Supplement of Atmos. Chem. Phys., 19, 9887–9902, 2019
https://doi.org/10.5194/acp-19-9887-2019-supplement
© Author(s) 2019. This work is distributed under
the Creative Commons Attribution 4.0 License.

Atmospheric Chemistry and Physics
Open Access
EGU

Supplement of

Photochemical aging of atmospherically reactive organic compounds involving brown carbon at the air–aqueous interface

Siyang Li et al.

Correspondence to: Lin Du (lindu@sdu.edu.cn)

The copyright of individual parts of the supplement might differ from the CC BY 4.0 License.

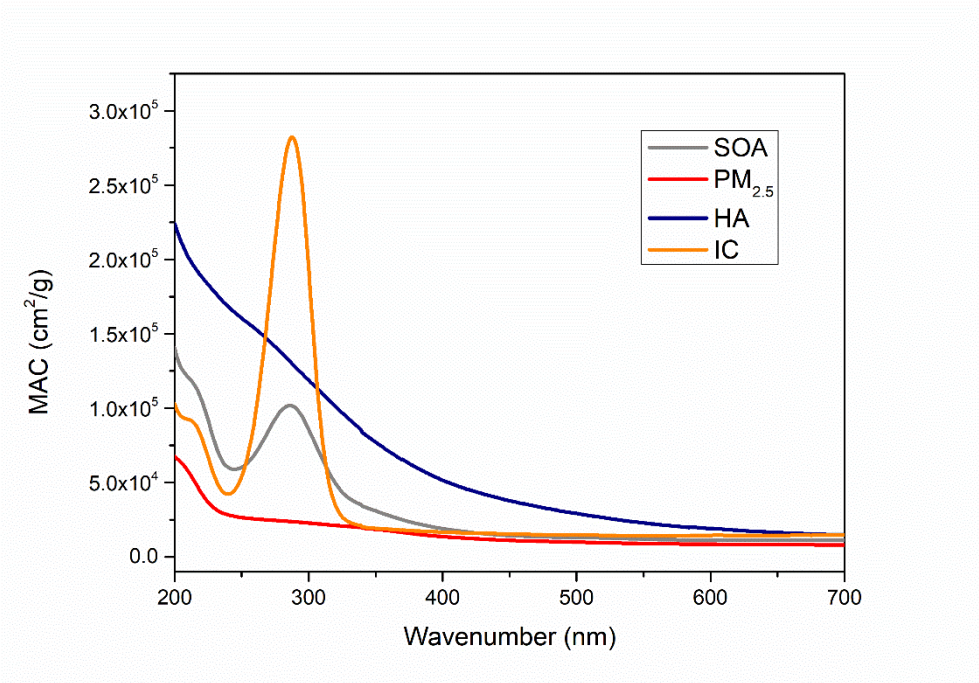

Figure S1: Mass absorption coefficients (MAC) as a function of wavelength for IC, HA, $PM_{2.5}$ and SOA samples.

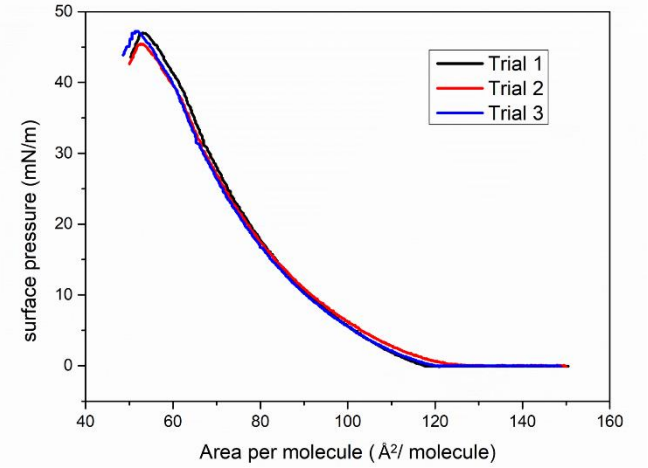

Figure S2: Reproducibility of surface pressure-area isotherms of DOPC monolayers on the pure artificial seawater. Standard deviations of area per molecule and surface pressures are ±1 $Å^2$/molecule and ±2 mN/m, respectively, for all the π-A isotherms measured in this study.

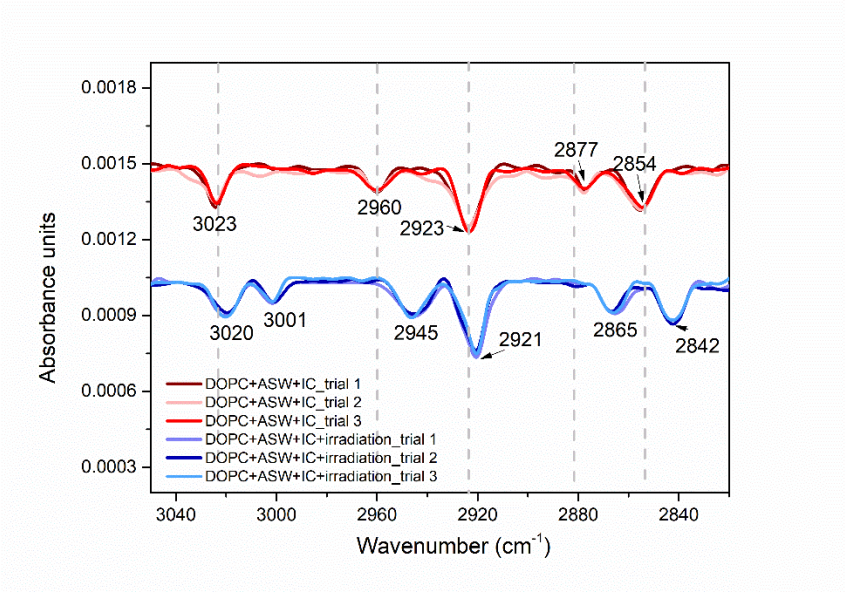

Figure S3: Reproducibility of IRRAS spectra of irradiated and non-irradiated DOPC monolayers on the artificial seawater containing IC. The variability in the IRRAS peaks over the three trials was < 2 cm^{-1}.

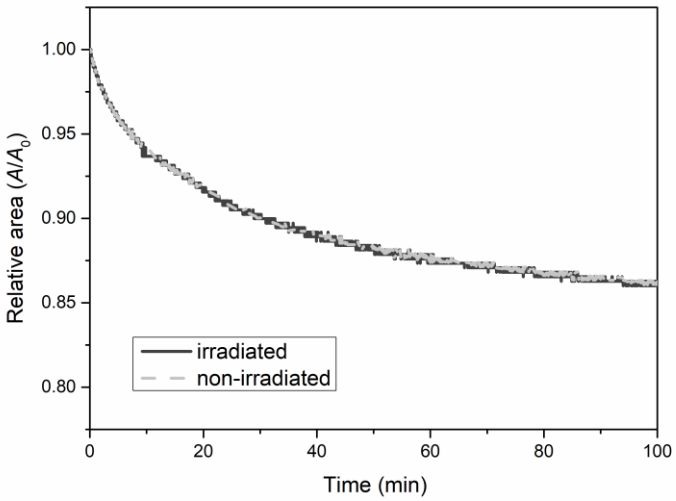

Figure S4: Relative area (A/A_0) relaxation curve of irradiated and non-irradiated DSPC monolayers on artificial seawater. A_0 is the molecular area of monolayer at 25 mN/m.

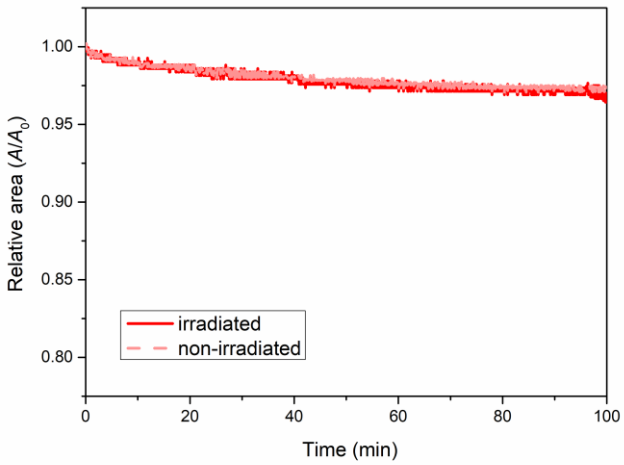

Figure S5: Relative area (A/A_0) relaxation curve of irradiated and non-irradiated DSPC monolayers on artificial seawater containing IC. A_0 is the molecular area of monolayer at 25 mN/m.

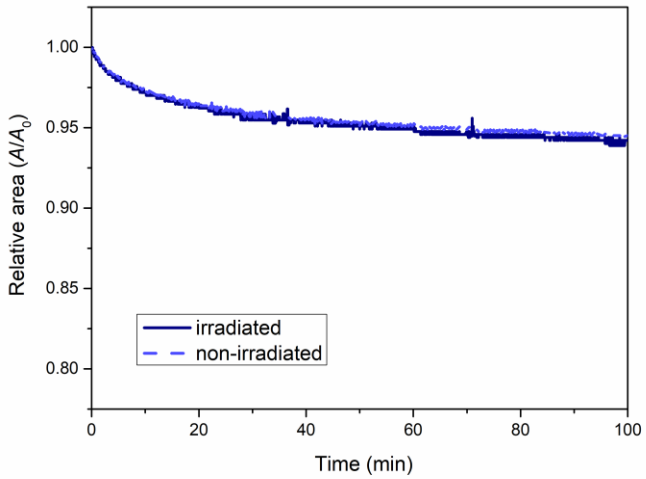

Figure S6: Relative area (A/A_0) relaxation curve of irradiated and non-irradiated DOPC monolayers on artificial seawater containing HA. A_0 is the molecular area of monolayer at 25 mN/m.

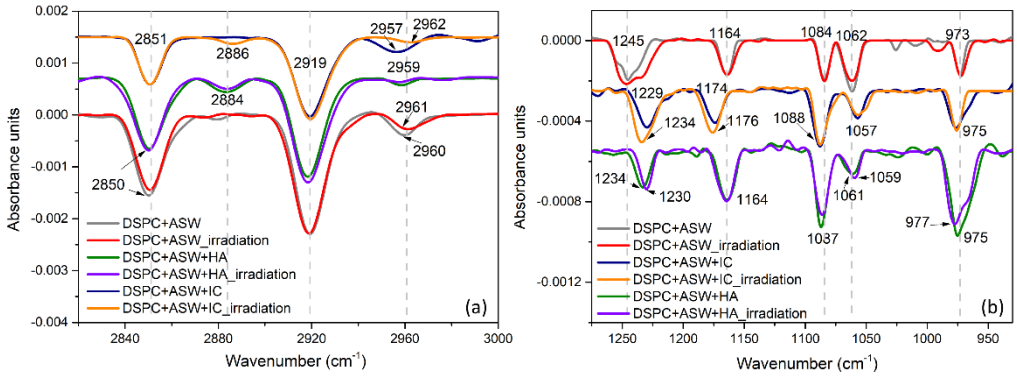

Figure S7: PM-IRRAS spectra of DSPC monolayers in the range of (a) 2820-3000 cm^{-1} and (b) 930-1275 cm^{-1} on the subphases of artificial seawater containing IC or HA with and without exposure to irradiation. IRRAS spectra were recorded at 25 mN/m.

Table S1: Initial conditions used for chamber experiment.

Initial limonene (ppb)	Initial NO (ppb)	Initial NO_x (ppb)	RH (%)	T (K)	H_2O_2 (ppb)
684	164	206	20	298	4324