

Sample Results Summary Sheet

Please return this form to the Curator for each allocated Sample

Sample ID: RA-QD02-00196

PI: N. Kita and D. Nakashima

Type and date of analysis performed:

Embedding in epoxy under a N₂ gas atmosphere, Oct., 2012

Ultramicrotomy, Nov 16, 2012

Raman spectroscopy, Nov 16, 2012

Embedding in epoxy with a San Carlos olivine standard grain, Nov. 16, 2012

Grinding down to expose the sample surface, Nov 19, 26-30, 2012/Mar 3, 2013

SEM and EDS analysis of polished surface, Mar 7, 2013

Examination of surface profile before ion microprobe analyses, Apr 12, 2013

Ion microprobe analyses of oxygen isotopes, Apr 16, 2013

SEM observation to inspect Ion microprobe pits, May 8, 2013

Elements or phases identified: (Mg, Si, olivine, pyroxene, aromatic carbon, etc.)

Oxygen isotopes, olivine

Contaminant phases identified: (Al, SUS, carbon particles, etc.)

Possibly Al (polished away during grinding down to expose the sample surface)

Sample handling: (e.g. exposed in atmosphere, embedded in resin, polished, sliced by FIB or UMT)

Embedded in epoxy resin, Exposed in atmosphere, Ultramicrotomed, Polished, Embedded epoxy disks in Indium by pressing surface with flat silica glasses, Coated with gold ~ 30nm, Removed epoxy disks from Indium, Polished using 0.25- μ m diamond suspension, Washed with distilled water and ethanol, Coated with carbon ~ 20nm

State of sample pre-analysis: (e.g. N₂ hold, atmosphere, resin embedded, polished section, UTS) (please describe treatments and/or modifications for the sample you have done before your analysis)

Exposed in atmosphere, A San Carlos olivine grain (~500 μ m in size) is embedded adjacent to the sample, Embedded in Indium, Coated with gold ~ 30nm, Kept in a vacuum desiccator

State of sample post-analysis:

(N₂ hold in sample holder, atmosphere, resin embedded, polished section, UTS)
(partially damaged by electron beam, spotted by Ga beam, neutron activation)
(consumed by laser ablation)

(unexpected breakup, into # pieces)

(Lost : reason)

Partly consumed by Cs (2 SIMS pits; 1 SIMS pit ~ 1 ng), C-coated, A San Carlos olivine grain (~500 μ m in size) is embedded adjacent to the sample, Kept in a vacuum desiccator

Analysis data Notes: (summary of the attached analysis data and/or images)

See attached sheets