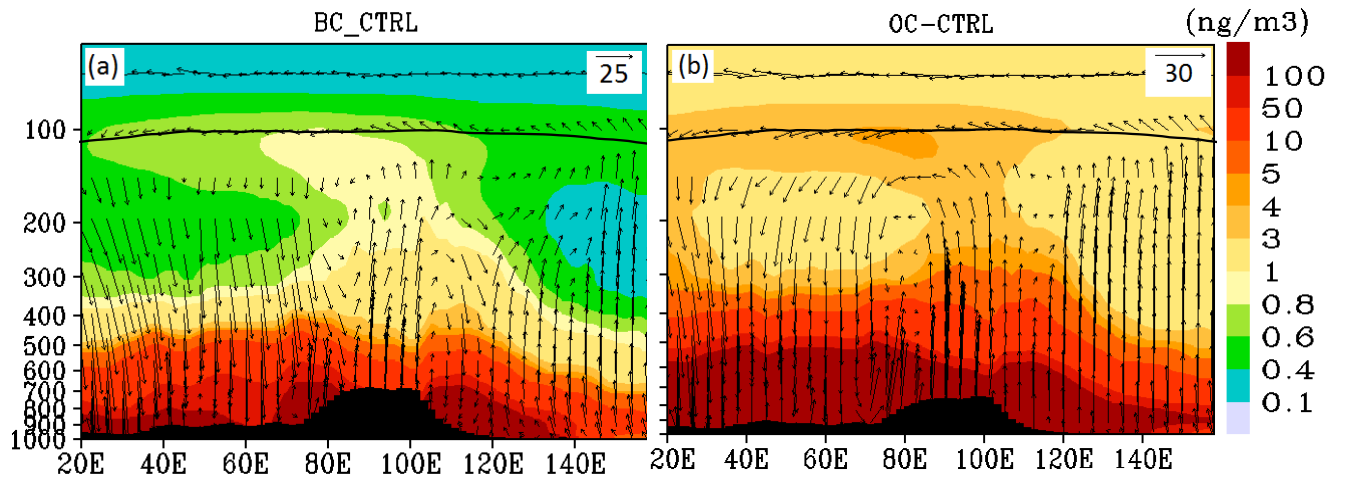


Figure S1: Longitude-pressure cross section (averaged for 15°N - 35°N and for the monsoon season) for (a) BC aerosols (ng m^{-3}) (b) OC aerosols (ng m^{-3}). Black arrows indicate wind vectors. The vertical velocity field has been scaled by 1000.

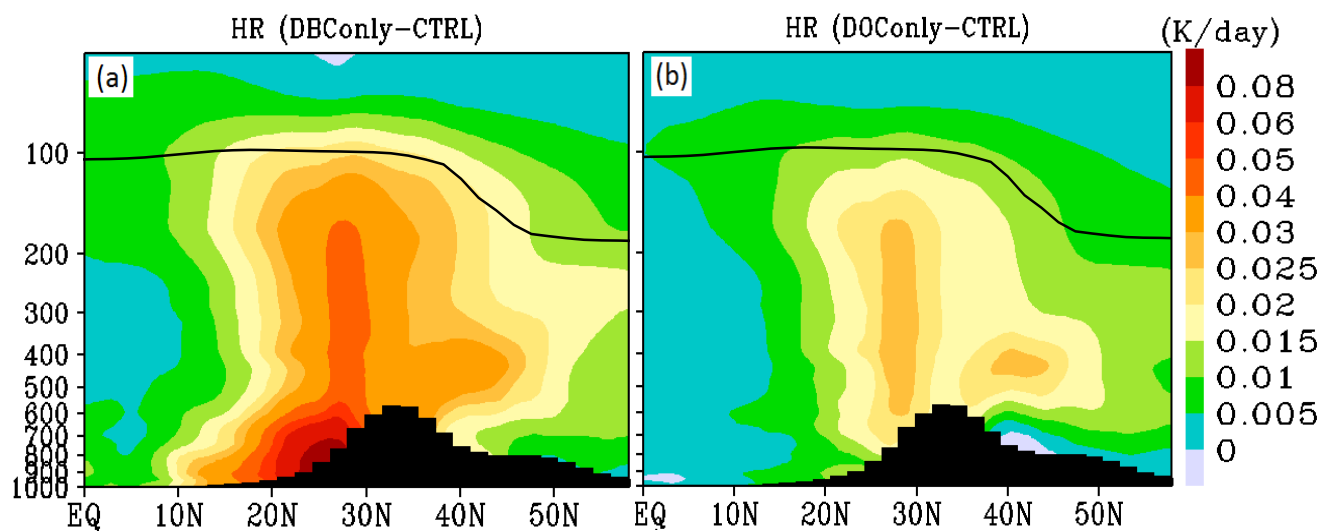


Figure S2: Latitude-pressure cross section of anomalies in heating rates (K day^{-1}) averaged for $80^\circ\text{E} - 110^\circ\text{E}$ and for the monsoon season for (a) BC aerosols (DBConly-CTRL) and (b) OC aerosols (DOConly-CTRL).

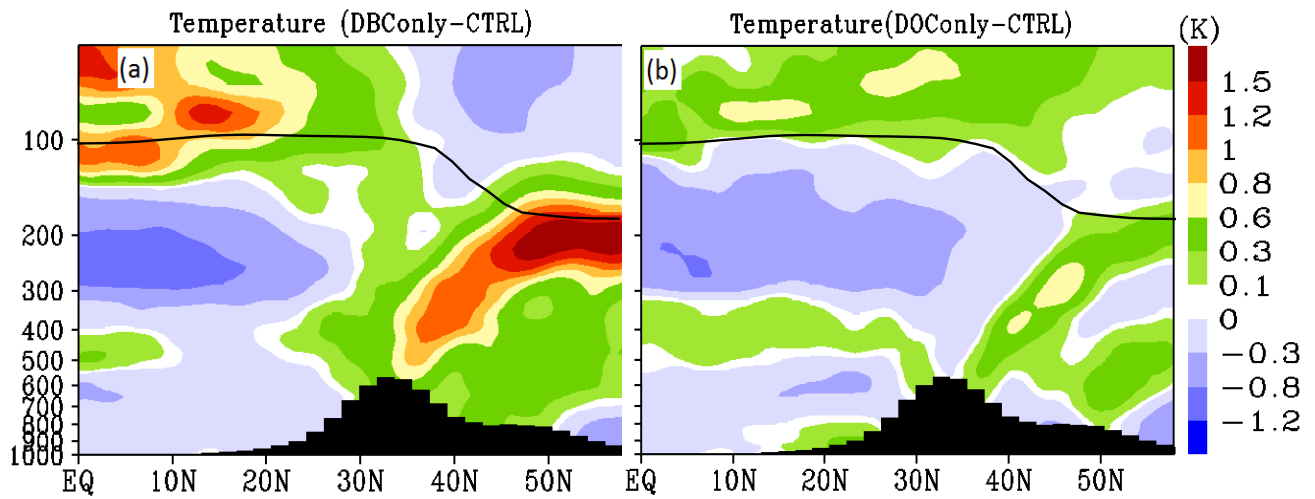
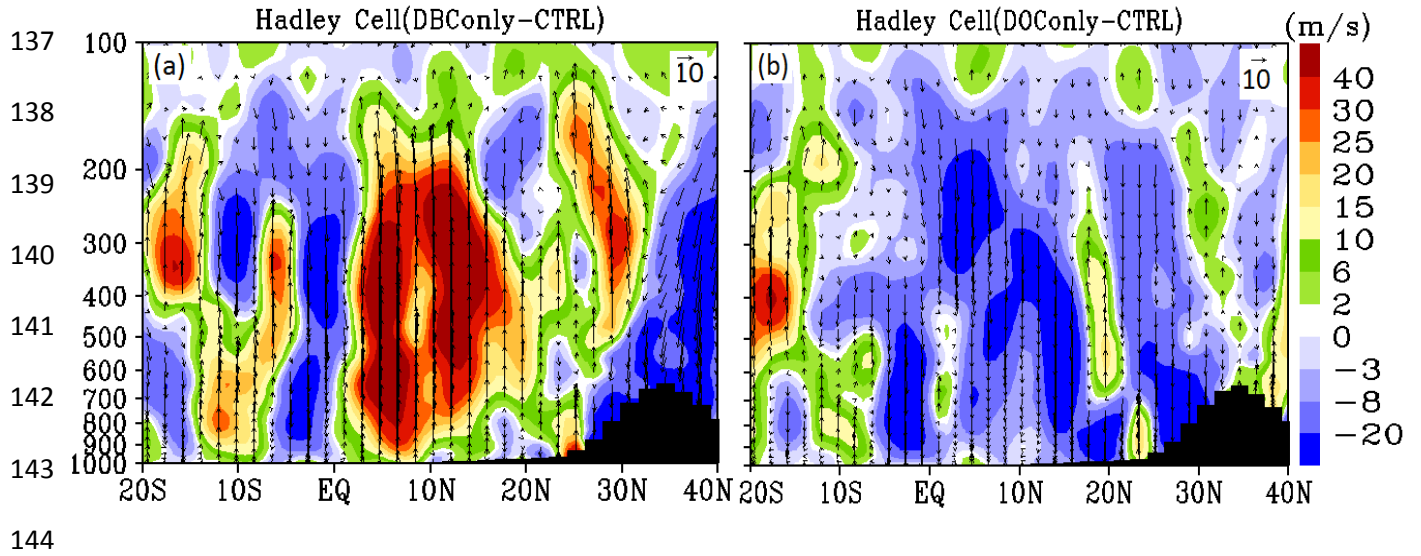


Figure S3: Latitude-pressure cross section of anomalies in temperature (K) averaged for 80°E - 110°E and for the monsoon season for (a) BC aerosols (DBConly-CTRL), (b) OC aerosols (DOConly-CTRL).

129
130
131
132
133
134
135

136



145 Figure S4: Difference in the meridional circulation (m s^{-1}) averaged for 70°E - 90°E and for the
146 monsoon season for (a) BC aerosols (DBCOnly-CTRL) and (b) OC aerosols (DOCOnly-CTRL).

147
148