Sample Results Summary Sheet

Please return this form to the Curator for each allocated Sample

Sample ID: RA-QD02-0039

PI: Akira Tsuchiyama

Type and date of analysis performed:

Tomography Jan/22/2011 (7 keV)

Jan/22/2011 (8 keV)

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

Mode	Ol	LPx	HPx	Pl	Tr	Tae	Chm	CP	Kam
Vol %	62.40	19.96	8.62	8.09	0.93				

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-QD02-0039

Operation Date Jan/22/2011 (7 keV)
Jan/22/2011 (8 keV)
operated by T. Ogami (7 keV)
M. Uesugi (8 keV)
analyzed by T. Nagano

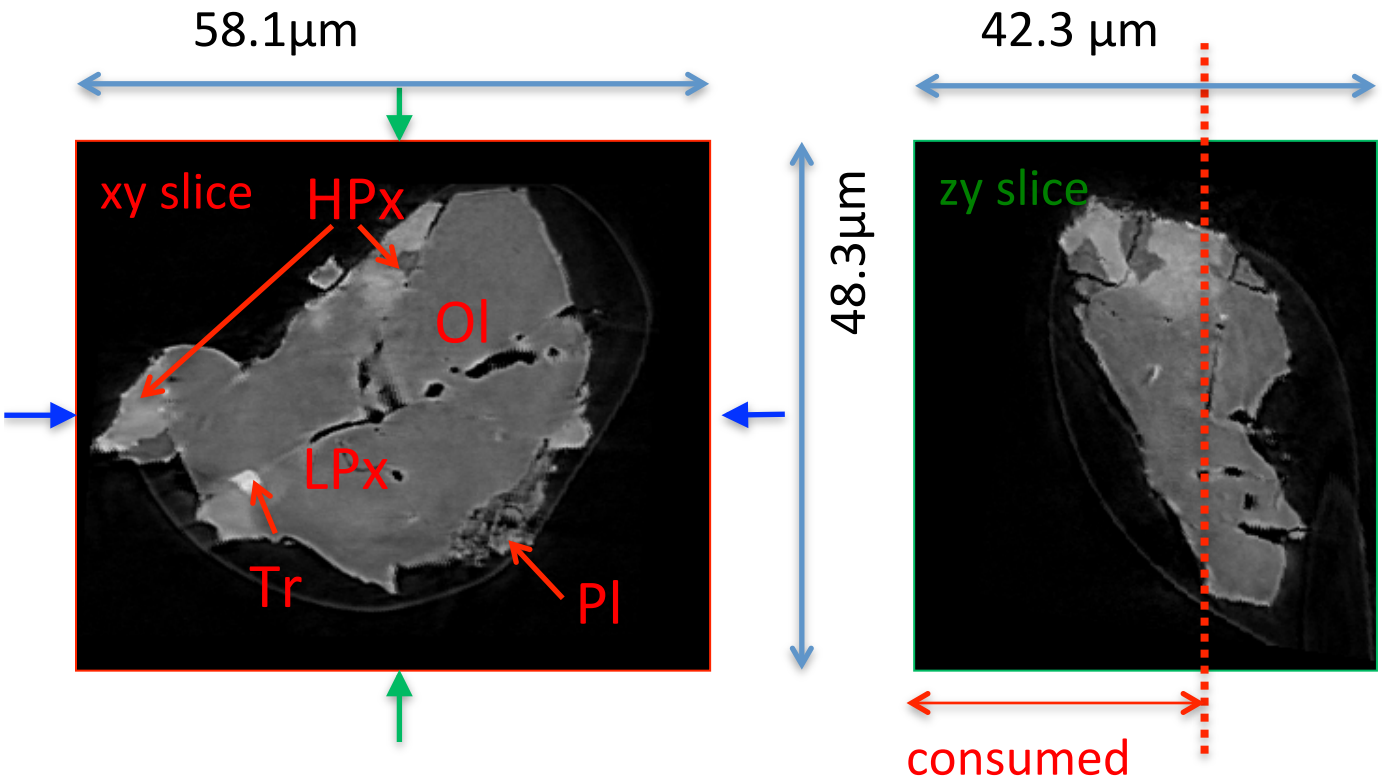
Mode	Ol	LPx	HPx	Pl	Tr	Tae	Chm	CP	Kam
Vol %	62.40	19.96	8.62	8.09	0.93				

A (μm)	B (μm)	C (μm)	V (μm^3)	Porosity (%)
9.65	16.9	27.3	15262	5.19

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

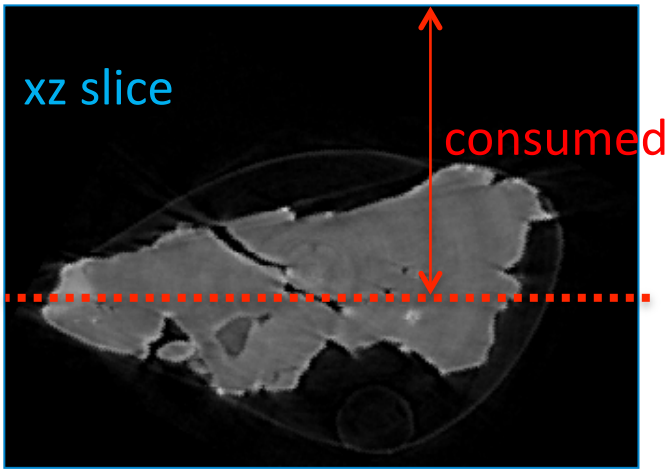
A, B, and C: shortest, middle, and longest axial radii, respectively, of a best-fit ellipsoid for the particle
V: particle volume without pore
dz: CT image interval
LAC: linear attenuation coefficient of X-ray

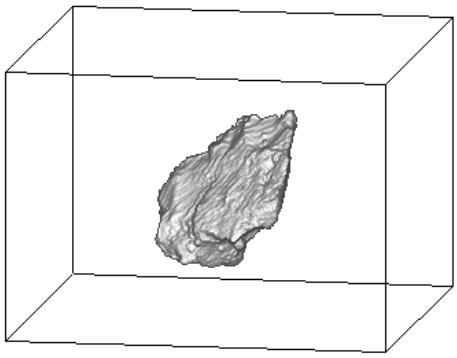
RA-QD02-0039 7keV



7keV/xy/197.tif

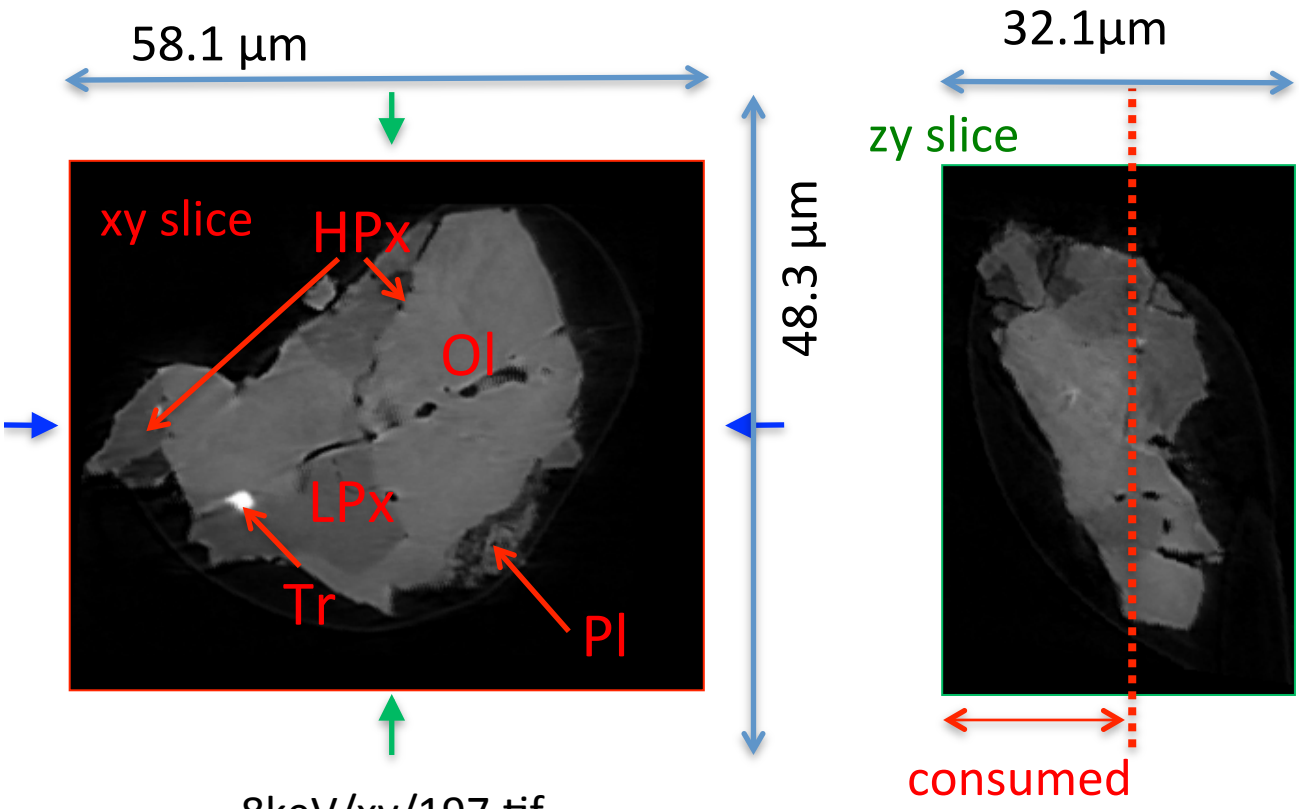
7keV/zy/170.tif





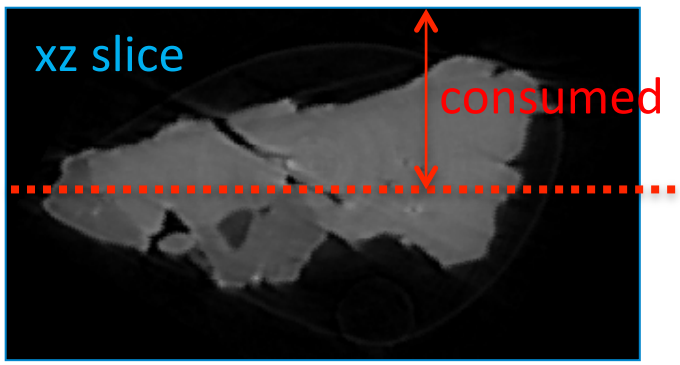
7keV/xz/142.tif

RA-QD02-0039 8keV

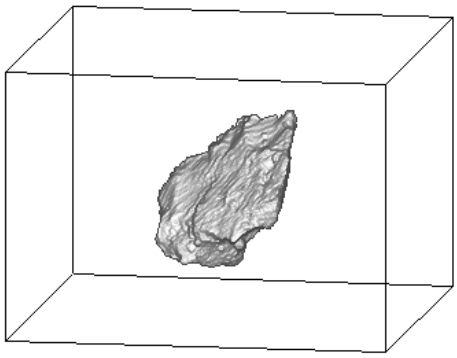


8keV/xy/197.tif

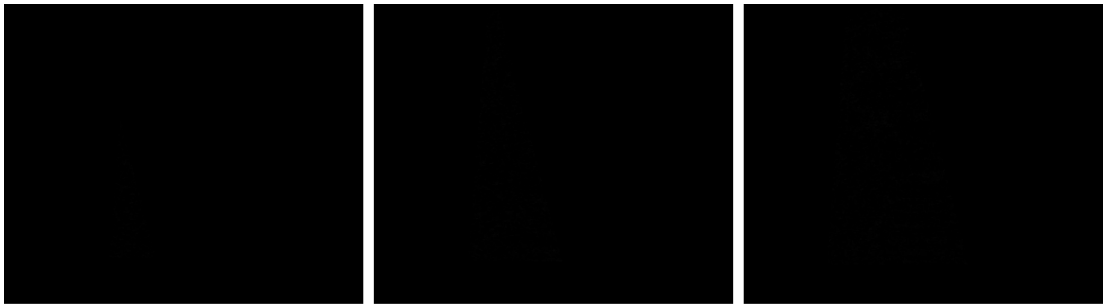
8keV/zy/170.tif



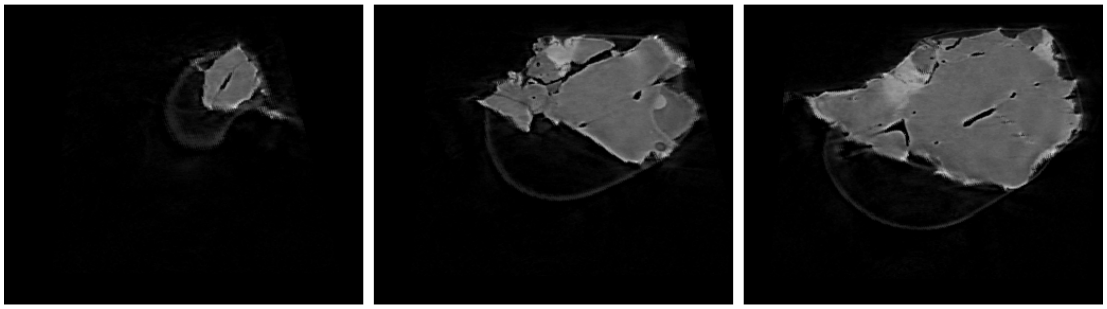
8keV/xz/142.tif



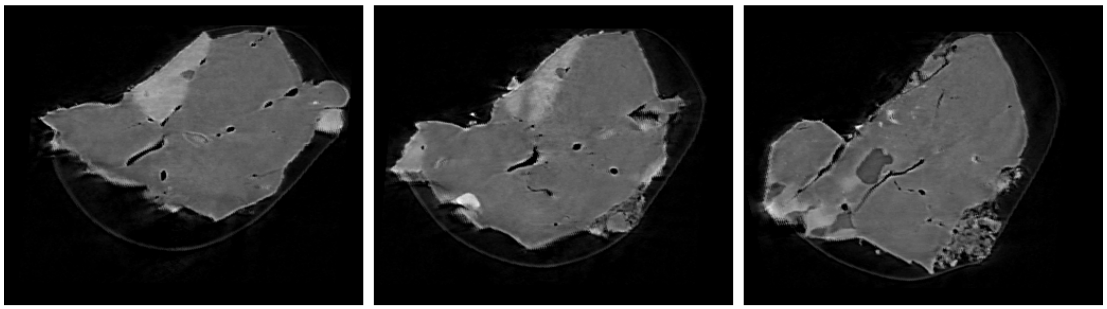
RA-QD02-0039 7keV catalogue



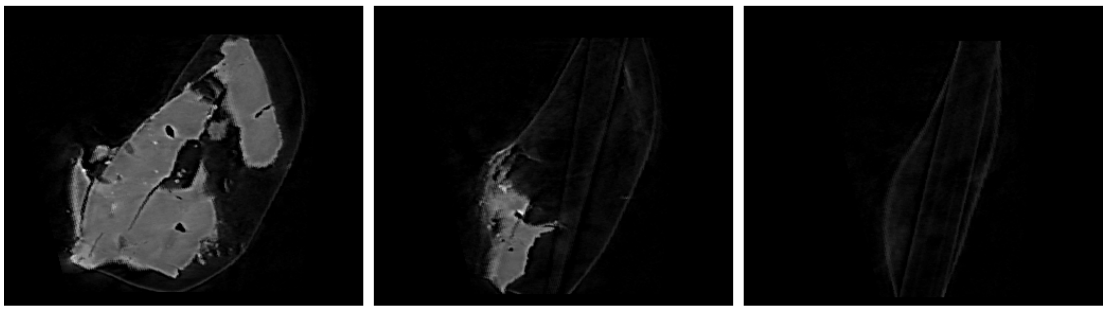
018.tif | 037.tif | 056.tif



114.tif | 133.tif | 152.tif



171.tif | 190.tif | 209.tif



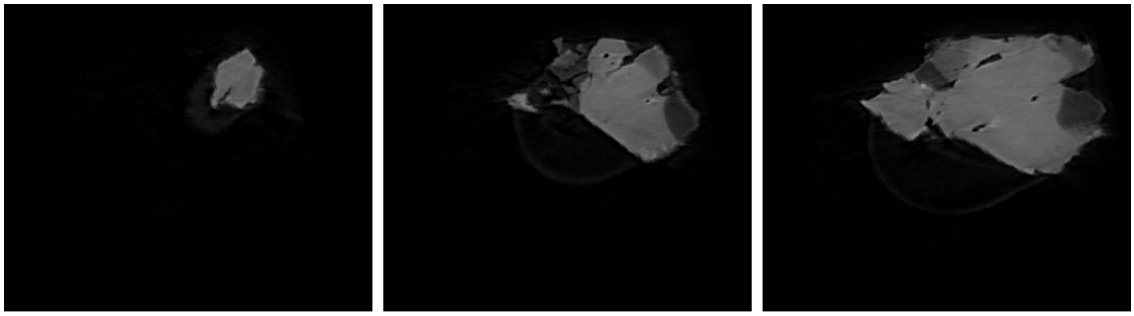
228.tif | 247.tif | 266.tif

dZ = 3.25546 um

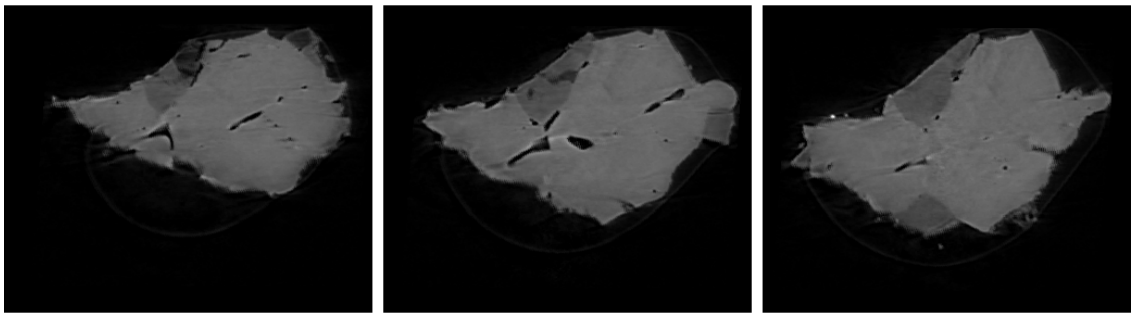
21 um

431 cm-1 (LAC)

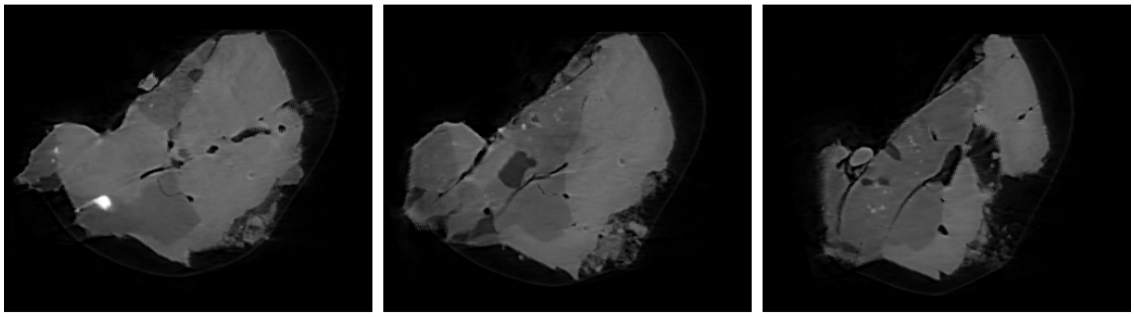
RA-QD02-0039 8keV catalogue



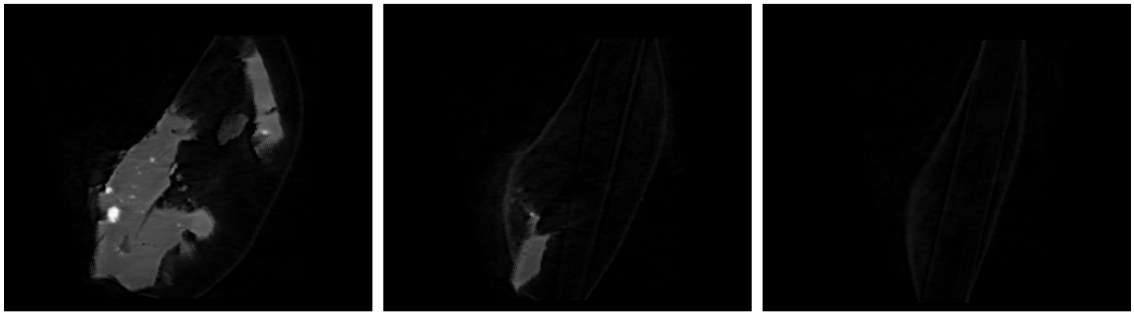
111.tif 125.tif 139.tif



153.tif 167.tif 181.tif



195.tif 209.tif 223.tif



237.tif 251.tif 265.tif

dZ = 2.39876 um

21 um

719 cm-1 (LAC)

RA-QD02-0039 Dual energy histogram