and latest research results, in a form that can be quickly assimilated. Therefore it can be recommended for everyone who is concerned in any way with the conversion and use of light energy in heterogeneous systems.

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Optical Sensors and Switches. Edited by *V. Ramamurthy* and *Kirk S. Schanze*. (Series: Molecular and Supramolecular Photochemistry, Vol. 7.) Marcel Dekker, New York 2001. 519 pp., hardcover $ 195.00.—ISBN 0-8247-0571-8

The comprehensive series *Molecular and Supramolecular Photochemistry*, edited by Prof. V. Ramamurthy (Tulane University) and Prof. K. S. Schanze (University of Florida), aims to provide updates on many different topics within the photochemistry area. Such topics are not usually treated in depth in general books on this area, so that the timely series allows researchers to keep abreast of recent advances through articles by competent authors in their respective subjects. Even though I was requested to classify the book under review in a single category (I chose "Physical Chemistry"), the interdisciplinary nature of the optical sensing topic makes the selection a rather restrictive one since, in addition to that discipline, the book's chapters span the domains of analytical, organic, and inorganic chemistry, spectroscopy, and materials science.

The subject of optical sensors has been treated in several modern texts (e.g., *Fiber Optic Chemical Sensors and Biosensors* (Ed.: O. S. Wolfbeis), CRC Press, **1991**; "Optical Sensors": E. Wagner, R. Dandliker, K. Spenner in *Sensors: A Comprehensive Survey, Vol. 6*, Wiley-VCH, **1991**; *Biosensors with Fiberoptics* (Eds.: D. L. Wise, L. B. Wingard), Humana, **1991**; G. Boisdé, A. Harmer, *Chemical and Biochemical Sensing with Optical Fibers and Waveguides*, Artech House, **1996**), most of them written from the *chemical analysis* point of view. This fact is not surprising, given the highly applied character of the sensor field. Therefore, being a photochemist trying to apply this discipline to chemical sensing, I was eager to read about my beloved topic from a more *fundamental* perspective. The book's contents are as varied as the optical sensing domain: the different chapters "switch" from the use of cyclodextrins or photoinduced electron transfer processes to detect chemical species by fluorescence methods, to holography with new types of liquid crystals (two chapters). In between the reader may learn how to build (bio)sensors with electrogenerated chemiluminescence, with fluorescent polyelectrolytes and quenching ligands, with luminescent $[XRe(CO)_3(\alpha\text{-diimine})]$ and $[W(CO)_4(\alpha\text{-diimine})]$ probes, with photorefractive polymers and molecular materials, or with photoswitchable supramolecular ion receptors. Polymers doped with organic salts and Langmuir–Blodgett films that display unique linear and nonlinear optical response, together with fluorescent triphenylmethane dyes to probe the structure of both organic polymers and silicon, are the subjects of two other chapters.

Well recognized authors in their respective fields have written the different chapters of the edited book. However, a certain degree of inhomogeneity in the presentation and scope of the chapters is noticeable: while some of them are comprehensive reviews in a particular area of the subject, others are too focused on a narrower specific topic, even including an Experimental section (particularly evident is the case of Chapter 4 on the use of fluorescent polyelectrolytes to build optical sensors, which is merely an enlarged version of a couple of interesting papers by the authors). There is also some overlap of information in different chapters (e.g., photoinduced electron transfer chemosensors are included in Chapters 1, 2, and 10, sometimes introducing the very same molecules, and holography with liquid crystals is dealt with in Chapters 7 and 8). This situation is probably difficult to avoid when the chapters have been written by many authors.

The table of contents is simply a collection of the chapter titles; inclusion of the chapter sub-headings would have helped the prospective reader to get a clearer idea of what can be found beneath some very general chapter titles such as "Buckets of Light" or "Luminescent Metal Complexes as Spectroscopic Probes of Monomer/Polymer Environments", among several others. The keyword index at the end of the book is also very meager: only a few terms are indexed, so that it neither reflects the breadth of the book nor leads the reader to find a particular piece of information. Inclusion of the full address and e-mail address in the list of contributors would allow readers to send comments or questions to the different authors scattered around the globe.

Nevertheless, these minor negative aspects do not significantly detract from the value of the book for prospective readers (graduate students, researchers in both applied and basic photochemistry, sensor technologists). Even if they are not directly interested in every single topic of the many that are covered by the book, they will find it stimulating (as I did) to learn about different aspects of optical sensing and switching, through the competent review chapters collected therein.

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