

Book Review

SKIN BARRIER: CHEMISTRY OF SKIN DELIVERY SYSTEMS, Johann W. Wiechers, Ed. (Allured Publishing Corp., Carol Stream, IL, 2008), 658 pp.

This is a ponderous book, a compilation of over 650 pages, including 61 articles that have appeared in various Allured magazines over the last several years plus two new chapters written specifically for this book. The authors include many well-known authorities in this field, including the editor, Johann Wiechers, as well as Joel Zatz, Howard Maibach, and many others.

As should be expected, this collection of review articles gives an extensive review of the field, but some are superficial in depth. The reference list at the end of each chapter, however, allows the reader who is interested in an in-depth description of a particular aspect to dig deeper. Depending on the date of the review, the references can be up-to-date or, unfortunately, quite old. Thus, the latest article cited in Chapter 6 is eleven years old! In almost three-fourths of the chapters the date of the most recent citation was at least five years old. This means that a researcher intending to do research in this field and expecting to use this book as a starting point will find that he will still need to conduct a traditional literature search to bring himself up-to-date. For the cosmetic chemist who wishes to formulate with skin penetration in mind (either to aid or avoid skin penetration of specific ingredients), these articles provide a ready source of information.

As the editor, Johann Weichers, points out in his introductory chapter, skin pene-

tration can be either a benefit or a danger for ingredients in a topical preparation, depending on whether one is striving to cause penetration of a beneficial substance or hoping to prevent penetration of a toxic substance. In this regard, there is little information or discussion of the toxic effects of absorbed substances or the regulatory aspects of skin absorption of substances that can have pharmacological or toxic effects..

The book is divided into three sections. The first section is an introduction, which consists mainly of the basics of skin penetration and the practical means of avoiding or enhancing skin penetration.

The second section is on delivery systems, including emulsions, vesicles, encapsulation, and miscellaneous systems such as wipes, iontophoresis, aerosol foams, and patches. It also includes a chapter on delivery systems for home air aromas and two chapters on producing textiles with fragrance materials, a bit of a stretch for a book on the skin barrier.

The third section is entitled "Special Chemistry in Delivery Systems" and includes chapters on emulsions as skin delivery systems and on silicones. There are also four papers on solvents, surfactants, and polymers.

Overall, the book is interesting, and contains a wide spectrum of information on skin delivery systems and their applications to cosmetics and cosmeceuticals. It serves as a reasonable starting point for a cosmetic chemist interested in formulating for, or avoiding, skin penetration. —HERMAN E. JASS—*Jass Associates*.