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**LA-ICP-MS method for the determination of trace element distribution and abundances in chondritic components**

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Element distribution and abundances in chondritic components provide insights into the early evolution of inner solar system materials. The small-scale chemical heterogeneity of chondritic matter makes an accurate determination of suitable internal standard elements required for quantification challenging. This problem can be circumvented if the ablation yield is calculated by the total ablated material [1]. For this purpose, all relevant major elements are analysed relative to an external standard and recalculated as oxides, sulfides, and metals. The ablation yield is then calculated from the sum of major elements. This procedure requires a suitable external standard for major element calibration in chondrites. To this end, we obtained a nanoparticle based standard material with major and most minor elements in approximately CI chondritic abundance and prepared an external standard from a CM chondrite. Measurement setup, data evaluation and applicability of the approach and the new reference materials will be discussed.

[1] Liu *et al.* (2008) *Chem. Geol.* **257**, 34–43.

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