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Assessment of Hf & W isotope compositions in chondrite acid leachates & residues for nucleosynthetic anomalies.

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The stepwise dissolution of primitive chondritic meteorites allows to reveal nucleosynthetic anomalies that are otherwise hidden in the bulk rock mix. Here, we present for the first time combined Hf and W isotope data for acid leachates of several primitive chondrites, including some sufficiently precise analyses of p-process ¹⁷⁴Hf and ¹⁸⁰W.

First data reveal that most of the leachates and residues show anomalous s- and r-process Hf isotope patterns, consistent with the results of [1], whereas only one sample shows an apparent anomaly in ¹⁸³W, similar to the results of [2]. In terms of p-process isotopes, no resolvable anomaly in ¹⁷⁴Hf was found for any sample, whereas both positive and negative ¹⁸⁰W anomalies are resolved for most of the leachates and residues. The origin of the apparent decoupling between ¹⁷⁴Hf and ¹⁸⁰W is presently ambiguous, but possibly point towards different carrier phases for p-process Hf and W.

[1] Qin L. et al. (2011) *GCA*, 75, 7806-7828. [2] + Burkhardt C. et al. (2012) *AJL*, 753, L6.

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