

专刊

Size distribution of sulfur species in fine and ultrafine aerosol particles using sulfur K-edge XANES

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摘要

The sulfur species existing in different size aerosol particles were determined based on the 'white line' energy shift and the features of post edge structure of sulfur K-edge XANES (X-ray Absorption Near Edge Structure). The results indicated that sulfates were dominant sulfur species in aerosol particles. However, small amount of reductive sulfur species were also found in the ultrafine aerosol particles (<0.1 μm). Sulfates in aerosols mostly exhibited as (NH₄)₂SO₄ and gypsum. Most (NH₄)₂SO₄ distributed in aerosol particles finer than 0.952 μm, while gypsum was the dominant sulfate in coarse aerosols.

关键词 [sulfur species, aerosol, size distribution, XANES](#)

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