



Corrigendum to **“Compositional data analysis (CoDA) as a tool to evaluate a new low-cost settling-based PM₁₀ sampling head in a desert dust source region” published in Atmos. Meas. Tech., 14, 7657–7680, 2021**

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Originally submitted raw data contained incorrect values and were published in Table A1. These have now been corrected. Only Ca values have been modified in Table A1 below.

In addition, in Table A2, wrong units were used for the element S. The correct units for the element S are micrograms per cubic metre ($\mu\text{g m}^{-3}$) instead of nanograms per cubic metre (ng m^{-3}).

“DL” is “detection limit” expressed in mass on the filter. “<” is “less than concentration detection limit”; this concentration detection limit must be calculated by dividing the DL value (expressed in mass) by the air volume. Uncertainties are given for a 95 % confidence interval. The air volume uncertainty is constant at 1 % and not displayed.

The full dataset has now been published and is available at <https://doi.org/10.18715/IPGP.2023.lhqlffta> (Losno and Xu-Yang, 2023).

Appendix A: Air concentrations, measured values

Table A1. Elemental air concentrations measured with ICP-AES.

| Element | | Al | Ca | Fe | K | Mg | Na |
|--------------------|------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Wavelength (nm) | | 396.2 | 317.933 | 238.2 | 766.491 | 279.553 | 589 |
| Analytical DL (ng) | | 0.02 | 0.7 | 0.1 | 0.2 | 0.003 | 1 |
| Field DL (ng) | | 0.5 | 13 | 0.8 | 3 | 1 | 79 |
| Sample name | Air volume (m ³) | $\mu\text{g m}^{-3}$ | $\mu\text{g m}^{-3}$ | $\mu\text{g m}^{-3}$ | $\mu\text{g m}^{-3}$ | $\mu\text{g m}^{-3}$ | $\mu\text{g m}^{-3}$ |
| YX03 (VTD) | 10.52 | 0.63 ± 0.02 | 2.2 ± 0.1 | 0.4 ± 0.01 | 0.86 ± 0.04 | 0.32 ± 0.01 | 0.9 ± 0.3 |
| YX04 (PM10) | 12.59 | 0.55 ± 0.02 | 1.9 ± 0.1 | 0.34 ± 0.01 | 1.46 ± 0.05 | 0.29 ± 0.01 | 1.3 ± 0.2 |
| YX05 (VTD) | 5.89 | 0.71 ± 0.02 | 2.6 ± 0.1 | 0.44 ± 0.02 | 2.05 ± 0.08 | 0.33 ± 0.02 | 2.2 ± 0.5 |
| YX06 (PM10) | 6.68 | 0.58 ± 0.02 | 2.3 ± 0.1 | 0.34 ± 0.02 | 2.74 ± 0.1 | 0.27 ± 0.01 | 1.8 ± 0.4 |
| YX07 (VTD) | 10.02 | 1.43 ± 0.04 | 4.7 ± 0.2 | 0.87 ± 0.03 | 1.77 ± 0.06 | 0.65 ± 0.02 | 1.7 ± 0.3 |
| YX08 (PM10) | 10.8 | 1.19 ± 0.04 | 3.8 ± 0.1 | 0.73 ± 0.02 | 0.76 ± 0.03 | 0.54 ± 0.02 | 1.2 ± 0.3 |
| YX09 (VTD) | 6.04 | 3.2 ± 0.1 | 9.6 ± 0.3 | 1.78 ± 0.06 | 1.58 ± 0.07 | 1.41 ± 0.05 | 1.8 ± 0.5 |
| YX10 (PM10) | 6.77 | 3.3 ± 0.1 | 9.7 ± 0.3 | 1.81 ± 0.06 | 1.72 ± 0.07 | 1.5 ± 0.05 | 2.3 ± 0.4 |
| YX11 (VTD) | 9.59 | 1.54 ± 0.05 | 5.8 ± 0.2 | 0.94 ± 0.03 | 0.8 ± 0.04 | 0.98 ± 0.03 | 2.9 ± 0.3 |
| YX12 (PM10) | 10.92 | 1.31 ± 0.04 | 5 ± 0.2 | 0.81 ± 0.03 | 0.76 ± 0.03 | 0.85 ± 0.03 | 2.7 ± 0.3 |
| YX13 (VTD) | 5.71 | 7.5 ± 0.2 | 17.6 ± 0.6 | 4.1 ± 0.1 | 9.32 ± 0.3 | 3.3 ± 0.1 | 6.9 ± 0.6 |
| YX14 (PM10) | 6.64 | 7.7 ± 0.2 | 18.5 ± 0.6 | 4.3 ± 0.1 | 13.7 ± 0.4 | 3.4 ± 0.1 | 7.6 ± 0.6 |
| YX15 (VTD) | 10.85 | 8.1 ± 0.2 | 6.7 ± 0.2 | 4.4 ± 0.1 | 2.27 ± 0.08 | 2.08 ± 0.07 | 2.3 ± 0.3 |
| YX16 (PM10) | 11.75 | 7.6 ± 0.2 | 6.1 ± 0.2 | 4.1 ± 0.1 | 2.05 ± 0.07 | 1.9 ± 0.06 | 2.1 ± 0.3 |
| YX17 (VTD) | 6.53 | 52 ± 2 | 57 ± 1.8 | 29.6 ± 0.9 | 13.8 ± 0.4 | 14.1 ± 0.4 | 6.7 ± 0.6 |
| YX18 (PM10) | 7.12 | 48 ± 1 | 51 ± 1.6 | 27.4 ± 0.8 | 12.7 ± 0.4 | 12.6 ± 0.4 | 6.1 ± 0.5 |
| YX19 (VTD) | 10.33 | 4.9 ± 0.1 | 7.6 ± 0.3 | 2.61 ± 0.08 | 2.5 ± 0.09 | 1.78 ± 0.06 | 5.8 ± 0.4 |
| YX20 (PM10) | 10.96 | 4.2 ± 0.1 | 6.2 ± 0.2 | 2.29 ± 0.07 | 1.98 ± 0.07 | 1.59 ± 0.05 | 4.4 ± 0.3 |
| YX21 (VTD) | 5.48 | 2.63 ± 0.08 | 5 ± 0.2 | 1.48 ± 0.05 | 1.03 ± 0.06 | 1.58 ± 0.05 | 6.9 ± 0.6 |
| YX22 (PM10) | 6.08 | 2.36 ± 0.07 | 4.4 ± 0.2 | 1.35 ± 0.04 | 1.12 ± 0.06 | 1.43 ± 0.05 | 6.9 ± 0.6 |
| YX23 (VTD) | 10.76 | 0.64 ± 0.02 | 2 ± 0.1 | 0.39 ± 0.02 | 1.41 ± 0.05 | 1.14 ± 0.04 | 7.1 ± 0.4 |
| YX24 (PM10) | 11.95 | 0.44 ± 0.01 | 1.3 ± 0.1 | 0.27 ± 0.01 | 1.44 ± 0.05 | 0.98 ± 0.03 | 6.4 ± 0.4 |
| YX25 (VTD) | 6.79 | 5.1 ± 0.2 | 10.2 ± 0.4 | 2.97 ± 0.09 | 1.93 ± 0.07 | 2.41 ± 0.08 | 5.9 ± 0.5 |
| YX26 (PM10) | 7.65 | 4.6 ± 0.1 | 9.5 ± 0.3 | 2.68 ± 0.08 | 1.67 ± 0.07 | 2.17 ± 0.07 | 5.8 ± 0.5 |
| YX27 (VTD) | 10.73 | 1.06 ± 0.03 | 2.6 ± 0.1 | 0.66 ± 0.02 | 0.53 ± 0.03 | 0.85 ± 0.03 | 3.6 ± 0.3 |
| YX28 (PM10) | 11.8 | 0.83 ± 0.03 | 2.1 ± 0.1 | 0.49 ± 0.02 | 0.47 ± 0.03 | 0.67 ± 0.02 | 3.1 ± 0.3 |
| YX29 (VTD) | 16.66 | 8.1 ± 0.2 | 18 ± 0.6 | 4.87 ± 0.15 | 4.6 ± 0.1 | 3.88 ± 0.12 | 3.4 ± 0.2 |
| YX30 (PM10) | 19.25 | 7.3 ± 0.2 | 15.8 ± 0.5 | 4.43 ± 0.13 | 5.2 ± 0.2 | 3.42 ± 0.1 | 3 ± 0.2 |
| YX31 (VTD) | 5.92 | 4.8 ± 0.1 | 8.8 ± 0.3 | 2.61 ± 0.08 | 3 ± 0.1 | 2.64 ± 0.09 | 8.5 ± 0.7 |
| YX32 (PM10) | 7.49 | 4.1 ± 0.1 | 7.2 ± 0.3 | 2.26 ± 0.07 | 2.17 ± 0.08 | 2.27 ± 0.07 | 6.7 ± 0.5 |
| YX33 (VTD) | 8.31 | 1.37 ± 0.04 | 2.4 ± 0.1 | 0.82 ± 0.03 | 0.69 ± 0.04 | 1.16 ± 0.04 | 5.7 ± 0.5 |
| YX34 (PM10) | 9.15 | 1.11 ± 0.03 | 1.9 ± 0.1 | 0.65 ± 0.02 | 0.61 ± 0.03 | 1.01 ± 0.03 | 4.9 ± 0.4 |

Table A2. Elemental air concentrations measured with ICP-AES, continued.

| Element | Ba | Li | Mn | P | S | Sc | Sr |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Wavelength (nm) | 233.527 | 670.78 | 257.611 | 177.495 | 182.034 | 335.373 | 460.733 |
| Analytical DL (ng) | 0.001 | 0.0002 | 0.001 | 0.01 | 0.9 | 0.001 | 0.002 |
| Field DL (ng) | 0.02 | 0.002 | 0.1 | 0.2 | 85 | – | 0.05 |
| Sample name | ng m ⁻³ | ng m ⁻³ | ng m ⁻³ | ng m ⁻³ | μg m ⁻³ | ng m ⁻³ | ng m ⁻³ |
| YX03 | 6.2 ± 0.3 | 0.53 ± 0.03 | 7.3 ± 0.4 | 56 ± 2 | 1.6 ± 0.3 | 0.2 ± 0.1 | 10.8 ± 0.5 |
| YX04 | 5.4 ± 0.2 | 0.47 ± 0.02 | 6.5 ± 0.4 | 49 ± 2 | 0.9 ± 0.2 | < | 9.4 ± 0.4 |
| YX05 | 7.7 ± 0.4 | 0.54 ± 0.04 | 8.2 ± 0.6 | 74 ± 4 | 2.2 ± 0.5 | 0.2 ± 0.2 | 12.2 ± 0.7 |
| YX06 | 6.6 ± 0.3 | 0.43 ± 0.04 | 5.4 ± 0.5 | 60 ± 3 | 1.5 ± 0.4 | < | 9.9 ± 0.6 |
| YX07 | 12.7 ± 0.4 | 1.19 ± 0.05 | 16.2 ± 0.7 | 39 ± 2 | 1.2 ± 0.3 | 0.2 ± 0.1 | 20.7 ± 0.8 |
| YX08 | 10.6 ± 0.4 | 0.96 ± 0.04 | 14.1 ± 0.6 | 34 ± 2 | 1.3 ± 0.3 | 0.2 ± 0.1 | 17.2 ± 0.7 |
| YX09 | 22.2 ± 0.8 | 2.65 ± 0.09 | 31 ± 1 | 62 ± 3 | 2.2 ± 0.5 | 0.9 ± 0.2 | 45 ± 2 |
| YX10 | 23.0 ± 0.8 | 3.0 ± 0.1 | 31 ± 1 | 62 ± 3 | 2.7 ± 0.5 | 0.6 ± 0.2 | 47 ± 2 |
| YX11 | 16.3 ± 0.6 | 1.28 ± 0.05 | 18.7 ± 0.8 | 41 ± 2 | 1.9 ± 0.3 | 0.4 ± 0.1 | 24.7 ± 0.9 |
| YX12 | 13 ± 0.4 | 1.17 ± 0.04 | 16.03 ± 0.7 | 36 ± 2 | 1.5 ± 0.3 | 0.3 ± 0.1 | 21.5 ± 0.8 |
| YX13 | 48 ± 2 | 6.9 ± 0.2 | 71 ± 3 | 129 ± 5 | 3.8 ± 0.6 | 1.5 ± 0.3 | 86 ± 3 |
| YX14 | 51 ± 2 | 7.2 ± 0.2 | 72 ± 3 | 132 ± 5 | 4.3 ± 0.5 | 1.5 ± 0.2 | 90 ± 3 |
| YX15 | 47 ± 1 | 6.4 ± 0.2 | 65 ± 2 | 99 ± 4 | 1.4 ± 0.3 | 1.4 ± 0.1 | 38 ± 1 |
| YX16 | 45 ± 1 | 6.1 ± 0.2 | 62 ± 2 | 92 ± 3 | 1.2 ± 0.3 | 1.3 ± 0.1 | 34 ± 1 |
| YX17 | 348 ± 11 | 62 ± 2 | 446 ± 14 | 684 ± 21 | 11.4 ± 0.7 | 10.2 ± 0.4 | 318 ± 10 |
| YX18 | 319 ± 10 | 58 ± 2 | 411 ± 13 | 627 ± 19 | 10.6 ± 0.7 | 9.2 ± 0.3 | 295 ± 9 |
| YX19 | 30 ± 1 | 4.6 ± 0.1 | 38 ± 1 | 83 ± 3 | 3.7 ± 0.4 | 0.8 ± 0.2 | 39 ± 1 |
| YX20 | 25.6 ± 0.8 | 4.2 ± 0.1 | 34 ± 1 | 81 ± 3 | 3.4 ± 0.3 | 0.9 ± 0.1 | 34 ± 1 |
| YX21 | 17.8 ± 0.7 | 2.4 ± 0.09 | 24 ± 1 | 55 ± 3 | 4.1 ± 0.6 | 0.5 ± 0.3 | 27 ± 1 |
| YX22 | 15.9 ± 0.6 | 2.08 ± 0.08 | 21 ± 1 | 50 ± 3 | 3.8 ± 0.5 | 0.3 ± 0.2 | 25 ± 1 |
| YX23 | 4.2 ± 0.2 | 0.64 ± 0.03 | 6.9 ± 0.4 | 17 ± 2 | 2.8 ± 0.3 | 0.2 ± 0.2 | 11.9 ± 0.5 |
| YX24 | 3.1 ± 0.2 | 0.53 ± 0.03 | 4.8 ± 0.3 | 21 ± 1 | 2.7 ± 0.3 | < | 9.1 ± 0.4 |
| YX25 | 23.1 ± 0.8 | 4.5 ± 0.1 | 49 ± 2 | 80 ± 4 | 3.9 ± 0.5 | 1.2 ± 0.2 | 43 ± 2 |
| YX26 | 21.0 ± 0.7 | 3.6 ± 0.1 | 45 ± 2 | 70 ± 3 | 2.9 ± 0.4 | 0.8 ± 0.2 | 38 ± 1 |
| YX27 | 7.5 ± 0.3 | 0.87 ± 0.04 | 11.3 ± 0.6 | 22 ± 2 | 2.0 ± 0.3 | 0.2 ± 0.1 | 11.5 ± 0.5 |
| YX28 | 5.4 ± 0.2 | 0.71 ± 0.03 | 8.7 ± 0.5 | 67 ± 3 | 1.8 ± 0.3 | 0.2 ± 0.1 | 8.9 ± 0.4 |
| YX29 | 52 ± 2 | 8.4 ± 0.3 | 79 ± 3 | 152 ± 5 | 3.5 ± 0.3 | 1.53 ± 0.09 | 69 ± 2 |
| YX30 | 46 ± 1 | 7.6 ± 0.2 | 71 ± 2 | 143 ± 5 | 3.2 ± 0.2 | 1.43 ± 0.08 | 62 ± 2 |
| YX31 | 29 ± 1 | 4.1 ± 0.1 | 41 ± 2 | 80 ± 4 | 3.8 ± 0.6 | 0.7 ± 0.2 | 44 ± 2 |
| YX32 | 25.8 ± 0.9 | 3.7 ± 0.1 | 37 ± 1 | 69 ± 3 | 3.1 ± 0.4 | 0.8 ± 0.2 | 37 ± 1 |
| YX33 | 9.6 ± 0.4 | 1.27 ± 0.05 | 12.3 ± 0.7 | 29 ± 2 | 2.1 ± 0.4 | 0.3 ± 0.2 | 15.6 ± 0.7 |
| YX34 | 8.3 ± 0.3 | 1.05 ± 0.04 | 10.3 ± 0.6 | 34 ± 2 | 2.3 ± 0.4 | 0.3 ± 0.2 | 13.1 ± 0.6 |

References

Losno, R. and Xu-Yang, Y.: Atmospheric concentration of PM₁₀ elements (including REEs) measured in Tunisian desertic region, Version V1, IPGP Research Collection [data set], <https://doi.org/10.18715/IPGP.2023.lhqffta>, 2023.