

Book reviews

Olefin metathesis and ring-opening polymerization of cyclo-olefins; by V. Dragutan, A.T. Balaban and M. Dimonie, John Wiley and Sons, New York, 1985, 544 pages, £34.50.

This is the English translation of the second edition of a Rumanian work. This version is clearly considerably updated and expanded, since many of the references date from the period 1979–1982. Whilst mechanistic and theoretical aspects of metathesis are well discussed, the greatest value of the work probably lies in its extensive treatment of the applications of metathesis.

The first chapters give a systematic account of metathesis catalysts, appropriate reaction conditions and the various possible types of metathesis reactions. Chapter 4 details the ring opening polymerisation of cycloalkenes, an area which has seen many recent important developments. Thermodynamic and kinetic studies are considered, followed by a long section on the detailed mechanisms of various metathesis reactions. The treatment of the origins of stereoselectivity is somewhat more convincing for the ring opening polymerisation reactions than for metathesis of simple acyclic alkenes. The survey of applications of metathesis is very thorough, and both this and the comprehensive tables with which the book concludes, provide the reader with access to a large amount of otherwise somewhat recondite Eastern European and patent literature.

The emphasis provided by this work is somewhat different from that seen in most recent reviews of the area. Heterogeneous catalysts and practical applications are emphasised and metathesis based polymerisations well scrutinised. Literature coverage is complete up to the end of 1982, with a few papers from 1983. The quality of the diagrams was somewhat uneven, with some extremely unlikely looking bond angles, but the work is otherwise relatively error free. In my copy at least, some of the printing, particularly of the schemes, was rather faint. Whilst this book could not be recommended as an introduction to a newcomer to this field, it provides a wealth of information invaluable to any research worker in this important and developing area.

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Gmelin handbook of inorganic chemistry, 8th Edition, *Mn — Manganese, Part D4: Coordination Compounds 4*, Springer-Verlag, Berlin, Heidelberg, New York, Tokyo, 1985, xv + 395 pages, DM 1313. ISBN 3-540-93513-4.

This is the sixteenth volume which the Gmelin Institute has published concerning the chemistry of manganese (System No. 56), and the fourth of a con-