

SULFATE TRANSPORT AND CHEMISTRY IN INDOEX DEEP CONVECTION

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The role of deep convection in transport and chemical transformation of sulfate will be examined using a process model combining deep-convective dynamics and sulfate chemistry. A case with heavy sulfate loading in the planetary boundary layer accompanied by deep convection well-characterized by aircraft observations will be analyzed. Indirect effects on the radiative properties of ice clouds originating in deep convective systems are possible consequences of sulfate processes in these systems. INDOEX observations of sulfate loading will be used to assess the magnitude of indirect effects. Observations of aerosol and microphysical characteristics will be used to evaluate ability of the cloud-system model to capture the processes active during INDOEX deep convection.