Supporting Information

Indoor versus Outdoor Air Quality During Wildfires

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1. Monitoring Site Descriptions

Site descriptions for each volunteer location are provided below. To protect volunteer identity, descriptions do not include any unique identifiers.

Site A: Mixed residential and business downtown neighborhood; Single-family home converted to small business; Outside sampler in backyard; Inside sampler in main living area.

Site B: Residential neighborhood; 2nd floor of Multi-family apartment homes; Outside sampler in outside patio; Inside sampler in bedroom.

Site C: Residential neighborhood; Loft-style garage-house; Outside sampler in backyard; Inside sampler in main living area that is separate, but open to bedroom and kitchen area.

Site D: Residential neighborhood; Single-family home; Outside sampler in backyard; Inside sampler in bedroom.

Site E: Residential neighborhood; Single-family home; Outside sampler in backyard; Inside sampler in bedroom.

Site F: Downtown neighborhood; Small business; Outside sampler on porch set back from main street; Inside sampler in main room of business.

Tables

Table S1. The Log-K_{oa}, toxicity equivalency factor (TEF), limit of detection (LOD) for indoor (nmol-m^{-3}), limit of detection for outdoor, and molecular weight (MW) (g-mol^{-1}) for all 63 PAHs.

Analyte	LogKoa	TEF	LOD_{indoor}	$LOD_{outdoor}$	MW
naphthalene	5.05	0.001	1.21E-02	7.85E-03	128.2
2-methylnaphthalene	5.53	0.001	1.69E-03	1.06E-03	142.2
1-methylnaphthalene	5.55	0.001	6.61E-04	4.12E-04	142.2
2,6-dimethylnaphthalene	5.89	0.001	7.12E-04	4.80E-04	156.2
1,2-dimethylnaphthalene	5.89	0.001	7.52E-04	5.07E-04	156.2
2-ethylnaphthalene	6.04	0.001	7.62E-04	5.10E-04	156.1
acenaphthene	6.04	0.001	1.09E-03	7.54E-04	154.2
1,4-dimethylnaphthalene	6.17	0.001	8.51E-04	5.81E-04	156.2
1,8-dimethylnaphthalene	6.22	0.001	7.34E-04	4.73E-04	156.2
1,5-dimethylnaphthalene	6.22	0.001	7.96E-04	5.45E-04	156.2
acenaphthylene	6.27	0.001	8.26E-04	6.37E-04	152.2
2,6-diethylnaphthalene	6.59	0.001	1.86E-04	1.45E-04	184.3
fluorene	6.59	0.001	5.51E-04	2.77E-04	166.2
anthracene	7.09	0.01	1.88E-04	1.67E-04	178.2
phenanthrene	7.22	0.001	1.71E-04	7.01E-05	178.2
dibenzothiophene	7.24	0.001	3.82E-05	3.09E-05	184.3
2-methylphenanthrene	7.50	0.001	5.26E-05	4.80E-05	192.3
2-methylanthracene	7.64	0.01	5.95E-05	4.87E-05	192.3
1-methylphenanthrene	7.78	0.001	1.27E-04	1.04E-04	192.3
9-methylanthracene	7.87	0.01	1.01E-04	8.28E-05	192.3

2,3-dimethylanthracene	8.03	0.01	3.41E-05	2.81E-05	206.3
3,6-dimethylphenanthrene	8.03	0.001	4.22E-05	3.47E-05	206.3
pyrene	8.19	0.001	4.24E-05	4.15E-05	202.3
9,10-dimethylanthracene	8.28	0.01	7.77E-05	6.41E-05	206.3
benzo[a]fluorene	8.36	0.001	1.41E-04	1.17E-04	216.2
benzo[c]fluorene	8.37	0.001	2.54E-05	2.10E-05	216.2
fluoranthene	8.60	0.001	1.01E-04	3.67E-04	202.3
retene	8.70	0.001	1.31E-04	7.79E-05	234.3
1-methylpyrene	8.91	0.001	2.64E-05	2.19E-05	216.3
benz[a]anthracene	9.07	0.1	4.66E-05	3.85E-05	228.3
chrysene	9.48	0.01	2.69E-05	2.22E-05	228.3
benzo[b]fluorene	9.57	0.001	9.20E-05	7.60E-05	216.2
7,12-dimethylbenz[a]anthracene	9.61	0.01	4.29E-05	3.55E-05	256.3
6-methylchrysene	9.72	0.01	4.14E-05	3.42E-05	242.3
5-methylchrysene	9.72	0.01	7.77E-05	6.43E-05	242.3
perylene	10.08	0.001	3.93E-05	3.25E-05	252.3
cyclopenta[cd]pyrene	10.15	0.001	2.26E-05	1.87E-05	226.3
benzo[b]fluoranthene	10.35	0.1	1.32E-05	1.09E-05	252.3
benzo[j]fluoranthene	10.59	0.1	1.83E-05	1.52E-05	252.3
triphenylene	10.69	0.001	1.44E-05	1.19E-05	228.3
benzo[k]fluoranthene	10.73	0.1	1.65E-05	1.37E-05	252.3
benzo[a]pyrene	10.86	1	3.51E-05	2.91E-05	252.3
benzo[e]pyrene	11.35	1	1.78E-05	1.47E-05	252.3

benzo[ghi]perylene	11.50	0.01	7.37E-06	6.10E-06	276.3
indeno[1,2,3-cd]pyrene	11.55	0.1	5.54E-06	4.58E-06	276.3
dibenzo[a,h]anthracene	11.78	1	1.99E-05	1.64E-05	278.3
benzo[a]chrysene	11.81	0.01	1.43E-05	1.18E-05	278.4
anthanthrene	12.31	0.001	5.36E-06	4.44E-06	276.3
dibenzo[a,h]pyrene	12.77	10	6.56E-06	5.43E-06	302.4
dibenzo[a,i]pyrene	12.77	10	1.79E-05	1.48E-05	302.4
naphtho[2,3-j]fluoranthene	12.77	0.001	2.11E-05	1.74E-05	302.4
benzo[b]perylene	12.77	0.01	2.11E-05	1.74E-05	302.4
naphtho[2,3-a]pyrene	12.77	0.001	2.11E-05	1.74E-05	302.4
naphtho[1,2-b]fluoranthene	12.77	0.001	2.11E-05	1.74E-05	302.4
dibenzo[e,l]pyrene	12.77	10	2.11E-05	1.74E-05	302.4
naphtho[2,3-k]fluoranthene	12.77	0.001	2.11E-05	1.74E-05	302.4
naphtho[2,3-e]pyrene	12.77	0.001	2.11E-05	1.74E-05	302.4
dibenzo[a,e]fluoranthene	12.77	0.1	5.93E-06	4.90E-06	302.4
dibenzo[a,l]pyrene	13.20	10	5.20E-06	4.30E-06	302.4
dibenzo[a,e]pyrene	13.20	1	6.98E-05	5.77E-05	302.4
coronene	13.70	0.001	6.39E-06	5.29E-06	300.4
1,6 and 1,3-Dimethylnaphthalene	NA	NA	NA	NA	156.2
benz[j]and[e]aceanthrylene	NA	NA	NA	NA	252.3

Figures

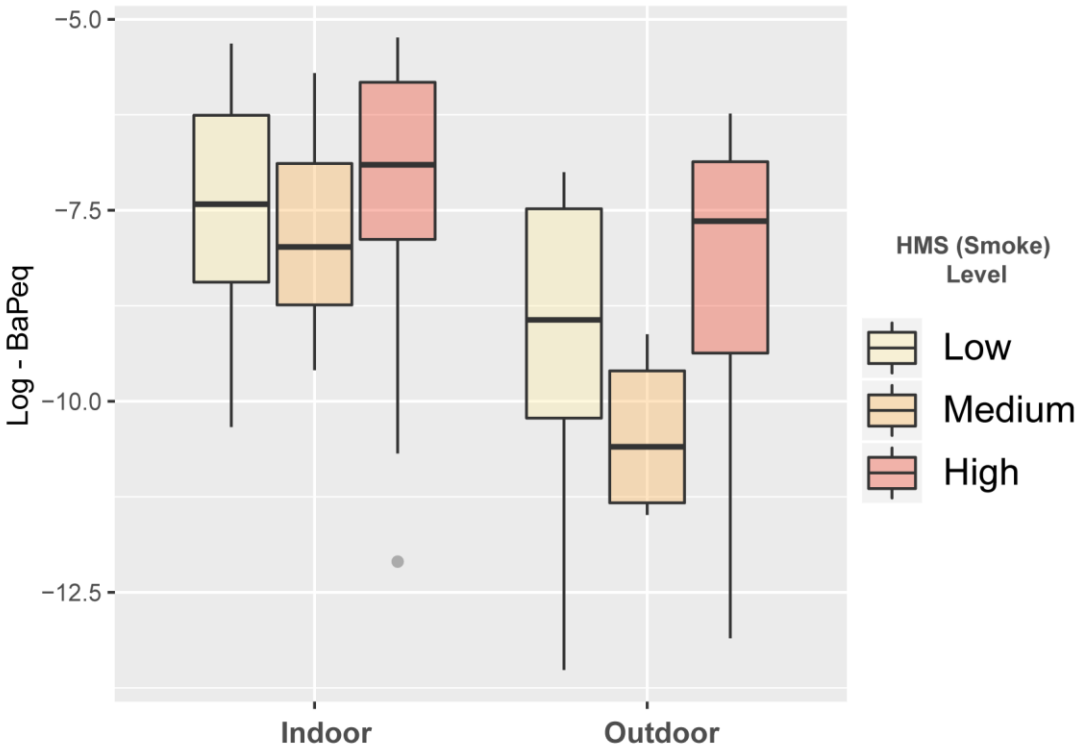

Figure S1. Boxplot of the log-transformed toxicity equivalency scaling factors (TEF) versus indoor/outdoor and by the 3 levels of wildfire smoke measure in the NOAA Hazard Mapping System (shaded colors).