

Below is a list of the equipment owned by or available to ACRC/CHTE

<b>Equipment</b>	<b>Applications</b>	<b>Quantity</b>	<b>Location</b>	
Inductotherm 35 kW VIP Induction Furnace	Melting (Up to 35 lbs of aluminum)	1	Foundry WB 113	
Inductotherm Mini-Melt Furnace	Melting (Up to 50 lbs. of steel)	1		
Box Furnaces	Melting and Heat Treating (various sizes and temperature limits)	4		
Tube Furnaces	Heat treatment, Sessile drop experiments, controlled atmosphere experiments	3		
Fluidized Bed Furnace	Heat treatment	1		
Rotating Impeller Degasser (Custom built)	Degassing liquid aluminum	1		
N-Tech Metal Health Center	Fluidity and Hot Tearing Measurements	1		
Data Acquisition Units	Recording temperature, load, displacement, etc.	3		
ASTM Tensile Bar Molds	Tensile Testing of Cast Alloys	4		
Gas Tech II Reduced Pressure Tester	Melt quality analysis	1		
Band and Abrasive Saws	Sample preparation (cutting and sectioning)	3		
Foseco Alspek-H	Hydrogen content analysis	1		
Instron Charpy Impact Tester	Impact toughness measurements	1		Ingot Room WB 001
VJ Technologies ValueCT CT scan X-ray Radiography Machine	Radiography of Small Castings	1		
Nikon Epiphot 200 Optical Microscope	Microanalysis	1		
Nikon Stereo Microscope	Macroanalysis	1		
Instron Tensile and Fatigue Testing Machines	Static and dynamic mechanical properties at room and elevated temperature	4		
Tube Furnaces	Melting and Heating in controlled atmospheres	2	Mechanical Testing Room	
SpectroMaxX Spark Spectrometer	Chemical composition	1		
formlabs 3D Printer	Molds development for Casting	1		
Wilson VH3300 Vickers-Knoop Hardness Tester	Hardness Testing	1		
Struers Tegramin 20 Automatic Polisher	Sample Preparation (Polishing)	1		
Buehler IsoMet High Speed Pro Precision Saw	Sample Preparation (Cutting)	1		
Buehler SimpliMet 4000 Mounting Press	Sample Preparation (Mounting)	1		

Buehler EcoMet 300 Pro w/ AutoMet 250 Power Head	Sample Preparation (Grinding/Polishing)	1	
Allied Diamond Wafering Saw	Sample Preparation (cutting and sectioning)	1	
Buehler VibroMet 2 Vibratory Polisher1	Sample Preparation (polishing)	1	
Jet Polisher	Sampling Preparation (Polishing)	1	
JEOL 100 CXII Transmission Electron Microscope	Microanalysis	1	OH 028
Keysight/MTS Nanoindenter	Nanohardness	1	
JEOL 7000F LF Scanning Electron Microscope (+EDS and EBSD)	Microanalysis	1	HL 047
Panalytical Empyrean X-ray Diffractometer	X-ray diffraction analysis	1	WB 231
Microhardness and Macrohardness Testers	Microhardness and Macrohardness	4	WB 336
Pace Technologies NANO 2000T Manual Polisher	Sample Preparation (Grinding)	2	
Alumina Manual Polishing Wheels	Sample Preparation (Polishing)	3	
Buehler Ecomet 5 Diamond Manual Polishing Wheels	Sample Preparation (Polishing)	3	WB 341
Buehler Vibromet 1 Vibratory Polishers	Sample Preparation (Polishing)	3	
Buehler Simpliment 5000 Mounting Press	Sample Preparation (Mounting)	1	
Mark V 600 Sectioning Saw	Sample Preparation (cutting and sectioning)	1	WB 253

Below is a list of the equipment owned by or available to CR3

<b>Equipment</b>	<b>Applications</b>	<b>Quantity</b>	<b>Location</b>
MBRAUN LABstar Glovebox	Inert atmosphere experiments	1	
8 channel MTI battery potentio- stat	Battery characterization	1	WB 344
16 channel Bio-logic VMP3 potentio-stat		1	
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Carver 25-12 Press	Electrode Fabrication	1	
MTIXL Electrode Coater	Electrode Fabrication	1	
SCK-100 Spin Coater	Electrode Fabrication	1	
ACM LAB MILL-8000 milling machine	Ball Milling	1	WB 338
Box Furnaces	Heat treatment	2	
Tube Furnace	Heat treatment	1	

Vacuum Furnace	Heat treatment	1	Gateway Park
Schutte-Buffalo W-6-H Hammermill	Shredding	1	
Bruker AXS Kappa Apex II single crystal x-ray diffractometer	X-ray diffraction analysis	1	
Bruker AXS D8 FOCUS X-ray Diffractometer	X-ray diffraction analysis	1	
TA Instruments Thermogravimetric Analyzer (TGA)	Thermal Analysis	1	
TA Instruments Differential Scanning Calorimeter (DSC)	Thermal Analysis	1	