

confined species, palladium and platinum films, several anionic clusters, cationic organometallic compounds, etc. Techniques include time-resolved IR spectroscopy, photochemistry in the millisecond-to-picosecond regime, luminescence probes of DNA binding, the use of heterogenous and microheterogenous media, and photopolymerization. This is a useful contribution to an enormous field.

Mechanisms of inorganic and organometallic reactions, Vol. 8, edited by M.V. Twigg, Plenum, New York, 1994, 500 pp., US\$125.00. ISBN 0-306-44437-2.

This is the eighth in a series of edited volumes that present ongoing critical reviews of the primary literature on mechanisms of inorganic and organometallic reactions. Coverage is as comprehensive as possible over a time range from January 1990 to June 1991.

There are 15 chapters, covering “Electron transfer” (Endicott et al.); “Redox reactions between two metal complexes” (Macartney); “Metal–ligand redox reactions” (Warren and Lappin); “Reactions of compounds of non-metallic elements” (Steadman); “Ligand exchange reactions of inert-metal complexes — coordination numbers 4 and 5” (Cross); “Substitution reactions of inert-metal complexes — coordination numbers 6 and above”, — “chromium” (House), — “cobalt” (Hay), — “other inert centers” (Burgess); “Substitution reactions of labile metal complexes” (Tregloan); “Substitution and insertion reactions” [of organometallic compounds] (Poë); “Metal–alkyl and metal–hybride bond formation and fission” (Pike); “Reactivity of coordinated ligands” (Hay, et al.); “Rearrangements, intramolecular exchanges, and isomeriations of organometallic compounds” (Orrell); “Homogenous catalysis of organic reactions by transition metal complexes” (Bochmann); and, finally, a compilation of “Volumes of activation for inorganic and organometallic reactions” (Neubrand and van Eldik).

This contribution maintains the high standards of the series and is essential reading for mechanistically inclined inorganic chemists.

The Editor's Desk