# A unique instrumental approach for enhanced specificity in MC-IC-PMS

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MC-ICP-MS instruments have evolved to be an essential workhorse instrument for geochemistry laboratories. The ion optics of today's instruments are double focusing geometries, with the option to use high mass resolving power to resolve molecular interferences. Isobaric elemental interferences are corrected by measuring an undisturbed isotope of the interfering element and stripping the interference from the element of interest, based on assumed isotopic abundances of the interfering element. However, for exotic extraterrestrial samples where the isotopic composition of each element is unknown, peak stripping does not work. In addition to isotopic information the elemental composition is of interest, for which a fast scanning mass analyzer capability is required in addition to the static multicollection. Laser ablation provides spatial resolution to sample small inclusions that are challenging to access through physical and chemical separation techniques, as well as avoiding sample contamination associated with conventional sample preparation for solution mode analysis.

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