

## Sample Results Summary Sheet

Please return this form to the Curator for each allocated Sample

**Sample ID:** RA-QD02-0060

**PI:** Akira Tsuchiyama

**Type and date of analysis performed:**

Tomography    Jan/25/2011(7keV)

                  Jan/24/2011(8keV)

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

Mode	OI	LPx	HPx	PI	Tr	Tae	Chm	CP	Kam
Vol %	29.64	54.44	3.21	12.71	-	-	-	-	-

**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<sub>2</sub> hold in sample holder.

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

See attached sheets.

# RA-QD02-0060

Operation Date Jan/25/2011 (7 keV)  
Jan/24/2011 (8 keV)  
operated by T. Matsumoto (7 keV)  
T. Ogami (8 keV)  
analyzed by R. Noguchi

Mode	Ol	LPx	HPx	Pl	Tr	Tae	Chm	CP	Kam
Vol %	29.64	54.44	3.21	12.71	-	-	-	-	-

A ( $\mu\text{m}$ )	B ( $\mu\text{m}$ )	C ( $\mu\text{m}$ )	V ( $\mu\text{m}^3$ )	Porosity (%)
13.4	17.0	29.6	19834	9.90

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

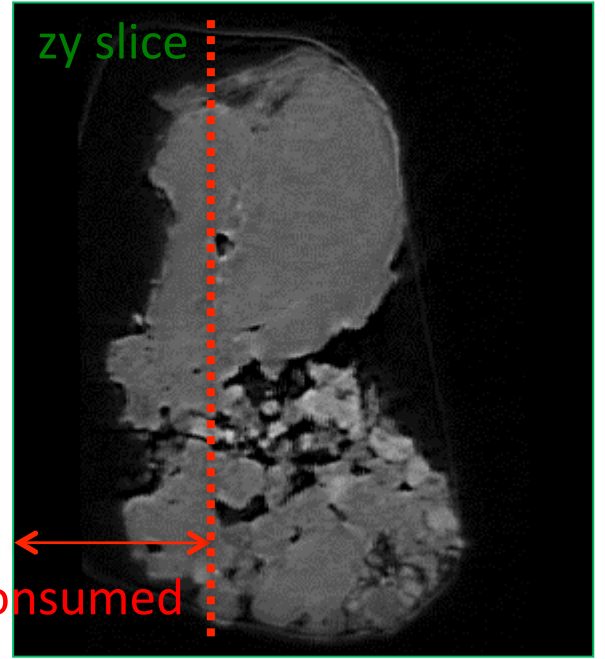
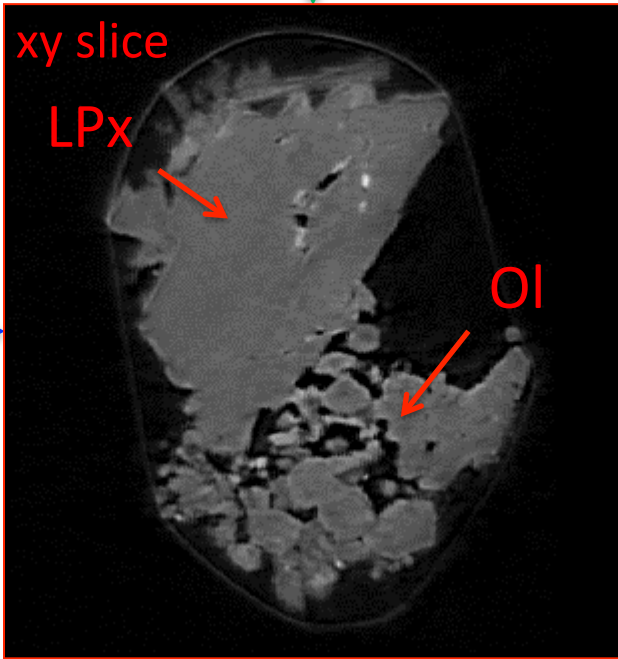
A, B, and C: shortest, middle, and longest axial radii, respectively,  
of a best-fit ellipsoid for the particle

V: particle volume without pore  
dz: CT image interval  
LAC: linear attenuation coefficient of X-ray

# RA-QD02-0060 7 keV

52.8  $\mu\text{m}$

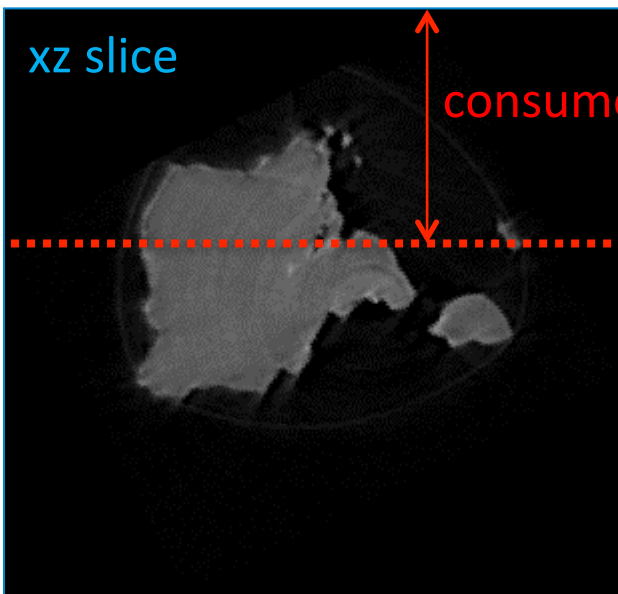
49.5  $\mu\text{m}$



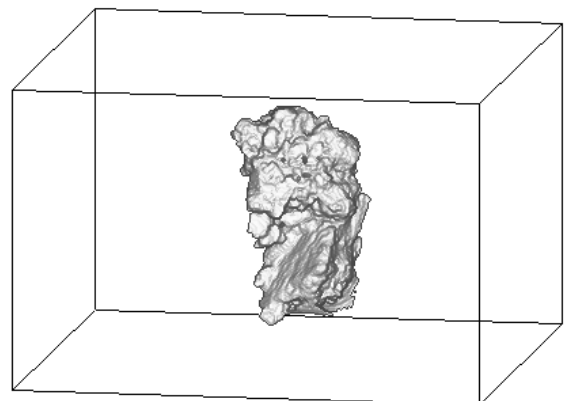
55.9  $\mu\text{m}$

7keV/xy/115.tif

7keV/zy/157.tif



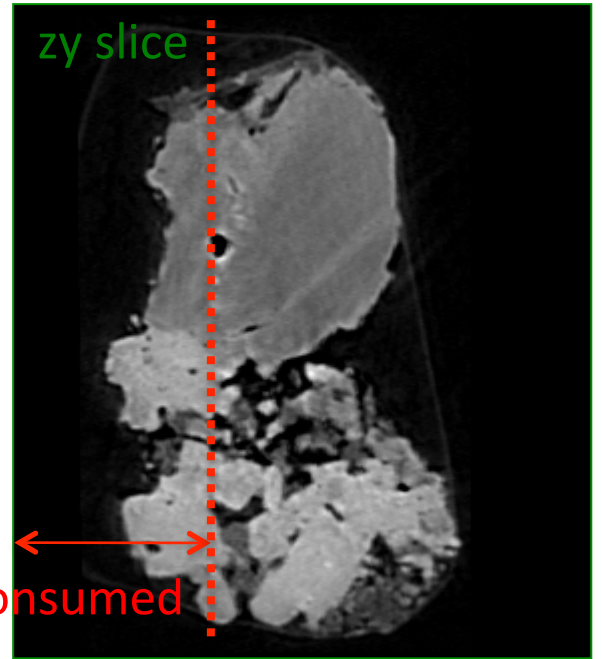
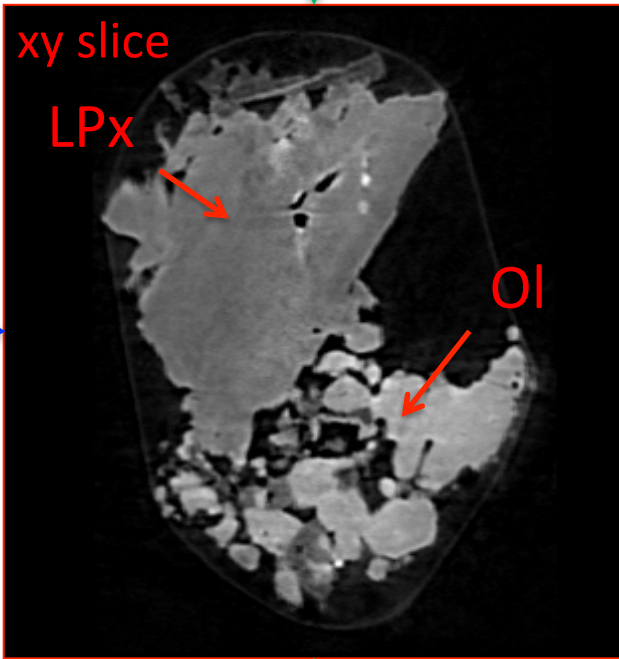
7keV/xz/162.tif



# RA-QD02-0060 8 keV

52.8  $\mu\text{m}$

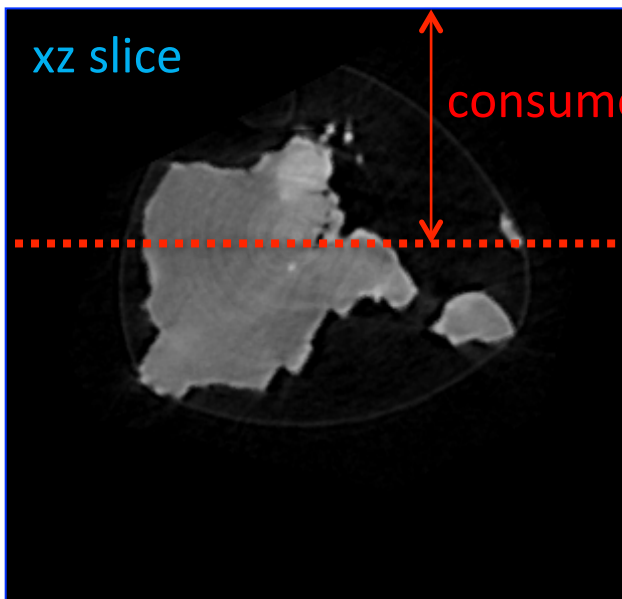
49.5  $\mu\text{m}$



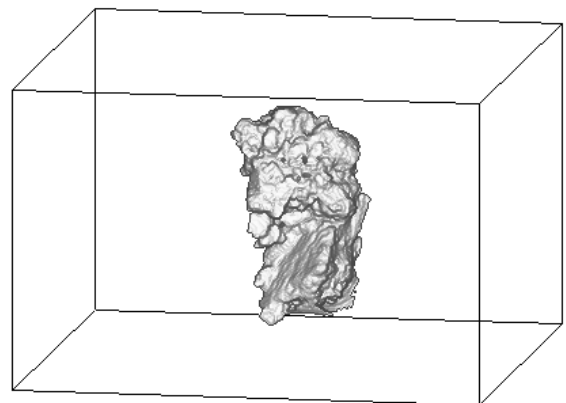
55.9  $\mu\text{m}$

8keV/xy/115.tif

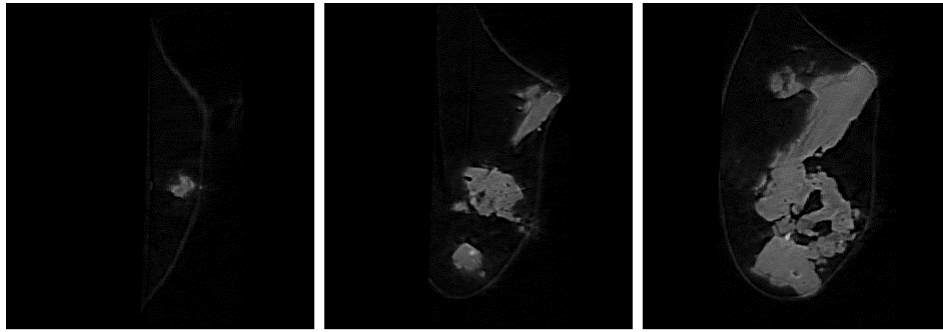
8keV/zy/157.tif



8keV/xz/162.tif



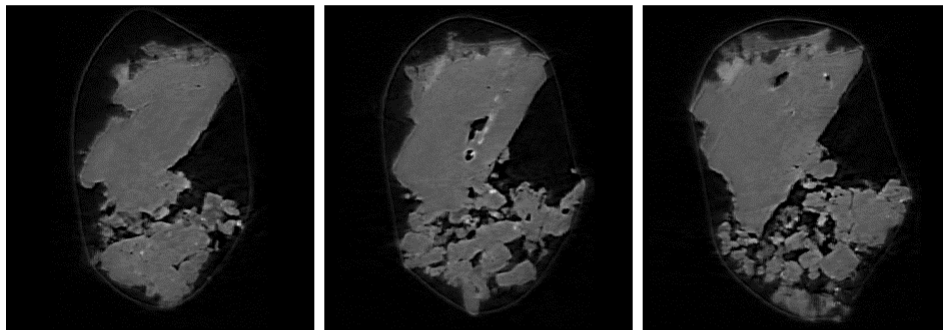
# RA-QD02-0060 7 keV catalogue



042.tif

058.tif

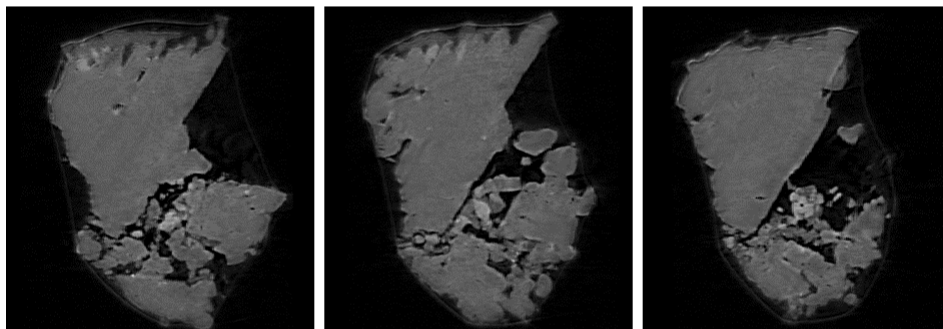
074.tif



090.tif

106.tif

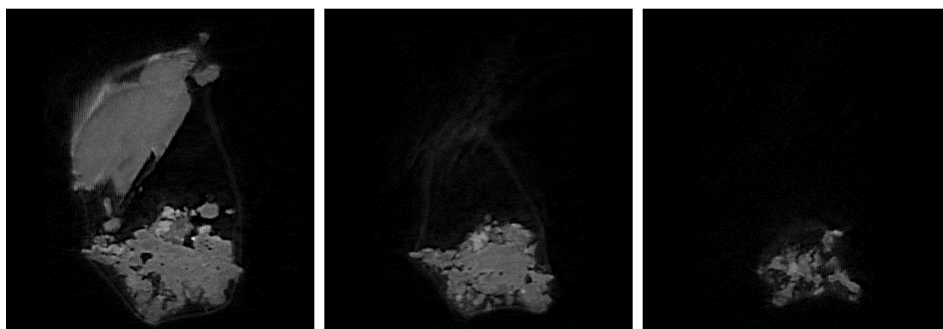
122.tif



138.tif

154.tif

170.tif



186.tif

202.tif

218.tif

dZ = 2.74144  $\mu\text{m}$

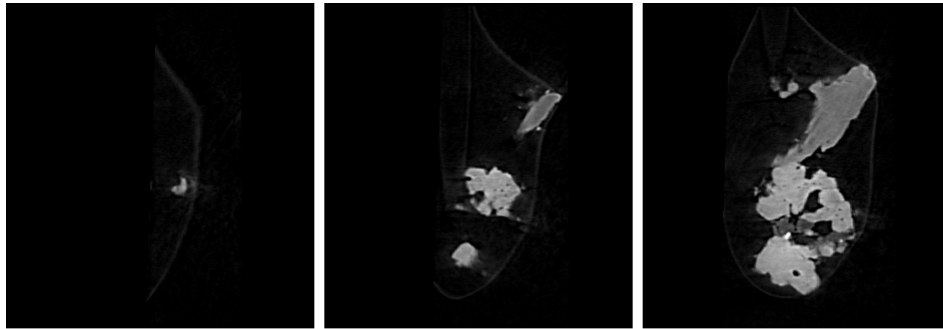


21  $\mu\text{m}$

431  $\text{cm}^{-1}$

(LAC)

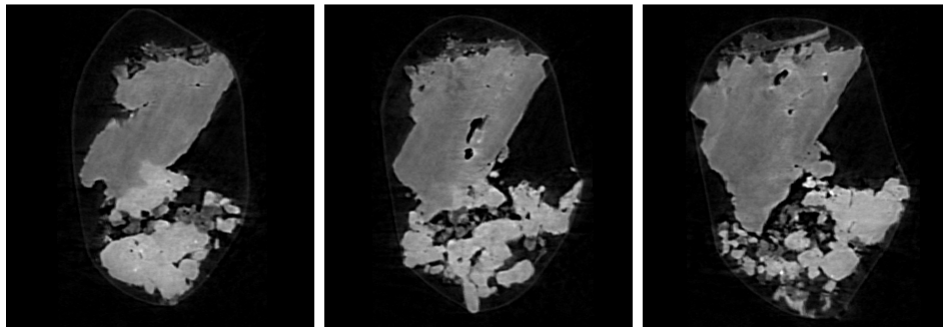
# RA-QD02-0060 8 keV catalogue



039.tif

055.tif

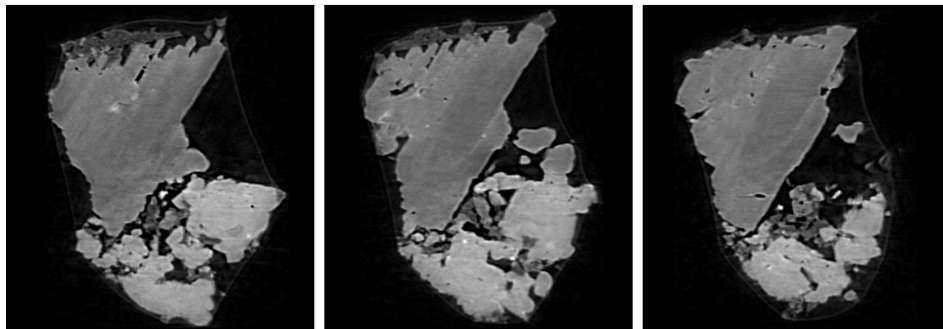
071.tif



087.tif

103.tif

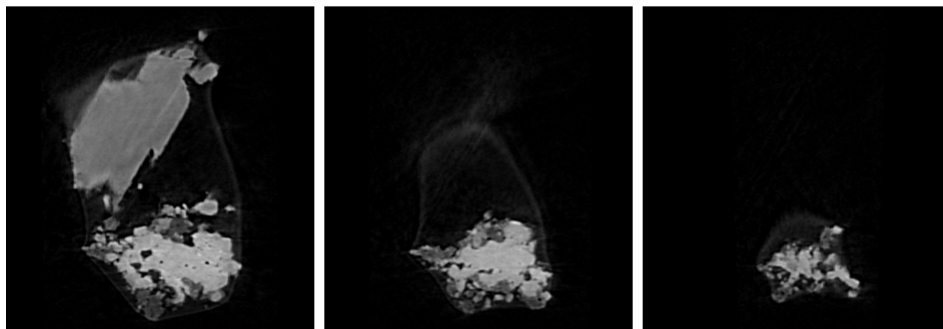
119.tif



135.tif

151.tif

167.tif



183.tif

199.tif

215.tif

dZ = 2.74144 um



21 um

431 cm-1

(LAC)

# RA-QD02-0060 Dual energy histogram

