

Poster Presentation

MS016.P03

The XtaLAB mini II: teaching crystallography to undergraduates

Joseph Ferrara¹, Eric Reinheimer¹

¹*Rigaku Americas Corp, The Woodlands, United States*

E-mail: joseph.ferrara@rigaku.com

Rigaku Americas Corporation, 9009 New Trails Drive, The Woodlands, TX 73381 The XtaLAB mini was introduced at the 2008 IUCr in Osaka as a research grade benchtop diffractometer. Since then the XtaLAB mini has found its way into the undergraduate teaching curriculum with the most notable example being the University of Southampton [1]. This year the next generation benchtop, the XtaLAB mini II, was introduced at the ACA meeting in Denver. While the XtaLAB mini II has a number of hardware improvements, it is the software controlling the instrument and processing the data that represents the most important change, CrysAlisPro. CrysAlisPro is the widely popular data collection and data reduction program from Rigaku Oxford Diffraction. CrysAlisPro allows for automated data collection and reduction or step-by-step analysis so students can learn the basics of single crystal X-ray diffraction or delve deep into the nuances of problem crystals.

In this presentation we will explore the range of diffraction experiments one can perform with XtaLAB mini II focusing on the possibility to bring single crystal X-ray diffraction facilities to undergraduate institutions for both teaching and research.

[1] S. J. Coles and L. K. Mapp *J. Chem. Educ.*, 2016, 93 (1), 131–140.

Keywords: [x-ray diffraction](#), [teaching](#), [undergraduate](#)