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Book review

***Drugs: Photochemistry and Photostability*, Edited by A. Albini and E. Fasani, Royal Society of Chemistry, London, 1998. ISBN 0-85404-743-3; pp. viii + 326**

The effects of light on therapeutic agents has important pharmaceutical and medicinal implications. For example, photochemistry has been used since the time of the ancient Egyptians to aid therapeutic outcomes. In those days, extracts of *Ammi visnaga* juice and sunlight provided a deep skin tan to treat vitiligo; this remedy has since developed into the modern treatment of psoriasis using psoralens and UV-A irradiation. It is now widely recognised that the photochemical properties of drugs have significance in drug design, delivery and activity where light may threaten the integrity of drug formulations by initiating degradation (e.g. doxorubicin), it may exert side-effects through phototoxic interactions (e.g. chlorpromazine) or it may be used as the basis for therapeutic intervention (e.g. PUVA, jaundice, novel anticancer drugs) and in well-being (e.g. epidermal synthesis of vitamin D_3). The volume under review is a collection of papers presented at Symposium in Pavia in 1997 to recognise this importance.

Although multi-authored, which in some volumes brings a lack of focus, repetition and omission, the book is themed into three sections. These provide an introduction followed by discussions on photochemistry and on photostability. The papers themselves are generally not limited to a particular aspect and hence are less easily categorised but provide a competent discussion of the area and all quote references to further sources. A review by the editors, which quotes 360 references and provides an appendix of photostability-testing guidelines, sets the scene by discussing typical reactions in a wide variety of drug types. This is followed by contributions on important topics such as kinetic aspects and design considerations, including the measurement of the efficiency of photochemical processes (actinometry). In addition, there are chapters dealing with specific groups of drugs (e.g. antifungals, antimalarials, coumarins and diuretics) while attention is also given to the mechanisms of photosensitisation and to the stabilities of sunscreens. As might be expected, this book has a strong chemical theme and abounds with structural formulae; it is thus rather weaker on the biological implications and mechanisms. Despite this, it is a worthwhile collection of information and it will provide a useful reference source.

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