



## **Cloud condensation nuclei (CCN) concentrations and efficiencies measured near Guangzhou, China during the PRIDE-PRD2006 campaign**

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The influence of aerosol particles on clouds and precipitation is one of the central questions of current atmospheric and climate research. The cloud condensation nuclei (CCN) activity and its relation to other properties of aerosol particles from different sources and regions are, however, not yet well characterized.

In this study, CCN concentrations and efficiencies were measured as a function of particle diameter and water vapor supersaturation approximately 60 km northwest of the megacity Guangzhou in south China. These measurements were part of the “Program of Regional Integrated Experiments of Air Quality over the Pear River Delta” intensive campaign in July 2006 (PRIDE-PRD2006).

First results will be presented showing that there are significant differences in the CCN activation during events characterized by fresh local emissions compared to periods with aged aerosol. Moreover, a diurnal variation in the CCN efficiency was observed indicating more CCN active aerosol components during day than during nighttime.