

Book Review

Journal of Molecular Structure, *Special Issue: Organic Crystal Chemistry: Molecular Design, Structure, Reactivity, and Transformation*—Proceedings of the 9th International Symposium on Organic Crystal Chemistry, Poznan-Rydzyzna, Poland, 23–27 August, 1994, **374**, 1996, Elsevier, Amsterdam, 396 pp

Organic solid-state chemistry is currently going through considerable expansion and development, and much of this renewed attention has been brought about through the emergence of crystal engineering, an interdisciplinary research area where the primary focus is the intentional design and synthesis of specific predictable structural aggregates in the solid state.

The sheer breadth of this field (coupled with a strong sense of enthusiasm) is amply conveyed in a recent special edition of *Journal of Molecular Structure*, dedicated to organic crystal chemistry. The volume contains nearly forty articles which have been grouped together into six broad sections: *Newer theoretical and experimental approaches*, *Applications of structural studies related to biological activity*, *Structure and phase transformations*, *Crystal engineering and molecular design: Inclusion compounds*, *Structure and reactivity*, and *Conformation and intermolecular interactions: Hydrogen bonding*.

Sometimes, multi-author books (especially conference proceedings) leave a somewhat scattered impression, but in this case, we are provided with mostly up-to-date information about current developments in areas which all contribute to, and play a part in, crystal chemistry and crystal engineering. Many of the contributing authors to this volume are recognized as leaders in their respective fields, and we are provided new results from e.g., G. R. Desiraju, P. M. Zorky, F. H. Herbstein, K. D. M. Harris, F. Toda, and A. Katrusiak to name but a few.

In the context of crystal chemistry, it is also encouraging to see several contributions which focus on the dynamics of the solid state. Quite often, such phenomena, e.g., phase transformations, are not given sufficient attention, but this time, the largest section is in fact dedicated to structure and phase transformations.

It is always difficult to address every aspect of an interdisciplinary research field within a single volume, and the one weakness of the current volume is the fact that there is little in terms of theoretical analyses and calculations on intermolecular forces (an area which is of fundamental importance in this context). The scope of the *Journal of Molecular Structure* is mainly of an experimental nature, but such a section would nevertheless be of interest to many readers who are currently sitting on the sideline, waiting to pick up tools of crystal engineering.

This is a relatively minor complaint, and this volume is likely to provide interesting and useful information about crystal chemistry and crystal engineering for aficionados and novices alike. Furthermore, since most articles are very well referenced, this book may serve as a good starting point for deeper forays into these areas.

Dr. Christer B. Aakeröy
Department of Chemistry
111 Willard Hall
Manhattan, KS 66506