

Radiogenic Isotope and Geochronology Laboratory (RIGL)

Instrumentation

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Teledyne "Analyte Excite"
Excimer laser

Thermo Scientific Element2
HR-MS-ICPMS

Thermo Scientific Neptune Plus
MC-ICPMS



MC-ICPMS, HR-ICPMS, 193nm laser ablation system



Radiogenic Isotope and Geochronology Laboratory (RIGL)

Neptune Plus—determining precise and accurate isotope compositions on purified solutions



Thermo Scientific Neptune Plus
MC-ICPMS

Radiogenic Isotope systems:

Rb-Sr

Sm-Nd

Lu-Hf

U-Pb

Stable Isotope systems:

Fe, Cu, Zn, Mg, Sb

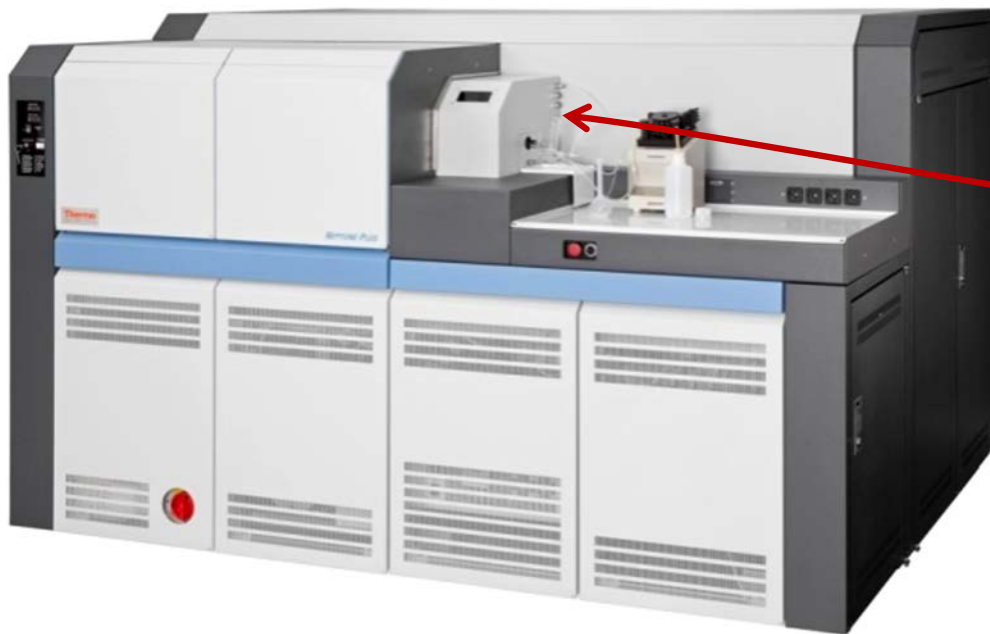
Materials:

Rocks and minerals

Archeological materials

Biological materials

Radiogenic Isotope and Geochronology Laboratory (RIGL)
Neptune Plus with excimer laser—in-situ determination of precise and accurate isotope compositions



Thermo Scientific Neptune Plus
MC-ICPMS



Radiogenic Isotope systems:

Sr, Hf, Nd

Materials:

Target rich minerals (e.g., Zircon for Hf)

Biological materials (e.g., Otoliths for Sr)

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Element 2 — determining precise trace-element compositions with high sensitivity (ICPMS and LA-ICPMS)

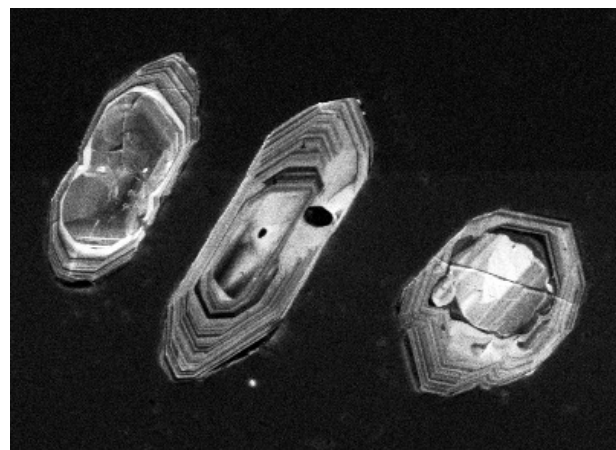


Excimer Laser

Thermo Scientific Element2
HR-MS-ICPMS

Solution analyses (ICPMS):
trace-element analyses

Laser-ablation analyses (LA-ICPMS)
U-Pb zircon age analysis
trace-element analyses



Radiogenic Isotope and Geochronology Laboratory (RIGL)

LASS- Laser Ablation 'Split Stream'

U-Pb

Hf, Nd isotopes



Excimer Laser

Thermo Scientific Element2
HR-MS-ICPMS

Thermo Scientific Neptune Plus
MC-ICPMS