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Iterative energy self-calibration of Fe XANES spectra. Erratum

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A correction is made to the paper by Jones *et al.* (2020). [*J. Synchrotron Rad.* **27**, 207–211].

In the paper by Jones *et al.* (2020), the authors have noted that an incorrect value was published for the calibrated $Fe^{3+}/\Sigma Fe$ for the rafted pumice sample from the 2012 Havre eruption. The correct value is 0.257 (0.010) and is included in the updated Table 2 below and updated in the inset in Fig. 3(*c*) (overleaf).

Table 2
Summary of uncalibrated and self-calibrated values for the data presented in Fig. 3, where the uncalibrated, self-calibrated and expected $Fe^{3+}/\Sigma Fe$ ratios are presented together with the required energy change (ΔE).

	$Fe^{3+}/\Sigma Fe$			
Sample	Uncalibrated	Self-calibrated	Expected	ΔE (eV)
MORB VG 3450	0.591 (0.018)	0.129 (0.004)	0.132	0.8
RGM-2	0.535 (0.037)†	0.231 (0.016)	0.262 (0.015)‡	0.3§
Havre pumice	0.452 (0.031)†	0.257 (0.010)	—	0.5§

† Manually offset to be within calibration range. ‡ RGM-1 values. § After manual offset.

References

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Cottrell, E., Kelley, K. A., Lanzirotti, A. & Fischer, R. A. (2009). *Chem. Geol.* **268**, 167–179.
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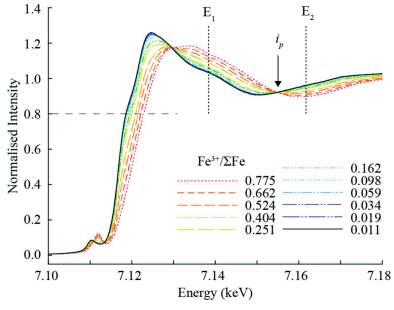

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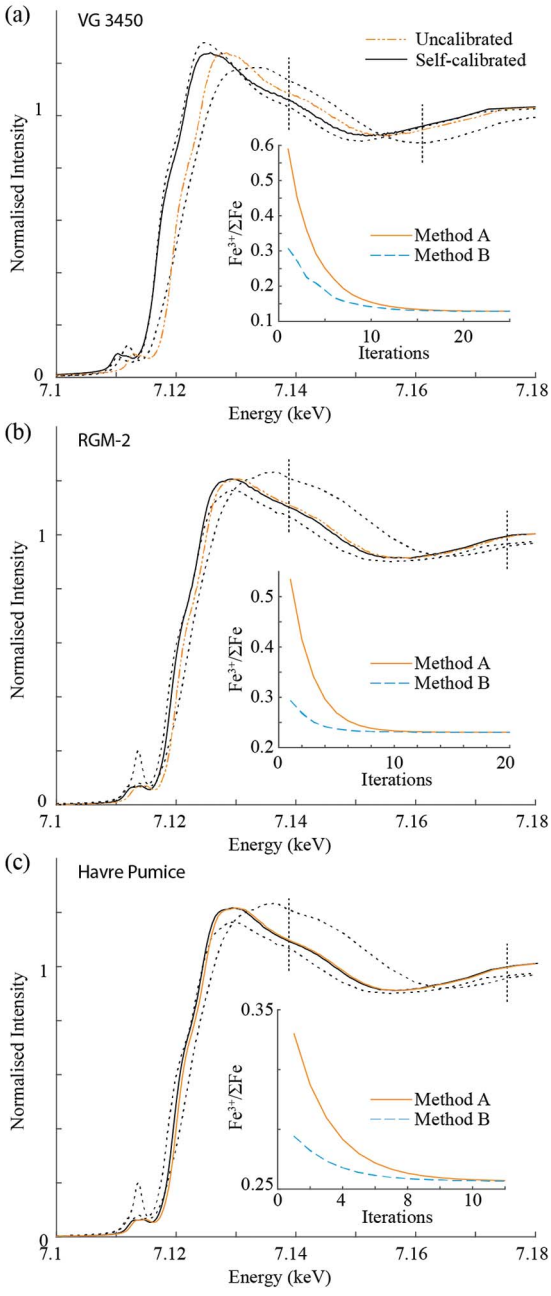

Figure 3
Demonstration of iterative energy calibration correction. (*a*) A MORB glass spectra (Smithsonian Institute sample number VG 3450), as collected by Berry *et al.* (2018) (orange dot–dashed line), iteratively self-corrected (solid black line) to the basaltic glass standards. Also shown for reference are the spectra for the 0.011 and 0.775 $Fe^{3+}/\Sigma Fe$ ratio standards (black dotted lines). The $Fe^{3+}/\Sigma Fe$ ratio (inset) for Method A (solid orange lines) and B (dashed blue lines) as a function of iteration number shows convergence to a single $Fe^{3+}/\Sigma Fe$ ratio. Similar treatment is shown for the RGM-2 reference standard (*b*) and an experimental section of pumice from the 2012 Havre eruption (*c*), both iteratively self-corrected to the rhyolite glass standards (Cottrell *et al.*, 2009). Also shown for reference are the spectra for the 0.238 and 0.806 $Fe^{3+}/\Sigma Fe$ ratio standards (black dotted lines). The vertical dashed lines in (*a*)–(*c*) refer to the two points E_1 and E_2 in each case.