

## Supplementary Materials:

### PM<sub>10</sub> Element Distribution and Environmental-Sanitary Risk Analysis in Two Italian Industrial Cities

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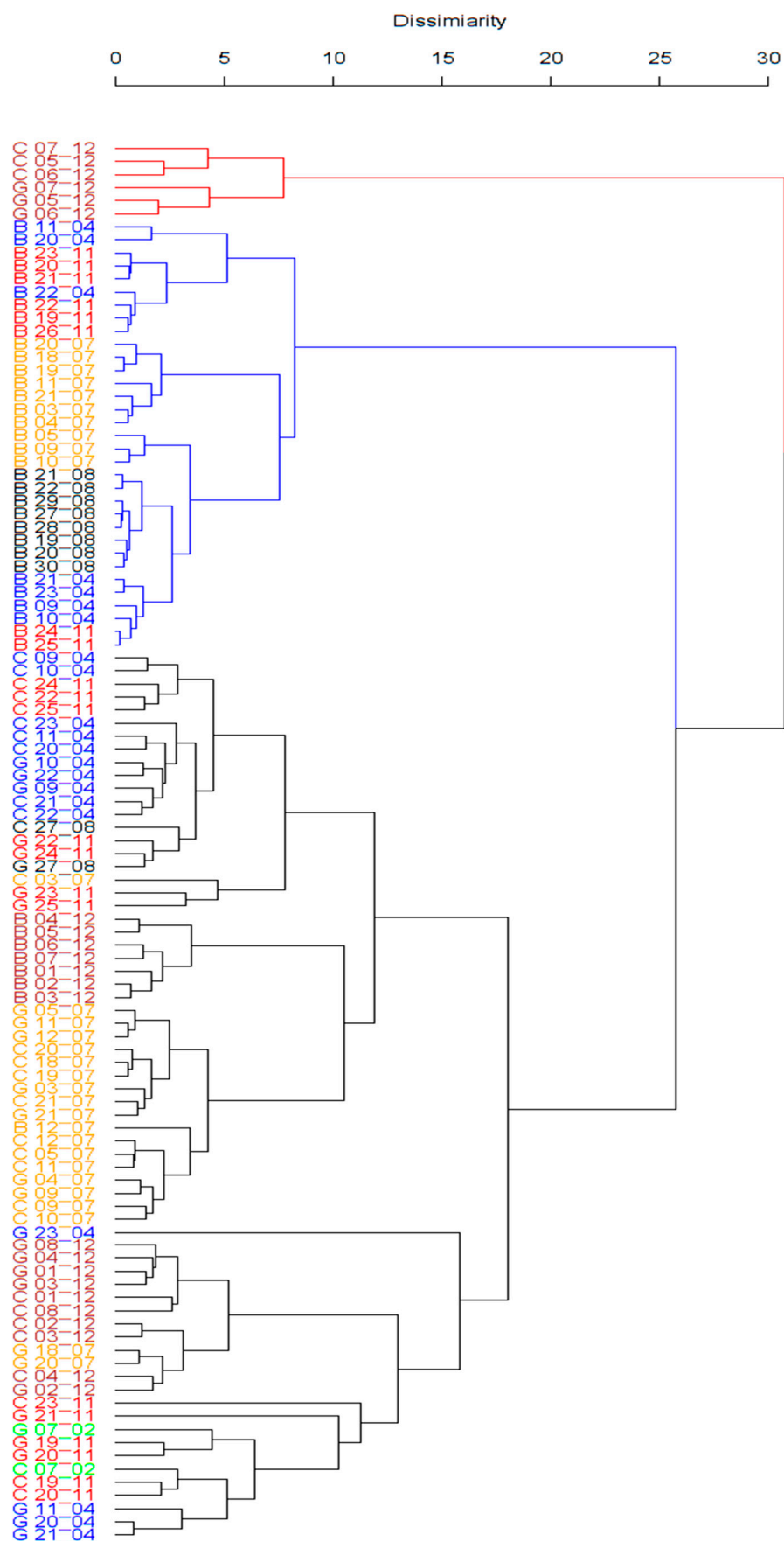
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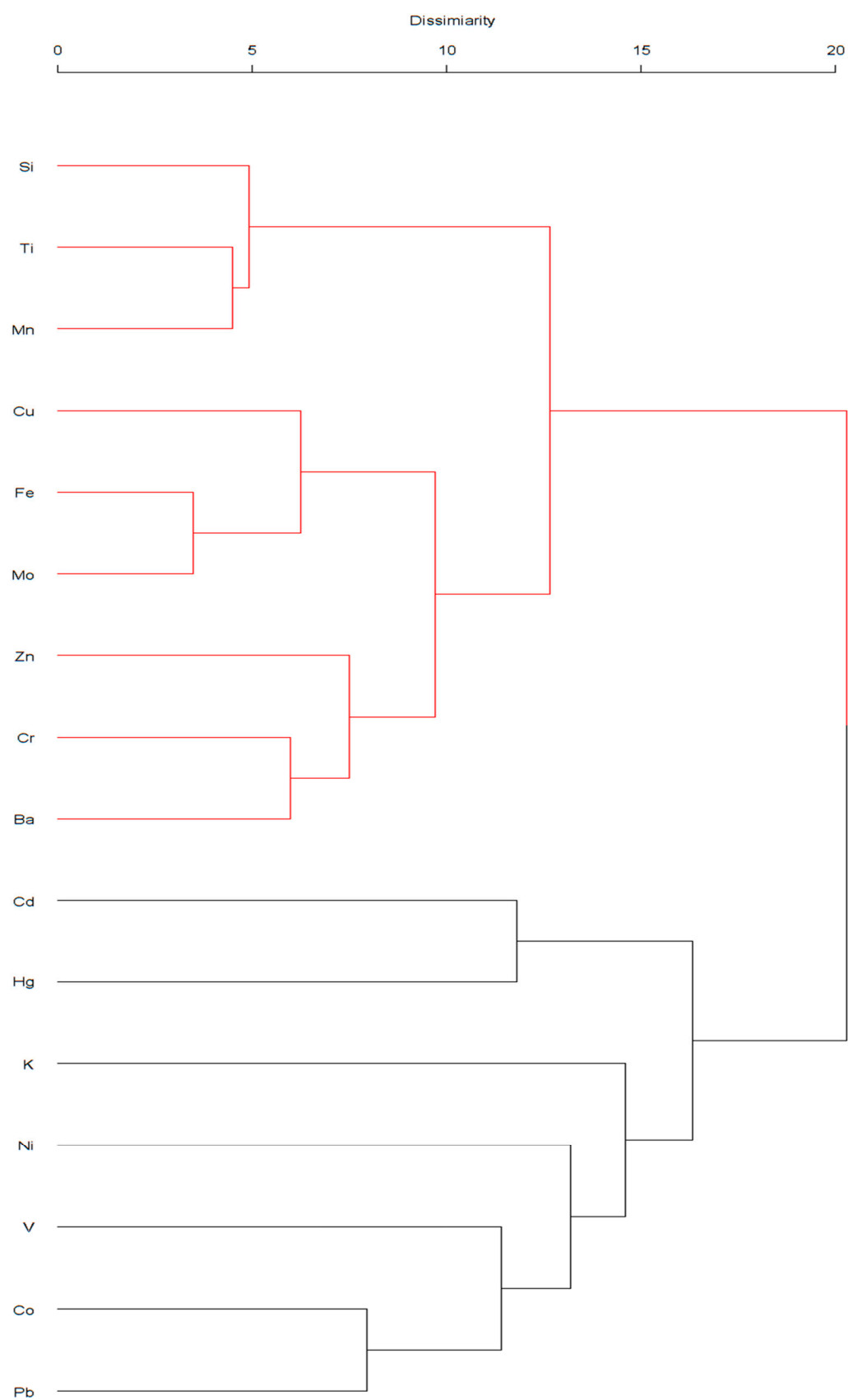
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**Table S1.** Instrumental technique used and principal information regarding the method of analysis, and the recovery obtained during the validation of the analytical method using the certified materials NIST SRM 1649a and BCR 176.

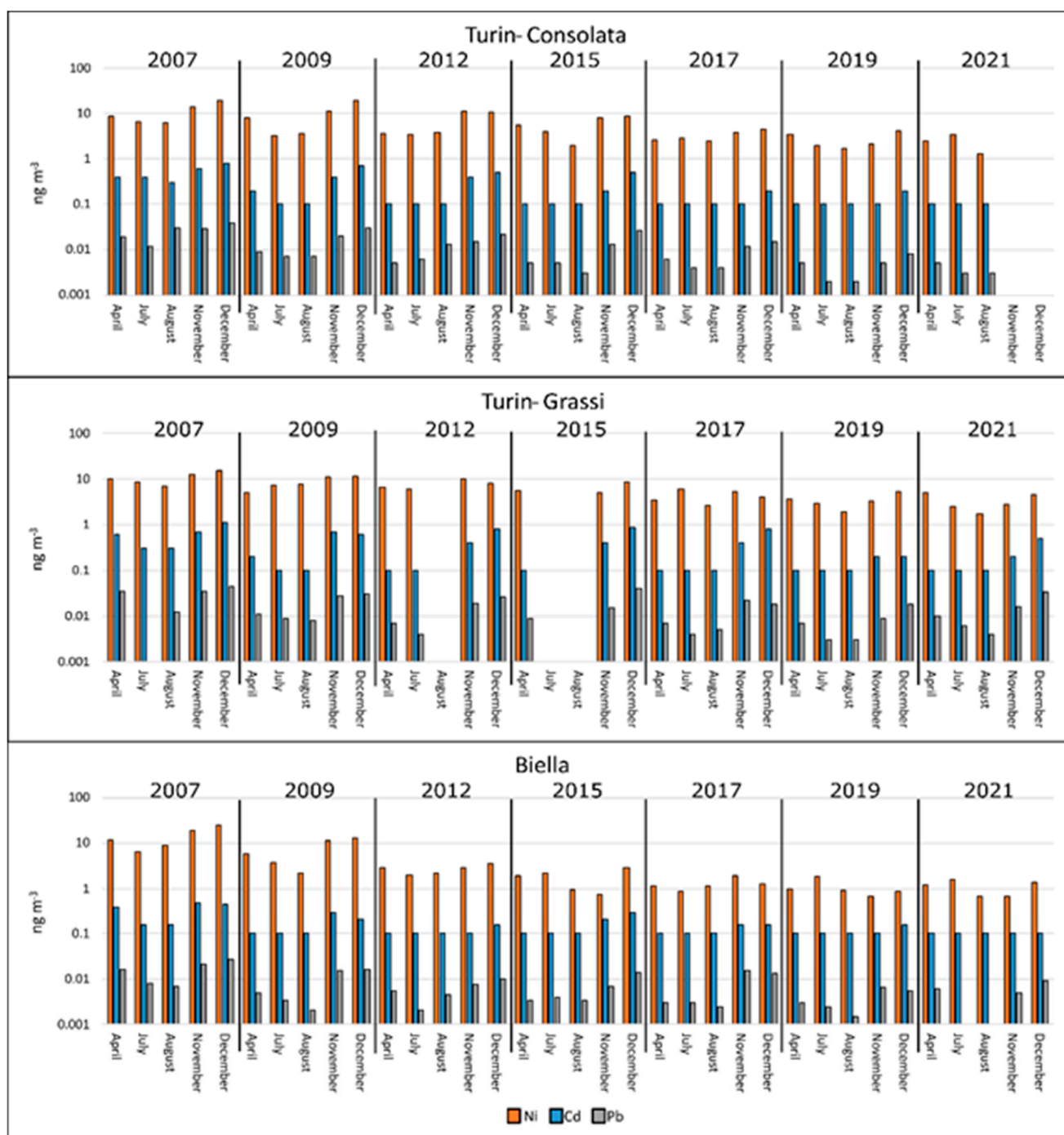
Element	Instrumental Technique	Isotope/Wavelength	Resolution	Internal standard	Recovery (%)
Ba	ICP-MS	135/137/138	LR	Te 128	89.6
Cd	ICP-MS	113	MR	Te 125	101.2
Co	ICP-MS	59	LR	Te 128	79.5
Cr	ICP-MS	52	MR	Te 125	51.7
Cu	ICP-MS	65	MR	Te 128	89.9
Fe	ICP-AES	259.939 nm			86.3
Hg	ICP-MS	199/200/201	LR	Te 125	90.9
K	ICP-AES	769.896 nm			116.0
Mn	ICP-MS	55	MR	Te 125	77.6
Mo	ICP-MS	95/96	LR	Te 128	-
Ni	ICP-MS	58	LR	/	96.3
Pb	ICP-MS	206	LR	Te 125	100.9
Si	ICP-MS	28	MR	Te 125	-
Ti	ICP-AES	334.940 nm			72.5
V	ICP-MS	51	MR	Te 128	86.4
Zn	ICP-MS	64/66	MR	Te 128	94.6
Zr	ICP-MS	90/91	MR	Te 125	-



**Figure S1.** Dendrogram for the HCA of the PM<sub>10</sub> samples (R-mode). The labels of the samples report the site of sampling (B for Biella, C for Consolata and G for Grassi) and are coloured as a function of the month: August (black), November (red), December (grenade), February (green), April (blue) and July (yellow).



**Figure S2.** Dendrogram for HCA of the PM<sub>10</sub> samples for the variables (Q-mode). The data are expressed as metals mass amounts per unit of mass of PM<sub>10</sub> (mg g<sup>-1</sup>).



**Figure S3.** The trends of Ni, Cd, and Pb concentrations in PM10 from Turin (Consolata, Grassi) and Biella from 2007 to 2021. The data have been provided by ARPA Piedmont (<https://aria.ambiente.piemonte.it/#/qualita-aria/dati>).