

Supporting Information for Secondary organic aerosol phase behaviour in chamber photo-oxidation of mixed precursors

Yu Wang¹, Aristeidis Voliotis¹, Yunqi Shao¹, Taomou Zong², Xiangxinyue Meng², Mao Du¹, Dawei
5 Hu¹, Ying Chen^{3,#}, Zhijun Wu^{2,4,5}, M. Rami Alfarra^{1,6}, Gordon McFiggans^{1,*}

¹Centre for Atmospheric Science, Department of Earth and Environmental Sciences, The University of
Manchester, Manchester M13 9PL, UK

²State Key Joint Laboratory of Environmental Simulation and Pollution Control, International Joint
Laboratory for Regional Pollution Control, Ministry of Education (IJRC), College of Environmental
10 Sciences and Engineering, Peking University, Beijing 100871, China

³Lancaster Environment Centre, Lancaster University, LA1 4YQ, UK

⁴International Joint Laboratory for Regional Pollution Control, 52425 Jülich, Germany, and Beijing
100871, China

⁵Collaborative Innovation Center of Atmospheric Environment and Equipment Technology, Nanjing
15 University of Information Science and Technology, Nanjing 210044, China

⁶National Centre for Atmospheric Science, School of Earth and Environmental Sciences, The
University of Manchester, Manchester, M13 9PL, UK

Currently at Exeter Climate Systems, University of Exeter, Exeter, EX4 4QE, UK

20 *Correspondence to: Gordon McFiggans (g.mcfiggans@manchester.ac.uk)

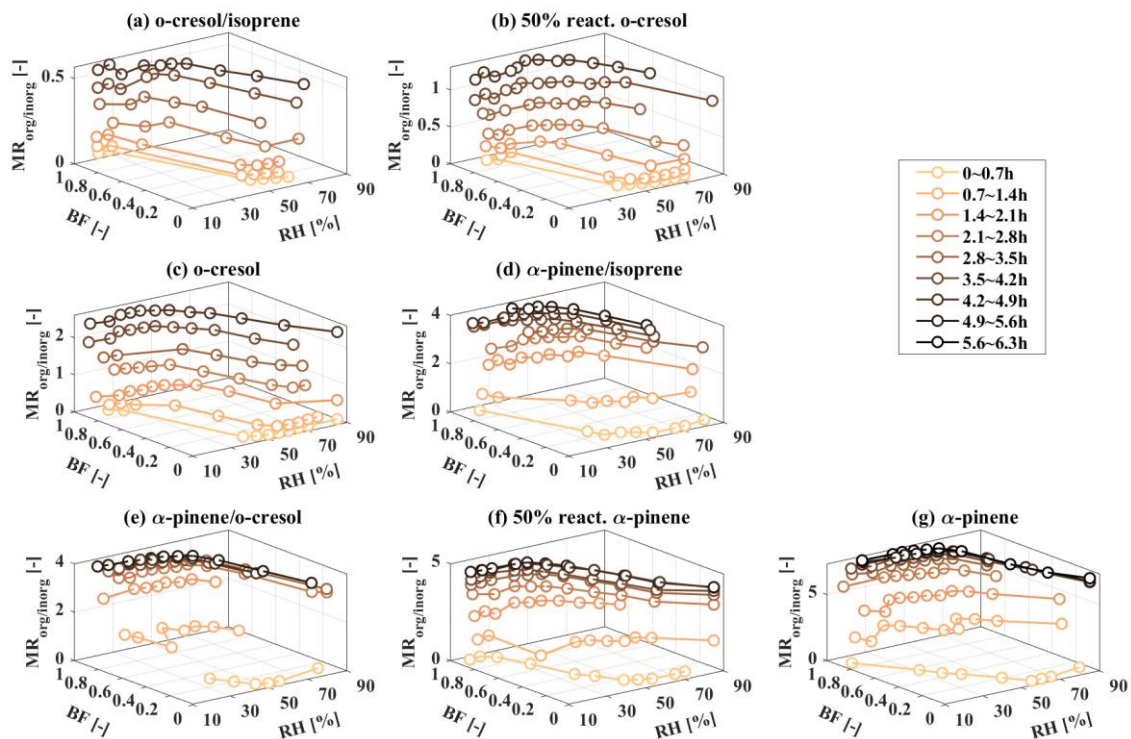


Figure S1. 3-D plot shows the measured rebounding curves changes as a function of organic-inorganic mass ratio ($MR_{org/inorg}$, z-axis) from all investigated VOC systems photochemistry on deliquescent ammonium sulphate seed.

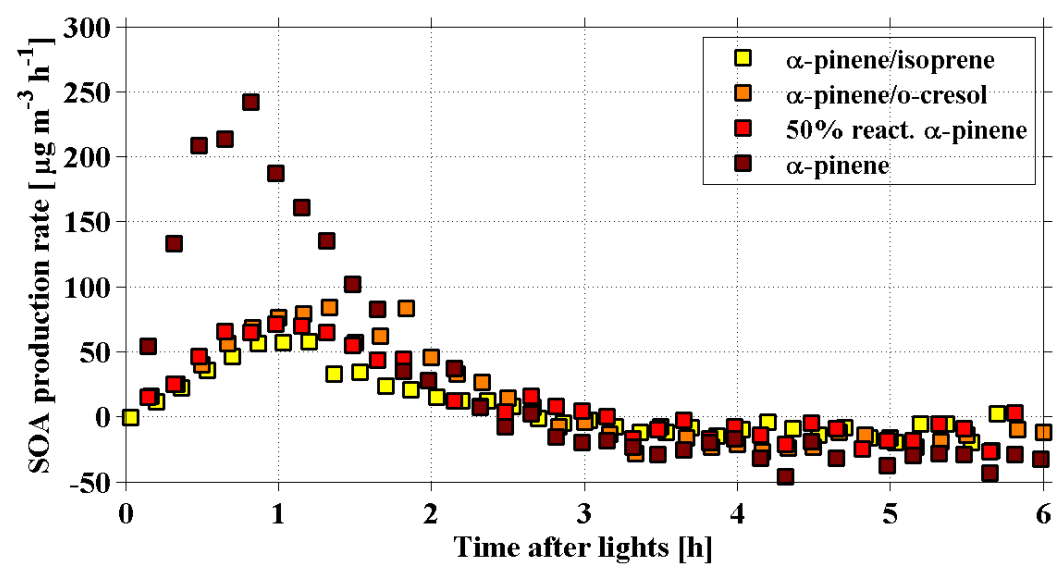
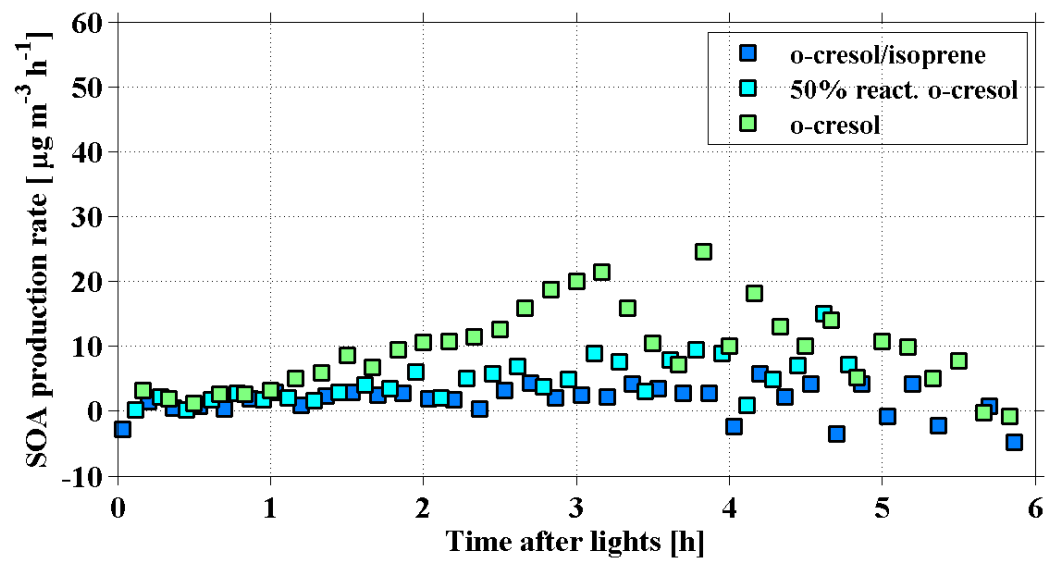


Figure S2. Time series of SOA production rate in various VOC systems photochemistry on ammonium sulphate seed.

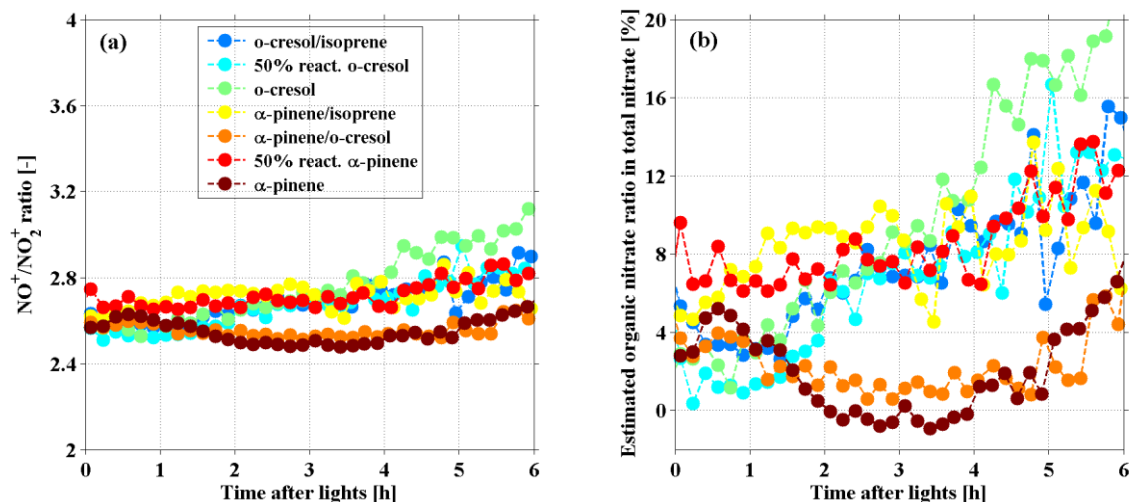


Figure S3. Time series of (a) $\text{NO}^+/\text{NO}_2^+$ ratio and (b) estimated organic nitrate fraction in the total nitrate signal in various VOC systems photochemistry on ammonium sulphate seed. Here, the organic nitrate fraction in the total nitrate signal was estimated based on $\text{NO}^+/\text{NO}_2^+$ ratio method (Bruns et al., 2010; Fry et al., 2009).

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References:

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- 35 Fry, J. L., Kiendler-Scharr, A., Rollins, A. W., Wooldridge, P. J., Brown, S. S., Fuchs, H., Dubé, W., Mensah, A., dal Maso, M., Tillmann, R., Dorn, H. P., Brauers, T., and Cohen, R. C.: Organic nitrate and secondary organic aerosol yield from NO_3 oxidation of β -pinene evaluated using a gas-phase kinetics/aerosol partitioning model, *Atmos. Chem. Phys.*, 9, 1431-1449, 10.5194/acp-9-1431-2009, 2009.