Table S1 WRF-Chem physics and chemistry process configuration.

Physics & Chemistry process	Scheme
Microphysics	Lin microphysics scheme (Lin et al., 1983)
Cumulus parameterization	Grell-3D scheme(Grell, 1993; Grell and Dévényi, 2002)
Longwave radiation	Rapid radiative transfer model longwave radiation scheme (Mlawer et al., 1997)
Shortwave radiation	Goddard Space Flight Center shortwave radiation scheme (Chou, 1994)
Boundary layer	Yonsei University (Hong et al., 2006)
Surface layer	Monin-Obukhov surface layer physical processes parameterization scheme (Pahlow et al., 2001)
Land surface	Noah land surface model (Chen et al., 2010)
Aerosol	Model for simulating aerosol interactions and chemistry (MOSAIC-4 bin; Zaveri et al., 2008)
Gas	Carbon bond mechanism-Z (CBMZ; Zaveri and Peters, 1999)