

Lab Facilities

Last updated June, 2008

School/ Department	Laboratory	Equipment/Facilities	Contact
Geography	Palaeoecological Lab	Heraeus Multifuge 3L centrifuge Leica DMLS microscope (x2) Leica CME microscope (x10) Olympus stereo microscope (x15) Leica MZ-6 binocular microscope (x1) Bartington magnetic susceptibility meter	Dr John Corr j.f.corr@geog.leeds.ac.uk 0113-343-3314
	Teaching Lab	Corning FP400 Flame Photometer Sherwood FP410 Flame Photometer Gerhardt Vapodest VAP30IR Infra Red Digestor Gerhardt TT6/4 Steam distiller HACH DR2010 Spectrometer LMS Series 3 Incubators Hitachi Z-5300 Atomic Absorption Spectrophotometer	Rachel Gasior r.l.gasior@leeds.ac.uk 0113-343-3314
	Dissertation/Project Lab	HACH DR2010 Spectrometer HACH Odyssey Spectrometer Denver Instruments 220 Bench pH/conductivity Mettler Toledo MP225 Bench pH meter	
	Preparation Room	Retsch MM301 Mixer mill Retsch SM100 Cutting mill Christison Scientific automated pestle and mortar	
	Water Quality Lab	Vacuum filtration manifold Mettler Toledo MP225 Bench pH meter Gallenkamp Incubator Centrifuge	

	Instrument Laboratory	<p>Eurovector EA Combustion Analyser (carbon and nitrogen solids)</p> <p>Analytical Sciences Elemental Analyser (thermal oxidation TOC and TN)</p> <p>Skalar SAN ++ System Continuous Flow Analyser</p> <p>Dionex High Performance Liquid Chromatograph (Ion Chromatograph(HPLC-IC))</p> <p>Perkin Elmer Optima 5300 DV Simultaneous Inductively Coupled Plasma Optical Emission Spectrophotometer (ICP-OES)</p> <p>Beckman Coulter Laser Diffraction Particle Size Analyser</p> <p>Jasco UV/Vis Spectrophotometer</p>		
Earth and Environment	Electron Optics Facility	<p>Scanning Electron Microscope</p> <p>The Electron Probe MicroAnalyser</p>	<p>Eric Condliffe</p> <p>e.condliffe@see.leeds.ac.uk</p> <p>0113-343-2393</p>	
	The Sorby Multiphase Flow Lab <i>To investigate the multi-phase properties of fault rocks for predicting flow of petroleum in the subsurface.</i>	<p>Experiments involving fault rocks and top seals to petroleum reservoirs;</p> <p>Relative permeability</p> <p>Capillary pressure</p> <p>Wettability</p>	<p>Facilities:</p> <p>CT scanner</p> <p>Relative permeability and capillary pressure flow system determinations</p> <p>Ultracentrifuge</p> <p>Pulse-decay permeameter</p> <p>Hg-injection porosimeter</p> <p>Equipment for electrical properties of rocks investigation.</p>	<p>Quentin Fisher</p> <p>Q.J.Fisher@leeds.ac.uk</p> <p>0113-343-1920</p>
	The Sorby Environmental Fluid Dynamics Lab	<p>Fluid dynamics research</p> <p>Sedimentary processes research</p> <p>Flume Tanks</p> <p>Quantitative Flow and Sediment Measure Devices</p>	<p>Jeff Peakall</p> <p>j.peakall@see.leeds.ac.uk</p> <p>0113-343-5205</p>	
	Stable Isotope Lab	<p>GV Isoprime and SIRA 10 isotope</p> <p>Ratio mass spectrometers and associated vacuum preparation lines (sulphur, carbon, nitrogen and oxygen)</p> <p>Laser extraction system for high spatial resolution analysis</p>	<p>Simon Bottrell</p> <p>s.bottrell@see.leeds.ac.uk</p> <p>0113-343-5228</p> <p>Rob Newton</p> <p>r.newton@see.leeds.ac.uk</p> <p>0113-343-7981</p>	

	LA-ICP-MS Lab	Composition and behaviour of crustal fluids Nature and timing of hydrothermal processes	BruceYardley b.yardley@see.leeds.ac.uk 0113-343-5227
Institute of Particle Science and Engineering (IPSE)	Particle Manufacturing Lab	Supercritical fluids Emulsification rigs Stability testing Spray drying Extrusion	Jim Young j.young@leeds.ac.uk 0113-343-2349
	Batch Processes Lab	Batch instrumented reactors Crystallisation In-process imaging	
	Tomography Applications Lab	Electrical impedance tomography Powder hopper Flow loop Bubble column	
	Powder Processing	Dry powder processing Measurement methods for flow and mixing	
	Particle Characterisation	Particle sizing Shape analysis Density Rheology Microtomography	
	Colloid Engineering Lab	Wet fine colloids and mineral systems Settling Flocculation Zeta potential Surface tension Quartz crystal microbalance Pressure rheometer	
	Pharmaceutical Particulates Lab	Fine particle processing Ultrafine powder production Granulation	
	Reaction Kinetics Lab	Catalysis Environmental applications	

	and Pilot plant	Reaction kinetics Multi-phase flow loop	
Chemistry	Various Labs	<p>Synthetic chemistry Labs</p> <p>Robotic synthesisers for the automated synthesis of compounds libraries and catalyst screening</p> <p>Facilities for high-throughput synthesis, analysis and purification of small molecules by HPLC and LC-MC</p> <p>Microwave enhanced synthesis reaction equipment</p> <p>High pressure supercritical CO₂ reaction facilities (small and large scale)</p> <p>Supercritical CO₂ particle formation/crystallisation equipment</p> <p>Photochemical reactor systems</p> <p>State-of-the-art single-crystal X-ray diffraction analysis facilities</p> <p>Four 500 MHz NMR spectrometers</p> <p>Femtosecond and nanosecond laser spectroscopy</p> <p>Time-resolved and steady-state fluorescence and absorption spectroscopy</p> <p>EPR spectroscopy</p> <p>Time-resolved and static FTIR</p> <p>Single molecule fluorescence microscopy</p> <p>Suite for the high-throughput synthesis</p> <p>Analysis and purification of small molecules by HPLC and LC-MS</p> <p>Class II microbiological suite</p> <p>Molecular graphics suite linked to a parallel computing cluster</p> <p>Surface plasmon resonance instruments</p> <p>Isothermal titration calorimetry</p> <p>Mass spectrometry facility</p> <p>750 and 600 MHz NMR spectrometers</p>	<p>Derek Mills</p> <p>d.mills@leeds.ac.uk</p> <p>0113-343-6554</p>

Biological Sciences	Various Labs	Bio-imaging Circular Dichroism Containment Level 3 Laboratory Electron Microscopy Electronic and Mechanical Workshops Field Research Unit Flow Cytometry High and Ultra Speed Centrifugation, Other General Equipment High Performance Computing Histology Human Performance Information Technology	Integrated Genomic and Gene Expression Analysis JIF Centre for Molecular Interactions Mass Spectrometry Media, Sterilisation, Decontamination, Washup Nuclear Magnetic Resonance Plant Growth Protein Expression Proteomics Stem Cell Stock Culture Collection X-ray Crystallography	Mrs Carol Davison c.j.davison@leeds.ac.uk 0113-343-3120
Colour Science	Colour Science Analytical	Analysis and expertise in; Surface coatings Inks Textiles Water treatment Fine chemicals Medical devises and cosmetics	Specialist analytical techniques; Surface Characterisation Environmental Monitoring Chemical/Structural analysis	Algy Kazlauciusas a.kazlauciusas@leeds.ac.uk

Field Equipment

School	Field Equipment <i>(often multiples of)</i>				Contact
Geography	Abney level Acoustic doppler 16Mhz system: 4 ADVs Air flow meter Anemometer Anemometer (mini) Area Velocity Module for 6712 (York Wat) Area/velocity module /sensor Area/velocity module and probe ASD laptop (Spec) Balance (Field) Max 200g 0.01g dp Baro compensated pressure Battery charger Bicycle Calibration test plug 0.0 degrees C Card adaptor for Leica GPS to PC Charger Clinometer Communcation Link Conductivity meter Cone penetrometer Convertor – Charger	Field balance (no decimal places) Field balance 10kg 0.1dp Field balance 1kg x 5g Field Balance 300x0.1g Flow meter, Level Flow-meter counter Gas analyser (IRGA) Gas Monitor Generator GPR GPS (handheld) GPS Base Station Hammer probe for protimeter Handheld fluorometer (phycocyanin) Heavy duty tripod Hobo Event Logger Humidity and temperature logger Hygrometer Level Livingstone corer Logger Squirrel (only for fluorometer) Logger Tinytags Plus 2 Magnetic Compass -	Milton multiban Multimeter Net radiometer Odometer (Trundle wheel road measurer) OmniDrive Card reader Optical Square pH Meter pH/DO/conductivity kit Porometer Power supply Pressure transducer - 5m cable Pressure transducer 15m cable Pressure transducer 25m cable Pressure transducer 35 m cable Pressure transducer 35m cable Pressure transducer and logger BARODIVER DIVERMATE Pressure transducer and logger DIVER Protimeter Protimeter	Soil colour chart Solar radiometer Temperature probe for EGM-4 Theodolyte Thermometer Theta moisture meter Theta probe Tipping bucket rain- gauge Total station Trafag Pressure Transducer Trafag type DL/N pressure transmitter transducer and Logger Squirrel/Eltek datalogger Tree borer Turbidimeter Turbidity sensor (IR) Two way Radio handset Velocity Probe Sensa RC2 Video camera Walkie talkies radio Water sampler (48 sample)	Miles Ratcliffe m.ratcliffe@leeds.ac.uk 0113-343-3314

	Digital caliper 150 mm Dissolved oxygen meter DO Meter DO probes Echo sounder	Sight Master Magnetic Compass – Field Metal detector	(Timbermaster moisture meter) Pyranometer Radiometer Relative humidity/temperature probes Russian Peat Corer Satellite phone Sentry II datalogger	Water Sampler 6712 (Yorks Water) Well dipper Winch for lifting tripod Wind watch / barometer Windvane potentiometer (wind direction)	
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