

High Resolution Data Collection in the Home Lab

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Data collection on protein crystals to very high resolution ($> 1.3\text{\AA}$) typically requires a trip to the synchrotron. Due to advances in optics and the introduction of micro-focus rotating anode generators, there has been a remarkable increase in brightness and flux density available in home laboratory systems. When combined with ultra-sensitive detectors, these systems provide an alternative means of extending the diffraction limit of samples. In some cases, X-ray data extending out to atomic resolution is obtainable. Methods of data collection as well as example data sets will be presented.

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