The Materials Programme - Crystal Growth Group

The Materials Programme in the School of Metallurgy and Materials, University of Birmingham is a well established facility dedicated to producing high quality, well characterized materials, often in the form of single crystals, for use in many branches of research. Since its establishment in 1964, the Programme has enjoyed extensive UK Government Research Council support while gaining an international reputation for both its materials research and the high quality samples that have been prepared.

Dedicated to the: Preparation, Purification and Crystal Growth of Metallic Elements, Alloys, Compounds and Oxides

To this end we have collaborated with many groups worldwide, providing them with their specimen requirements. Close ties with these groups have given us experience of fabricating and characterizing actual specimens for a range of experiments including elastic and inelastic neutron scattering, surface studies, heat capacity, NMR, magnetostriction, magnetic susceptibility, muon spin rotation/relaxation and magnetic X-ray scattering as well as a variety of mechanical property measurements.

Over the years, we have accumulated a considerable amount of specialized equipment, while our expertise on single crystal growth, metal purification, materials characterization and fabrication covers most of the transition metals, rare earth elements and some actinide elements, and many of their alloys and compounds. Latterly the Programme has also branched out to include crystal growth of metallic oxides.

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