

# Supplementary Materials: Chemical Composition of PM<sub>2.5</sub> and its Impact on Inhalation Health Risk Evaluation in a Central China

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**Table S1.** Exposure parameter values used in the risk assessment calculations.

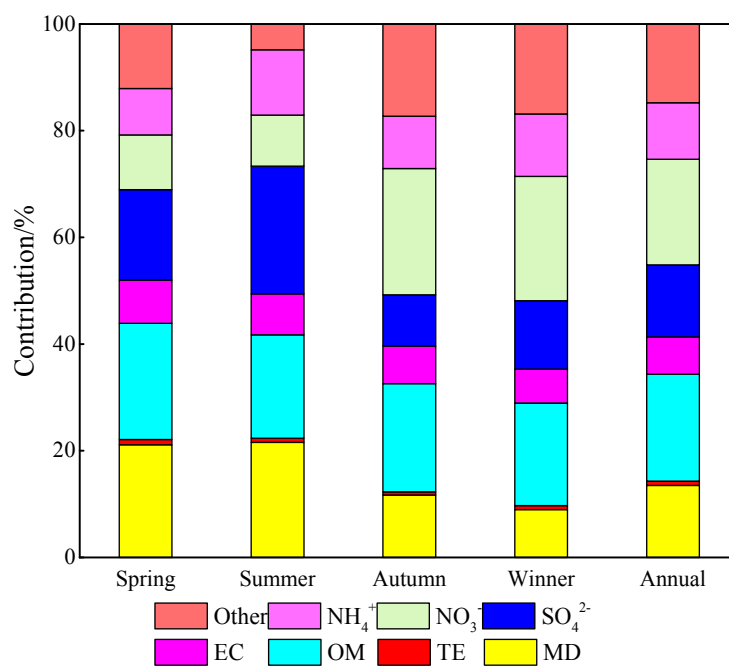
Variable	Value	References
InhR	7.6 m <sup>3</sup> /day for children	[37]
	16.2 m <sup>3</sup> /day for adult	[38]
BW	15 kg for children	[39]
	64.1 kg for adult	[38]
EF	180 days/year	[40]
ED	6 years for children	[40]
	24 years for adults	[40]
AT	70 year × 365 days/year for cancer risk	[37]
	ED × 365 days/year for non-cancer risk	[37]

Note: InhR—inhale rate; BW—body weight; EF—exposure frequency; ED—exposure duration; AT—averaging time.

**Table S2.** The reference dose of non-carcinogenic metals and the slope factor of carcinogenic metals.

Element	Pb	Cr	Co	Ni	Zn	As	Cd	V	Mn
R <sub>fd</sub> [41] (mg kg <sup>-1</sup> day <sup>-1</sup> )	3.52 × 10 <sup>-3</sup>	2.86 × 10 <sup>-5</sup>	5.71 × 10 <sup>-6</sup>	2.06 × 10 <sup>-2</sup>	3.01 × 10 <sup>-1</sup>	3.01 × 10 <sup>-4</sup>	1 × 10 <sup>-3</sup>	7 × 10 <sup>-3</sup>	1.40 × 10 <sup>-5</sup>
SFa [41] (mg kg <sup>-1</sup> day <sup>-1</sup> )		42	9.8	0.84		15.1	6.4		

Note: R<sub>fd</sub>—reference dose; SFa—slope factor.



**Figure S1.** Seasonal and annual contributions of individual chemical components to PM<sub>2.5</sub>. OM is short for “organic matter”, TE is short for “trace elements”, MD is short for “mine dust”.