Supplementary information

Significant Seasonal Change in Optical Properties by atmospheric humic-like substances (HULIS) in Water-Soluble Organic Carbon Aerosols

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Table 1: Spectral characteristics of the fluorescence components identified by PARAFAC model for the aerosol samples.

<table>
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<tr>
<th>Component</th>
<th>Ex/Em wavelengths [nm]</th>
<th>Peak</th>
<th>Description and origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>305/416</td>
<td>M</td>
<td>Terrestrial humic-like component (Stedmon and Markager, 2005); HULIS (Pöhler et al., 2012)</td>
</tr>
<tr>
<td>C2</td>
<td>290/340</td>
<td>T</td>
<td>Protein-like (tryptophan-like) component derived from autochthonous processes (Stedmon and Markager, 2005; Pöhler et al., 2012)</td>
</tr>
<tr>
<td>C3</td>
<td>365/484</td>
<td>C</td>
<td>Terrestrial humic-like component (Stedmon and Markager, 2005)</td>
</tr>
</tbody>
</table>