

## **Sample Results Summary Sheet**

**Please return this form to the Curator for each allocated Sample**

**Sample ID:** RA-QD02-0038

**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 : LPx, Tr, Tae  
FE-SEM : LPx, Tr, Pl, Chr  
FE-EPMA : Si, Ti, Al, Fe, Mn, Mg, Ca, Na, K, Cr, Ni, 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)  
N<sub>2</sub> hold in sample holder.

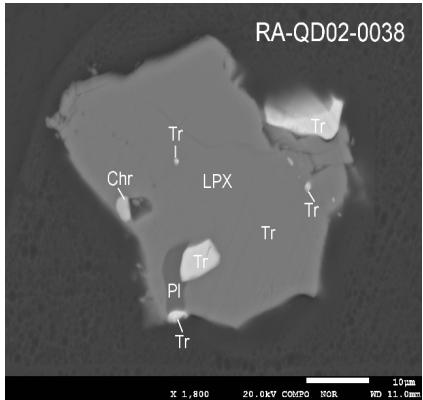
**Analysis data Notes:** (summary of the attached analysis data and/or images)

See attached sheets.

# RA-QD02-0038

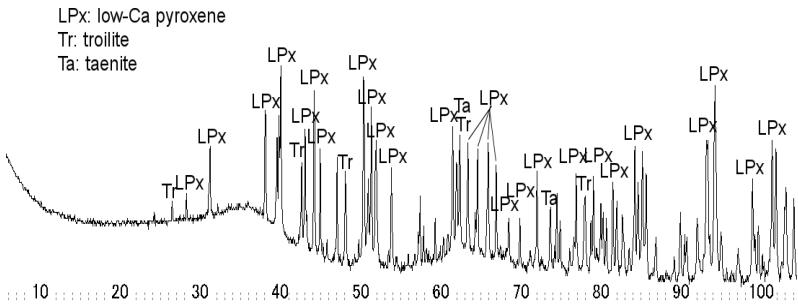
Analysis S-XRD (polish) FE-SEM FE-EPMA  
Present status Putted butt with some SIMS spots

FE-SEM/BSE



S-XRD

## Itokawa RA-QD02-0038



FE-EPMA

wt%	Olivine n=0 OI 1 sigma	LPx n=10 .Px 1 sigm:	HPx n=0 +Px 1 sigm:	Plagio n=2 Pl 1 sigma
SiO <sub>2</sub>	54.73	0.44	64.59	0.76
TiO <sub>2</sub>	0.18	0.04	0.00	0.00
Al <sub>2</sub> O <sub>3</sub>	0.17	0.02	19.71	0.56
FeO	15.86	0.29	0.53	0.20
MnO	0.46	0.06	0.05	0.07
MgO	27.54	0.34	0.69	0.25
CaO	0.74	0.11	2.34	0.05
Na <sub>2</sub> O	0.01	0.01	8.58	0.46
K <sub>2</sub> O	0.01	0.02	0.66	0.04
Cr <sub>2</sub> O <sub>3</sub>	0.07	0.04	0.00	0.00
NiO	0.01	0.02	0.05	0.02
P <sub>2</sub> O <sub>5</sub>	0.00	0.01	0.02	0.03
SO <sub>3</sub>	0.01	0.02	0.45	0.23
Total	99.78	0.41	97.67	1.22
SUM				

Comment

Olivine (Fa#)

LPx(Fs#)	24.07	0.35
LPx(Wo#)	1.43	0.23
LPx(En#)	74.50	0.42

HPx(Fs#)

HPx(Wo#)

HPx(En#)

Pl(Or#)

Pl(An#)

Pl(Ab#)

4.22 0.10

12.55 0.81

83.22 0.71