

Poster Presentation

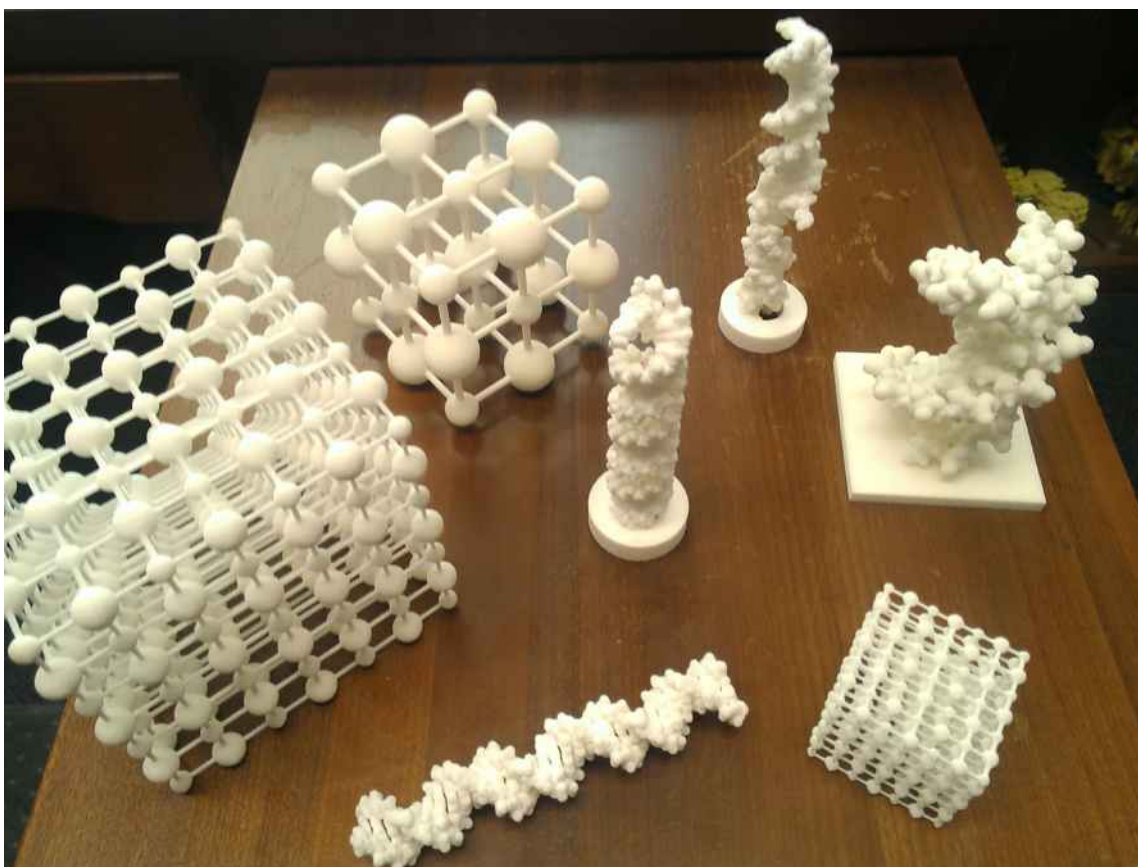
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IYCr2014: "Crystals and Crystallography" at "Explore UT"

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IYCr2014 is a unique opportunity for increasing the public awareness about the importance of crystallography, and promoting educational awareness of crystallography. Explore UT is a campus-wide open house of the University of Texas at Austin campus for the central Texas community that attracts thousands of visitors to campus each spring, including many busloads of school children and their teachers. We describe our experience at a booth for this event of presenting a variety of educational and learning tools to illustrate the benefits to society of 100 years of crystallography and the significance of IYCr2014. The exhibit featured posters, computer stations with web links and software, experiments and movies on crystal growth, lessons on symmetry, optical transform demonstrations, graphics software, as well as a variety of molecular models including 3D printed molecular models. Teaching structure/function concepts in chemistry, biochemistry, molecular biology, pharmacy, biomedical engineering, etc. has always been a challenge due to the inherent importance of understanding the role of 3D structure in order to understand function. Most students find it easier to understand the concepts when they have access to molecular models. For protein molecules, the sheer size and number of atoms involved make assembling molecular models from atomic parts impractical. Advances in computers and availability of high quality computer graphics software for the display of molecular models has helped, but does not replace the benefit of being able to hold and examine a physical model. We describe our experience using 3D printing technology to generate molecular models for use in the classroom and research laboratories to improve learning of structural concepts. See the IYCr2014 website for more information – <http://www.iycr2014.org>



Keywords: 3D printing, IYCr, Education