

**Wits University**

FEI Tecnai 120kV TEM	TEM, STEM, EDX, H DF	Biology Building	Prof. Alexander Ziegler <a href="mailto:alexander.ziegler@wits.ac.za">alexander.ziegler@wits.ac.za</a>	User operation, training provided, electronic book system.
FEI Nova 600 Nanolab FIBSEM	HRSEM, EDX, BSE, micromachining, 3D structure studies, site specific TEM preparation	Biology Building	Prof. Alexander Ziegler <a href="mailto:alexander.ziegler@wits.ac.za">alexander.ziegler@wits.ac.za</a>	Training provided/ and operator, electronic booking system.
Cameca SX5-FE EPMA	Electron Probe Microanalyser	Biology Building	Prof. Alexander Ziegler <a href="mailto:alexander.ziegler@wits.ac.za">alexander.ziegler@wits.ac.za</a>	User operation, training provided/ and operator, electronic booking system.
FEI Quanta 400 ESEM	HRSEM, BSE, EDX, CL, ESEM	Biology Building	Prof. Alexander Ziegler <a href="mailto:alexander.ziegler@wits.ac.za">alexander.ziegler@wits.ac.za</a>	User operation, training provided/ and operator, electronic booking system.
LEO 1550 FEG-SEM	EDS, EBSD	Biology Building	Prof. Alexander Ziegler <a href="mailto:alexander.ziegler@wits.ac.za">alexander.ziegler@wits.ac.za</a>	User operation, training provided/ and operator, electronic booking system.
2X Reichert Ultracut E Ultramicrotomes	Sectioning of samples for TEM	Biology Building	Prof. Alexander Ziegler <a href="mailto:alexander.ziegler@wits.ac.za">alexander.ziegler@wits.ac.za</a>	User operation, training provided, electronic book system.
Gatan PIPS ion mill	Final thinning of samples for TEM	Biology Building	Prof. Alexander Ziegler	User operation, training provided.
Two Veeco Atomic Force Microscope instruments	AFM, SPM, many different modes of operation	Biology Building	Prof. Alexander Ziegler <a href="mailto:alexander.ziegler@wits.ac.za">alexander.ziegler@wits.ac.za</a>	Training and operator
Olympus BX63 OFM	Microscope	Biology Building	Prof. Alexander Ziegler <a href="mailto:alexander.ziegler@wits.ac.za">alexander.ziegler@wits.ac.za</a>	Training and operator
Locally manufactured specialised equipment for cold cathode emission	With continuous and pulsed HV supply. The system is used to investigate field as well as photon enhanced emissions of materials	Radiation and Health Physics Unit	Prof. Tom Nam <a href="mailto:Tom.Nam@wits.ac.za">Tom.Nam@wits.ac.za</a>	Due to its heavy use by the group and it is still under development the system at this point in time is not available to outside users.
Lenton TSH 12/38/250 tube furnace	Sample heating under different atmosphere	Radiation and Health Physics Unit	Prof. Tom Nam <a href="mailto:Tom.Nam@wits.ac.za">Tom.Nam@wits.ac.za</a>	Available for use
Senographe 500T mammography unit	Used for low energy X-ray detector development	Radiation and Health Physics Unit	Prof. Tom Nam <a href="mailto:Tom.Nam@wits.ac.za">Tom.Nam@wits.ac.za</a>	Available for use by registered radiation worker
PTW Unidose E	For checking and calibrating radiation responses of detectors	Radiation and Health Physics Unit	Prof. Tom Nam <a href="mailto:Tom.Nam@wits.ac.za">Tom.Nam@wits.ac.za</a>	Available for use
Diode E	Precise beam profiling in electron and photon fields	Radiation and Health Physics Unit	Prof. Tom Nam <a href="mailto:Tom.Nam@wits.ac.za">Tom.Nam@wits.ac.za</a>	Available for use
X-100T CdTe X-ray and Gamma Ray Defector/System	Investigation of low energy X-ray and gamma-ray beams	Radiation and Health Physics Unit	Prof. Tom Nam <a href="mailto:Tom.Nam@wits.ac.za">Tom.Nam@wits.ac.za</a>	Available for use
Well Diamond Wire Saw	Precision slicing of samples	Physics Sample Prep Room	Dr Charlie Levitt or Prof. Trevor Derry <a href="mailto:Charlie.Levitt@wits.ac.za">Charlie.Levitt@wits.ac.za</a> <a href="mailto:Trevor.Derry@wits.ac.za">Trevor.Derry@wits.ac.za</a>	Training
Ion implantation facilities at IThemba LABS (Gauteng)	Surface modification, thin layer doping, radiation damage, etc.	Former Schonland Res. Inst, Empire Rd.	Dr Mervin Naidoo or Prof. Trevor Derry <a href="mailto:Trevor.Derry@wits.ac.za">Trevor.Derry@wits.ac.za</a> <a href="mailto:mervin.naidoo@wits.ac.za">mervin.naidoo@wits.ac.za</a>	Operated by former, by special agreement
Radio frequency annealing furnace	High temperature rapid annealing in gas ambient	P15 Physics Building	Dr Mervin Naidoo or Dr Charlie Levitt <a href="mailto:mervin.naidoo@wits.ac.za">mervin.naidoo@wits.ac.za</a> <a href="mailto:Charlie.Levitt@wits.ac.za">Charlie.Levitt@wits.ac.za</a>	Training provided
Electropolisher	Smoothing surfaces	Physics Building	Dr Mervin Naidoo or Mr Gerrard Peter <a href="mailto:mervin.naidoo@wits.ac.za">mervin.naidoo@wits.ac.za</a> <a href="mailto:Gerrard.Peter@wits.ac.za">Gerrard.Peter@wits.ac.za</a>	Not yet available
Magnetron sputtering Unit	Preparatin of thin films	Physics Building	Dr Daniel Wamwangi <a href="mailto:Daniel.Wamwangi@wits.ac.za">Daniel.Wamwangi@wits.ac.za</a>	Operator
CIV Hall effect System	Electrical characterizetion of Materials	Physics Building	Dr Daniel Wamwangi or Dr Rudolf Erasmus <a href="mailto:Daniel.Wamwangi@wits.ac.za">Daniel.Wamwangi@wits.ac.za</a> <a href="mailto:rudolph.erasmus@wits.ac.za">rudolph.erasmus@wits.ac.za</a>	Operator
Surface Brillouin Lab	Optical system for measuring elastic properties	Physics Building	Dr Daniel Wamwangi or Dr Bhekumusa Mathe <a href="mailto:Daniel.Wamwangi@wits.ac.za">Daniel.Wamwangi@wits.ac.za</a> <a href="mailto:bhekumusa.mathe@wits.ac.za">bhekumusa.mathe@wits.ac.za</a>	Operator
Raman instrument I: Vis, triple grating instrament	Raman spectroscopy in visible spectrum	P23, Physics Building	Dr Rudolph Erasmus <a href="mailto:rudolph.erasmus@wits.ac.za">rudolph.erasmus@wits.ac.za</a>	Operator
Raman instrument II: UV-Vis NIR Lab RAM	Raman spectroscopy in UV, Visible and NIR	B5, Biology Building	Dr Rudolph Erasmus <a href="mailto:rudolph.erasmus@wits.ac.za">rudolph.erasmus@wits.ac.za</a>	Operator/Training available
Cory 500 UV-Vis-NIR spectrophotometer	Absorption and reflectance measurements from 200um to 3000um	P22, Physics Building	Dr Rudolph Erasmus or Prof. Darrell Comins <a href="mailto:rudolph.erasmus@wits.ac.za">rudolph.erasmus@wits.ac.za</a> <a href="mailto:darrell.comins@wits.ac.za">darrell.comins@wits.ac.za</a>	Operator/Training available
Vacuum and air induction furnaces	Melting & Casting	Mintek	Dr Chris Fletcher <a href="mailto:chris@mintek.co.za">chris@mintek.co.za</a>	Technician/instrument scientist will always run the samples
Water atomiser	Powder manufacture, base and precious metals	Mintek	Mr Alain Mwamba <a href="mailto:Alainm@mintek.co.za">Alainm@mintek.co.za</a>	

80 tonne uniaxial compaction press	Consolidation of powders	Mintek	Mr Alain Mwamba <a href="mailto:Alainm@mintek.co.za">Alainm@mintek.co.za</a>	
Fabrication - forging, hot/cold rolling, etc.	Sample shaping	Mintek	Dr Chris Fletcher <a href="mailto:chrisf@mintek.co.za">chrisf@mintek.co.za</a>	
Air muffle furnaces, vacuum tube and sintering furnaces	Heat treatment different temperatures up to 1800°C)	Mintek	Dr Chris Fletcher <a href="mailto:chrisf@mintek.co.za">chrisf@mintek.co.za</a>	
Fatigue, tensile, 3 point bend rigs, hardness testers (Brinell and Vickers)	Mechanical testing	Mintek	Dr Chris Fletcher <a href="mailto:chrisf@mintek.co.za">chrisf@mintek.co.za</a>	
Metallography Lab with optical microscopes	Sample prep (grinding, polishing, etching)	Mintek	Mr Alain Mwamba <a href="mailto:Alainm@mintek.co.za">Alainm@mintek.co.za</a>	Basic operation can be taught
Image analysis software		Mintek	Mr Alain Mwamba <a href="mailto:Alainm@mintek.co.za">Alainm@mintek.co.za</a>	Technician/instrument scientist will always run the samples
Potensiostats Autoclaves (can be set up for HIC testing, only Lab in SA) Stress Corrosion	Corrosion testing	Mintek	Ms Melanie Smit <a href="mailto:Melanies@mintek.co.za">Melanies@mintek.co.za</a>	
High Resolution NanoNova SEM with EDS (incl. mapping) and EBSD	Imaging, chemical analysis, crystal structure	Mintek	Mr Richard Couperthwaite <a href="mailto:Richardc@mintek.co.za">Richardc@mintek.co.za</a>	
NETZSCH Simultaneous Thermal Analysis Facility (DTA TGA DSC)	Thermal analysis, thermogravimetry, calorimetry of metals	Mintek	Mr Asimemye Kapito <a href="mailto:Asimeyem@mintek.co.za">Asimeyem@mintek.co.za</a>	
SIEMENS XRD	Crystal structure, rest-austenite	Mintek	Dr Jones Papo or Mr Joseph Moema <a href="mailto:Jonesp@mintek.co.za">Jonesp@mintek.co.za</a> <a href="mailto:joeseephm@mintek.co.za">joeseephm@mintek.co.za</a>	
Vacutec EB-PVD	Thin films and coatings	Mintek	Dr Jones Papo or Mr Joseph Moema <a href="mailto:Jonesp@mintek.co.za">Jonesp@mintek.co.za</a> <a href="mailto:joeseephm@mintek.co.za">joeseephm@mintek.co.za</a>	
Thermo-Calc™ Laptop Databases: Fe, Al, Mg databases Building Pt based alloy database	Prediction of phase diagrams, phase equilibria, liquidus temperatures	Ricard Ward, Wits and Mintek	Mr Marandela Mulaudzi (Mintek) <a href="mailto:marandelam@mintek.co.za">marandelam@mintek.co.za</a>	Access provided to trained people
Thermo-Calc with Fe, Al, Ti databases	Prediction of phase diagrams, phase equilibria, liquidus temperatures	Richard Ward	Dr Les Chown <a href="mailto:lesley.chown@wits.ac.za">lesley.chown@wits.ac.za</a>	Access provided to trained people
Crystal Diffraction software		Richard Ward	Prof. Lesley Cornish <a href="mailto:lesley.cornish@wits.ac.za">lesley.cornish@wits.ac.za</a>	Access provided to trained people
SINT MTS3000 Incremental Hole-Drilling Strain Gauge Instrumentation	Measurement of residual stress profiles	Material Testing Laboratory, Barloworld Laboratory, North West Engineering Building	Prof. Claudia Polese <a href="mailto:claudia.polese@wits.ac.za">claudia.polese@wits.ac.za</a>	Access provided to trained people
Product Minimum Quantity Lubrication (MQL) Equipment	Advanced machining operations	Barloworld Laboratory Workshop, CNC Machines Room, North West Engineering	Prof. Claudia Polese <a href="mailto:claudia.polese@wits.ac.za">claudia.polese@wits.ac.za</a>	Access provided to trained people
Kistler Multi-Component Stationary Dynamometer	Dynamic three-dimensional force and moment measurements	Barloworld Laboratory Workshop, North West Engineering Building	Prof. Claudia Polese <a href="mailto:claudia.polese@wits.ac.za">claudia.polese@wits.ac.za</a>	Access provided to trained people
Gleeble 3500	Thermo-mechanical simulations	Richard Ward, Wits	Dr Les Chown (Wits) <a href="mailto:lesley.chown@wits.ac.za">lesley.chown@wits.ac.za</a>	Access provided to trained people
Hot Platinum Induction furnace	Melting of samples under vacuum or argon	Richard Ward, Wits	Dr Les Chown (Wits) <a href="mailto:lesley.chown@wits.ac.za">lesley.chown@wits.ac.za</a>	Access provided to trained people
Resonant Frequency & Damping Analyser	Resonant frequency, internal friction or damping. Calculates Young's & shear modulus, Poisson ratio	Physics Building	Prof. Lesley Cornish <a href="mailto:lesley.cornish@wits.ac.za">lesley.cornish@wits.ac.za</a>	Access provided to trained people

Tensile test machine	5 t tensile test facility	RW137	Dr Josias van der Merwe <a href="mailto:josias.vandermerwe@wits.ac.za">josias.vandermerwe@wits.ac.za</a>	
Centerline Cold Spray equipment	Coating of various surfaces with metallic powders for a large range of applications	NWE-building, MIA	Prof. Ionel Botef <a href="mailto:ionel.botef@wits.ac.za">ionel.botef@wits.ac.za</a>	Operator
Zeiss high vacuum SEM	SE, BSE, EDX	Richard Ward, Wits	Mr Brayner Nelwalani <a href="mailto:Ndivhuwo.Nelwalani@wits.ac.za">Ndivhuwo.Nelwalani@wits.ac.za</a>	Operator
Potentiostats				
Autolab	Corrosion rates; corrosion characterisation	Richard Ward Room 403	Dr Josias van der Merwe <a href="mailto:josias.vandermerwe@wits.ac.za">josias.vandermerwe@wits.ac.za</a>	Training and operator
Potential-dynamic testing: DC as well as AC	Corrosion interface analyses; Coating corrosion resistance characterisation	Richard Ward Room 403	Dr Josias van der Merwe <a href="mailto:josias.vandermerwe@wits.ac.za">josias.vandermerwe@wits.ac.za</a>	Training and operator
Solartron , Software on order	Corrosion rates; corrosion characterisation; Corrosion interface analyses; Coating corrosion resistance characterisation	Richard Ward Room 403	Dr Josias van der Merwe <a href="mailto:josias.vandermerwe@wits.ac.za">josias.vandermerwe@wits.ac.za</a>	Training and operator
Ultrasonic cleaning	Sample cleaning	Richard Ward Room 403	Dr Josias van der Merwe <a href="mailto:josias.vandermerwe@wits.ac.za">josias.vandermerwe@wits.ac.za</a>	None
Autoclave High temperature and high pressure exposure tests, Influence of flow rate, SCC constant deformation, C-ring, U-bend specimens, Weight loss tests	Corrosion rate determination at high temperatures and pressures for stagnant and turbulent conditions	Richard Ward Room 403	Dr Josias van der Merwe <a href="mailto:josias.vandermerwe@wits.ac.za">josias.vandermerwe@wits.ac.za</a>	Training
Salt spray cabinet	Atmospheric evaluation of coatings	Richard Ward Room 403	Dr Josias van der Merwe <a href="mailto:josias.vandermerwe@wits.ac.za">josias.vandermerwe@wits.ac.za</a>	Operator
Hardware	Multi-core (Xeon): 96 Cores	Physics Building	Prof. Alex Quandt <a href="mailto:Alex.Quandt@wits.ac.za">Alex.Quandt@wits.ac.za</a>	Access provided to trained people
	Fast GHz 48 port switch	Physics Building	Prof. Alex Quandt <a href="mailto:Alex.Quandt@wits.ac.za">Alex.Quandt@wits.ac.za</a>	Access provided to trained people
System Software	Linux (Intel compilers)	Physics Building	Prof. Alex Quandt <a href="mailto:Alex.Quandt@wits.ac.za">Alex.Quandt@wits.ac.za</a>	Access provided to trained people
Specialised Software	Quantum Espresso, Abinit, GPAW, Siesta, LAMMPS	Physics Building	Prof. Alex Quandt <a href="mailto:Alex.Quandt@wits.ac.za">Alex.Quandt@wits.ac.za</a>	Access provided to trained people
	Meep, MPB	Physics Building	Prof. Alex Quandt <a href="mailto:Alex.Quandt@wits.ac.za">Alex.Quandt@wits.ac.za</a>	Access provided to trained people
	Columbus, Cfour	Physics Building	Prof. Alex Quandt <a href="mailto:Alex.Quandt@wits.ac.za">Alex.Quandt@wits.ac.za</a>	Access provided to trained people
Visualization	Vesta, Xcrysden	Physics Building	Prof. Alex Quandt <a href="mailto:Alex.Quandt@wits.ac.za">Alex.Quandt@wits.ac.za</a>	Access provided to trained people
TGA	Used for evaluating temperature effects on a material e.g. weight loss under air or nitrogen.	Gate House 8th Floor	Mr Neo Phao <a href="mailto:neo.phao@students.wits.ac.za">neo.phao@students.wits.ac.za</a> Ms Nomso Hintsho <a href="mailto:Nomso.Hintsho@wits.ac.za">Nomso.Hintsho@wits.ac.za</a>	If significant use expected, student will be trained in use
TPR	Used for analysing the reduction behaviour of metal oxides. Equipment also permits measurement of gas desorption.	Room 114 , Chemistry	Mr William Dlamini Mr Basil Chassoulas <a href="mailto:basil.ecurie@gmail.com">basil.ecurie@gmail.com</a>	If significant use expected ? student will be trained in use
X- band Electron Magnetic Resonance spectrometer (continuous wave and FT-EMR)	Characterization of materials and fundamental physics studies	Room P27, Physics Building	Dr Jonathan Kearthland <a href="mailto:jonathan.kearthland@wits.ac.za">jonathan.kearthland@wits.ac.za</a>	Trained users are welcome to utilize the equipment
Pulsed broad-line Nuclear Magnetic Resonance spectrometer	Characterization of materials and fundamental physics studies	Room P27, Physics Building	Dr Jonathan Kearthland <a href="mailto:jonathan.kearthland@wits.ac.za">jonathan.kearthland@wits.ac.za</a>	Use restricted to students and staff of the laboratory
Micro-tribometer	Friction and sliding wear tests	Richard Ward Room 115	Prof. Natasha.Sacks <a href="mailto:Natasha.Sacks@wits.ac.za">Natasha.Sacks@wits.ac.za</a>	Training and Operator
Reciprocating wear machine	Reciprocating wear tests	Richard Ward Room 115	Prof. Natasha.Sacks <a href="mailto:Natasha.Sacks@wits.ac.za">Natasha.Sacks@wits.ac.za</a>	Training and Operator
Surface Roughness machine	Surface roughness measurements	Richard Ward Room 115	Prof. Natasha.Sacks <a href="mailto:Natasha.Sacks@wits.ac.za">Natasha.Sacks@wits.ac.za</a>	Training and Operator
3 & 4 point bend jig	TRS measurement	Richard Ward Room 406	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
3 balls on 1	TRS measurement	Richard Ward Room 406	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required

Arc Melter	Alloy melting	Richard Ward Room 513	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Attrition mill	Milling ceramic powders	Richard Ward Room 513	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Mixer, 10 000rpm	Shear mixing of suspensions	Richard Ward Room 513	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Cutting machine	Sample preparation	Richard Ward Room 409	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Density balance	Quick but approximate density measurement	Richard Ward Room 136	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Drying oven New	Drying ceramic powders	Richard Ward Room 513	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Drying oven Old	Debinding and resin curing work	Richard Ward Room 513	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
DTA	Pending	Richard Ward Room 407	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Pending
furnace, muffle, 1800°C	Ceramic materials sintering	Richard Ward Room 513	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
furnace, Tube 1600°C	Ceramic materials sintering	Richard Ward Room 513	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
furnace, tube 1700°C	Ceramic materials sintering and controlled atmosphere reactions	Richard Ward Room 136	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
furnace muffle 1600°C	Ceramic materials sintering	Richard Ward Room 513	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Furnace, muffle, 1200°C	Ceramic materials sintering	Richard Ward Room 513	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Glove Box	Handling air sensitive powders and reagents	Richard Ward Room 407	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Hot Press	Ceramic materials sintering	Richard Ward Room 136	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Lathe	Machining studies	Richard Ward Room 316A	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Leak detectors	Vacuum equipment testing for leaks	Richard Ward Room 136	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Mass balance	Mass balance	Richard Ward Room 407	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Microscope - Lathe Room	to look	Richard Ward Room 316A	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Operated only by Dr Kenny Sobiyi
Microscope	Microscope - Rom 136	Richard Ward Room 136	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Little training required
Microscope	Microscope - Room 409	Richard Ward Room 409	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Little training required
Mounting Press	Microscopy sample preparation	Richard Ward Room 409	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Little training required
Patricle Size Analyzer	Patricle Size Analyzer	Richard Ward Room 407	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Planetary Ball Mill	Milling fine powders	Richard Ward Room 513	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Rheometer	Viscosity of suspensions	Richard Ward Room 407	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Rotary Evaporator	Drying suspensions after milling	Richard Ward Room 407	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Sample Polishing Machine	For microscopy	Richard Ward Room 407	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Sand Blaster	Cleaning surfaces	Richard Ward Room 113	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Sniffer	Vacuum equipment testing for leaks	Richard Ward Room 136	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
SPS Furnace	Ceramic materials sintering	Richard Ward Room 136	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Only 2 well trained students at any given time
Turbula mixer	Dry mixing of powders	Richard Ward Room 513	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required
Ultrasonic bath	Sample cleaning	Richard Ward Room 407	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Little training required
Zeta Sizer	Nanoscale powder PSD	Richard Ward Room 407	Prof. Jack Sigalas <a href="mailto:jakovos.sigalas@wits.ac.za">jakovos.sigalas@wits.ac.za</a>	Training is Required