

How comparable are carbonate elemental laser ablation ICP-MS data between laboratories?

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To answer this question, pressed powder pellets of natural carbonate reference materials (JCp-1 and Jct-1) were sent to >20 participating laboratories around the world tasked to analyse both spots and line scans on five different parts of each material. Preliminary data for Li, B, Na, Mg, Mn, Sr, Ba, and U measured in 8 laboratories are generally within consensus values from solution techniques and compare well between laboratories. The complete dataset will allow us to compare different pellet preparation methods, data from different laser systems and ICP-MS instrumentation and the influence of additional gases and smoothing devices.