Book Review

Photoconversion Processes for Energy and Chemicals, edited by D.O. Hall and G. Grassi, Elsevier Applied Science, London, 1989, 304 pp. ISBN 1-85166-424-6.

This book is the proceedings of the third EEC workshop on photochemical, photoelectrochemical and photobiological research and development, which was held in London in 1989. It is subtitled 'Energy from Biomass 5', being part of a series of publications associated with the EC Biomass Development programmes.

The workshop was the final one of a series held during a four year programme of R and D on the development of renewable energy sources. All of the papers presented at the workshop are included here in the book, as well as recommendations (one page only) from the participants for future research directions.

The book is divided into four sections; photochemistry, photoelectrochemistry, photobiology and presentations by EC contractors, which covers several areas. Overall, well over half of the book is devoted to chemistry. In total there are more than 30 short articles whose authors include some of the leading European names in these various fields. The range of topics covered is very wide, from straight photochemistry of transition metal complexes to the use of photosynthetic bacteria for the treatment of waste water from the food industry. Several articles contain material of interest to coordination chemists and those interested in bioinorganic chemistry.

Since the articles are short and generally devoted to describing the methods and results of very highly specific research projects, the book serves to give the reader quite a good idea of the breadth of work being carried out in the area of solar energy conversion. It will also be of use to anyone interested in details of some of the techniques used in this field. However, there are no review-like articles here, such as those often found in longer articles in conference proceedings. Thus it is not a presentation of the 'state of the art' in the whole of the solar energy field.

The book is produced from camera-ready copies of a generally high standard, at least visually. In some places more careful proof-reading could have avoided some rather obvious typographical errors. Editing of the English would also have been desirable in a few instances (e.g. use of the word 'liganded' in the photobiology section). The book has no index; finding a subject must be done by careful reading of the contents list.