

## CT equipment at the Center for X-ray analytics

Scanner	RX	Micro-CT	MicroDETECT	Linac-2D	PCI System	PCI Add On
						
Type	Cone-beam (3D)	Cone-beam (3D)	Cone-beam (3D)	Fan-beam (2D)	Phase Contrast	Phase Contrast
X-ray source	160 kV micro focus 230 kV macro-focus	160 kV Viscom micro-focus 225 kV Viscom macro-focus	300 kV Micro focus tube FineTec FOMR 300.03Y RT	4/6 MeV dual energy linear accelerator US Photon Pulstar PSL-6D	35 keV design energy	45 keV design energy
Focal spot size	< 1 $\mu\text{m}$	< 3 $\mu\text{m}$	< 5 $\mu\text{m}$	2.0 mm	1 mm	< 3 $\mu\text{m}$
Detector	Flat panel Varian PaxScan 2520 pixel matrix: 1920 x 1536 pixel size: 127 x 127 $\mu\text{m}$	Flat panel, Perkin Elmer XRD 1621 pixel matrix: 2048 x 2048 pixel size: 0.2 x 0.2 mm	Flat panel, Perkin Elmer XRD 1611 CP3, CsI (Ti) pixel matrix: 4096 x 4096 pixel size: 0.1 x 0.1 mm	Linear detector, Detection- Technology X-Scan iHE04, 10 mm CdWO4 detector width: 1500 mm pixels: 3828 pixel pitch: 0.4 mm	Teledyne Dalsa Shadow Box Pixel size 50 $\mu\text{m}$	Flat panel, Perkin Elmer XRD 1621 Pixel size 200 $\mu\text{m}$
Detector collimator	no collimator	no collimator	no collimator	tungsten slit collimator, adaptable aperture	Grating interferometer	Grating interferometer
Sample dimensions and weight	diameter: 50 mm height: 1000 mm weight: 90 kg	diameter: 250 mm height: 500 mm weight: 10 kg	diameter: 230 mm height: 720 mm weight: 50 kg	diameter: 700 mm height: 2000 mm weight: 1000 kg	FOV 50 x 50 mm <sup>2</sup>	FOV 25 x 25 mm <sup>2</sup>
Penetration	aluminum: 100 mm plastics: 300 mm	aluminum: 180 mm	steel: 60 mm aluminum: 180 mm	steel: 300 mm aluminum: 900 mm	PMMA: 100 mm	PMMA: 150 mm
Spatial resolution	0.5 $\mu\text{m}$	2 $\mu\text{m}$	max. 10 $\mu\text{m}$	max. 250 $\mu\text{m}$	50 $\mu\text{m}$	50 $\mu\text{m}$