A picture containing text, tree, sky, map

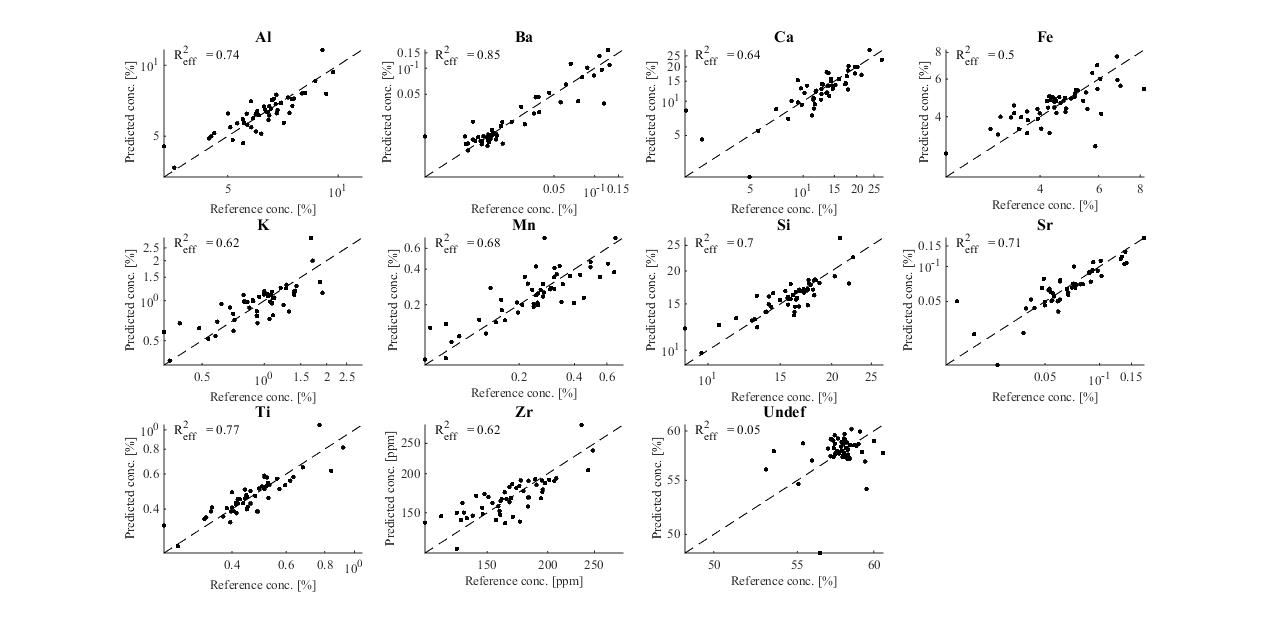
Description automatically generated

**Figure S1.** Comparison of glass-bead WD-XRF calibration data (Konijnendijk et al., 2014; 2015) versus predicted (multivariate log-ratio calibrated XRF-core-scanning) concentrations using 1060 calibration samples. Generated using the AvaaXelerate software (Bloemsma, 2015).

Diagram, engineering drawing

Description automatically generated

**Figure S2.** Comparison of glass-bead WD-XRF calibration data (Konijnendijk et al., 2014; 2015) versus predicted (multivariate log-ratio calibrated XRF-core-scanning) concentrations using 10% of the calibration samples. Generated using the AvaaXelerate software (Bloemsma, 2015).



**Figure S3.** Comparison of glass-bead WD-XRF calibration data (Konijnendijk et al., 2014; 2015) versus predicted (multivariate log-ratio calibrated XRF-core-scanning) concentrations using 5% of the calibration samples. Generated using the AvaaXelerate software (Bloemsma, 2015).

Diagram, engineering drawing

Description automatically generated

**Figure S4.** Comparison of glass-bead WD-XRF calibration data (Konijnendijk et al., 2014; 2015) versus predicted (multivariate log-ratio calibrated XRF-core-scanning) concentrations using 2% of the calibration samples. Generated using the AvaaXelerate software (Bloemsma, 2015).

Diagram, engineering drawing

Description automatically generated

**Figure S5.** Comparison of glass-bead WD-XRF calibration data (Konijnendijk et al., 2014; 2015) versus predicted (multivariate log-ratio calibrated XRF-core-scanning) concentrations using the 53 samples selected by AvaaXelerate. Generated using the AvaaXelerate software (Bloemsma, 2015).

Diagram, engineering drawing

Description automatically generated

**Figure S6.** Comparison of glass-bead WD-XRF calibration data (Konijnendijk et al., 2014; 2015) versus predicted (multivariate log-ratio calibrated XRF-core-scanning) concentrations using the 22 samples selected by AvaaXelerate. Generated using the AvaaXelerate software (Bloemsma, 2015).

**References**

Bloemsma, M. R.: Development of a Modelling Framework for Core Data Integration using XRF Scanning, Delft University of Technology, 229 pp., 2015.

Konijnendijk, T., Ziegler, M., and Lourens, L. J.: On the timing and forcing mechanisms of late Pleistocene glacial terminations: insights from a new high-resolution benthic stable oxygen isotope record of the eastern Mediterranean, Quaternary Science Reviews, 129, 308-320, 2015.

Konijnendijk, T. Y. M., Ziegler, M., and Lourens, L. J.: Chronological constraints on Pleistocene sapropel depositions from high-resolution geochemical records of ODP Sites 967 and 968, Newsletters on Stratigraphy, 47, 263-282, 2014.