NO₂ and natural organic matter affect both soot aggregation behavior and sorption of S-metolachlor

Supporting Information

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Figure S1: Kinetics of sorption of S-metolachlor to pristine soot (black symbols) and NO$_2$ transformed soot (blue symbols) showed that sorption equilibrium was reached after 16 h.
Figure S2: Fourier transform infrared spectra of dried samples indicate the formation of C=O and/or COOH groups following NO$_2$ transformation, as indicated by the increase of the peak at the wavelengths of 1620 to 1670, which can be attributed to a conjugated C=O group and/or a COOH group.$^{1,2}$
**Figure S3:** Aggregation kinetics of pristine and transformed soot for 30 min after introduction into water and after 24h of shaking (grey area). The similarity from 80 sec. to 2000 sec. indicates that most aggregation occurred during the first 80 sec. of the measurement which could not be measured due to the sample preparation protocol.
Table S1: ppLFER calculation according to Lu et al. (2016) for aqueous S-metolachlor concentration of 10 mg/L.

\[
\log K_{C_{soot}} = (3.74 \pm 0.11)V + ((-0.35 \pm 0.02)\log ai)E + (-0.62 \pm 0.10)A + (-3.35 \pm 0.11)B + (-1.45 \pm 0.09)
\]

\[
\log K_D = (10^{\log K_{C_{soot}} \cdot f_{soot}})
\]

Reference:

