

SUPRAMOLECULAR CHEMISTRY

Dr. Shashi Lata Singh

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PREFACE

Supramolecular Chemistry is a current, integrated textbook that teaches newcomers to the field everything they need to know. The book assumes little prior knowledge and covers the concepts underlying the subject, its breadth, applications, and the most recent contemporary thinking in the field. It also covers the more critical experimental and instrumental techniques required by supramolecular chemists.

Supramolecular structures are discussed in the context of their common field, with an emphasis on the most recent, up-to-date research findings. It uses concise, self-contained chapters to discuss the interactions of several molecules and their properties, functions, and applications to molecular aggregates and molecular assemblies, beginning with simple complex-forming compounds and progressing to complex supramolecules and superstructures. This method emphasises its close relationship to physics, physical chemistry, and biochemistry, highlighting its multidisciplinary nature.

This book offers a straightforward and timely introduction to the exciting interdisciplinary field of supramolecular chemistry. Beginning with the principles that explain how molecules recognise one another and self-assemble non-covalently, an overview of how these concepts can be used to create complex supramolecular architectures is provided. Thus, one learns how to design functional molecular systems such as switches, motors, transporters, catalysts, chemosensors, and many other things.

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