Table S.1. Emission factors normalized to the amount of burnt wood and chimney temperature per experiment.

Experiment	POA ($\mu g/m^3$)	POA (g/kg wood)	SOA (g/kg wood)	BC (g/kg wood)	T[a] (°C)
Old log wood burner					
1 flaming + smoldering	3.8	0.054	0.034	0.25	n/a
2 flaming	4.4	0.066	0.18	0.43	n/a
3 flaming	28	0.45	1.8	2.1	355
4 starting	27	0.46	2.7	1.5	115
5 starting	6.5	0.27	1.3	1.5	206
6 smoldering	17	1.4	n/a	n/a	207
7 flaming	7.6	0.22	0.61	n/a	185
Pellet burner					
8 stable burning	4.2	0.027	-	0.014	209
9 starting	3.6	0.23	0.41	0.11	26
10 starting	3.5	0.27	0.73	0.077	5
Modern log wood burner					
11 flaming	1.4	0.019	0.048	0.18	238
12 flaming	4.9	0.040	0.18	0.29	228
13 flaming	6.1	0.058	0.095	0.38	261
14 gas-phase only[b]	-	-	0.98	-	143
15 starting	31	0.86	2.7	0.53	38
16 starting	3.9	0.59	1.4	0.53	40
17 starting	20	0.56	0.72	0.64	45
18 gas-phase only[b]	-	-	0.14	-	155
19 gas-phase only[b]	-	-	0.21	-	48
20 flaming	2.0	0.027	0.028	0.36	234

[a] Temperature at the beginning of the injection.
[b] Gas-phase only experiments were performed on a mixture of string and flaming phase emissions.