



## **Formation of Organic Films Through Condensation of Monoterpene Oxidation Products on Aqueous Seed Aerosols: A Model Study**

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An aerosol dynamic model was developed to investigate formation of organic films through gas-to-particle conversion of monoterpene oxidation products on aqueous seed aerosols. The applied model simulates the time evolution of a particle size distribution as well as gas-phase chemistry underlying formation of condensable organic vapours. The model was validated by comparing calculations with results from chamber experiments conducted in the large Aerosol Chamber in Jülich. The performed comparison shows that experimental results are consistent with a formation of organic films on particles through condensation of non-volatile organic vapours. The yields of condensable vapours formed as a result of oxidation of studied monoterpenes ( $\alpha$ -pinene, Myrcene and Sabinene) were also investigated. Furthermore, a comprehensive set of sensitivity studies was performed.