**Abstract: Supplemental Data for**
Abundance, Sizes, and Major Element Compositions of Components in CR and LL Chondrites: Formation from Single Reservoirs
Ebel, D. S., Gemma, M. E., Alpert, S., Bayron, J., Lobo, A., and Weisberg, M. K.

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## Abstract

These files supplement Ebel et al. (2024). Abundances, apparent sizes, and individual chemical compositions of chondrules, refractory inclusions, other objects and surrounding matrix have been determined for Semarkona (LL3.00) and Renazzo (CR2) using consistent methods and criteria on x-ray element intensity maps. These represent the non-carbonaceous (NC, Semarkona) and carbonaceous chondrite (CC, Renazzo) superclans of chondrite types. We compare object and matrix abundances with similar data for CM, CO, K, and CV chondrites. We assess, pixel-by-pixel, the major element abundance in each object and in the entire matrix. We determine the abundance of "metallic chondrules" in LL chondrites. Chondrules with high Mg/Si and low Fe/Si and matrix carrying opposing ratios complement each other to make whole rocks with near-solar major element ratios in Renazzo. Similar Mg/Si and Fe/Si chondrule-matrix relationships are seen in Semarkona, which is within 11% of solar Mg/Si but significantly Fe-depleted. These results provide a robust constraint in support of single-reservoir models for chondrule formation and accretion, ruling out whole classes of astrophysical models and constraining processes of chondrite component formation and accretion into chondrite parent bodies.