Supporting Information

Zn isotope variability in three coal-fired power plants: a preliminary model for isotopic fractionation during combustion

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Contents of SI

Number of pages: 4
Figures S1-S3

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Figure S1. Long-term reproducibility achieved for Zn isotope ratios of BCR-176 (fly ash) and Cu isotope ratios (dopant, ERM-AE633) measured in 10 sessions over the course of this study.
Figure S2. Zn isotopic compositions of the samples analysed in this study: a) plot of δ^{67}Zn vs. δ^{66}Zn and (b) plot of δ^{68}Zn vs. δ^{66}Zn. The Zn isotope data follow the trends expected for a system of uniform isotopic abundances undergoing mass-dependent fractionation. This indicates that all of the sample purifications were sufficient and spectral interferences were minimal during data measurement.
Figure S3. Magnitude of Zn fractionation during combustion ($\Delta^{66}\text{Zn}_{\text{C-BA/FA}}$). $\Delta^{66}\text{Zn}_{\text{C}}$ was estimated by comparison of the isotopic composition of the fuel blends ($\delta^{66}\text{Zn}_{\text{C}}$) and those of the bottom ash (BA) or fly ash (FA) samples ($\delta^{66}\text{Zn}_{\text{BA}}$ or $\delta^{66}\text{Zn}_{\text{FA}}$) collected in PPA (BAA, FAA, FA1A), PPB (BAB, FAB, FA1B) and PPC (BAC, FAAC, FA1C). 2SD uncertainties are estimated propagating the 2SD of the $\delta^{66}\text{Zn}$ values for the feed materials ($\delta^{66}\text{Zn}_{\text{C}}$) and the combustion by-products ($\delta^{66}\text{Zn}_{\text{BA}}$ or $\delta^{66}\text{Zn}_{\text{FA}}$).