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Size-resolved measurements of Cloud Condensation Nuclei and Black Carbon in China

Size distributions of cloud condensation nuclei (CCN) and black carbon (BC) aerosol were measured using mobility particle sizer along with CCN counter and/or micro-aethalometer in several field campaigns since 2009 at several locations across China. Parameterization schemes of CCN number concentrations were proposed based on sensitivity study of the measured data. Hygroscopicity parameters derived from CCN measurements at locations with different particular matter levels were compared. Size distributions of BC from two cities (Beijing and Wuqing) were compared, and the effects of emission control were characterized. Multi-wavelength measurements of aerosol absorption were also conducted recently.