Compression of glycolide-h4 to 6GPa

This study details the structural characterization of glycolide-h4 as a function of pressure to 6GPa using neutron powder diffraction on the PEARL instrument at ISIS Neutron and Muon source. Glycolide-h4, rather than its deuterated isotopologue, was used in this study due to the difficulty of deuteration. The low background afforded by zirconia-toughened alumina anvils nevertheless enabled the collection of data suitable for structural analysis to be obtained to a pressure of 5GPa. Glycolide-h4 undergoes a reconstructive phase transition at 0.15GPa to a previously identified form (II), which is stable to 6GPa.