

## Poster Presentation

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### *Use of Silver Radiation for crystallographic studies.*

Fraser James White<sup>1</sup>, Dyanne Cruickshank<sup>1</sup>, Alexandra Griffin<sup>1</sup>, Damian Kucharczyk<sup>2</sup>, Mathias Meyer<sup>2</sup>, Adrian Jones<sup>2</sup>  
<sup>1</sup>Rigaku Oxford Diffraction, Abingdon, United Kingdom, <sup>2</sup>Rigaku Oxford Diffraction, Wrocław, Poland  
E-mail: fraser.white@rigaku.com

Traditionally, the most widely used laboratory X-ray diffraction sources have used either molybdenum or copper targets to produce monochromatic beams. Whilst longer wavelength radiation such as copper K $\alpha$  has benefits in the fields of protein crystallography and, absolute structure determination among others, this longer wavelength is unsuitable for certain types of studies such as obtaining high resolution charge density data, collecting data on highly absorbing samples, or achieving acceptable completeness in high pressure experiments through the limiting window of a diamond anvil cell.

With the recent improvements to the high flux micro-focus source technology in Rigaku's PhotonJet sources, short wavelength radiation silver K $\alpha$  has become a more viable option to address some of these problems. Coupled with a hybrid photon counting detector using a cadmium telluride sensor which is designed specifically for maximum performance with the wavelength of a silver K $\alpha$  PhotonJet, the XtaLAB Synergy-S is the perfect research instrument for uses in fields such as high pressure and charge density, or for highly absorbing samples.

**Keywords:** [silver radiation](#), [high pressure](#), [high resolution](#)