

CHEMISTRY CAPABILITY



Overview

Located across two laboratories and totalling more than 120m², we have wet chemistry facilities for the handling, preparation and modification of 2D materials.

The laboratory users have access to 10 HEPA filtered 1.5m wide fume cupboards, two of which are a walk-in type. Half of the fume cupboards are fitted with an acid scrubber system on the exhaust, neutralising any acid vapours being produced. The fume cupboards are facilitated with vacuum, deionised water, inert (compressed air, nitrogen and argon) and reactive gases (hydrogen/argon mix, ammonia, methane and hydrogen) on tap and a dedicated laboratory waste stream which is neutralised before it leaves site. Both laboratories have their own dedicated oxygen detection system alerting users to potential issues.

Each lab work bench has access to compressed air, nitrogen and vacuum as standard, and there is also a piped type II reverse osmosis water system feeding each water outlet, enabling hot, cold and RO water on demand.

The main chemistry lab has all the basics you would expect, including fridge, freezer, solvent and acid storage, vacuum oven, freeze drier and a laboratory glass washer. These sit alongside more research specific equipment, including a vacuum dual asymmetric centrifugal speed mixer and large-scale jacketed chemical reactor with integrated cooling for large scale and a microfluidics or high pressure homogeniser system.