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Deposition fluxes of chemical components of fog water at a rural site in north-east India

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ABSTRACT

The north-eastern part of India has not been investigated for atmospheric deposition studies so far. In this study, deposition fluxes on an artificial surface of chemical components due to fog have been calculated during winter from December 2002 to January 2003 at Jorhat, a rural site in north-east India. As the land in this area is covered with vegetation, the site is representative of rural characteristics in this region. The average pH of fog water is 5.6. Among chemical components, NH^{+}_{4} was observed to be dominating ion. Soil pH in this region is acidic (4.9). Unlike other parts of the country, chemical analysis of soil in this region revealed that influence of suspended soil dust on fog deposition was insignificant. A comparison of fluxes of fog with rain water during December–January months showed that deposition fluxes due to rain water were higher by almost one order of magnitude on an artificial surface but on natural surfaces, the fluxes may be comparable.

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