

not be suppressed for very long." Thus, according to Kuhn, for true scientific revolutions to occur, the system must eventually respond to those who think "outside the box" or "outside the paradigm". One learns from studying the history of science that the scientific process assumes that its entire structure is contingent on the arrival of another structure that does everything the current one does, and more. However, the history of science also teaches that one must be prepared to get things wrong, and that there are mechanisms in the scientific process for eventually bringing to light errors in extraordinary claims. The larger the error of the extraordinary claim, the more there is at stake, and the greater the need to identify the error quickly. Progress in science requires a balance between the conservatism imposed by the prevailing paradigms and the necessary skepticism for new ideas, and the liberalism of new ideas that smack of paradigm shifts. The tension between thinking inside the box and thinking outside the box is an essential tension without which scientific progress would languish. For the reader who would like to pursue the subject further several references are provided.<sup>[2-6]</sup>

Whether or not you agree with Park's take on voodoo science, a message of the book is that if scientists do not take a more significant role in the way that science is disseminated to the public and especially to politicians, voodoo science will continue to survive. The book is an easy read and will probably be a source of enjoyment to some who see in Park's examples situations that resonate with their own experiences. However, the book may be a source of irritation to others who are not entertained by a polemical point of view. I strongly recommend that you give it a try to see how it fits your particular tastes concerning how science works (or doesn't).

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**Molecularly Imprinted Polymers. Man-Made Mimics of Antibodies and their Applications in Analytical Chemistry.** Edited by *Börje Sellaergren*. (Series: Techniques and Instrumentation in Analytical Chemistry, Vol. 23.) Elsevier, Amsterdam 2000. 557 pp., hardcover \$ 301.00.—ISBN 0-444-82837-0

"Intelligent polymers", "polymers with memory", and "artificial antibodies" are some of the descriptions often applied to molecularly imprinted polymers (MIPs). These are inorganic or organic materials that are prepared by polymerization with cross-linking in the presence of templates, which may consist of small molecules, biopolymers, microorganisms, or crystals. On removing the template one obtains a specifically molded polymer which is a negative image of the template. The origins of the technique go back 80 years, but it is only very recently that the method has become widely used, and publications on the subject are now appearing with a near-exponential growth rate.

This book edited by Börje Sellaergren consists of 21 chapters, many of which are contributed by the leading experts in their special fields. It begins with a very interesting historical overview, which is followed by a brief description of the physicochemical fundamentals of the molecular imprinting process. The next ten chapters describe in detail the different methods for preparing MIPs and the special polymerization techniques used. The remaining eight chapters are concerned with applications of MIPs in analytical chemistry, for example in chromatographic investigations. Four of the chapters are devoted to the rapidly developing area of chemosensors based on MIPs.

The book comes close to fulfilling the editor's claim that "this book provides the first complete coverage of the area of molecular imprinting". However, the focus on analytical chemistry as indicated in the title means that not all aspects are covered. Applications in organic synthesis and in catalysis would certainly have provided material for another special chapter, in view of the many publications on these aspects that have appeared. For readers who are already working in the area of molecular im-

printing or intend to do so, the many technical details and the extensive bibliography (over 1400 references!) will be of great interest. On the other hand, those who only seek an initial overview of the technique should instead read some of the shorter reviews (e.g., G. Wulff, *Angew. Chem. Int. Ed. Engl.* **1995**, *34*, 1812).

With such a large international team of authors it would be difficult to avoid some overlapping of subject matter, and unfortunately this book has not escaped that problem. Many research results are described in several places. Also some of the introductions to individual chapters are unnecessarily detailed and redundant. For example, on page 396 the difference between covalent and non-covalent imprinting is explained yet again with diagrams, even though that topic was covered in detail at the beginning of the book in two chapters of over 100 pages in total. It is especially annoying when two chapters with a partly shared authorship contain whole passages of text that are nearly identical (pp. 196 and 286; pp. 197 and 290).

In a first edition of a book with almost 600 pages, there are inevitably a few small mistakes. Examples are the duplication of one of the figures (pp. 299 and 300) and the highly unsuitable abbreviation Me for a metal ion (p. 199). However, the book can be recommended for all readers interested in gaining a detailed and up-to-date survey of the fascinating technique of molecular imprinting.

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**Quantum-Mechanical Prediction of Thermochemical Data.** Edited by *Jerzy Cioslowski*. Kluwer academic publishers, Dordrecht 2001. 251 pp., hardcover \$ 90.00.—ISBN 0-7923-7077-5

The book provides an excellent survey about recent approaches towards highly accurate ab initio methods for the prediction of thermochemical data, which is very useful for theoretical chemists and certainly worth the price. The editor