

**New progresses in analytical
methods of *in situ* Sm-Nd
isotope measurement of natural
geological samples by LA-MC-
ICP-MS**

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The new progresses in analytical methods of *in situ* Sm-Nd isotope measurement of natural geological samples by laser ablation multi-collector ICP mass spectrometry (LA-MC-ICP-MS) since 2006 have been reviewed in this paper. Based on 58 references, the review is focusing on description of analytical protocol of *in situ* Sm-Nd isotopic measurement by LA-MC-ICP-MS and each research group has a different methodology for isobaric interference correction. As it suggested, the reliable $^{147}\text{Sm}/^{144}\text{Nd}$ and $^{143}\text{Nd}/^{144}\text{Nd}$ data of light REE richened accessory can be obtained by LA-MC-ICP-MS. Combined with accessory's U-Th-Pb age and trace element character, we can obtain important geochemical constraint about its genetic evolution. It is prospective *in situ* technique for Sm-Nd isotopic system combined with multiple isotope system and for less than 500 ppm Nd concentration and HREE-richened (*e.g.*, xenotime) accessory in the near future.