

2.4. ELECTRON POWDER DIFFRACTION

PDFgui and *PDFfit2* are programs for full-profile fitting of the atomic PDF derived from X-ray or neutron diffraction data. *PDFgui* is a graphical front end for the *PDFfit2* refinement program, with built-in graphical and structure-visualization capabilities. *PDFgui* is currently in beta release and it is distributed as part of the DiffPy library. More information and the program are available at <http://www.diffpy.org>.

Process Diffraction is designed for processing of SAED and NAED patterns. It includes quantitative determination of phase fractions and texture from ring patterns recorded from nanocrystalline thin films in TEM. More information and the program are available at <http://www.energia.mta.hu/~labar/ProcDif.htm>.

QPCED and *PCED* are Java-based software for digitization, processing, quantification and simulation of powder electron diffraction patterns. For information contact Dr X. Z. Li (xzli@unl.edu) or visit <http://www.unl.edu/ncmn-cfem/xzli>.

TexPat is a program for quantification of texture (preferred orientation) from a tilt series of ring patterns recorded from nanocrystalline thin films in TEM (Oleynikov & Hovmöller, 2004).

WebEMAPS is a suite of computer programs that can be obtained at http://cbcd.matse.illinois.edu/software_emaps.html. The programs include functions for visualization of crystal structures, simulation of single-crystal diffraction patterns, dynamic electron diffraction simulation, and calculations of electron structure factors and lattice *d*-spacings.

WinPLOT is a peak-search program for plotting powder diffraction patterns and can be used as a graphical user interface for several programs used frequently in powder diffraction data analysis (e.g. *FullProf*, *DicVOL*, *SuperCELL*). *WinPLOT* has been developed to run on PCs with a 32-bit Microsoft Windows operating system. More information and the program are available at <http://www.cdifx.univ-rennes1.fr/winplotr/readme.htm>.

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