

Supplementary Information

Photochemical production of hydrogen peroxide from the natural algicide: decomposition organic matters from straw

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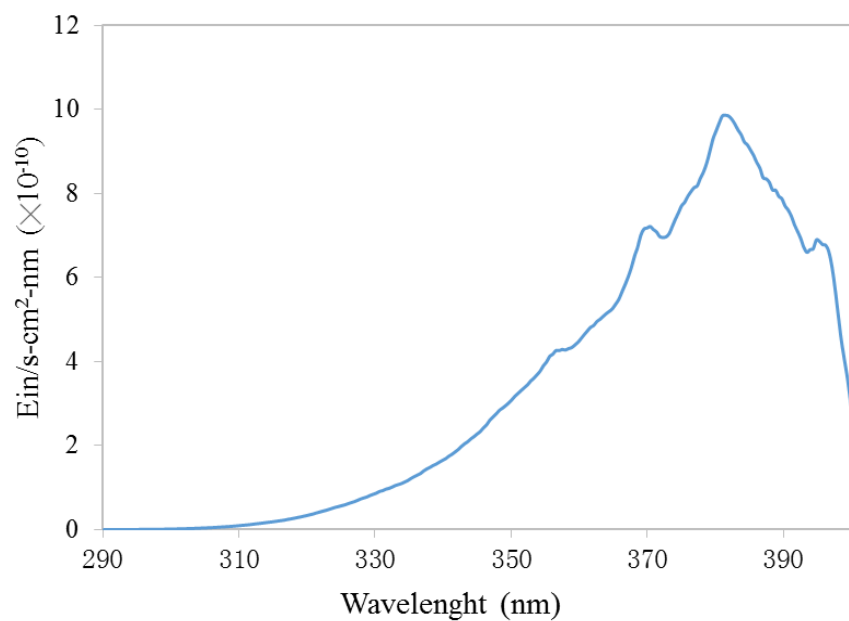


Figure S1. Photon irradiance as a function of wavelength for xenon lamp with light filter (>400nm cutoff) measured by Maya 2000pro spectrometer (Ocean Optic).

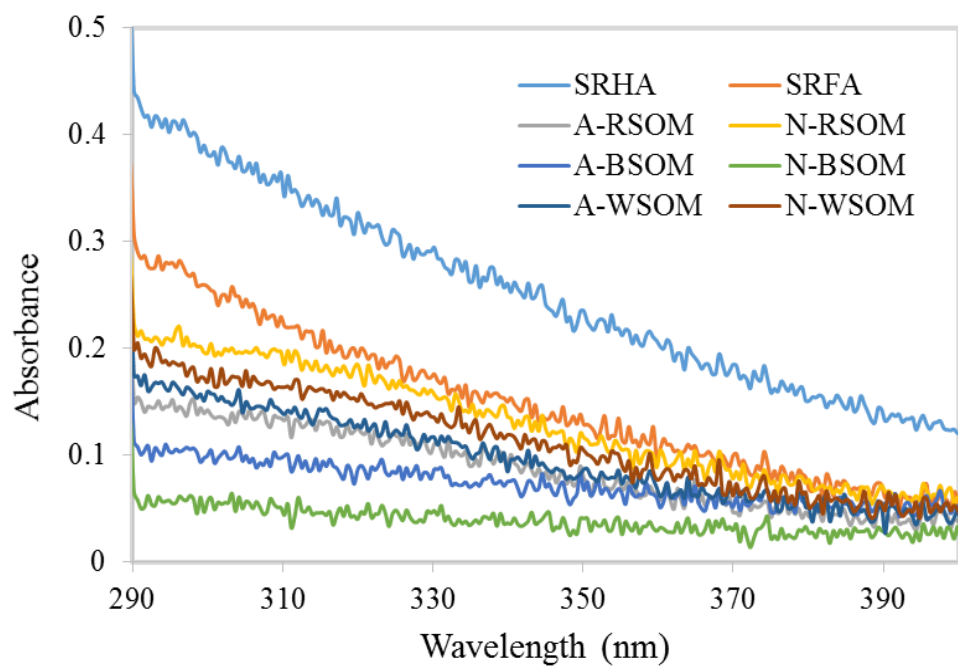


Figure S2. UV-vis absorbance spectrums (240-400 nm) of NOM isolates (SRHA, SRFA) and straw decomposition organic matter (A-RSOM, N-RSOM, A-BSOM, N-BSOM, A-WSOM, N-WSOM) solutions in 1cm quartz cell.

Table S1. The results of Boehm titration (mmol/g)

Samples	basic	phenolic	lactonic	carboxylic	pH
SRHA	-	0.30	0.19	0.29	6.85
SRFA	-	0.51	0.21	0.41	6.88
A-RSOM	-	0.39	0.25	0.25	6.87
N-RSOM	-	0.29	0.17	0.22	6.90
A-BSOM	1.00	0.91	0.19	0.44	7.03
N-BSOM	1.10	0.60	0.11	0.38	7.11
A-WSOM	0.09	0.42	0.18	0.21	7.10
N-WSOM	0.09	0.30	0.15	0.19	7.09

"-": not calculated because values were below detection limit.