

Sample Results Summary Sheet

Please return this form to the Curator for each allocated Sample

Sample ID: RA-QD02-0030

PI: Tomoki Nakamura

Type and date of analysis performed:

| | |
|-----------------|--------------------------|
| XRD | Jan/28/2011~ Feb/3/2011 |
| FE-SEM, FE-EPMA | Feb/19/2011~ Feb/28/2011 |

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

XRD : OI, PI, LPx, Tae

FE-SEM : OI, PI, LPx, Tae, Chr, Kam, Tr

FE-EPMA : Si, Ti, Al, Fe, Mn, Mg, Ca, Na, K, Cr, Ni, P, S

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

N/A

Sample handling:

XRD

Attached to carbon fiber with resin.

FE-SEM, FE-EPMA

Exposed in atmosphere.

Polished by M cross

C-coated (20 nm)

State of sample pre-analysis:

Attached to carbon fiber with resin. (XRD)

Polished section with resin embedded (FE-SEM, FE-EPMA)

State of sample post-analysis:

Attached to carbon fiber with resin. (XRD)

Polished section with resin embedded, C-coated (FE-SEM, FE-EPMA)

N₂ hold in sample holder.

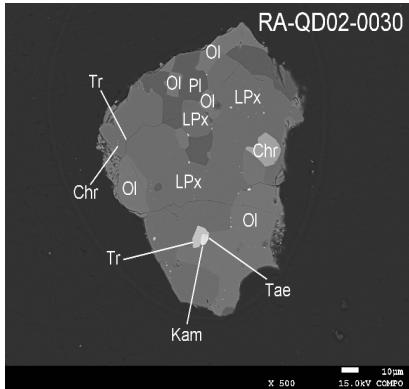
Analysis data Notes: (summary of the attached analysis data and/or images)

See attached sheets.

RA-QD02-0030

Analysis S-XRD (polish) FE-SEM FE-EPMA
Present status Putted butt with some SIMS spots

FE-SEM/BSE



S-XRD

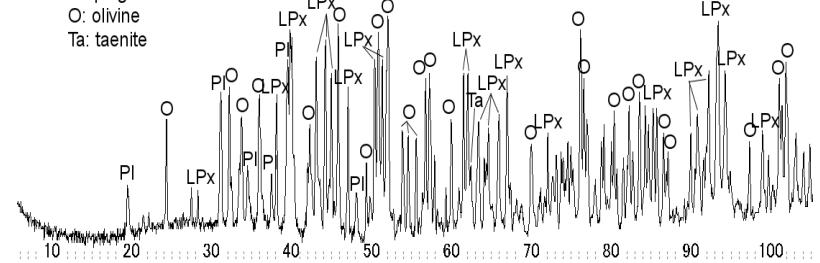
Itokawa RA-QD02-0030

LPx: low-Ca pyroxene

Pl: plagioclase

O: olivine

Ta: taenite



FE-EPMA

| wt% | Olivine n=1 | Ol 1 sigma | LPx n=19 | Px 1 sigma | HPx n=1 | HPx 1 sigma | Plagio n=1 | Pl 1 sigma |
|--------------------------------|-------------|------------|----------|------------|---------|-------------|------------|------------|
| SiO ₂ | 38.09 | 0.26 | 55.33 | 0.26 | | 64.39 | 0.81 | |
| TiO ₂ | 0.03 | 0.04 | 0.17 | 0.04 | | 0.04 | 0.04 | |
| Al ₂ O ₃ | 0.01 | 0.01 | 0.15 | 0.03 | | 19.81 | 0.39 | |
| FeO | 26.55 | 0.43 | 15.93 | 0.18 | | 0.62 | 0.34 | |
| MnO | 0.46 | 0.04 | 0.45 | 0.06 | | 0.02 | 0.02 | |
| MgO | 35.91 | 0.55 | 27.38 | 0.24 | | 0.26 | 0.61 | |
| CaO | 0.01 | 0.01 | 0.90 | 0.10 | | 2.23 | 0.34 | |
| Na ₂ O | 0.01 | 0.01 | 0.02 | 0.01 | | 9.93 | 0.22 | |
| K ₂ O | 0.01 | 0.01 | 0.00 | 0.00 | | 0.98 | 0.12 | |
| Cr ₂ O ₃ | 0.03 | 0.08 | 0.14 | 0.04 | | 0.01 | 0.02 | |
| NiO | 0.01 | 0.04 | 0.03 | 0.03 | | 0.04 | 0.04 | |
| P ₂ O ₅ | 0.04 | 0.05 | 0.01 | 0.01 | | 0.08 | 0.23 | |
| SO ₃ | 0.01 | 0.02 | 0.02 | 0.03 | | 0.01 | 0.03 | |
| Total | 101.17 | 0.49 | 100.53 | 0.42 | | 98.42 | 0.57 | |
| SUM | | | | | | | | |

Comment

| | | | |
|---------------|-------|-------|------|
| Olivine (Fa#) | 29.32 | 0.56 | |
| LPx(Fs#) | | 24.17 | 0.16 |
| LPx(Wo#) | | 1.76 | 0.20 |
| LPx(En#) | | 74.08 | 0.21 |
| HPx(Fs#) | | | |
| HPx(Wo#) | | | |
| HPx(En#) | | | |
| Pl(Or#) | | 5.48 | 0.67 |
| Pl(An#) | | 10.43 | 1.37 |
| Pl(Ab#) | | 84.09 | 1.57 |