

Dual carbonate clumped isotopes (Δ_{47} - Δ_{48}) constrains kinetic effects and timescales in peridotite-associated springs at The Cedars, Northern California

Supplementary Material-2

Supplementary Figures

Zeeshan A. Parvez^{a, b, c, *}, Jamie K. Lucarelli^{a, b, *}, Irvin W. Matamoros^{a, b}, Joshua Rubi^{b, d}, Kevin Miguel^{b, d}, Ben Elliott^{a, b}, Randy Flores^{a, b}, Robert N. Ulrich^{a, b}, Robert A. Eagle^{b, c, f}, James M. Watkins^g, John N. Christensen^h, Aradhna Tripathi^{a, b, c, f}

^a Department of Earth, Planetary, and Space Sciences, University of California, Los Angeles, CA, USA

^b Center for Diversity and Leadership in Science, University of California, Los Angeles, CA, USA

^c Department of Chemistry and Biochemistry, University of California, Los Angeles, CA, USA

^d East Los Angeles College, Los Angeles, CA, USA

^e Department of Atmospheric and Oceanic Sciences, University of California, Los Angeles, CA, USA

^f Institute of Environment and Sustainability, University of California, Los Angeles, CA, USA

^g Department of Earth Sciences, University of Oregon, Eugene, OR, USA

^h Department of Energy Geosciences, Lawrence Berkeley National Laboratory, Berkeley CA, USA

* Joint first author

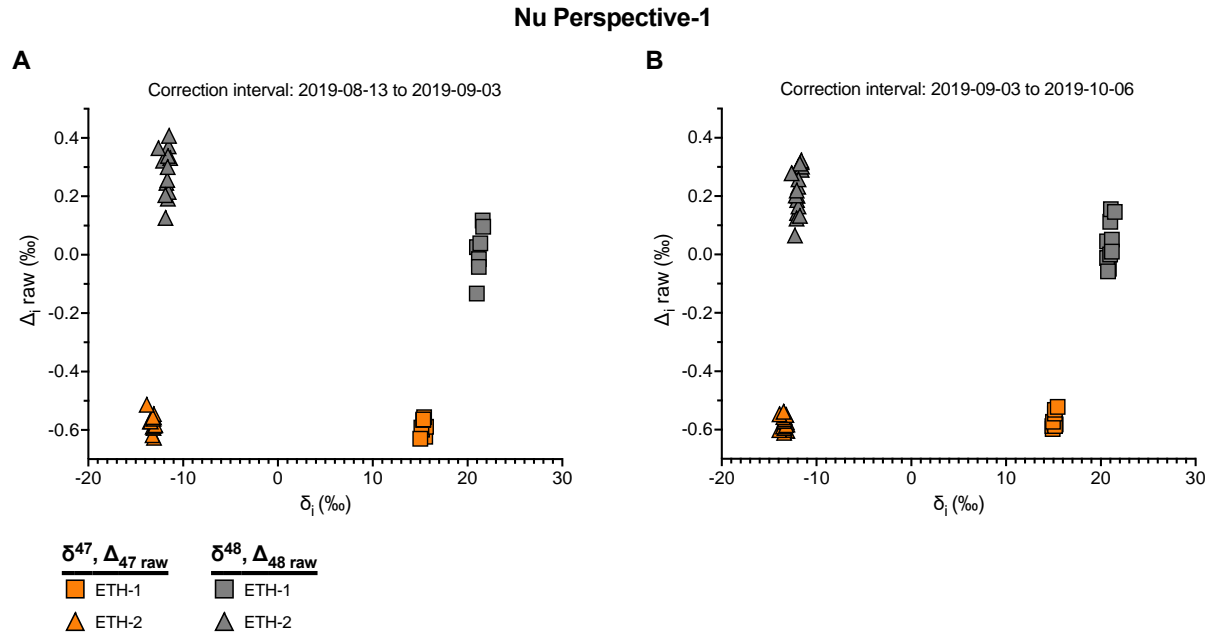


Figure S1. The Δ_{47} , δ_{47} , Δ_{48} , and δ_{48} values for ETH-1 and ETH-2 determined on Nu Perspective-1, which were used for nonlinearity corrections. The correction interval is reported on each panel. The corrections were calculated based on a ± 10 standard replicate moving average. All nonlinearity correction values are given in Tables S2 and S3.

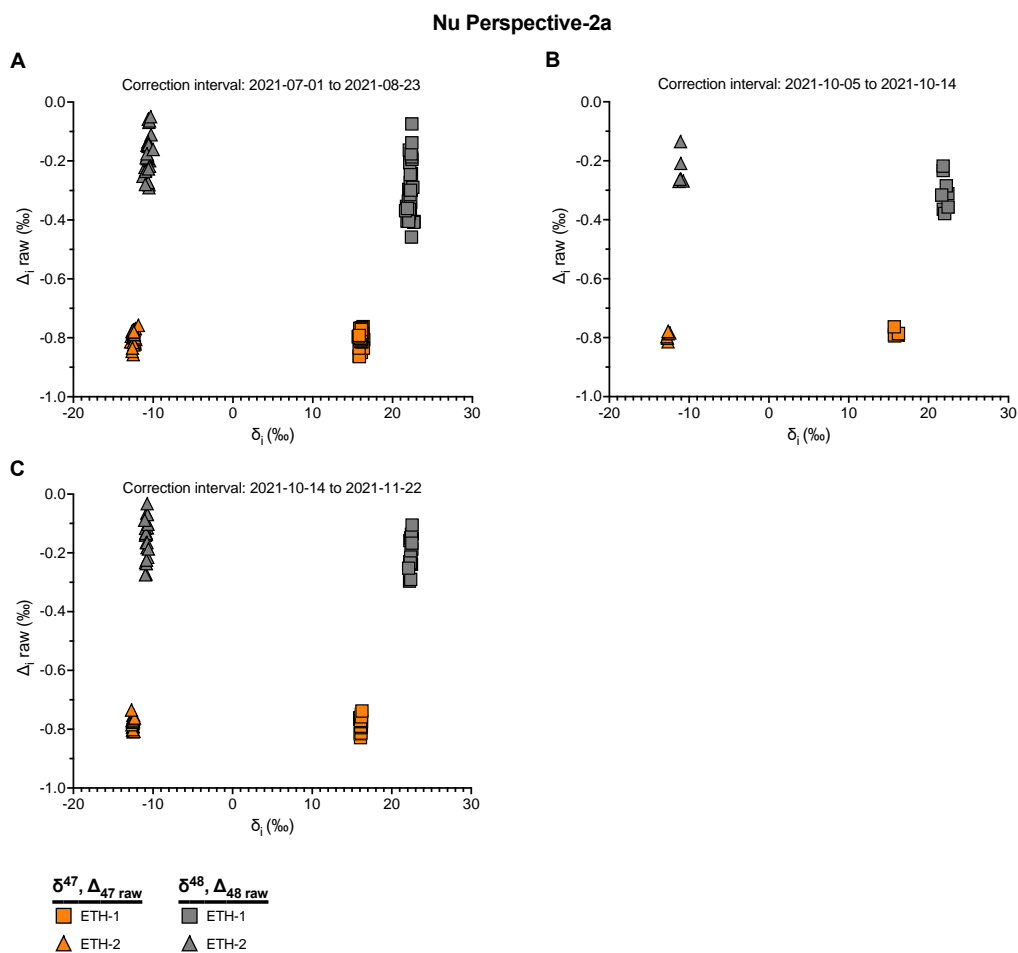


Figure S2. The Δ_{47} , δ^{47} , Δ_{48} , and δ^{48} values for ETH-1 and ETH-2 determined on Nu Perspective-2a, which were used for nonlinearity corrections. The correction interval is reported on each panel. The corrections were calculated based on a ± 10 standard replicate moving average. All nonlinearity correction values are given in Tables S2 and S3.

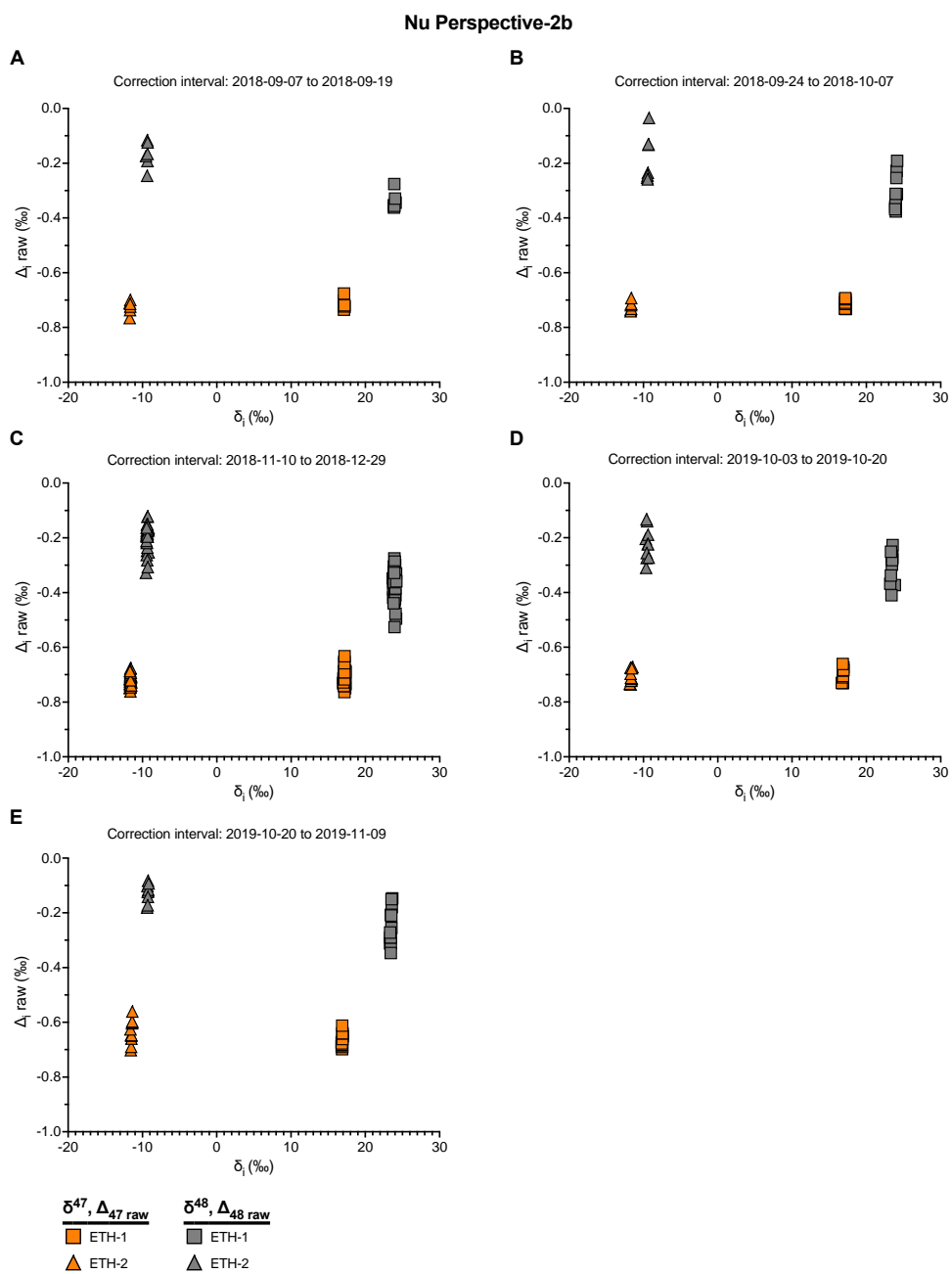


Figure S3. The Δ_{47} , δ^{47} , Δ_{48} , and δ^{48} values for ETH-1 and ETH-2 determined on Nu Perspective-2b, which were used for nonlinearity corrections. The correction interval is reported on each panel. The corrections were calculated based on a ± 10 standard replicate moving average. All nonlinearity correction values are given in Tables S2 and S3.

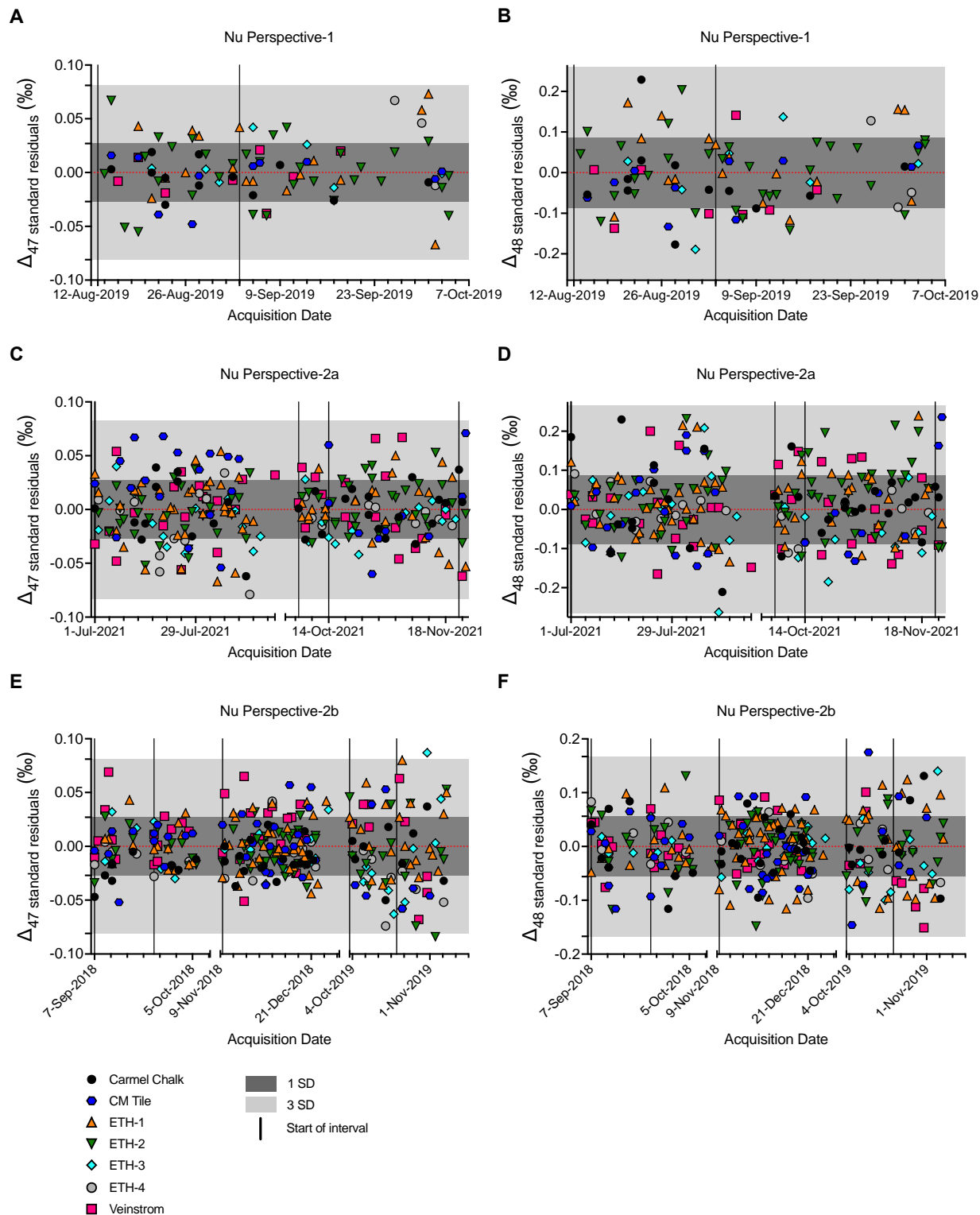


Figure S4. The standard residuals for each instrument configuration. Panels A, C, and E are the Δ_{47} standard residuals, and panels B, D, and F are the Δ_{48} standard residuals. Typically, values are excluded if they are >3 SD from the mean. The start of each interval (black vertical lines), 1 SD (dark gray shading), and 3 SD (light gray shading) are indicated on each panel.