Sample Results Summary Sheet

Please return this form to the Curator for each allocated Sample

Sample ID: RA-QD02-0016

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 %	79.3	14.12	3.31	2.54	0.57	0.15	-	-	-

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-QD02-0016

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

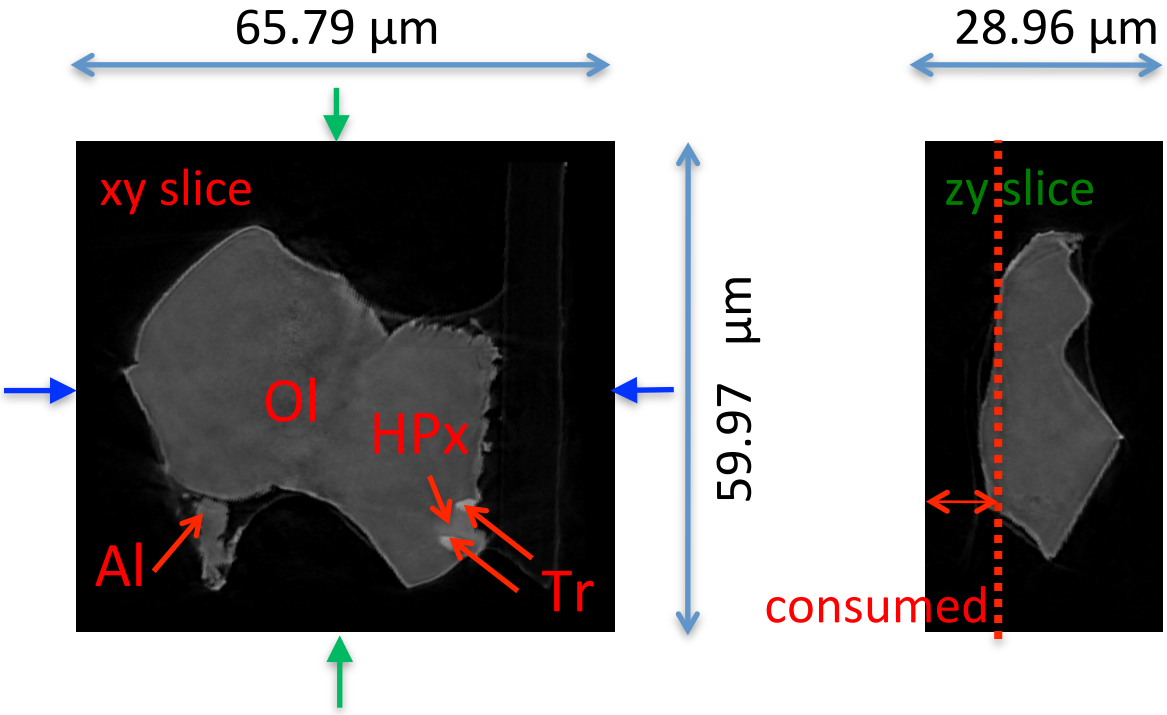
Mode	Ol	LPx	HPx	Pl	Tr	Tae	Chm	CP	Kam
Vol %	79.3	14.12	3.31	2.54	0.57	0.15	-	-	-

A (μm)	B (μm)	C (μm)	V(μm^3)	Porosity (%)
8.7	21.9	29.0	18409	0.19

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

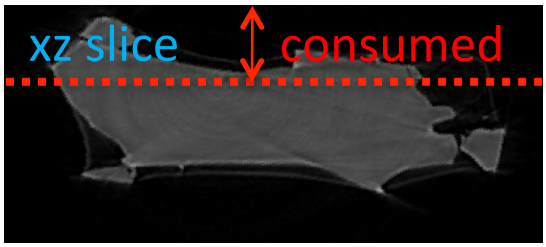
A, B, and C: shortest, middle, and longest axial radii, respectively, of a best-fit ellipsoid for the particle
V: particle volume without pore
dz: CT image interval
LAC: linear attenuation coefficient of X-ray

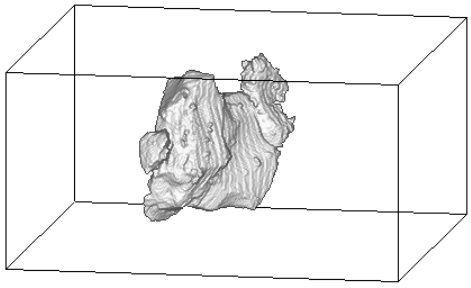
RA-QD02-0016 7 keV



7keV/xy/178.tif

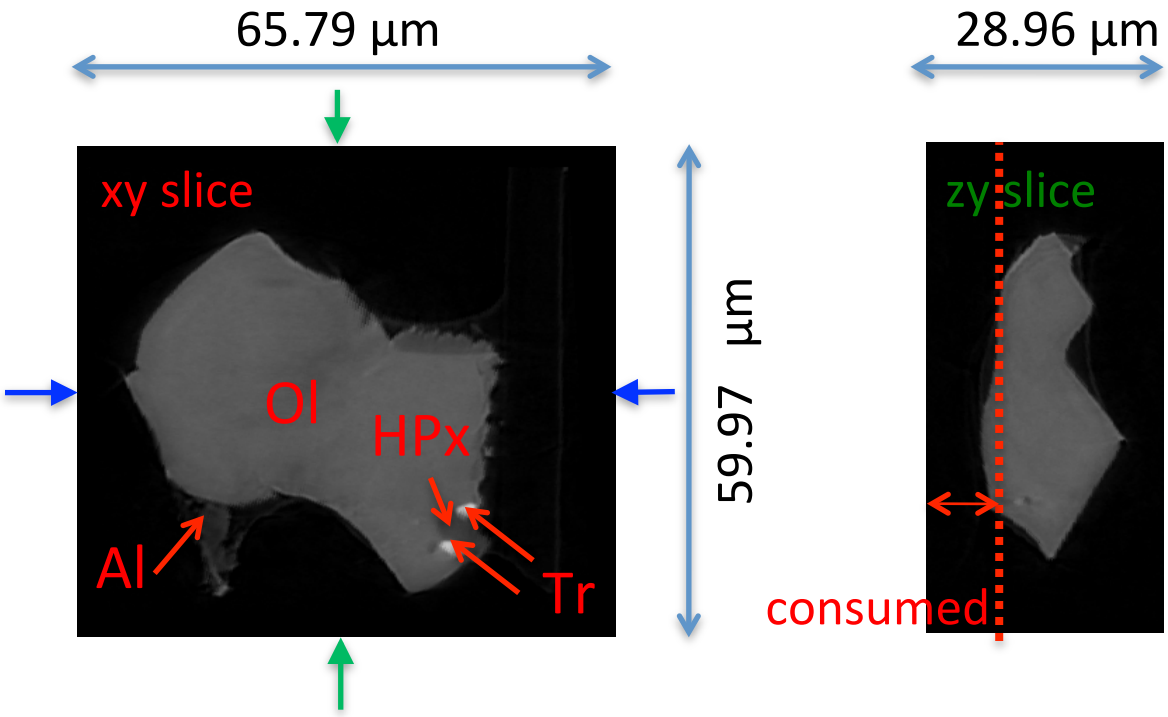
7keV/zy/192.tif





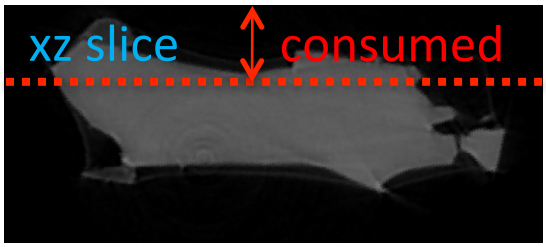
7keV/xz/175.tif

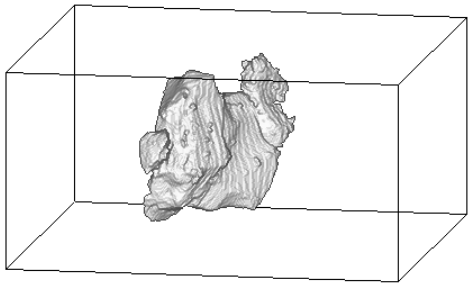
RA-QD02-0016 8 keV



7keV/xy/178.tif

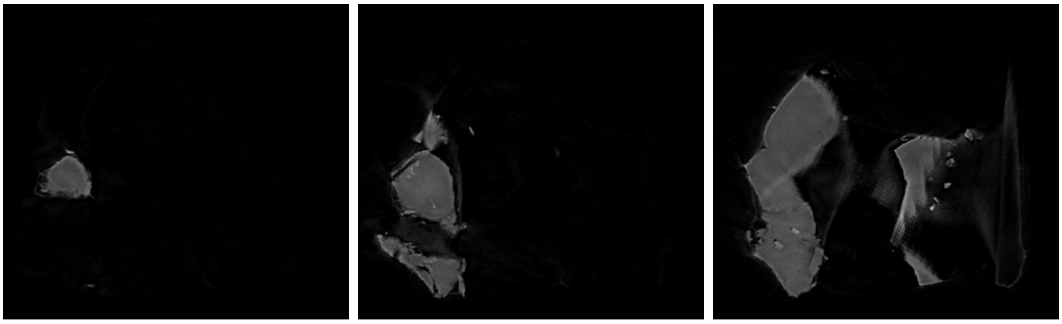
7keV/zy/192.tif



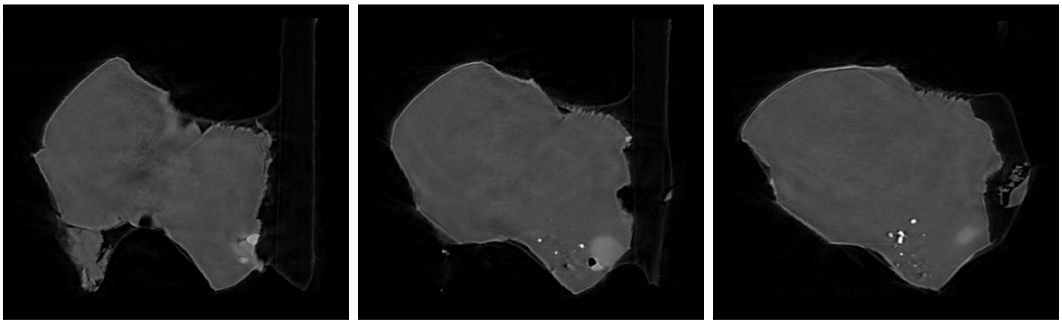


7keV/xz/175.tif

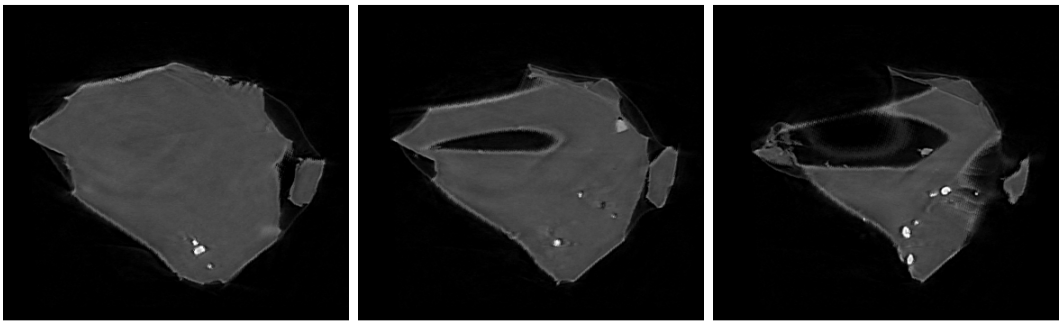
RA-QD02-0016 7 keV catalogue



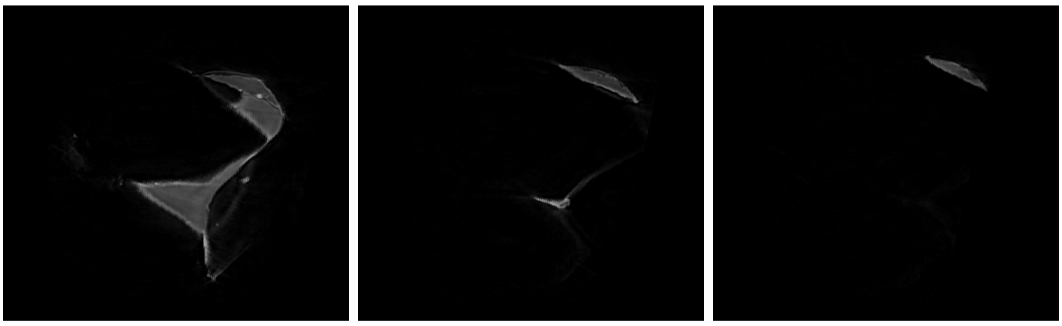
136.tif 149.tif 162.tif



175.tif 188.tif 201.tif



214.tif 227.tif 240.tif



253.tif 266.tif 279.tif

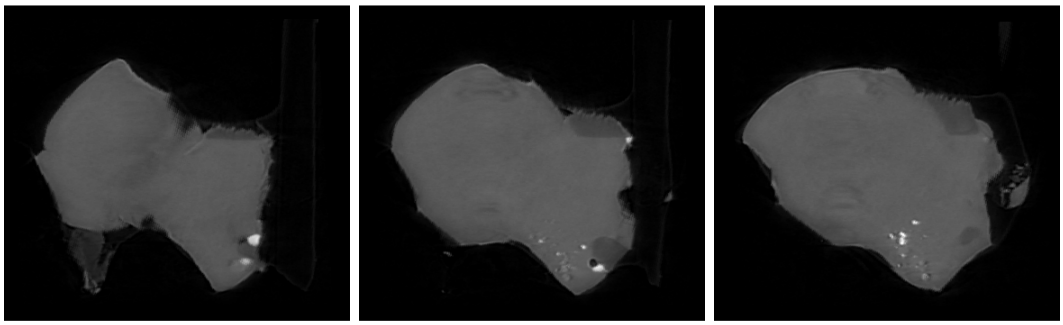
dZ = 2.1182 um

20 um

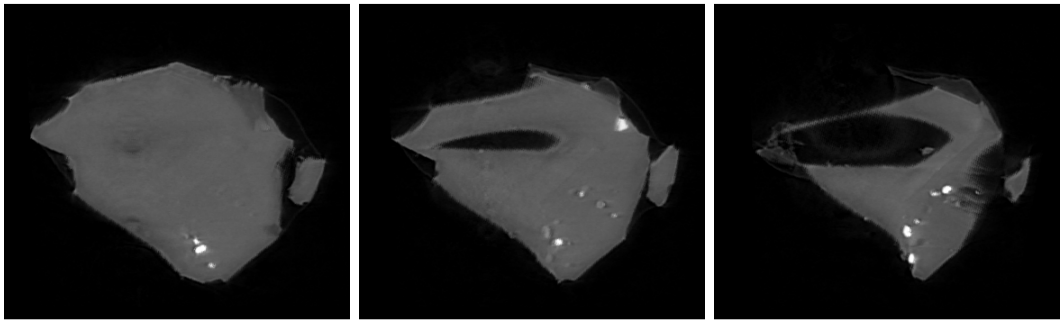
575cm^{-1} (LAC)

RA-QD02-0016 8 keV catalogue

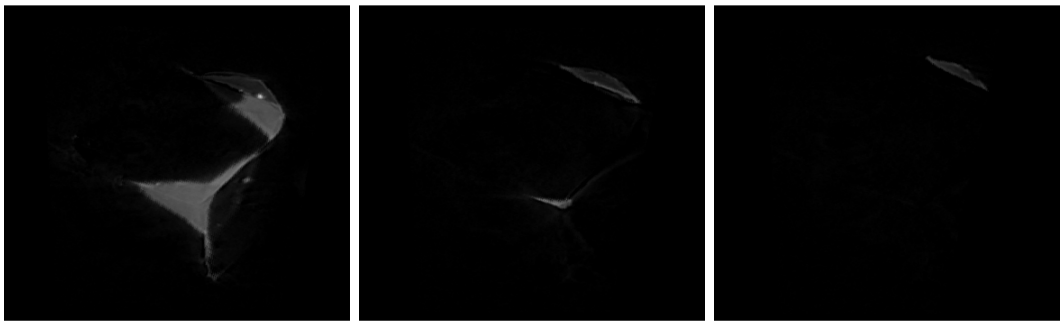
136.tif 149.tif 162.tif



175.tif 188.tif 201.tif



214.tif 227.tif 240.tif



253.tif 266.tif 279.tif

dZ = 2.1182 um

20 um

862 cm-1 (LAC)

RA-QD02-0016 Dual energy histogram