

**Development and validation of an *in situ* and real-time quantification
method for bicarbonate, carbonate and orthophosphate ions by ATR
FT-IR spectroscopy in aqueous solutions**

Supplementary Material

Analyst

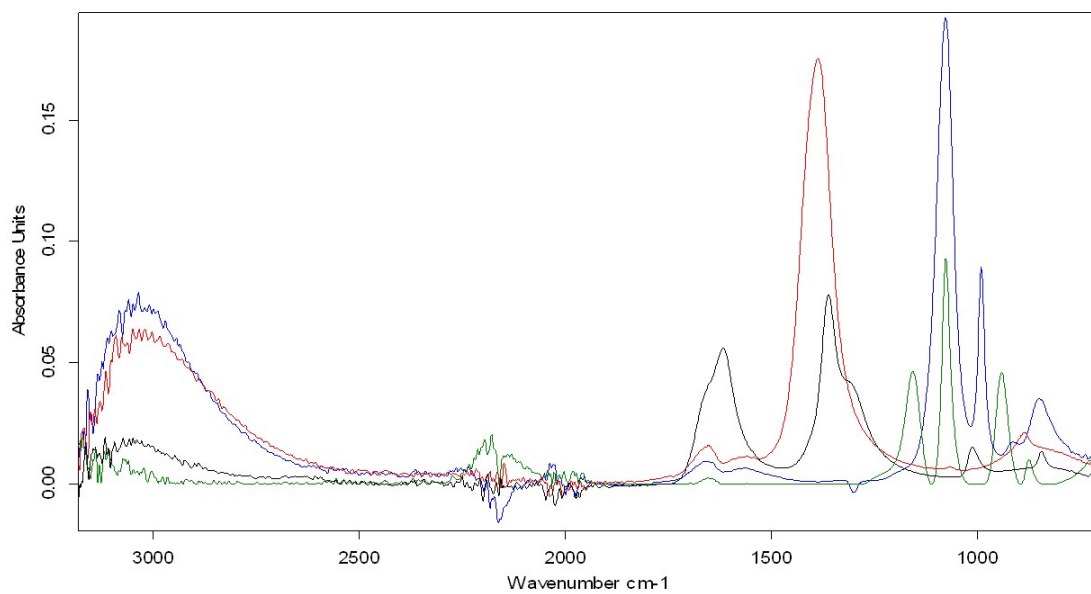
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Figure S1 ATR FT-IR absorption spectra for bicarbonate (black), carbonate (red), dihydrogenophosphate (green) and hydrogenophosphate (blue line)

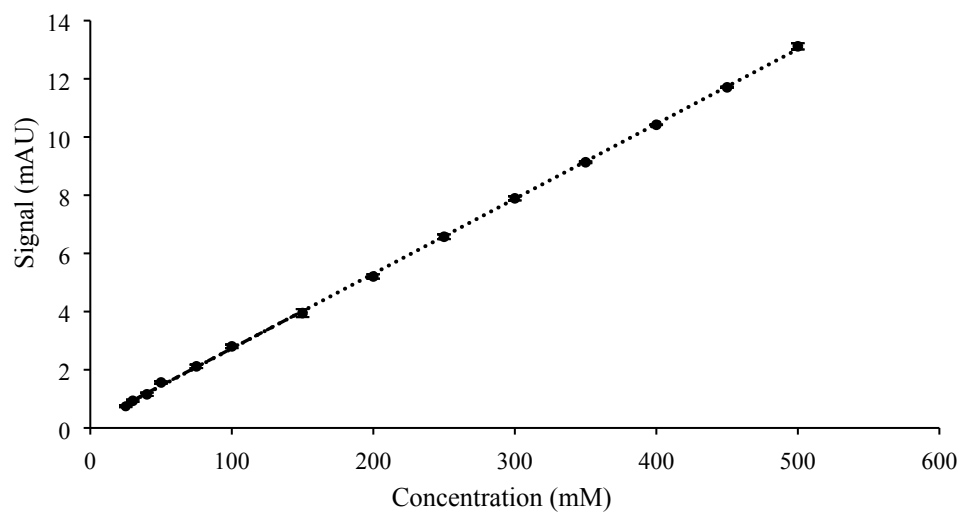


Figure S2 Univariate calibration curve and linearity for bicarbonate

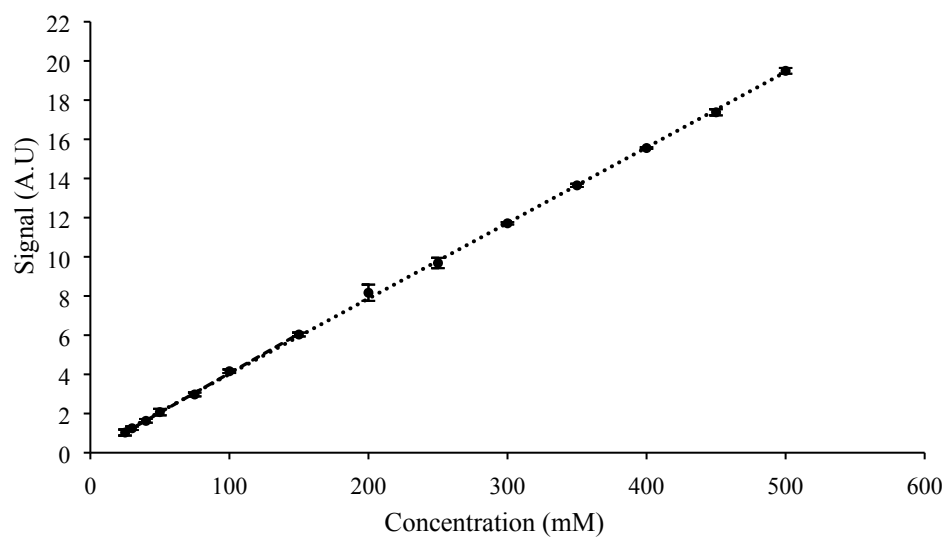


Figure S3 Univariate calibration curve and linearity for carbonate

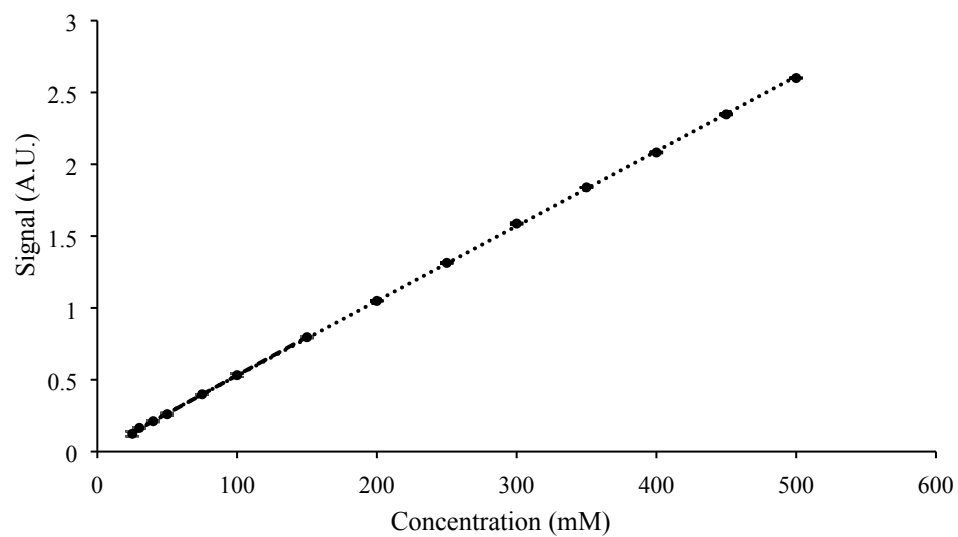


Figure S4 Univariate calibration curve and linearity for dihydrogenophosphate

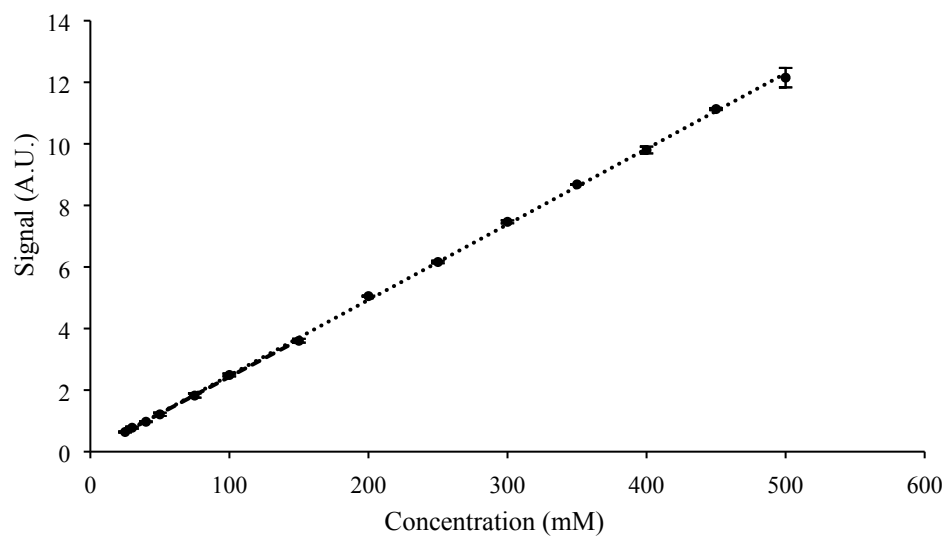


Figure S5 Univariate calibration curve and linearity for hydrogenophosphate

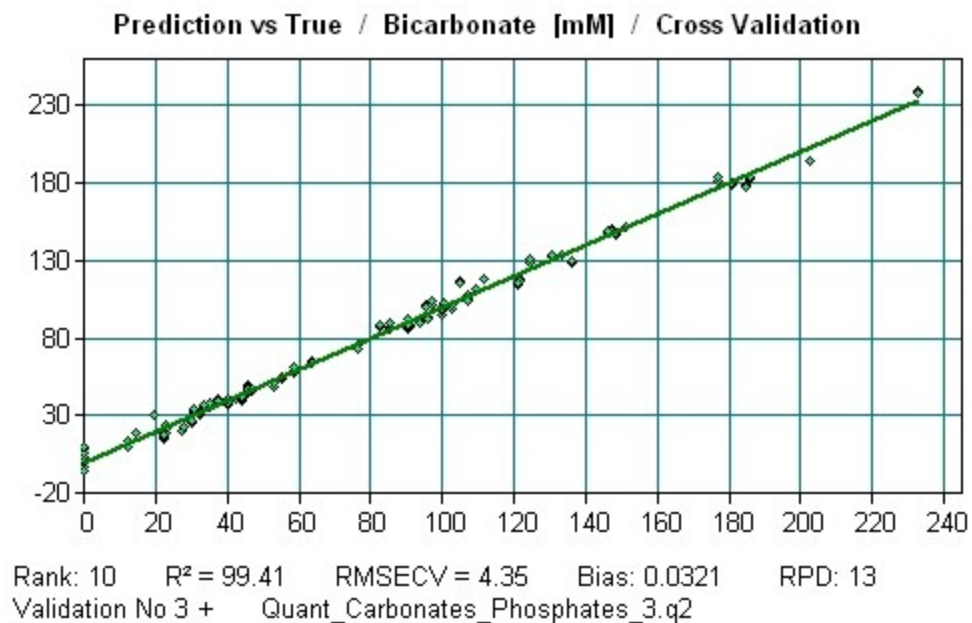


Figure S6 Multivariate model cross-validation curve and data for bicarbonate

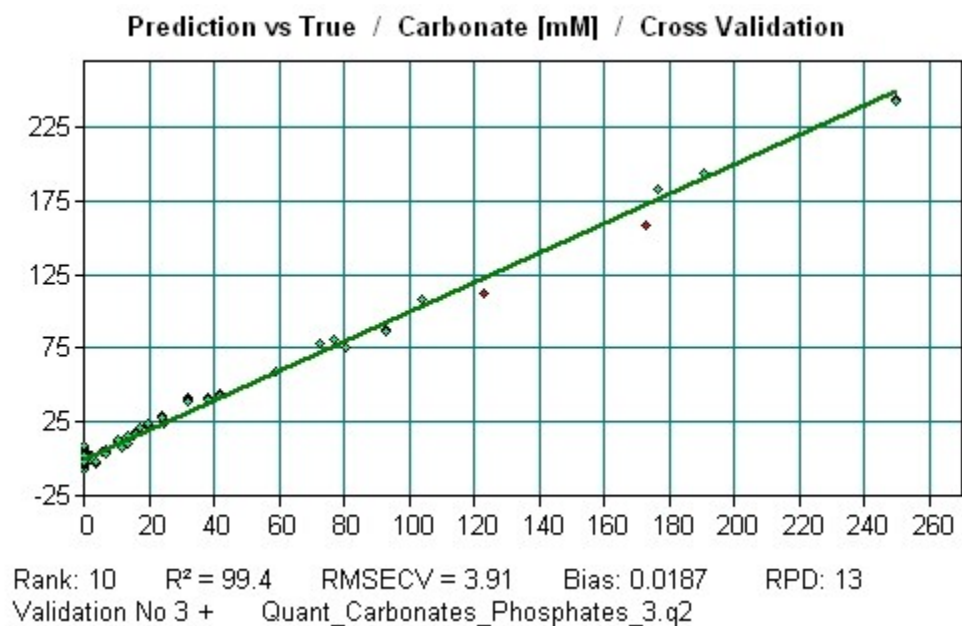


Figure S7 Multivariate model cross-validation curve and data for carbonate

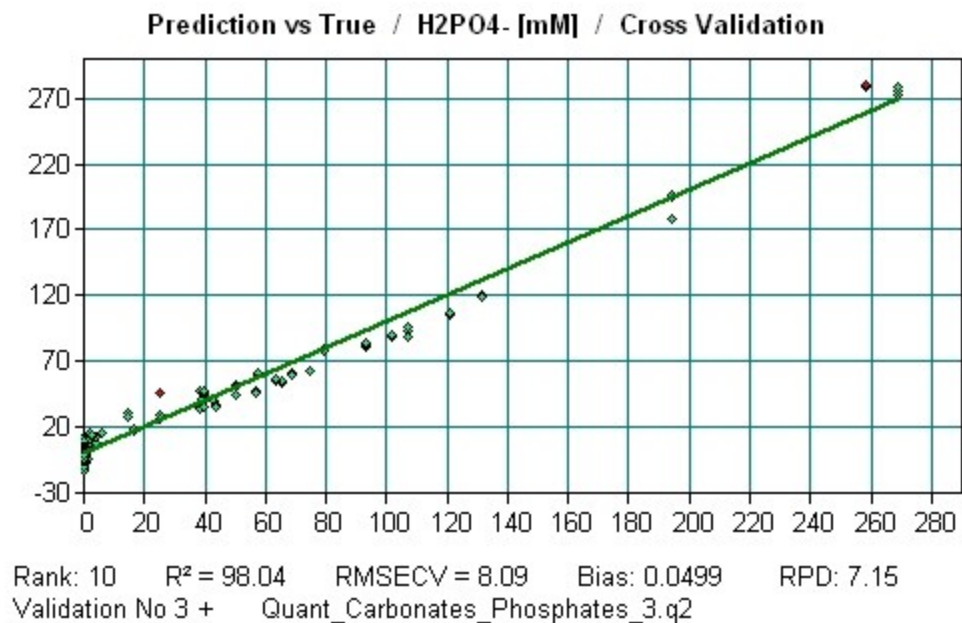


Figure S8 Multivariate model cross-validation curve and data for dihydrogenophosphate

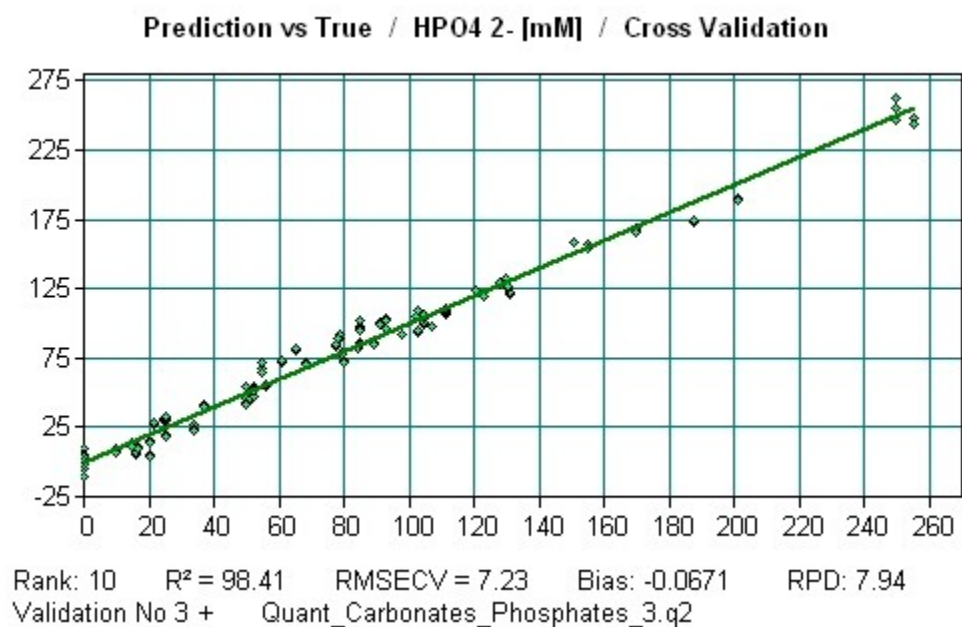


Figure S9 Multivariate model cross-validation curve and data for hydrogenophosphate