

Poster Presentation

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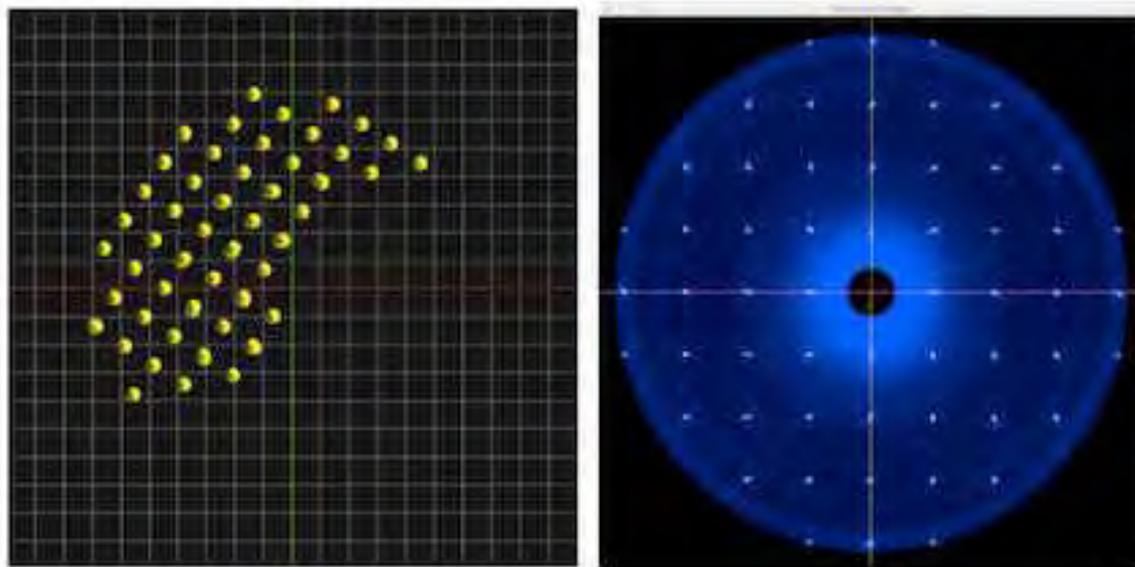
Development of "Reciprocal Viewer and Analyzer" for Neutron C-2DPSD

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A new single crystal neutron diffractometer by using a curved two-dimensional position sensitive detector (C-2DPSD) has been installed at HANARO-ST3 beam port [1]. Compared with a conventional point detector, a two-dimensional detector has huge reciprocal space information in general. It has advantages to detect superlattice peaks and diffuse scattering etc. without any pre-information. In order to obtain significant diffraction intensity in the reciprocal space, it is essential the efficient program for handling the measuring data directly. In these several years, we have developed the methodology and the program package "Reciprocal Analyzer", based on many experiments by the C-2DPSD, which includes peak search [2], UB matrix determination, and quantitative assessment of the accurate integrated intensities [3]. And to visualize reciprocal space from raw pixel data of the C-2DPSD, the "Reciprocal Viewer" has been developed also. These software are coded by C/C++ and Python with OpenGL as a cross-platform GUI. Figures show the graphical interface of Reciprocal Analyzer and Viewer. Details of the feature about these software will be introduced at the presentation.

[1] C. H. Lee, Yukio Noda, Yoshihisa Ishikawa, et.al, *J. Appl. Cryst.*, 2013, 46, 697–708, [2] Y. Ishikawa, et.al, *Acta Cryst.*, 2008, A64, C191, [3] Y. Noda, et.al, *Acta Cryst.*, 2011, A67, C652



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