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Inflammatory responses to secondary organic aerosols (SOA) generated from biogenic and anthropogenic precursors

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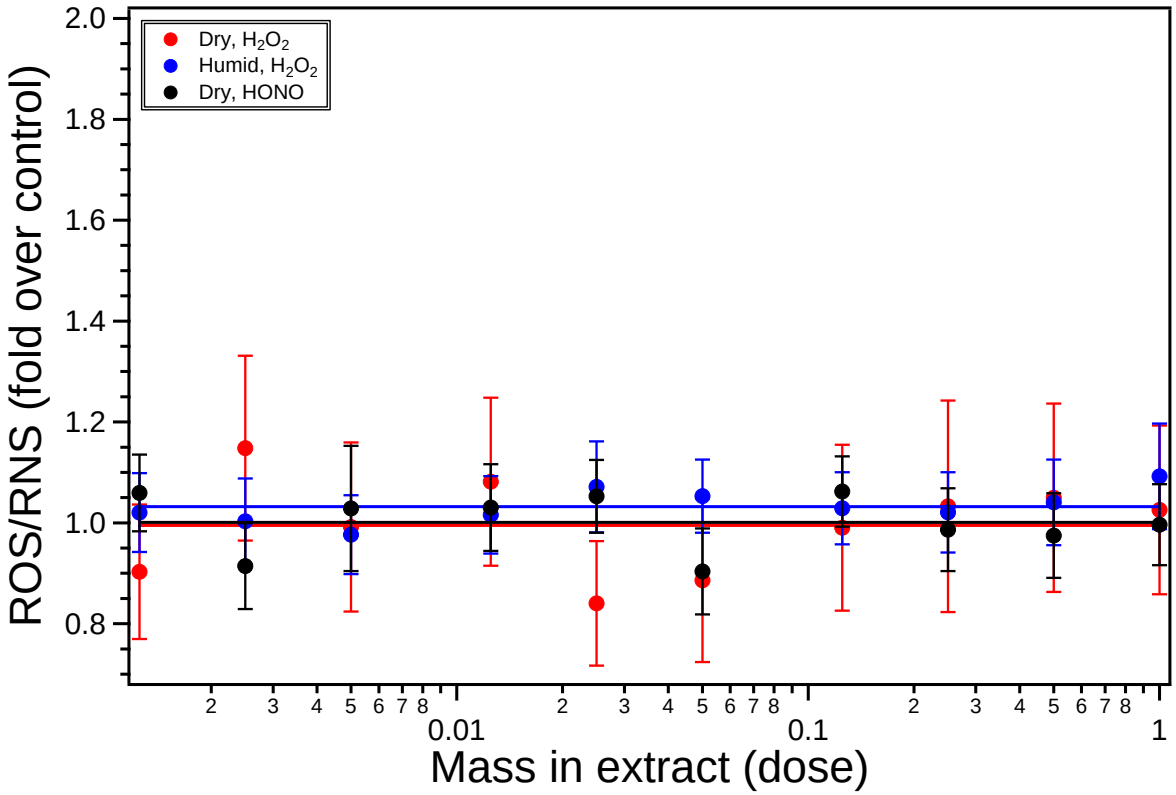


Figure S1. ROS/RNS produced as a result of exposure to background filters (OH precursor and seed only). ROS/RNS is expressed as a fold increase over probe-treated control cells incubated with stimulant-free media. Data shown are means ± standard error of triplicate exposure experiments.

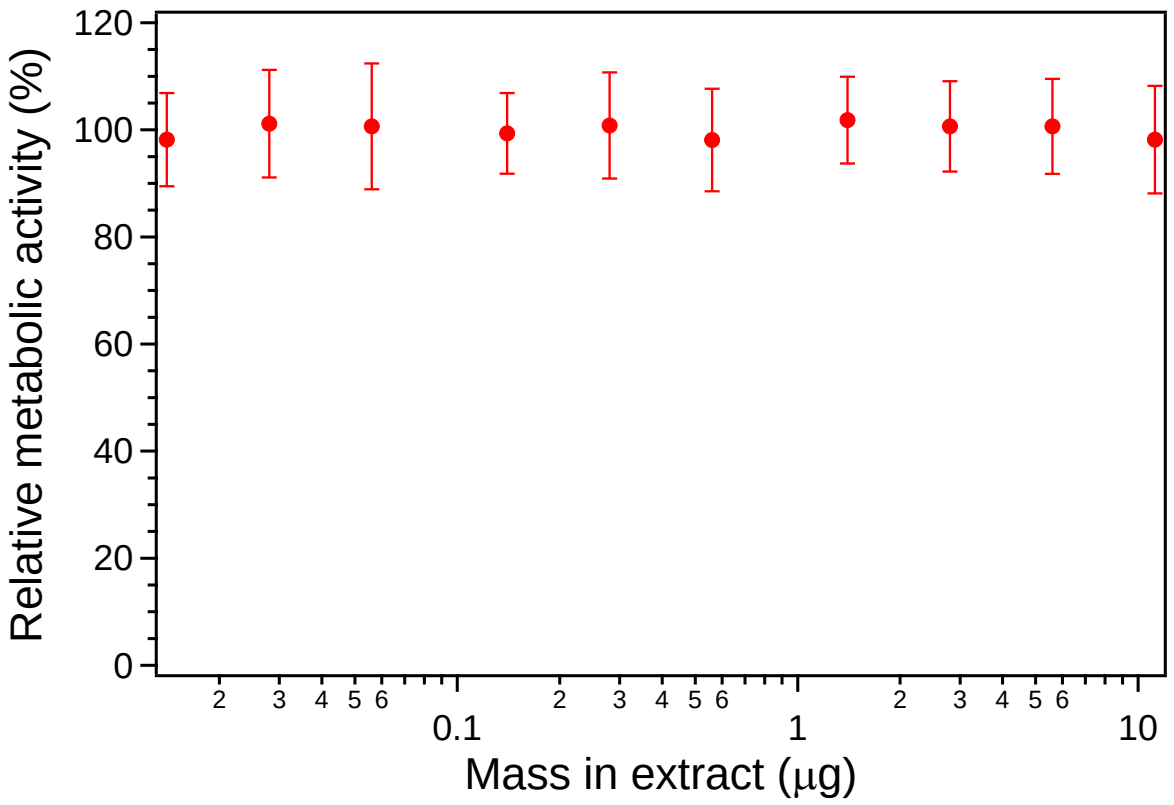


Figure S2. Post filter exposure cellular metabolic activity as measured by the MTT asssay (filter: naphthalane SOA formed under dry, RO_2 + NO dominant conditions). Cellular metabolic activity is normalized to cells exposed to stimulant-free media. Data shown are means ± standard error of triplicate exposure experiments. All filter exposures produced similar results.

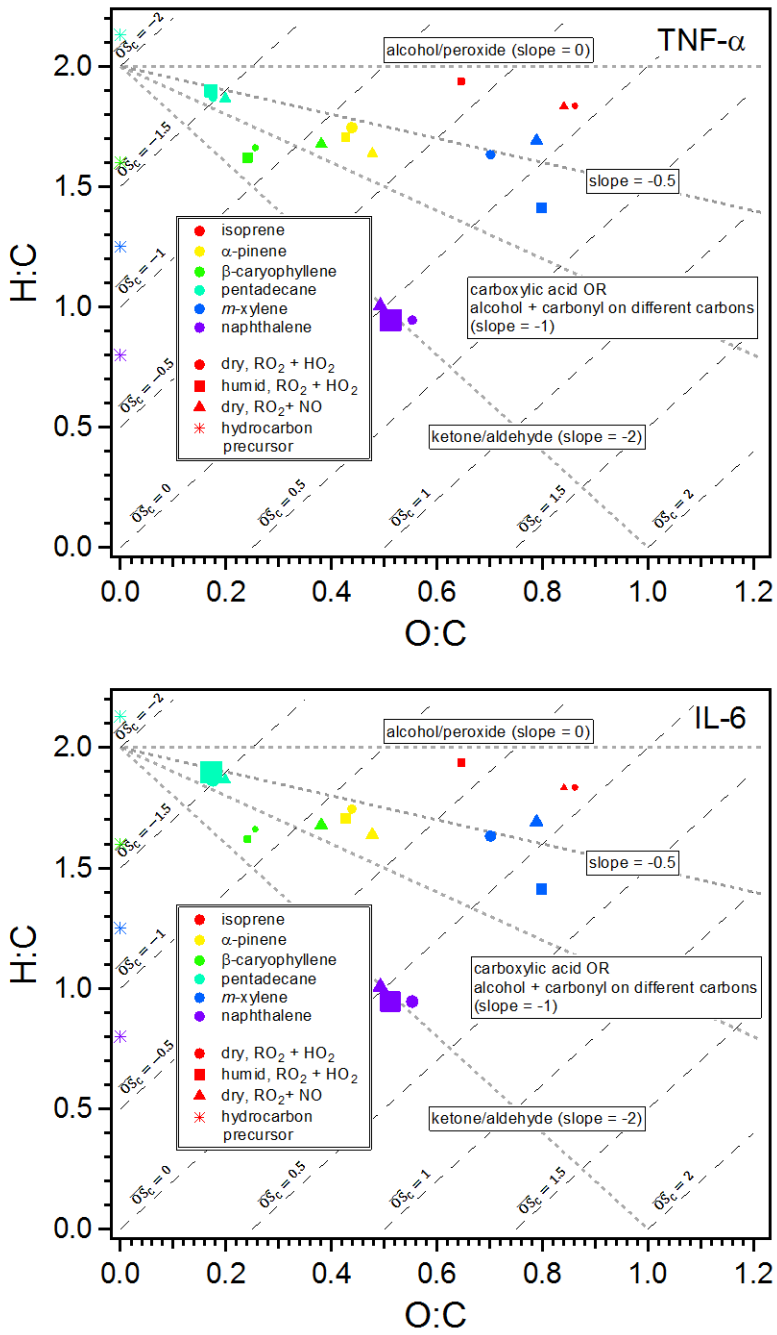


Figure S3. van Krevelen plot for various SOA systems. Data points are colored by SOA system (red: isoprene, yellow: α-pinene, green: β-caryophyllene, light blue: pentadecane, blue: *m*-xylene, and purple: naphthalene), shaped according to formation conditions (circle: dry, RO_2 + HO_2; square: humid, RO_2 + HO_2; and triangle: dry, RO_2 + NO), and sized by TNF-α and IL-6 levels. SOA precursors are shown as stars, colored by SOA system.

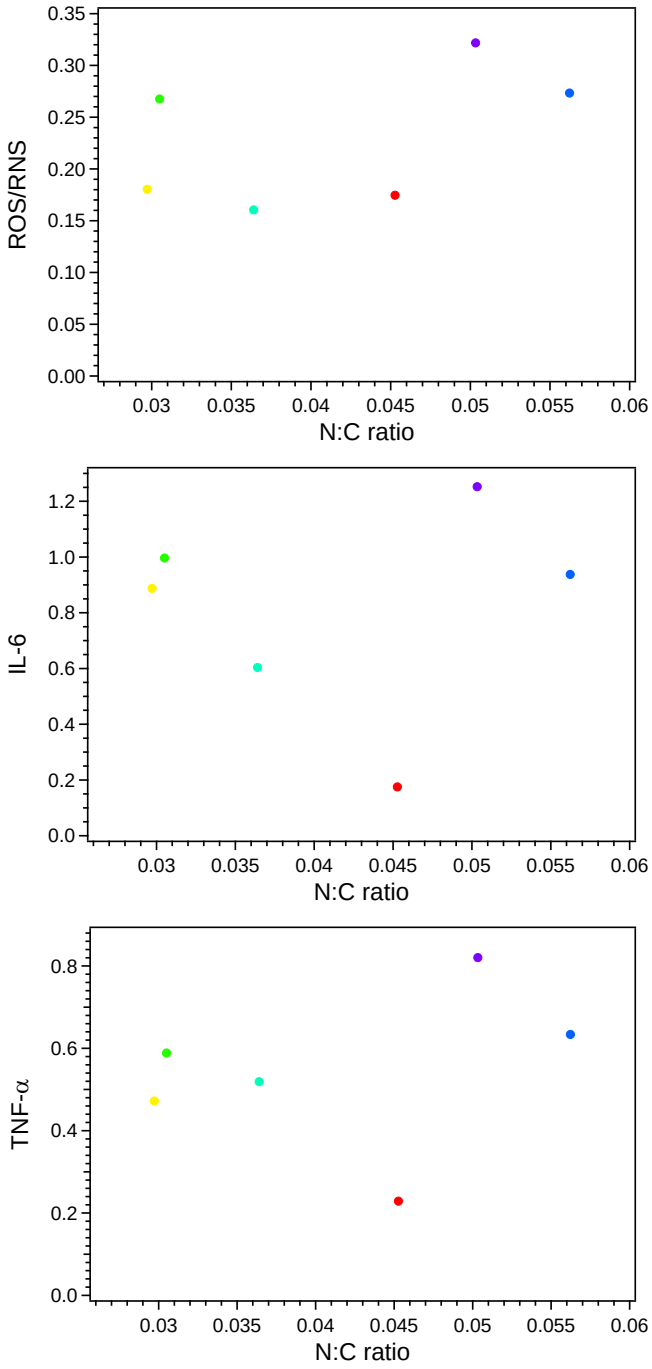
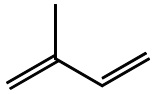
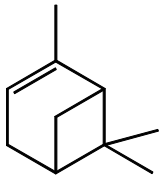
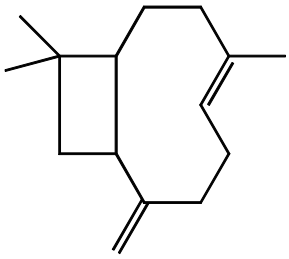
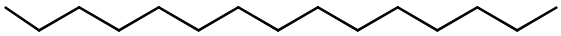
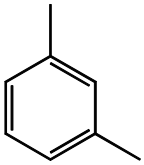


Figure S4. ROS/RNS, TNF-α, and IL-6 (represented as AUC per µg) for various SOA systems spanning a wide range of N:C ratios. Data points are colored by SOA system (red: isoprene, yellow: α-pinene, green: β-caryophyllene, light blue: pentadecane, blue: *m*-xylene, and purple: naphthalene).

Table S1. SOA precursor structures.

Compound	Structure
Isoprene	
α-pinene	
β-caryophyllene	
Pentadecane	
m-xylene	
Naphthalene