

# MAJOR EQUIPMENT

## Materials Science and Engineering University of Washington

### PREPARATION & PROCESSING EQUIPMENT

Heat treat facility	14 furnaces, various
---	6 salt pot furnaces
---	Atmosphere furnace
---	12 lab tube furnaces
Induction melting unit	Wes'house 15 KW
---	Power Trak 15 KW
High T nitriding furnace	Brew
High T furnace	Astro 2570
High T rapid rise furnace	Keith
Ion mill	Gatan Duo
Isostatic press	National Forge
Rolling mill	Fenn
Metallographic prep lab	various
Ceramic processing lab	various
Powder preparation facil	various
Polymer preparation facil	various
Molec Beam Epitaxy unit	Perkin Elmer 425*
Chem. Vapor Dep'n units	Crystal Spec. 430*
---	custom built unit
Arc melting units (2)	Centorr/home made
Sputtering units(3)	Techniques
---	SPI
---	MRC
MOCVD units (2)	Fabricated (A1N)
---	Crystal 425
Hot platen press	Tetrahedron MPT-14
Hot melt prepreg. machine	Reasearch Tool 35
Ultramicrothome	B. L.
CBE Unit	Fisions Instru. MA0035 X

### MECHANICAL TESTING FACILITIES

Tensile testing equipment	Instron 10000kg
---	Instron 1000kg
---	Instron 10000kg
---	MTS 810 Sys.
Hardness testing facility	3 Rockwell testors
---	Shimadzu microhard
Impact tester	Satec Systems BLI

### COMPUTER FACILITIES

PCs w/peripherals	65 various
Computer workstations	10 various

### SUPPORT FACILITIES

Slicing/dicing/grinding	Doall Grinder
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Machining facilities	various
Service and Maint Equip	various

### ANALYSIS EQUIPMENT

Optical microscope facil	16 bench top units
---	4 metallographs
Photographic labs	various
Helium leak detector	Alcatel 110T
Quadruple mass spec	Amtek Dycor M
LCR meters (3)	HP 4263
---	HP 4274
---	HP 4284A
Dilatometer (3)	Orton 1000D
---	Anter Labs
---	Orton ES-1
Image Analysis System	Optimas
Infrared spectrometer	Nicolet 5PXB FTIR
Vis/UV Spectrophotometer	Beckman DU
Sedigraph	Micromeritics
Particle counter	HIAC/ROYCO
Surface area ansis	1 Hg porosimeters
Liquid chromatograph	IBM 9560
Gas chromatograph	IBM 9630
Photoluminescence system	Fabricated
Thermoluminescence lab	Fabricated
Thermal analysis system	Netzsch DSC 200
Galvanostat	EG & G 273
Radiometer	Moletron
Auger Spectrometer	Physical Electronics
Impedance Analyzer	Solartron
Simultaneous DTA/TGA	Netzsch
High Temp. Dilatometer	Netzsch

### X-RAY & ELECTRON MICROSCOPY FAC.

X-ray diffraction facilities	Philips
---	Philips
Scanning electron 'scopes	Joel 5200
---	ISI CL-8
Image analyser	Quantimet
---	Quantimet
Trans. electron micros.	Philips 400
---	Philips 430
---	Joel 4000
---	Topcon
Atomic force microscope	Nanoscope IIIA