

Analysis requirements for the MC-ICPMS laboratory, Department of Geosciences, University of Oslo

In-situ zircon U-Pb and Lu-Hf analysis of zircon:

Zircons must be in polished, 2.5 cm diameter epoxy mounts. The zircons should not be placed near the rim of the mount as there is a small lip in the sample holder which covers (and casts a shadow over) a part of the epoxy mount. A safety margin of 4 mm from the edge of the mount should suffice. The epoxy mounts must be free of any contamination, Hg-contamination is especially a concern in U-Pb analysis since ^{204}Hg is an isobaric overlap on ^{204}Pb which is used as an indicator of the level of common-lead contamination in the zircon. Sources of contamination might be residue of adhesive used during picking, the epoxy itself, the grinding/polishing equipment etc.

The epoxy mounts should be imaged by SEM - where an overview map and individual images of zircon (or images of clusters) are produced and all zircons are given an identifier - prior to the laser-ablation-MC-ICPMS analysis.

Pb isotope analysis of solutions:

The samples should be prepared following clean room laboratory practices. All reagents used, water, acid etc., should be ultra-pure. 2% nitric acid is the preferred matrix. Appropriate blanks - reagent, procedural etc. - must also be included for analysis.

To evaluate if it is possible to analyse your samples, including other types not mentioned herein, in our MC-ICPMS laboratory please contact Tom Andersen (tom.andersen@geo.uio.no) and Magnus Kristoffersen (magnus.kristoffersen@geo.uio.no).

A booking to our lab provides access to the instrument, guidance in its usage and guidance in data interpretation. We do not, however, have the resources to produce the data for you. Bookings are made at the discretion of Tom Andersen and Magnus Kristoffersen.

The requirements stated herein are subject to change.

For bookings please contact Magnus Kristoffersen (magnus.kristoffersen@geo.uio.no).

