Supplementary Information for:

Optical Properties of Secondary Organic Aerosols Generated by Photooxidation of Aromatic Hydrocarbons

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Experimental apparatus

The schematic diagram of the experimental apparatus is shown in Fig. S1. This experimental system was used to simulate the formation of secondary particles, and to monitor optical properties of them.

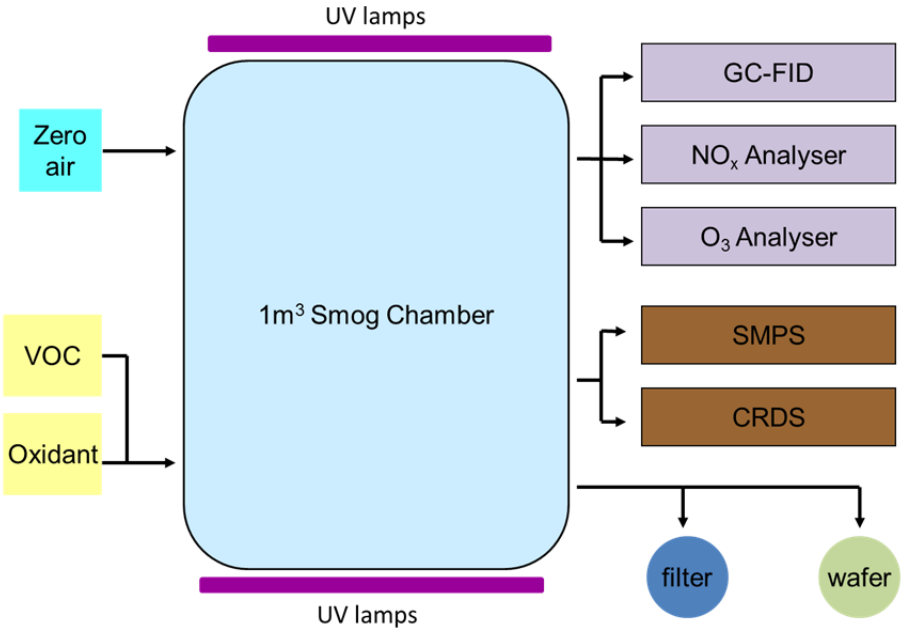

Figure S1 | Schematic diagram of the experimental apparatus

UV-Vis spectrum

The UV-Vis spectroscopy of the SOA formed by a typical aromatic hydrocarbon

(*m*-xylene) is shown in Fig. S2. Other SOA (generated by photooxidation of benzene, toluene and ethylbenzene) show the similar absorption spectra.

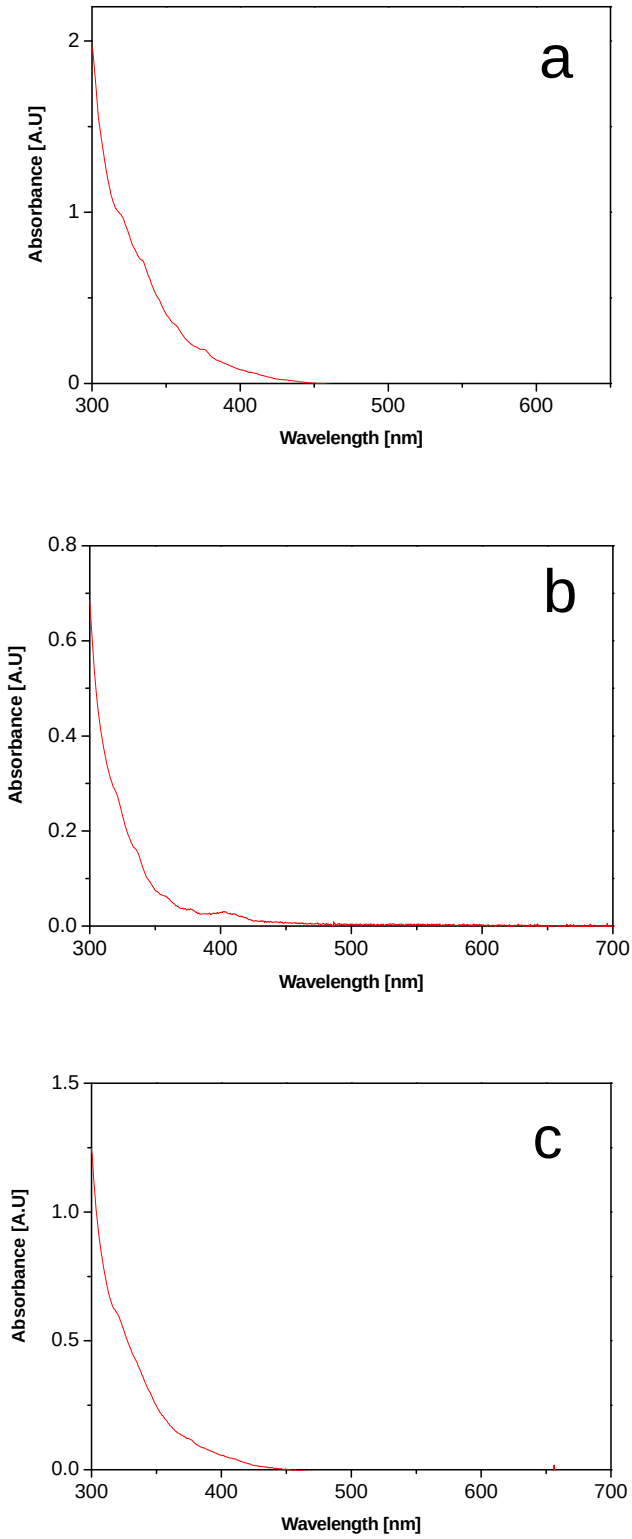

Figure S2 | UV-Vis absorption spectrum of *m*-xylene SOA: a) under low-NOx condition; b) under classical high-NOx condition; c) under HONO condition