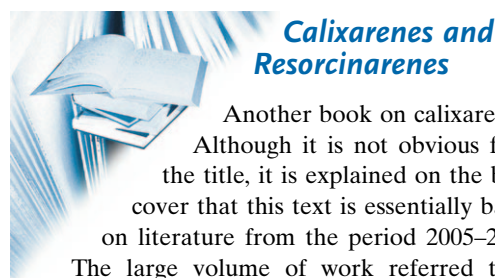


self-contained chapters are also well-suited for advanced students and allow them to expand their textbook knowledge and to get in touch with modern research. Thus, these first three volumes of the *Handbook of Green Chemistry* are essential additions to any library, especially at universities. A (comprehensive) introduction by the editors, some more coordination between the different chapters, and a stronger focus on green catalysis in some chapters would increase the value of the next edition of this reference book even further.

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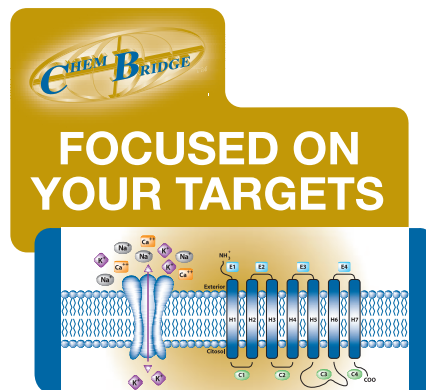


Calixarenes and Resorcinarenes

Another book on calixarenes! Although it is not obvious from the title, it is explained on the back cover that this text is essentially based on literature from the period 2005–2008. The large volume of work referred to is certainly a testament to the continuing vigorous research in the field of calixarene chemistry. Unfortunately, it is difficult to find other positive remarks to add to this description of the book.

Also on the back cover, it is stated that the text is “clearly divided into three main topic areas”, whereas the table of contents defines four “Parts” spread over 14 chapters, leaving one to guess that the three main topics might be synthesis, properties, and applications. Such obscurity is compounded by the fact that the authors make essentially no attempt to define the terms “calixarene”, “cavitand”, and “resorcinarene”, and thus to distinguish the properties of molecules carrying these names. The more subtle, but nonetheless important, point that in some literature resorcinarenes are termed “resorcarenens” is completely ignored. As a result, there is even one sentence where a molecule is referred to as both a calixarene and a cavitand, something that is not necessarily incorrect but which would confuse any reader using this text as an introduction to calixarene chemistry.

Of course, it is true that in their “Conclusions” the authors only make the modest claim that they hope this book will “shed some light on calixarene and resorcinarene chemistry” and “will be of use for those working in this scientific area”. In the age of instant electronic access to the literature, it is hard to see how the second objective might be satisfied unless the authors were to offer some

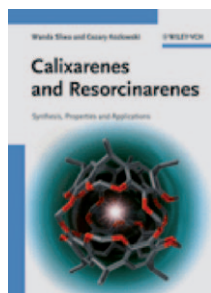


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Calixarenes and Resorcinarenes
Synthesis, Properties and Applications. By Wanda Sliwa and Cezary Kozłowski. Wiley-VCH, Weinheim 2009. 316 pp., hardcover € 129.00.—ISBN 978-3527322633

unique and critical perspective on the work discussed. In fact, most of the discussion is presented in a turgid catalogue style, giving no more than the summary provided by the original authors, so that real appraisal is absent and even any light that is shed is very dim. The authors do state that their selection of the literature is limited, presumably indicating that certain areas are left in total obscurity, although the basis of their choice is not explained.

Aside from deficiencies of style and perspicacity, the text suffers from two major faults: the complete lack of an establishment of context, and appallingly bad figures. At least one reference dating from 2004 is cited, but otherwise the impression could be gained that calixarene chemistry began in 2005! The superficial introduction fails to give a real impression of the extraordinary development and depth of calixarene chemistry and to give any proper indication of the sophistication of current understanding. The treatment of calixcrowns provides an egregious example, where no sensible mention is made of the major long-term European and American programs to develop these materials for use in nuclear-waste treatment. In all respects, this book compares very poorly with the 20-year-old text *Calixarenes, a Versatile Class of Macrocyclic Compounds*, by Böhmer and Vicens, and this is particularly true of the figures. Here, while some attention may perhaps have been paid

to aesthetics, little or none was given to chemistry. Almost every calixarene figure involves bond termini that cannot meet, or misplaced brackets so that methylene links become ethylene, or strongly distorted bond angles, or bonds that cross from the front to the back of a molecule through a phenyl ring, or inconsistencies of style (or all these things)! This is in stark contrast to the uncited 2007 text *The Supramolecular Chemistry of Functionalised Calixarenes* by Shivanyuk (unfortunately only available in Ukrainian), in which figures showing extremely complicated molecules have clearly been prepared with great care.

There are many minor faults in this book that are indicative of poor proof-reading (errors of English, poor placement of references, inconsistencies between the text and figures, the common failure to indicate that the “F” in FRET stands for Förster), and the entries in the list of abbreviations and in the index seem to have been made largely at random. This is not a book that could clearly serve any useful purpose other than as an outdated and limited catalogue.

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