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## Book reviews

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*Inorganic Chemistry in Liquid Ammonia*, by David Nicholls, Elsevier Scientific Publ. Co., Amsterdam/Oxford/New York, 1979, x + 238 pp., Dfl. 110.00, \$ 49.00.

This book was written to provide the first English summary of inorganic chemistry in liquid ammonia since the 1935 publication of Franklin's "The Nitrogen System of Compounds." Although Jander's "Anorganische und allgemeine Chemie im flüssigem Ammoniak" (Interscience, 1966) gives a broader and more detailed survey of the subject up through about 1964, Nicholl's book appears to cover the important developments of the last twenty or thirty years very well. It can be heartily recommended as a first reference book for researching a particular topic or as a book for browsing, to spark ideas. Organometallic chemists will be struck by the relative paucity of synthetic work which has been done so far with this useful solvent. The chapter titles are: Introduction to liquid ammonia chemistry, Physical properties of liquid ammonia, Practical techniques in liquid ammonia, Reactions of elements and compounds with ammonia (organized according to the periodic table), Acid-base reactions, Oxidation-reduction reactions, Reactions of alkali metal solutions, and Synthetic reactions involving metathesis or substitution.

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*Transition Metal Organometallics in Organic Synthesis*; edited by H. Alper, Vol. II, Academic Press, New York/San Francisco/London, 1978, xi + 185 pages, \$ 19.00.

This second (and apparently final) volume on transition metal organometallics in organic synthesis, edited by Howard Alper, contains three reviews. The first concerns reactions where alkynemetal complexes are important (isolated or demonstrated) intermediates and is written by Nicholas, Nestle, and Seyferth, all important contributors to the area. The second chapter surveys reactions of arenemetal complexes emphasizing reactions where the arene ligand is modified. The author is Girard Jaouen, who is part of a vigorous French group working in this area at the University of Rennes. The editor of the series finishes off the effort with a collection of organometallic reactions of interest for synthesis that can be classified only as "miscellaneous."

The first two chapters follow the pattern set by Casey in Volume one (carbene complexes) in that a well-defined and active area is comprehensively reviewed, areas on the verge of sophisticated applications in synthesis. In chapter one, the