Solid State Chemistry

This research unit is recognised as one of the top UK solid state research groupings. Members undertake internationally-leading research across the breadth of materials chemistry and cover subjects as varied as fuel cells; hydrogen storage; ion exchange materials for the nuclear industry; catalysis; biomaterials, multifunctional materials: magnetic/optical/electronic materials; thermoelectric materials; crystal engineering & polymorphism.

The research unit is housed in dedicated laboratories within the Haworth Building and has access to state-of-the-art equipment, both within the school and through well established external links. Among the facilities available within the school are: (a) four X-ray powder diffractometers (including 10-1273 K variable temperature options); (b) X-ray fluorescence; (c) TG/DTA facilities with mass spectrometer and FTIR evolved gas analysis; (d) several suites of tube and muffle furnaces, with upper temperatures of 1100-1800 °C, and ability to vary the furnace atmosphere (including a dedicated set up for reactions under fluorine gas); (e) A suite of electrochemical measurement facilities; (f) Raman and IR facilities; (g) glove box facilities; (h) hydrothermal synthesis facilities.

Members of the theme also have important collaborations with the other departments within the University, including Metallurgy & Materials and Chemical Engineering. Strong links also exist with scientists at the central facilities (ISIS, Diamond) in the UK, as well as with other groups internationally.

For research interests of the individual members of staff, see the links below.

Research group leaders

- **Dr Paul Anderson (/staff/profiles/chemistry/anderson-paul.aspx)**
- **Professor Colin Greaves (/staff/profiles/chemistry/greaves-colin.aspx)**
- **Dr Joseph Hriljac (/staff/profiles/chemistry/hriljac-joseph.aspx)**
- **Dr Mark Read (/staff/profiles/chemistry/read-mark.aspx)**
- **Dr Zoe Schnepp (/staff/profiles/chemistry/schnepp-zoe.aspx)**
- **Professor Peter Raymond Slater (/staff/profiles/chemistry/slater-peter.aspx)**