

Intercomparison of SOA-modules

Scope of the exercise:

- To see how well existing models of SOA formation can simulate chamber experiments
- Analyse reasons for the differences between models

Why use chamber data?

- Controlled conditions
- Chemistry can be separated from transport
- Disadvantages: Wall effects need to be considered, concentrations are typically higher than ambient

Framework:

- EUROCHAMP (with support from ACCENT)
- (but open to all interested groups)

Reactants
Terpenes, isoprene, aromatics,

Mechanisms to form condensable products

(Semi-)explicit

Generic species



Condensable products

Partitioning between gas- and particle-phase

Kinetic vs. equilibrium approach

Size-resolved model?

'Theoretically' calculated vs. empirically determined K_p 's

TASKS:

- Select chemical systems (reactants, humidity)
- Identify available chamber datasets (EUROCHAMP data base,)
- Models that should be involved in the intercomparison
- Time frame and planning of the exercise