RA-QD02-0025-02

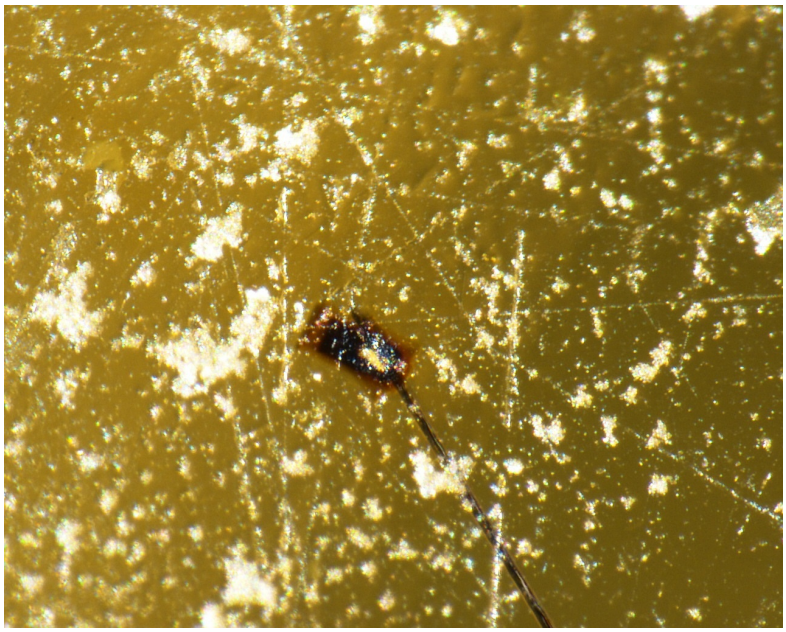
Curation data

Parent	Status	Size	Category	Phase
RA-QD02-0025	Curation N2-SP3, PS with C-coat, almost consumed	28.4µm	1	[pl]

Work

Curation, condition check of returned sample

Images



PROCESS :
optical microscope observation

OPERATOR :
Yada

COMMENT :
condition of post initial analysis

Sample Results Summary Sheet

Please return this form to the Curator for each allocated Sample

Sample ID: RA-QD02-0025-02

PI: Akira Tsuchiyama

Type and date of analysis performed:

Tomography Jan/22/2011 (7 keV)

Jan/24/2011 (8 keV)

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

Mode	Ol	LPx	HPx	Pl	Tr	Tae	Chm	CP	Kam
Vol %	-	-	-	100	-	-	-	-	-

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

N/A

Sample handling:

Exposed in atmosphere.

State of sample pre-analysis:

Attached to carbon fiber with resin.

State of sample post-analysis:

N_2 hold in sample holder.

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

See attached sheets.

RA-QD02-0025-02

Operation Date Jan/22/2011 (7 keV)
Jan/24/2011 (8 keV)
operated by T. Ogami (7 keV)
T. Ogami (8 keV)
analyzed by J. Matsuno

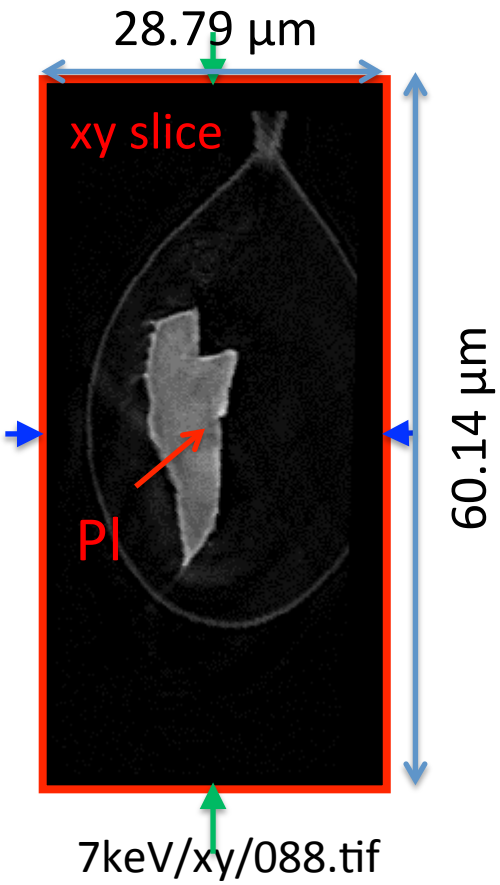
Mode	Ol	LPx	HPx	Pl	Tr	Tae	Chm	CP	Kam
Vol %	-	-	-	100	-	-	-	-	-

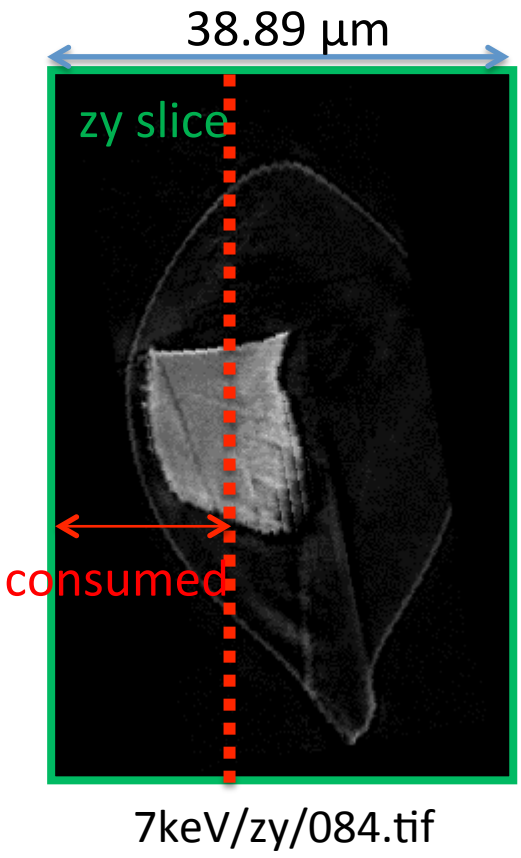
A (μm)	B (μm)	C (μm)	V (μm^3)	Porosity (%)
4.47	11.4	14.2	2392	0.01

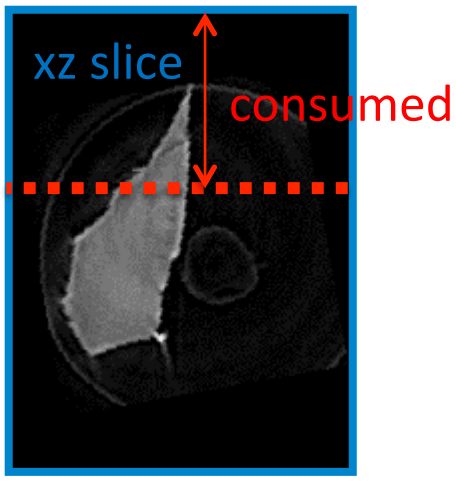
Ol: olivine
LPx: low calcium pyroxene
HPx: high calcium pyroxene
Pl: plagioclase
Tr: troilite
Tae: taenite
Chm: chromite
CP: calcium phosphate
Kam: kamacite

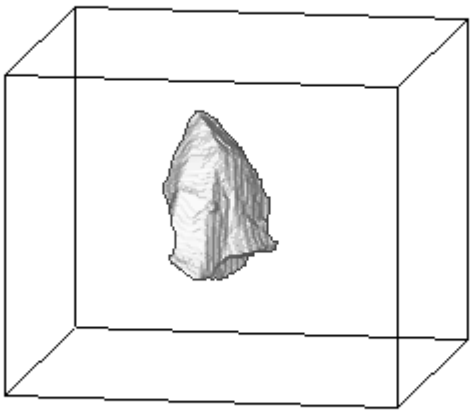
A, B, and C: shortest, middle, and longest axial radii, respectively, of a best-fit ellipsoid for the particle
V: particle volume without pore
dz: CT image interval
LAC: linear attenuation coefficient of X-ray

RA-QD02-0025-02 7 keV

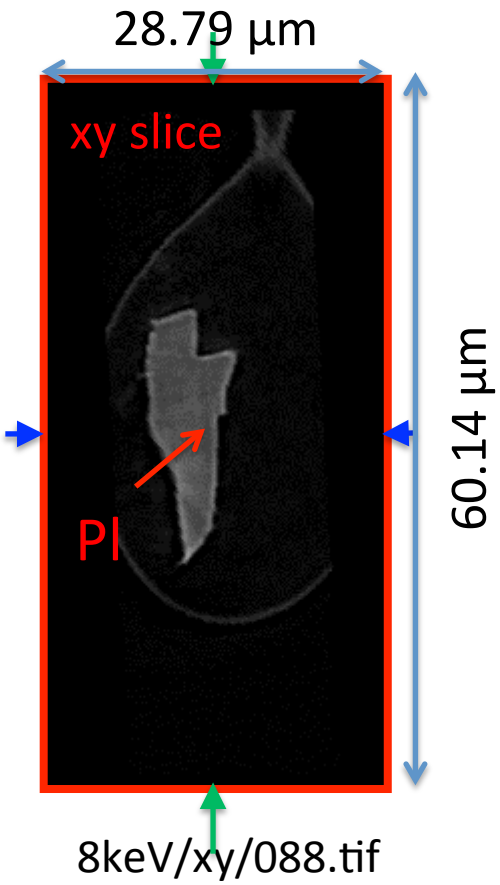


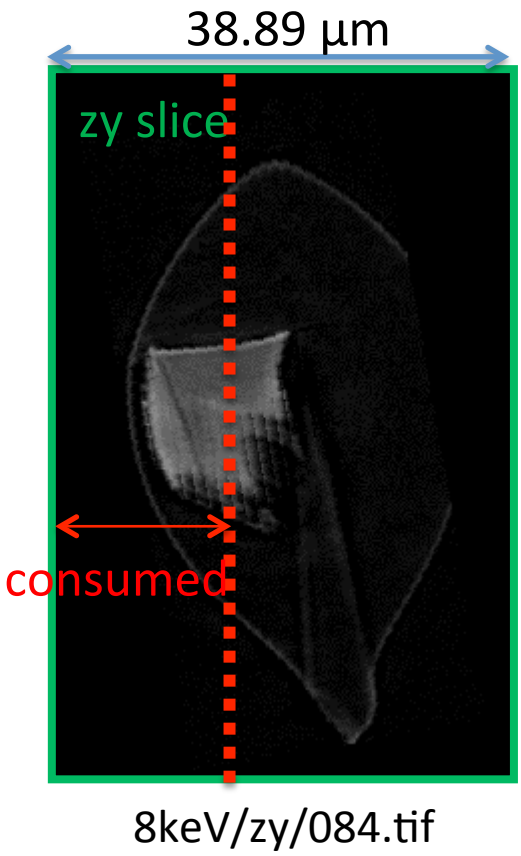


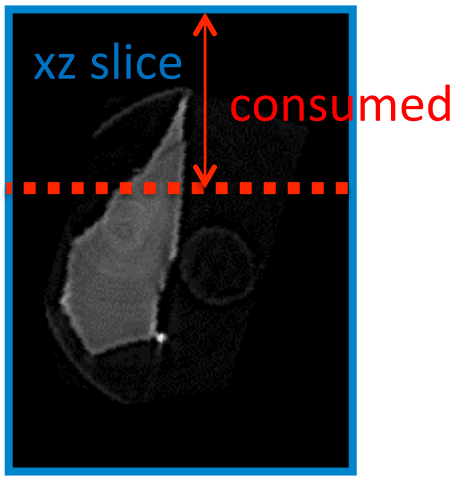


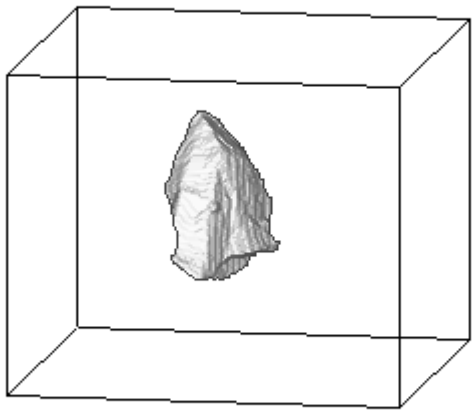


RA-QD02-0025-02 8 keV

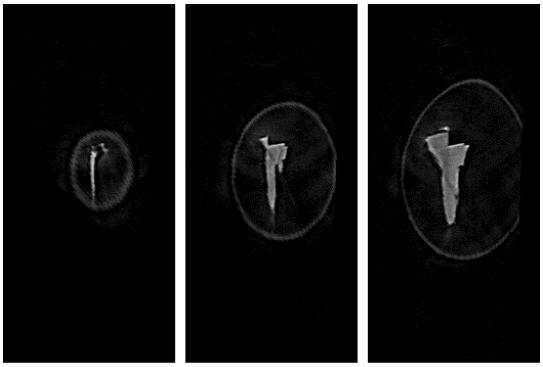




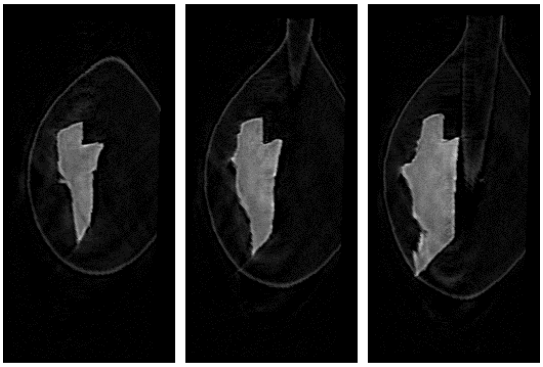




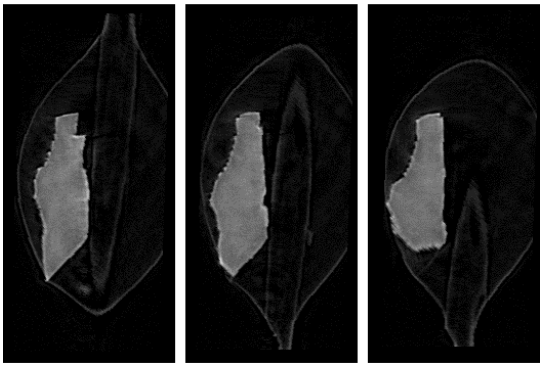
RA-QD02-0025-02 7 keV catalogue



041.tif 054.tif 067.tif



080.tif 093.tif 106.tif



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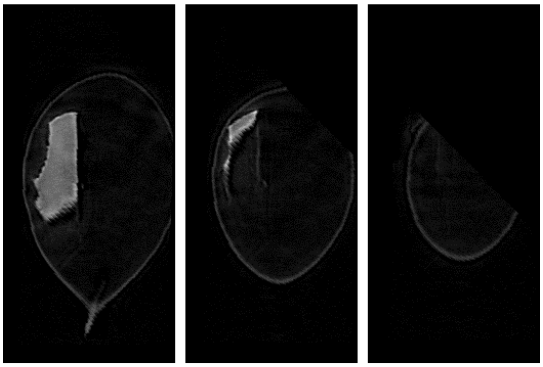
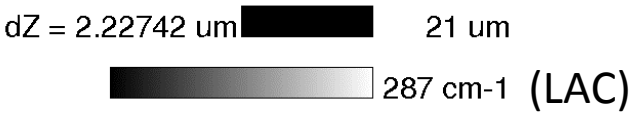
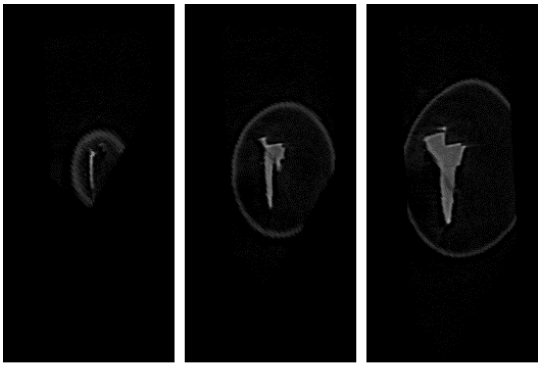


158.tif 171.tif 184.tif



RA-QD02-0025-02 8 keV catalogue



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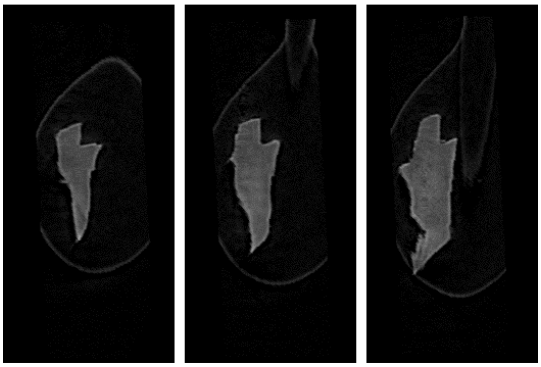

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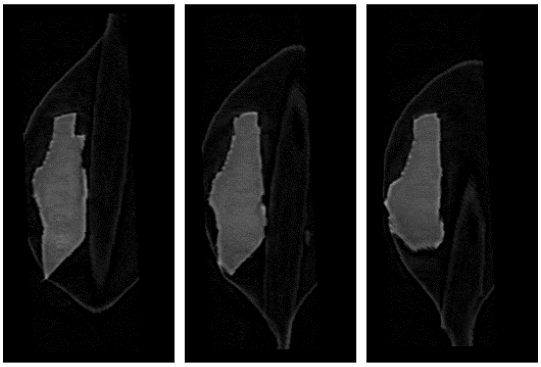
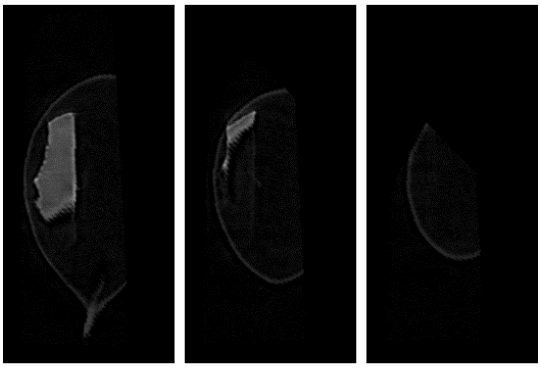
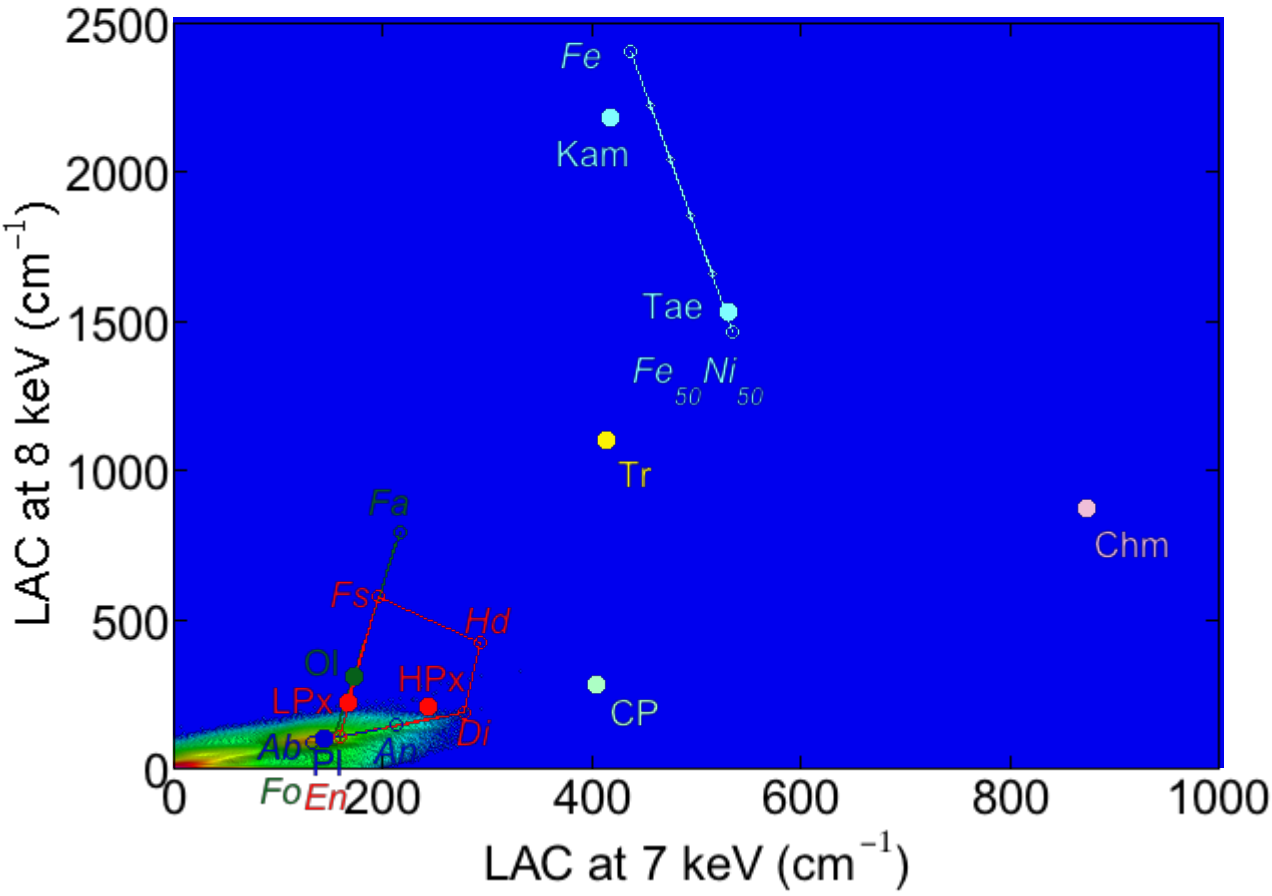


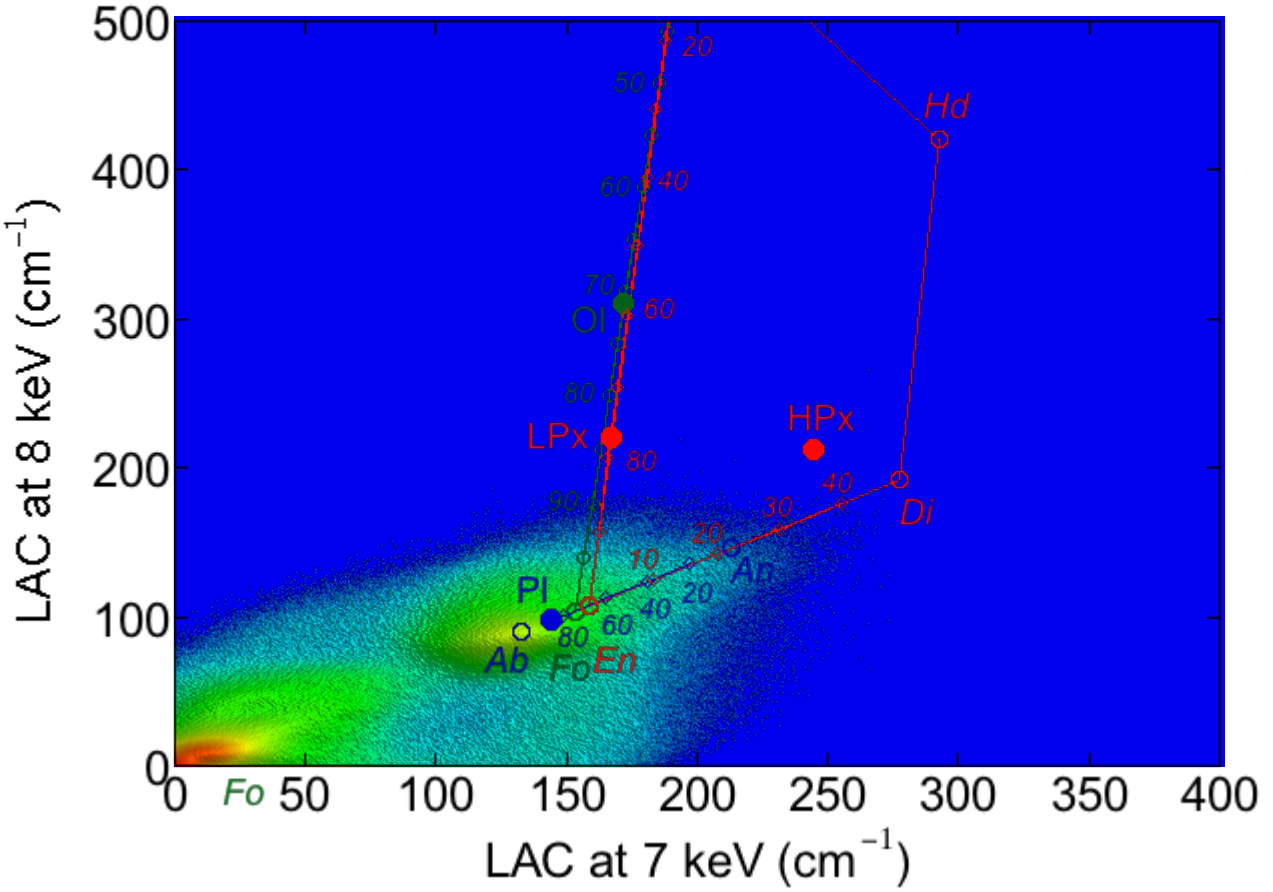
119.tif 132.tif 145.tif



158.tif 171.tif 184.tif

RA-QD02-0025-02 Dual energy histogram





Sample Results Summary Sheet

Please return this form to the Curator for each allocated Sample

Sample ID: RA-QD02-0025-2

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 : Pl

FE-SEM : Pl

FE-EPMA : Si, Al, Ca, Na, K

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_2 hold in sample holder.

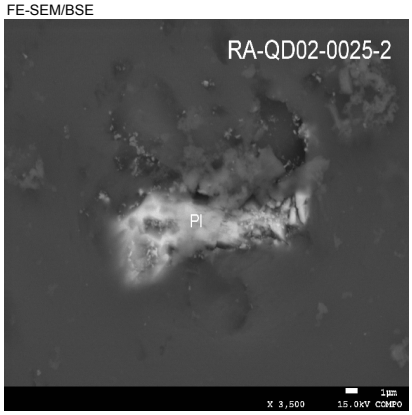
Analysis data Notes: (summary of the attached analysis data and/or images)

See attached sheets.

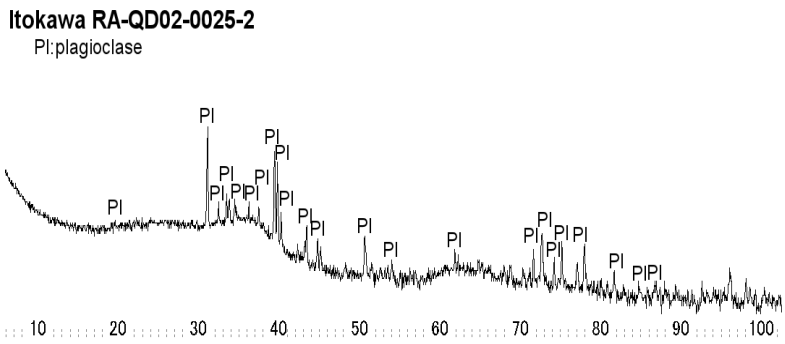
RA-QD02-0025-2

Analysis	S-XRD	(polish)	FE-SEM	FE-EPMA
Present status	Putted butt			

FE-SEM/BSE



S-XRD



FE-EPMA

wt%	Olivine n=0	Ol 1 sigma	LPx n=0	LPx 1 sigma	HPx n=0	HPx 1 sigma	Plagio n=1	Pl 1 sigma
SiO2							64.40	
TiO2							0.00	
Al2O3							20.20	
FeO							0.00	
MnO							0.01	
MgO							0.00	
CaO							2.00	
Na2O							10.62	
K2O							1.02	
Cr2O3							0.02	
NiO							0.00	
P2O5							0.01	
SO3							0.00	
Total							98.27	

SUM

Comment	
Olivine (Fa#)	
LPx(Fs#)	
LPx(Wo#)	
LPx(En#)	
HPx(Fs#)	
HPx(Wo#)	
HPx(En#)	
Pl(Or#)	5.42
Pl(An#)	8.93
Pl(Ab#)	85.65