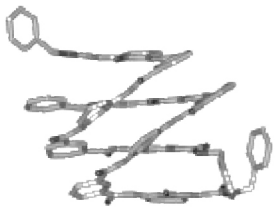
E0058

Synthetic Small-molecule Models of Peptides and Nucleic Acids – The Definitive Not-so-small Molecules. Lee M. Daniels[1], Ivan Huc[2], Jean-Michel Leger[2]. [1]Rigaku Americas Corp., 9009 New Trails Dr., The Woodlands, TX 77381, USA. [2]Inst. Européen de Chimie et Biologie, 2, Rue Robert Escarpit, 33607 Pessac Cedex, France.



As small-molecule crystallography marches into the realm of the not-so-small, new challenges arise and new techniques become important. Modern molecular modeling tools and synthetic techniques allow the design and preparation of increasingly large and complex non-natural mimics of the folded conformations of peptides and nucleic acids. Determining 3-dimensional structures of these materials from diffraction data is difficult. There are crystal-growth challenges, frequent data collection and processing complications, and of course structure solution and refinement obstacles. Several examples of these systems will be discussed.