name instead of the correct INN. Indexes of "Substance Classes" and "Intermediates" are also provided, and can be useful in special cases. However, where none of the search methods mentioned above leads to the desired goal, the CD-ROM version of the encyclopedia may provide the answer; this was not available to the reviewer.

As well as targeted searches, which for some time now have been moving into the domain of electronic media, this work allows the possibility of looking at compounds from a pictorial standpoint, so that the organic chemist can try to develop and exploit the "organic chemist's eye" for recognizing the hidden patterns that enable one to distinguish pharmacologically successful active agents from the rest. The alphabetical arrangement of the active agents may allow the scientist with an eye for patterns to develop a broad visual perspective extending over the indications. Anything that helps one towards achieving this highly desirable aim is always welcome. Therefore, it makes good sense for groups working on pharmaceutical chemistry to buy this work.

Rolf Bohlmann
Schering AG
Berlin (Germany)

The Chemistry of Contrast Agents in Medical Magnetic Resonance Imaging. Edited by *André E. Merbach* and *Éva Tóth*. John Wiley & Sons Inc., New York 2001. xii + 471 pp., hardcover £ 110.00.—ISBN 0-471-60778-9

The Chemistry of Contrast Agents in Medical Magnetic Resonance Imaging, compiled by André Merbach and Éva Tóth, is a book devoted to the physicochemical aspects of paramagnetic and superparamagnetic contrast agents with potential application for magnetic resonance imaging (MRI). More than 30 authors have contributed their expertise, which has been arranged in eleven self-contained chapters with minimal overlap.

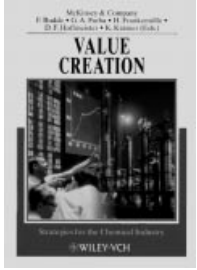
The book begins with an introduction to the phenomenon of nuclear magnetic resonance (NMR). Using a combination of classical and quantum-mechanical descriptions, numerous aspects ranging from energy levels to relaxation, *k*-space, and instrumentation are discussed, followed by a classification of contrast agents and some examples of their applications in medical MRI. Chapter 2 describes the theory of relaxivity of gadolinium(III) complexes. Factors determining relaxivity are discussed extensively, with special reference to the mechanisms of inner and outer sphere relaxation. This rather theoretical discourse is followed by two chapters which describe in detail, with cookbook-style recipes, the chemical syntheses of a vast number of acyclic and macrocyclic ligands suitable for complexation of gadolinium(III). The following two essays examine how relaxation times are affected by covalent and noncovalent bonding of such gadolinium(III) complexes to macromolecules, and discuss toxicity issues related to the use of gadolinium-based contrast agents in vivo. The stability and kinetic inertness of different lanthanide–ligand complexes are discussed with regard to possible decomplexation and release of noxious gadolinium(III). Next there is a discussion of the current status of computational studies aimed at modeling and predicting the relaxivity of contrast agents. An entire chapter is devoted to the elucidation of structure and dynamics of gadolinium(III)-based contrast agents by techniques including X-ray methods as well as ^{1}H, ^{13}C, and lanthanide nucleus NMR spectroscopy. Two further chapters report on electron paramagnetic resonance (EPR) and photophysical methods as complementary techniques for structural and functional studies of gadolinium(III) chelates and of analogous luminescent lanthanide complexes, respectively. A final chapter provides, an excursion into the synthesis and properties of particulate superparamagnetic iron oxide. The effects of particle size and degree of aggregation on relaxivity are discussed.

As promised on its cover, this book provides a uniquely comprehensive treatment of the physicochemical aspects of MRI contrast agents based on gadolinium and particulate iron oxide. Packed with information, it is an invaluable resource, especially for physicists and chemists involved in the development of MRI contrast agents. However, biologists, physicians, and readers unfamiliar with the field of MRI will find the discussions difficult to follow, as they are heavily physics- and chemistry-oriented. More practical biomedical aspects are treated only marginally, so that seemingly simple questions such as which contrast agent is best suited for a certain (nonstandard) application remain hard to answer. Also, target-specific and "smart" contrast agents are only mentioned briefly, even though these topics have recently attracted major interest and have become very active areas of research. Seen from a more general stance, it is Chapter 1 that doesn't fully convince with its discussion of the physics of medical MRI. It fails to provide the intended all-encompassing introduction to magnetic resonance. In its place, a well-focused exposition of magnetic resonance phenomena pertinent to relaxation would have been more appropriate. Notwithstanding these limitations, the present book is highly recommended as a thorough survey of the current understanding of synthesis, performance assessment, and theory of gadolinium- and iron oxide-based contrast agents for MRI applications.

Basil Künnecke
Hoffmann-La Roche Ltd.
Basel (Switzerland)

Value Creation. Strategies for the Chemical Industry. Edited by *Florian Budde, G. A. Farha, H. Frankenmölle, D. F. Hofmeister*, and *K. Krämer*. Wiley-VCH, Weinheim 2001. xx + 222 pp., softcover € 69.00).—ISBN 3-527-30251-4

The theory expressed around 1700 by the quack doctor and butcher-dentist Dr. Eysenbarth of Hannover that "Viel hilft viel" (a hefty sum of money



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helps a lot), seems to have been finally disproved with the attempt to revitalize the firm Ruhrkohle AG with billions of state funding. Now the business consultants McKinsey, who have a rather dubious reputation in scientific circles, and are not known for their revitalization successes, have introduced a new variant of that theory. In addition to the input from the McKinsey organization itself (which, very unusually, is named as overall editor), the book *Value Creation* is the work of five further editors and 30 (!) in-house authors. For those interested in statistics, this means that each writer is responsible for 5.8 pages on average. So has this high density of expertise provided the reader with new insights, and is the effort of reading it worthwhile?

The subtitle of the book is "Strategies for the Chemical Industry", and in fact, in these 16 chapters, the authors (of whom more than half have had a chemical or other scientific education, although they are not engaged in scientific work) discuss various aspects of the chemical industry. Their contributions range from the current situation (described as lamentable because the industry fails to spend enough on consultancy services), through the industry's "present challenges" and the "Alchemy of Leveraged Buy-outs", to the "Revitalizing of Innovation". They include some interesting articles that give intimate (and revealing) insights into the ways of thinking of a consultancy firm. One is even tempted to say, paraphrasing a dictum of Walter Ulbricht: "To learn from McKinsey is to learn to win".

According to McKinsey the chemical industry, following a phase of maturity, is now moving into one of "shareholder value". Therefore one of its main tasks, besides emphasizing the earning of profits (described more trendily as a "focus on financial return"), is to break down existing structures, preferably by building up relationships with investors. This should result in an increasing business capability, and in introducing and controlling M & As (Mergers and Aquisitions), achieved through the creation of a "new business generation". The intention is clear, and it is disturbing: the book is certainly not an impartial examination of future strategy and tactics for the chemical industry. Instead the aim is to present a theory of the benefits that are claimed to have resulted from the controversial policies of some sections of industry (such as Hoechst and the many US firms engaged in breakdown and divestment), and to promote these as a strategy for the future (because it promises to yield more money in a shorter time).

Against the background of an industry that is structured on scientific and technological lines and is product-oriented, these arguments appear insubstantial, almost ethereal in nature. This begins with shareholder value, which is actually a self-contradictory term, because what the stockmarket rewards is the buying and selling of shares (avoiding the word "speculation"), provided that one makes the right decisions, not the actual *holding* of shares. The book is full of such ill-defined terms, which, however, sound clever. Everywhere in the book, where assertions are used as the basis for distilling the next nonsensical definition, one can detect *un*scientific (i.e., business management style) arguments. (This sort of distillation represents the only connection with the industry that the book is supposed to be about.) However, the book quickly comes to the point by formulating strategies for the new millenium (!), which include "creating value" (no doubt in contrast to the process of destroying value that was previously normal), "forces for change" (which it is well known that the chemical industry, with its high level of innovation, has never understood), or "disaggregation" (examples: Monsanto, DuPont, Hoechst, Hercules). Examples are cited for all the assertions, with numerical and ever changing data, but the question of why more than half of the big mergers end in disaster is never considered. Also the reader may well put less weight on the evidence of success claimed for a firm named Symyx, which has still to be confirmed, than on the already well-known tragedy of the former Hoechst AG, which followed 160 years of mainly successful business activity. Thus the book merely gives a snapshot at a particular time, and that is too kind a description for firms and readers who must be content with the inadequate availability of information and their customers' reluctance to accept responsibility.

The authors show a remarkable persistence, which can only be illustrated briefly here because of limited space. For writers accustomed to working with false definitions and premises of the kind mentioned above, a concept such as "recasting the portfolio" is, of course, a new insight never seen before, while "mergers and acquisitions", "entrepreneurial procurement organizations", and "post-merger managements" are everyday events. The text is rich in trendy expressions such as E-commerce and "product excellence", and whets the appetite for consultancy services by the assurance that only the McKinsey way can offer security in "managing the unmanageable". The aspect of the McKinsey arguments that I find especially unforgivable is their ignoring of the basic lesson of business administration, namely that the consultant should be the leader's "navigator", not itself the leader (Péter Horváth, the doyen of business administration). The fact that some managements, together with McKinsey, are now failing to observe this principle is an indication of their distorted outlook.

This book will be forgotten five years from now. From one standpoint, that is a cause for satisfaction; here we see just one of the cyclical trends that the chemical industry theoretically embraces, namely the current fashion for divestment and the over-emphasis on concentrating on the "core business". From a different standpoint, however, it is not good that the book should be forgotten, as it serves to expose the tactics of the McKinseys and Dormanns of the world. These organizations, after the cycle has brought the revival of old virtues (in this case the spreading of risk by following the opposite of divestment), write yet more books aimed at selling the same ideas again and making more money by presenting managements with externally generated "theories". To be precise, that amounts to a blatant theft of shareholder value, with an audacity that continues to amaze.

Boy Cornils
Hofheim/Taunus (Germany)

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