

## **Microprobe EXAFS at the SRS**

A.D.Smith, J.V.Flaherty, J.F.W.Mosslemans, I.Burrows, P.S.Stephenson, J.P.Hindley, W.J.Owens, G.Donaldson, C.M.B.Henderson

Microprobe applications are becoming routine on modern 3<sup>rd</sup> generation synchrotron sources and benefit from the high brightnesses and small source sizes inherent in them. Older, second generation facilities are characterised by larger source sizes and have lower degrees of photon beam collimation, so are not as competitive at producing very small x-ray focii. We have successfully built and commissioned a Kirkpatrick-Baez pair of elliptically bent mirrors for EXAFS measurements on an existing wiggler beamline on the SRS. This produces a sub-50 micron focal spot with sufficient flux to collect meaningful EXAFS data over the 5 to 15keV energy range. The resulting spatial resolution is well suited to a number of environmental, Earth sciences and archaeological problems and the ability to conduct small beam x-ray spectroscopy represents a new area for UK science.