

**Supplementary Table 1.** Elemental composition and PAH content in soot microparticles used in experiment.

<b>Method of analysis</b>	<b>Soot microparticle components</b>	<b>Content (%)</b>
<b>Trace element energy-dispersive analysis (EDAX) data (elemental composition)</b>	carbon (C)	67
	oxygen (O)	14
	calcium (Ca)	4
	potassium (K)	3.8
	chlorine (Cl)	2.6
	sulfur (S)	2.3
	silica (Si)	1.9
	aluminum (Al)	1.63
	magnesium (Mg)	1.5
	manganese (Mn)	0.4
<b>Gas chromatography–tandem mass spectrometry data (PAHs)</b>	sodium (Na)	0.3
	phenanthrene	11
	fluoranthene	12
	pyrene	10
	benzo[ <i>a</i> ]anthracene	9
	chrysene	10
	benzofluoranthenes	9
	benzopyrenes	13
	indeno[ <i>1,2,3-c,d</i> ]pyrene	10
	benzo[ <i>ghi</i> ]perylene	7