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**Assessing different types of C1 material by H, O, and Cr isotope systematics.**

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Xenolithic C1 and CM-like clasts can be found in various chondrite and achondrite breccias including CR and ordinary chondrites as well as HEDs and ureilites [1-2]. C1 clasts from different host meteorites and CI chondrites exhibit different H, O, and Cr isotope signatures as well as different S isotopic distributions of their sulfide grains, although they have a very similar mineralogy. C1 clasts from ureilites are of special interest since their oxygen isotope composition plot along the Carbonaceous Chondrite Anhydrous Mineral line (CCAM). This results most likely from an incorporation of unfractionated D-rich and <sup>16</sup>O-poor ices. These ices formed by self-shielding during photodissociation in a dense molecular cloud. Their ε<sup>54</sup>Cr composition reveals a higher enrichment in <sup>54</sup>Cr compared to the common CI chondrites. Further characterization of this hidden material in brecciated meteorites might provide a missing components to explain the composition of the bulk silicate Earth (BSE).

[1] Zolensky M.E. et al. (1996) MAPS 31:518-537.

[2] Patzek M. et al. (2018) MAPS. 53:2519-2540.

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