

Poster Presentation

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S-SAD phasing on SOLEIL Beamline PROXIMA 1

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PROXIMA 1, a beamline for macro-molecular crystallography at the 3rd generation synchrotron source SOLEIL, is equipped with a multi-circle goniometer (alpha 50 degrees) as well as a PILATUS 6M detector. These features, along with the extended energy range of the beam line towards the low energies (down to 5.5 keV) and the possibility to adapt the source size to the sample in order to optimize signal to noise ratio, have made the beam line very attractive for S-SAD phasing with more than seven examples of successful de novo phasing achieved over the last two years. The use of low energies has also proved a significant aid in assisting with MODEL building. The technical capabilities of the beam line for low energy data collections will be presented, along with a number of examples of the successful use of low wavelengths on the beam line. The importance of combining data from multiple sample orientations in order to achieve "true multiplicity" will be highlighted, as well as the importance of combining data from multiple crystals in order to achieve high multiplicity.

[1] Goulet, A., Vestergaard, G., Felisberto-Rodrigues, C., et al. *Getting the best out of long-wavelength X-rays: de novo chlorine/sulfur SAD phasing of a structural protein from ATV. Acta Crystallographica D*, 2010, 66(3): 304-308

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