

Sample Results Summary Sheet

Please return this form to the Curator for each allocated Sample

Sample ID: RA-QD02-0043

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, HPx, PI

FE-SEM : OI, HPx, PI

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

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.

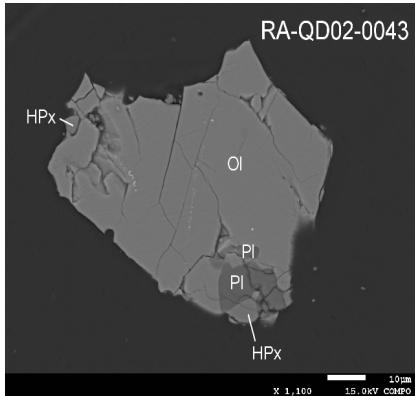
Analysis data Notes: (summary of the attached analysis data and/or images)

See attached sheets.

RA-QD02-0043

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

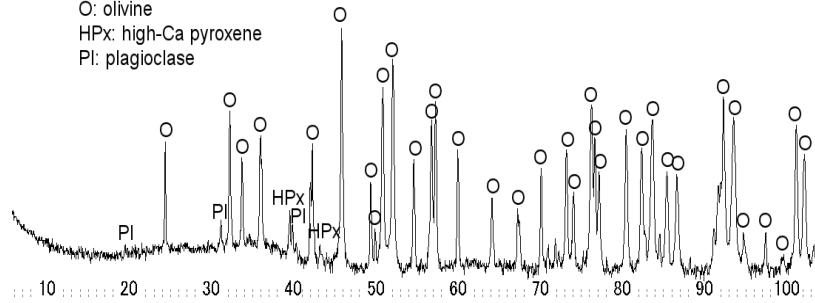
FE-SEM/BSE



S-XRD

Itokawa RA-QD02-0043

O: olivine
HPx: high-Ca pyroxene
PI: plagioclase



FE-EPMA

| wt% | Olivine n=1 | Ol 1 sigma | LPx n=1 | Px 1 sigma | HPx n=3 | HPx 1 sigma | Plagio n=4 | Pl 1 sigma |
|--------------------------------|-------------|------------|---------|------------|---------|-------------|------------|------------|
| SiO ₂ | 38.36 | 0.43 | | 54.37 | 0.90 | 66.81 | 0.61 | |
| TiO ₂ | 0.01 | 0.02 | | 0.38 | 0.07 | 0.03 | 0.02 | |
| Al ₂ O ₃ | 0.02 | 0.03 | | 0.48 | 0.05 | 20.20 | 0.15 | |
| FeO | 25.49 | 0.25 | | 5.27 | 0.29 | 0.51 | 0.12 | |
| MnO | 0.49 | 0.05 | | 0.22 | 0.06 | 0.00 | 0.01 | |
| MgO | 36.63 | 0.67 | | 16.06 | 0.33 | 0.19 | 0.10 | |
| CaO | 0.00 | 0.01 | | 21.92 | 0.19 | 2.08 | 0.07 | |
| Na ₂ O | 0.01 | 0.01 | | 0.52 | 0.03 | 9.33 | 0.28 | |
| K ₂ O | 0.00 | 0.01 | | 0.00 | 0.00 | 1.20 | 0.42 | |
| Cr ₂ O ₃ | 0.02 | 0.03 | | 0.63 | 0.13 | 0.01 | 0.01 | |
| NiO | 0.01 | 0.02 | | 0.00 | 0.00 | 0.02 | 0.03 | |
| P ₂ O ₅ | 0.03 | 0.03 | | 0.01 | 0.01 | 0.00 | 0.01 | |
| SO ₃ | 0.01 | 0.01 | | 0.01 | 0.01 | 0.01 | 0.02 | |
| Total | 101.09 | 0.53 | | 99.87 | 1.64 | 100.40 | 0.63 | |
| SUM | | | | | | | | |

Comment

| | | | |
|---------------|-------|-------|------|
| Olivine (Fa#) | 28.08 | 0.42 | |
| LPx(Fs#) | | | |
| LPx(Wo#) | | | |
| LPx(En#) | | | |
| HPx(Fs#) | | 8.50 | 0.37 |
| HPx(Wo#) | | 45.33 | 0.76 |
| HPx(En#) | | 46.18 | 0.42 |
| Pl(Or#) | | 7.02 | 2.41 |
| Pl(An#) | | 10.18 | 0.30 |
| Pl(Ab#) | | 82.80 | 2.71 |