

The main route for access to the wealth of information in the work is through the detailed index in Volume 5. This second edition has the additional advantage over the first that there is only one index, in which the previous two have been consolidated. Despite the alphabetical arrangement of the compounds in Volumes 1–4, the user needs to refer frequently to the index in Volume 5, because sometimes compounds with familiar “trivial” names (e.g., acetylsalicylic acid, fumaric acid, vinblastin, vincristin) are entered in the dictionary under rarely used synonyms or trade names. This applies especially to the International Nonproprietary Names (INNs) for pharmaceuticals such as thalidomide, paracetamol, or levromakalim, which are often referred to by trade names without making it clear that these are proprietary names. One need only consider the legal problems that can arise through the use of registered trade names. What is more serious, however, is that these are in general not synonyms for the names of the active agents. For example, indometacin is referred to as Amuno, which is actually the registered trade name of a pharmaceutical product that contains not only the active compound itself but also several formulating agents. Another shortcoming of this work is that neither the INNs nor the internationally recognized Common Names for plant protection agents are highlighted as such, even though their use is required when declaring the constituents of formulations. For a few pharmaceutical agents (e.g., cromoglicic acid, crotetamide) the correct form of the INN is not even included, while some others are omitted altogether, such as dizocilpine, efavirenz, fosinopril, and nepaprazole.

The reader seeking clarification of a synonym, trade name, developmental name, or abbreviation can first look for the name in the index, and under that entry the name and formula of the compound will be given. However, where abbreviations are concerned, one's expectations should not be too high, as the work only claims to include “abbreviations and acronyms of impor-

tant compounds”. There is, however, no indication of which compounds are significant enough for inclusion. Examples of some that cannot be found include COD, HEPES, MCPBA, NMDA, and TFA, while PCB, PCP, and TEA are included but are linked to compounds different from those usually meant in the literature. In any case, however, since abbreviations and acronyms often have two or even three meanings, in my view it would be useful to devote a separate work of reference to them.

Despite the shortcomings mentioned above, this vast work of reference is a valuable source of information, and it is to be hoped that it will become widely available.

Karl-Heinz Hellwich
Beilstein Chemiedaten und
Software GmbH
Frankfurt am Main (Germany)

Design of Molecular Materials. Supramolecular Engineering. By *Jacques Simon* and *Pierre Bassoul*. John Wiley & Sons Inc., New York 2000. 494 pp., hardcover £ 150.00.—ISBN 0-471-97371-8

The aim of Simon and Bassoul in this book is to present a summary of molecular construction principles for materials with specific macroscopic functions, an area that has seen numerous fresh stimuli in recent years. The book is announced by Wiley on the back cover as “the book on supramolecular engineering protocols”, and is intended to link organic chemistry and molecular structure through symmetry considerations with the macroscopic properties of the resulting functional materials. The chapters cover the following topics: molecular assemblies; molecular symmetry considerations; the Curie principle; interac-

tions in molecular media; molecular semiconductors and molecular dielectrics; industrial application of molecular materials. There are several appendices containing lists of symmetry operations, symmetry symbols, and dyes. Subchapters are devoted to subjects as diverse as soaps, organic pigments and dyes, liquid crystal displays, and photocopying machines. There is a subject index.

As is clear from these very different subjects, the authors attempt to treat an extremely broad range of phenomena and applications. However, in most cases it remains unclear how the materials are related to the design principles discussed in depth in the first part of this book, in particular how symmetry operations can be applied in combination with other electronic structural considerations to deliberately create a certain type of molecular order or packing.

Apart from some chapters that are interesting and useful (such as the well-illustrated Chapter 3 on symmetry aspects), the didactic concept of the book remains unclear, and most chapters appear to be unrelated. Furthermore, the historical details overload the reader with unnecessary information in many places. Some sections do not reflect the present state of the art. For example, although hydrogen bonds have played an important role in recent years in many supramolecular assemblies, and are deliberately employed to create structures ranging from noncovalent polymers to unusual liquid crystalline materials, the subchapter on this very important design principle (Chapter 5.8) is extremely short and the references are not up-to-date, failing to cover the important developments of the last decade. Since the book—despite a lot of information on various aspects of supramolecular organization—unfortunately does not give a protocol for the systematic design of “molecular materials”, it can only be recommended to chemists already experienced in the field as a quick brush-up for certain aspects.

Holger Frey
Institut für Makromolekulare Chemie
Universität Freiburg (Germany)

