

## **Design of the Extreme Conditions beamline at Diamond Light source**

Andrew Jephcoat  
David Hawkins  
Stewart Scott  
Heribert Wilhelm

*Diamond Light source, Chilton, Didcot, Oxfordshire, OX11, OQX, UK*

The poster will show the overall design of the new Extreme Conditions Beamline currently being installed at Diamond Light Source. The beamline will operate over the range 18 to 80 Kev and will use a beam generated from a Superconducting Multipole Wiggler. The beamline has been designed to operate with white beam throughout with beam powers of 4,500 watts.

The poster will highlight some solutions for handling the high heat load and high energies in the beamline.

This includes a double bragg axis rotation DCM, Large water cooled diamond windows, large KB mirror system, focused white beam shutters and high power slits. The poster will also show how the beamline is designed to operate in a variety of modes with separate experimental stations.