



## **Nitrogen Oxides from thunderstorms in the continental tropics - Measurements and model results from the project TROCCINOX**

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Within the EU-project "Tropical Convection, Cirrus and Nitrogen Oxides Experiment" (TROCCINOX), in cooperation with the Brazilian project TROCCIBRAS, lightning induced NO<sub>x</sub> has been measured at altitudes up to 12.5 km in the outflow from continental thunderstorms in the tropics in February/March 2004. Thunderstorms in both subtropical and tropical air masses were sampled. In tropical air masses, high NO mixing ratios were observed. The measured data are compared to the results from a chemical transport model with two versions of lightning parameterizations. The model results show best agreement with the measurements for global lightning-NO<sub>x</sub> production rates between 2 and 10 Tg(N) yr<sup>-1</sup>. A further campaign with measurements at higher altitudes is being prepared for January to March 2005. Preliminary results from this campaign will be presented as well when successful.