

## Supplemental Materials for

### Fine particulate matter and gaseous compounds in kitchens and outdoor air of different dwellings

Célia Alves<sup>1\*</sup>, Ana Vicente<sup>1</sup>, Ana Rita Oliveira<sup>1</sup>, Carla Candeias<sup>2\*</sup>, Estela Vicente<sup>1</sup>, Teresa Nunes<sup>1</sup>, Mário Cerqueira<sup>1</sup>, Margarita Evtyugina<sup>1</sup>, Fernando Rocha<sup>2</sup>, Susana Marta Almeida<sup>3</sup>

<sup>1</sup>Centre for Environmental and Marine Studies (CESAM), Department of Environment, University of Aveiro, 3810-193 Aveiro, Portugal

<sup>2</sup>Geobiosciences, Geotechnologies and Geoengineering Research Centre (GeoBioTec), Department of Geosciences, University of Aveiro, 3810-193 Aveiro, Portugal

<sup>3</sup>Centre for Nuclear Sciences and Technologies (C2TN), Instituto Superior Técnico, Estrada Nacional 10, 2695-066 Bobadela, Portugal

\*Correspondence to: celia.alves@ua.pt, candeias@ua.pt

**Table S1.** Statistical comparison between carbonyl concentrations in the kitchens of the four dwellings for a confidence level of 95%. *P*-values of statistically significant differences are in bold.

	House 2	House 3	House 4	Carbonyl
House 1	0.3289	<b>0.0146</b>	0.1671	Formaldehyde
	<b>0.0224</b>	0.3162	0.0589	Acetaldehyde
House 2		<b>0.0083</b>	0.3619	Formaldehyde
		0.0762	0.1479	Acetaldehyde
House 3			0.3619	Formaldehyde
			0.2225	Acetaldehyde

**Table S2.** Statistical comparison between VOC concentrations in the kitchens of the four dwellings and in the outdoor air for a confidence level of 95%. *P*-values of statistically significant differences are in bold.

Compound	<i>P</i> -value
Benzene	0.1183
Toluene	<b>0.0236</b>
Tetrachloroethylene	0.6099
Ethylbenzene	<b>0.0397</b>
m+p-Xylene	<b>0.0273</b>
Styrene	<b>0.0005</b>
o-Xylene	<b>0.0500</b>
α-Pinene	<b>0.0001</b>

**Table S3.** Statistical comparison of VOC concentrations in the kitchens for a confidence level of 95%. *P*-values of statistically significant differences are in bold.

	House 2	House 3	House 4	Compound
House 1	0.7286	0.1769	<b>0.0155</b>	Benzene
	<b>0.0147</b>	<b>0.0449</b>	0.1512	Toluene
	0.1941	<b>0.0839</b>	0.0702	Tetrachloroethylene
	<b>0.0020</b>	0.8990	0.1175	Ethylbenzene
	<b>0.0102</b>	0.7417	0.1297	m+p-Xylene
	<b>0.0116</b>	<b>0.0384</b>	0.2776	Styrene
	<b>0.0112</b>	0.4352	0.1128	o-Xylene
	0.1890	0.3855	0.6478	α-Pinene
	-	-	-	1,4-Dichlorobenzene
House 2		0.5715	<b>0.0279</b>	Benzene
		<b>0.0330</b>	0.0684	Toluene
		0.2558	0.3035	Tetrachloroethylene
		<b>0.0230</b>	0.0831	Ethylbenzene
		<b>0.0085</b>	0.0869	m+p-Xylene
		0.0763	0.1058	Styrene
		<b>0.0141</b>	0.0835	o-Xylene
		0.1404	0.2218	α-Pinene
		0.0919	0.0954	1,4-Dichlorobenzene
House 3			<b>0.0149</b>	Benzene
			0.0906	Toluene
			0.3727	Tetrachloroethylene
			0.1192	Ethylbenzene
			0.1325	m+p-Xylene
			0.4491	Styrene
			0.1191	o-Xylene
			0.6946	α-Pinene
			0.6358	1,4-Dichlorobenzene

**Table S4.** Statistical comparison between the PM<sub>2.5</sub> concentrations in the kitchens of the four dwellings for a confidence level of 95%. *P*-values of statistically significant differences are in bold.

	House 2	House 3	House 4
House 1	<b>0.0003</b>	0.6870	0.2086
House 2		<b>0.0022</b>	<b>0.0262</b>
House 3			0.3344