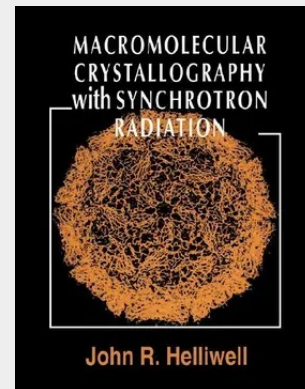


Macromolecular Crystallography with Synchrotron Radiation

This highly illustrated monograph provides a comprehensive study of the structure and function of proteins, nucleic acids and viruses using synchrotron radiation and crystallography. Synchrotron radiation is intense, polychromatic and finely collimated, and is highly effective for probing the structure of macromolecules. This is a fast-expanding field, and this timely monograph gives a complete introduction to the technique and its uses. Beginning with chapters on the fundamentals of macromolecular crystallography and macromolecular structure, the book goes on to review the sources and properties of synchrotron radiation, instrumentation and data collection. There are chapters on the Laue method, on diffuse X-ray scattering and on variable wavelength dispersion methods. The book concludes with a description and survey of applications including studies at high resolution, the use of small crystals, the study of large unit cells, and time-resolved crystallography (particularly of enzymes). Appendices are provided which present essential information for the synchrotron user as well as information about synchrotron facilities currently available. A detailed bibliography and reference section completes the volume. Many tables, diagrams and photographs are included.

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