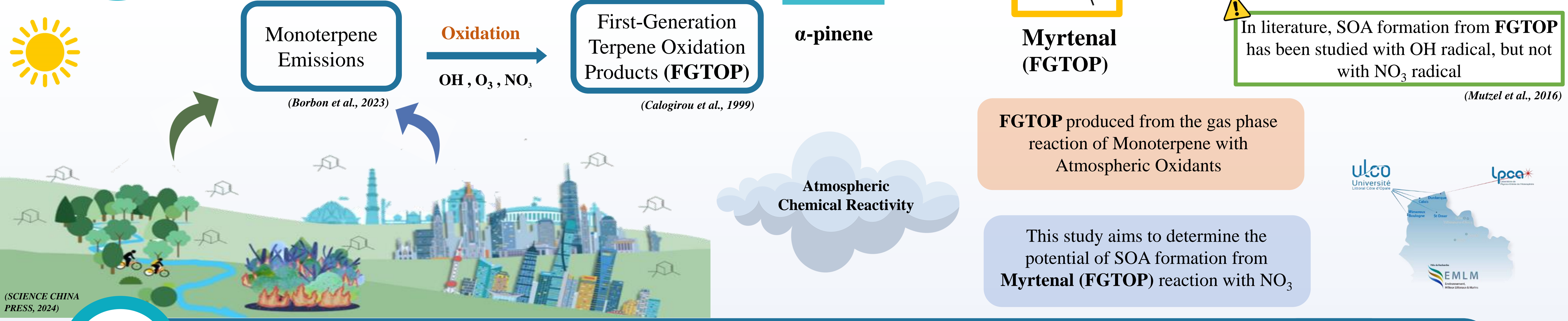
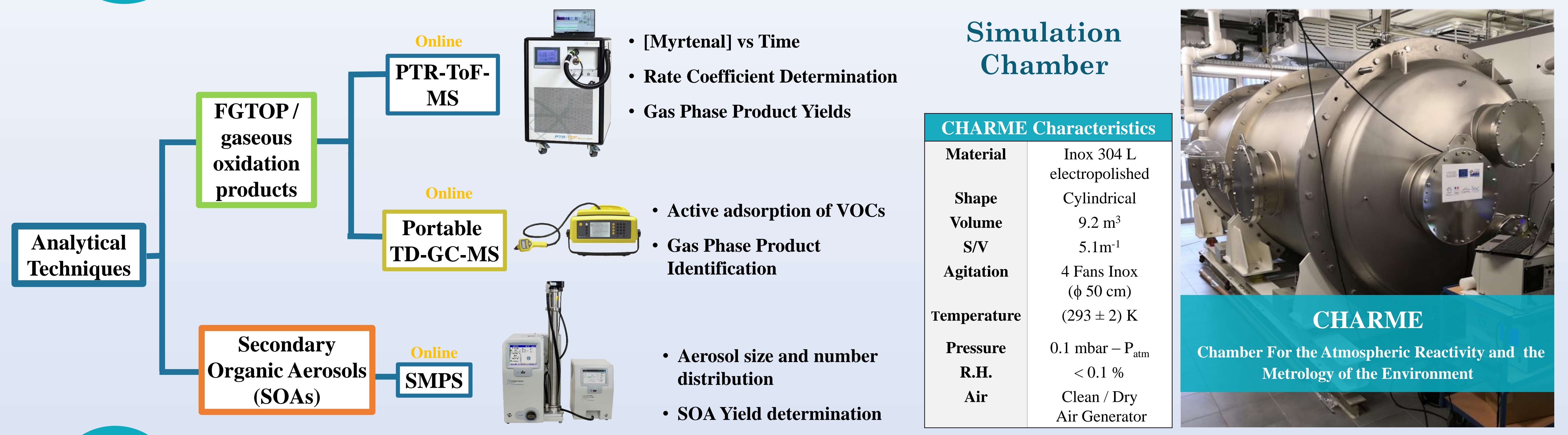


Sandy SOLAIMAN^{1,2}, Cécile COEUR¹, Nicolas HOUZEL¹, Eric Fertein¹, Reem Al Mawla¹, Fatima Al Ali^{1,2}, Manolis N.ROMANIAS²
¹Laboratoire de Physico-Chimie de l'Atmosphère (LPCA) Université du Littoral Côte d'Opale-189a Av. Maurice Schumann, Dunkerque, France
²IMT Nord Europe, Institut Mines-Télécom, Univ. Lille, Centre for Energy and Environment, F-59000 Lille, France
 sandy.solaiman@univ-littoral.fr

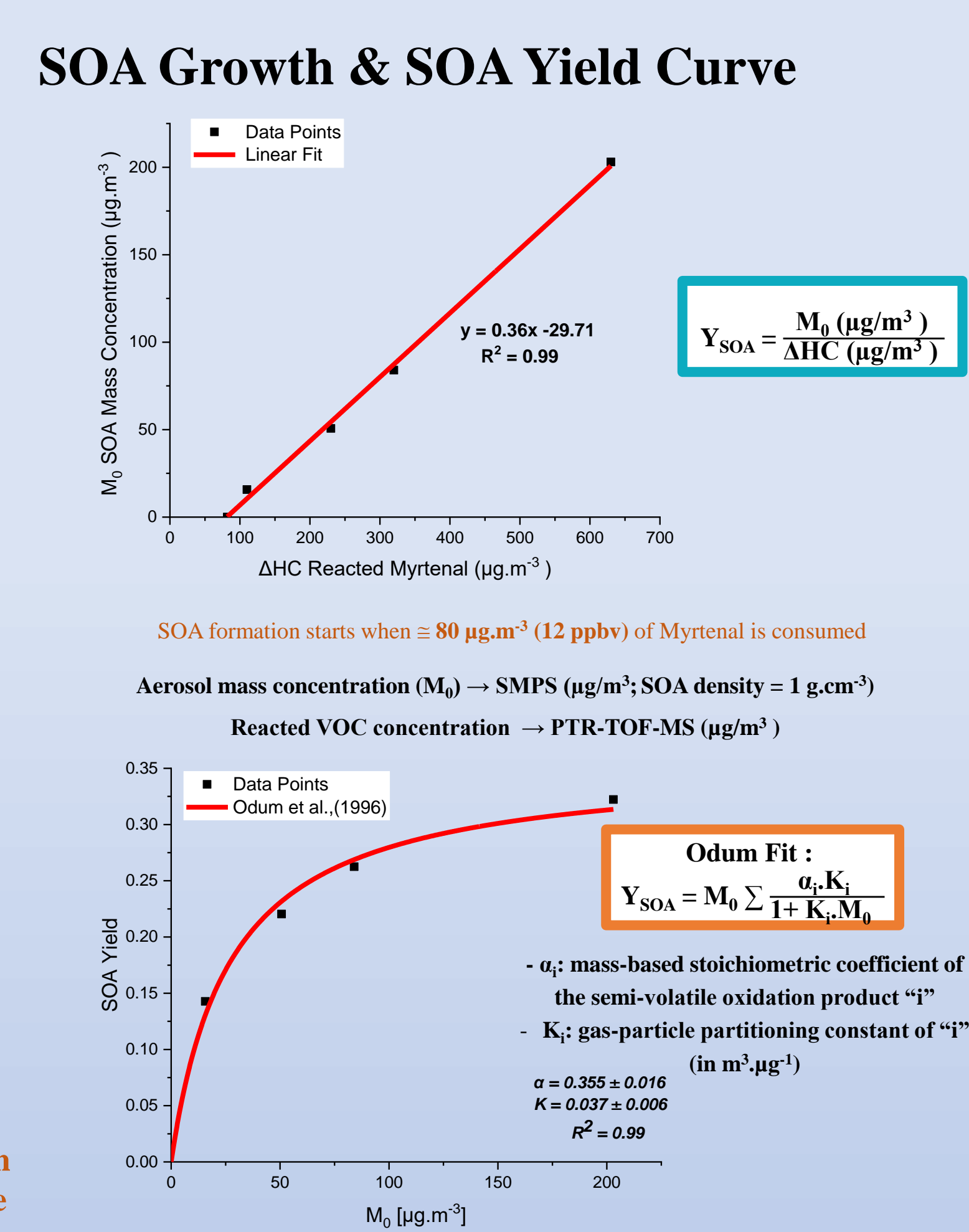
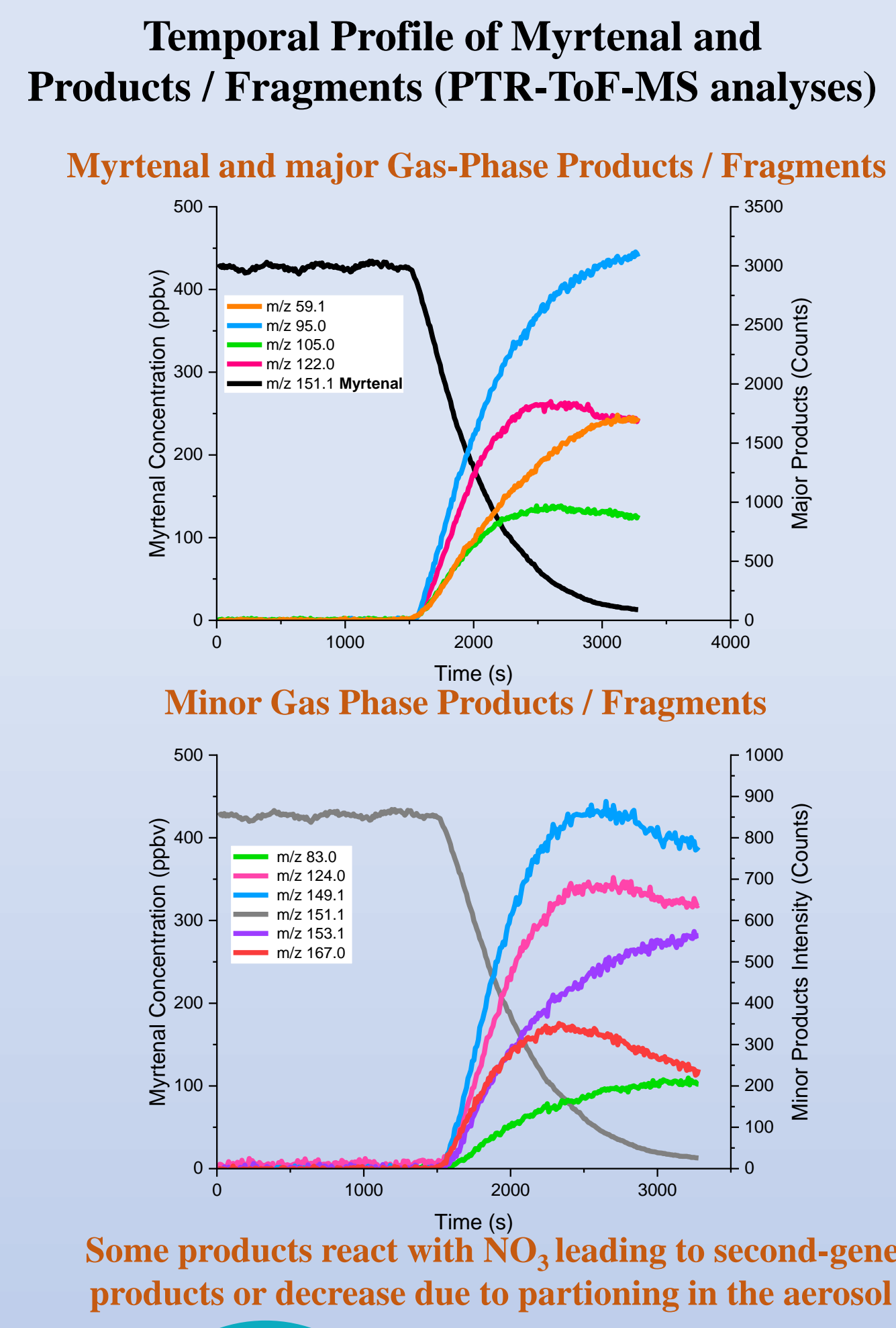
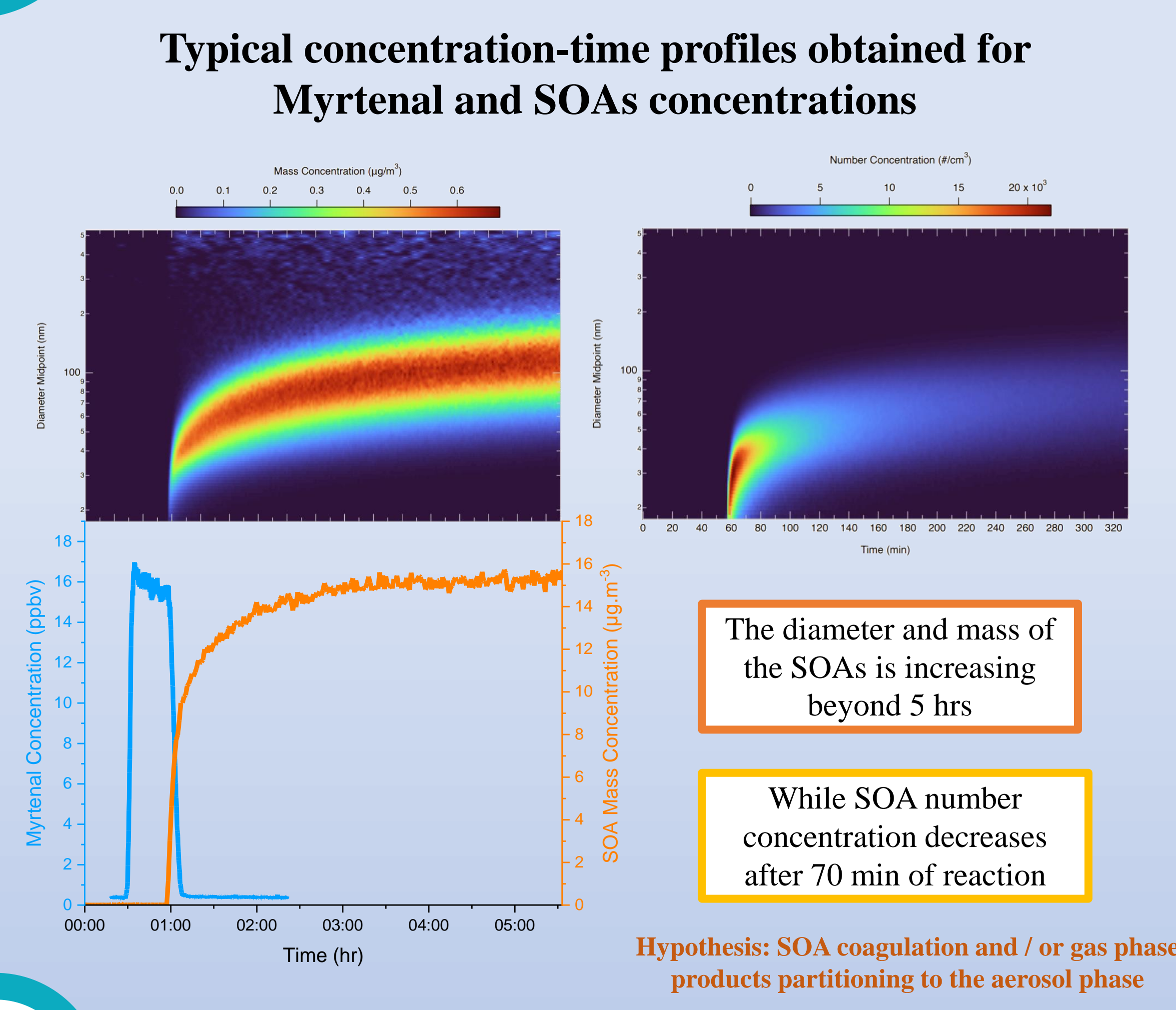
1 Introduction



2 Experimental Methods



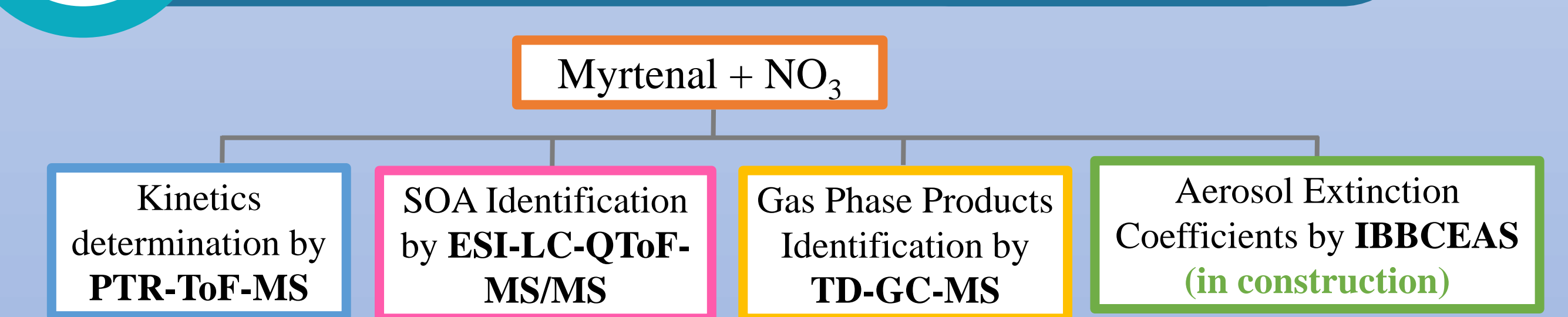
3 Results & Discussion



4 Conclusion

- ✓ SOA yields from Myrtenal + NO₃ increases with the initial VOC concentration
- ✓ SOA yields are in the range 14-32%
- ✓ SOA diameter and mass still increase beyond 5 hrs
- ✓ α_i and Y values are close → Low-volatility organic products formed from NO₃ reaction with Myrtenal are almost completely transferred to the particulate phase.

5 Future Work



6 References

- Borbon, A. et al. (2023) 'Ubiquity of Anthropogenic Terpenoids in Cities Worldwide: Emission Ratios, Emission Quantification and Implications for Urban Atmospheric Chemistry', *Journal of Geophysical Research: Atmospheres*, 128(7), p. e2022J037566. Available at: <https://doi.org/10.1029/2022J037566>.
- Calogirou, A. et al. (1999) 'Gas-Phase Reactions of Nopinone, 3-Isopropenyl-6-oxo-heptanal, and 5-Methyl-5-vinyltetrahydrofuran-2-ol with OH, NO₃, and Ozone', *Environmental Science & Technology*, 33(3), pp. 453-460. Available at: <https://doi.org/10.1021/es980530>.
- Mutzel, A. et al. (2016) 'Monoterpene SOA - Contribution of first-generation oxidation products to the formation and chemical composition', *Atmospheric Environment*, 130, pp. 136-144. Available at: <https://doi.org/10.1016/j.atmosenv.2015.10.080>.
- Odum, J.R. et al. (1996) 'Gas Particle Partitioning and Secondary Organic Aerosol Yields', *Environmental Science & Technology*, 30(8), pp. 2580-2585. Available at: <https://doi.org/10.1021/es950943z>.
- SCIENCE CHINA PRESS (2024) 'The conceptual diagram of anthropogenic monoterpenes causing air pollution in urban regions and the chemical difference in forest regions', *EurekAlert!* Available at: <https://www.eurekalert.org/multimedia/942773> (Accessed: 27 February 2024).

