# Our equipment.

A sample of our extensive equipment which can be used by our skilled technicians. Contact us to talk about your requirements.



#### SCANNING ELECTRON MICROSCOPY (SEM)

Used for the examination and analysis of micro- and nanoparticle imaging characterization of solid objects.

# BENCH TOP NMR

An analytical tool which helps chemists and other scientists analyse a sample's molecular structure without destroying the sample.

- AUGMENT REALITY EQUIPMENT
   For real-time use of information in
   the form of text, graphics, audio
   and other virtual enhancements
   integrated with real-world objects.
- VIRTUAL REALITY EQUIPMENT For creating a computer-generated environment with scenes and objects that appear to be real, making the user feel they are immersed in their surroundings.
- 3D HANDHELD SCANNER Contributing to the preservation of history, by collecting delicate objects and fossils in 3D digital form.

# LASER MARKING SYSTEM

A permanent process that uses a beam of concentrated light to create a lasting mark on a surface.

# SLM METAL PRINTER

A 3D printing technique, which utilises a high power-density laser to fully melt and fuse metallic powders to produce near net-shape parts with near full density.

#### • **3D PRINTING MACHINES** Print plastic, ceramic and cellulose materials.

#### WILSON VICKERS / ROCKWELL VH1150 HARDNESS TESTER

Evaluates material's properties, such as strength, ductility and wear resistance, and so helps you determine whether a material or material treatment is suitable for the purpose you require.

#### INSTRON TENSION AND COMPRESSION TESTING

Applies tensile force or compression to a material and measures the specimen's response to the stress.

- FIBRE LASER CUTTING MACHINE A metal cutting machine which offers unparalleled speed and accuracy.
- INJECTION MOULDING MACHINE
   In the process of injection moulding,
   a thermoplastic polymer is heated
   above its melting point. This melt is
   mechanically injected, or pressed,
   into a mould that mimics the
   ultimate shape of the product that
   will be produced.

#### ARMFIELD COMPUTER CONTROLLED SUBSONIC WIND TUNNEL

Able to support aerodynamic analysis of golf balls to fishing weights.

# • ICP-OES

An analytical technique that is used to identify the atomic composition of a sample.

# • GC MS

An instrumental technique, comprising a gas chromatograph (GC) coupled to a mass spectrometer (MS), by which complex mixtures of chemicals may be separated, identified and quantified.

# • LC MS

An analytical technique used for separation, identification, and quantification of both unknown and known compounds as well as to elucidate the structure and chemical properties of different molecules.

# DISCRETE ANALYSER

An automated chemical analyser in which the instrument performs tests on samples that are kept in discrete cuvettes.

#### • **CONFOCAL MICROSCOPE** A technique that uses lasers and fluorescence to create a threedimensional image of a sample.

• FLOW CYTOMETER Used to detect and analyse the chemical and physical characteristics of cells or particles.

#### fNIRS BRAIN SCANNING SYSTEM A non-invasive brain imaging technique that measures blood oxygenation changes.

• EYE TRACKER – EYE LINK 1000 Helps observe and measure eye movements, pupil dilation, point of gaze, and blinking to see where subjects of a study focus their visual attention.

