

## Chemical and optical characterization of atmospheric aerosols at the Observatory for Atmospheric Research at Phimai, Thailand

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Atmospheric aerosols were measured at the Observatory of Atmospheric Research, in Phimai, Thailand, during 2006-2008, which is one of the stations of SKYNET. The major chemical components of aerosols were much higher in the dry seasons than in the wet seasons. In fine particles, ammonium sulfate, and elementary and organic carbons were major components. The concentration ratio of elementary carbon to sulfate in the dry seasons was much higher than that at Amami-Oshima in southwest Japan, where the anthropogenic aerosols from fossil-fuel combustion were transported from the urban-industrial area of the east coast of China. Single scattering albedo measured by sky radiometer was higher than 0.95 in the wet seasons, and much higher than in the dry seasons. According to the MODIS fire maps, many fires possibly due to the biomass burning of agricultural residues were detected in the dry seasons almost all over Thailand. These results clearly indicate that the aerosols emitted from biomass burning could affect on atmospheric environment, and radiation budget in southeast Asia.

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