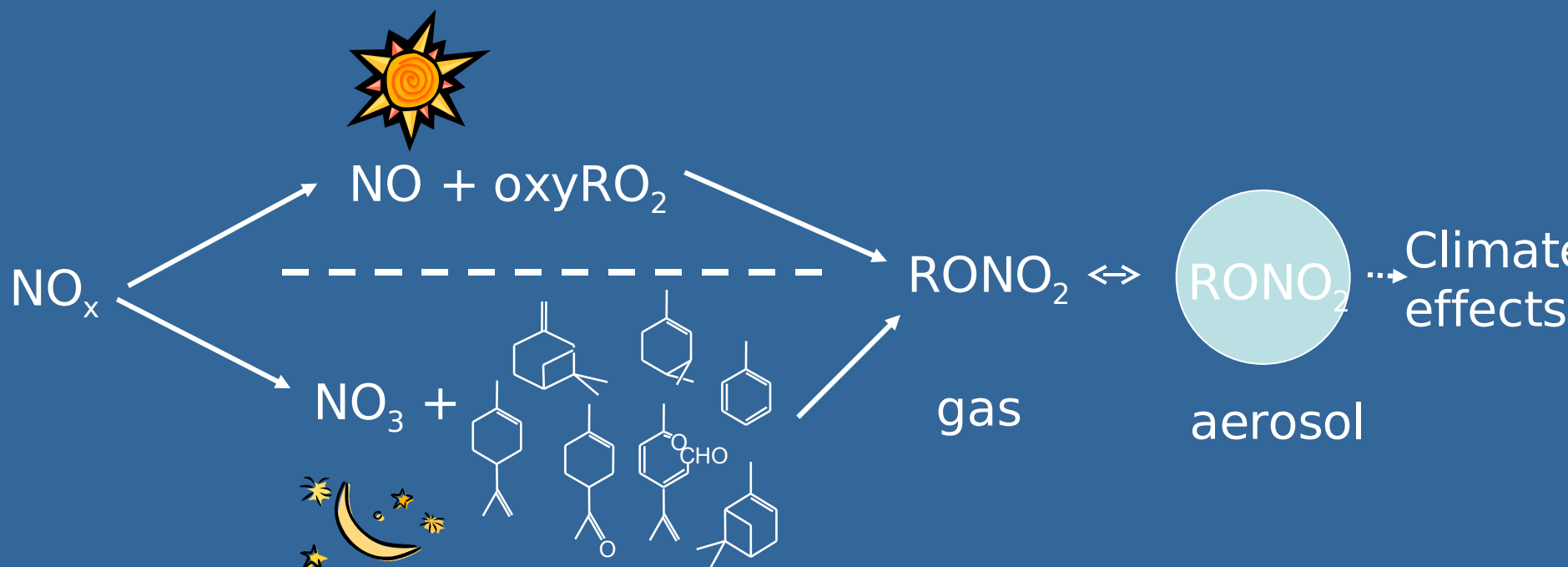


Quantifying NO_x -related contributions to SOA

An air pollution – climate linkage?

Juliane L. Fry

Postdoc with Prof. Ron Cohen
Department of Chemistry, University of California, Berkeley



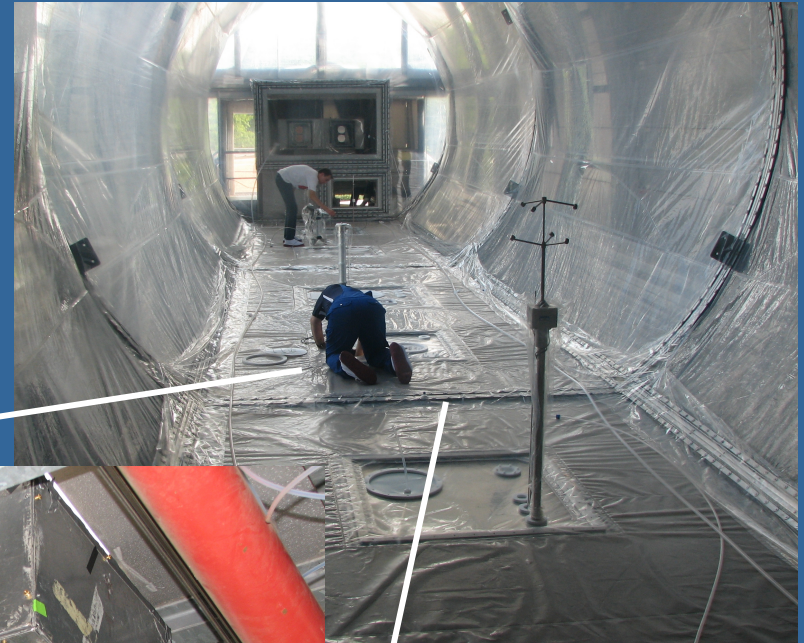
An apparent paradox: Modern carbon / anthropogenic source?

- Radiocarbon measurements of particulate organic matter (POM) suggest modern, i.e., **biogenic**, sources (Kleindinst and Currie, ES&T 1999)
- POM variability is highly correlated to secondary **anthropogenic** species (de Gouw et al, GRL 2005)
 - potential resolution: NO_x-related oxidation of biogenic species leading to aerosol formation

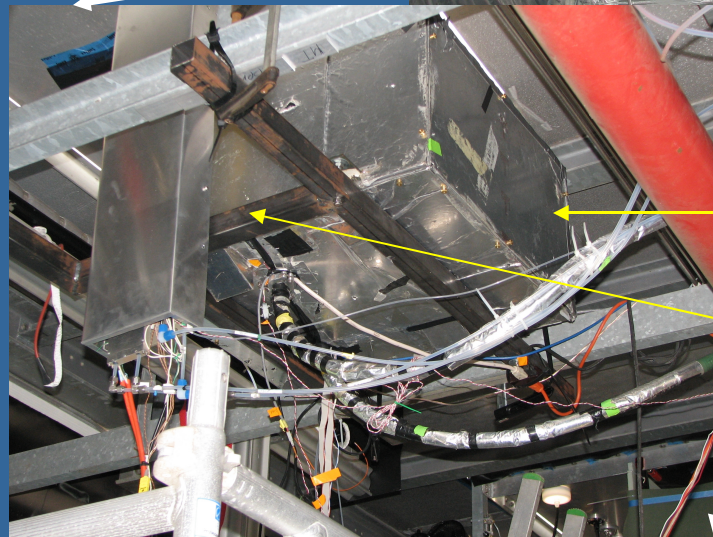
Collaborative chamber studies



Jülich, Germany SAPHIR chamber
NO₃ intercomparison campaign
June 2007




- NO₃ + monoterpenes studied
- Alkyl nitrates measured
- Aerosol measurements also available
-???



NO₃ TD-LIF

4-channel NO₂ TD-LIF:

- NO₂
- Peroxynitrates
- Alkyl nitrates
- HNO₃



UC Berkeley NO_3 / NO_y measurement team

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