IUPAC. *Boron Chemistry-3* (Munich/Ettal, 1976); edited by H. Nöth, $ 17.50 (£ 9.75), 110 pages. *Coordination Chemistry-17* (Hamburg, 1976); edited by H. Weiss, $ 12.00 (£ 6.75); 62 pages. Oxford, Pergamon Press, 1977.

These two slim volumes, one of 110 pages and the other of 61 pages, form part of the now well-known series of collected plenary lectures for individual conferences, although there seems to have been a change of publishers.

The two can conveniently be considered together, because both have some degree of historical significance. The late Professor E. Wiberg provides the introductory chapter to the boron book, in which he eloquently discusses the life and works of his teacher, the great pioneer of boron chemistry, Alfred Stock, who discovered many of the manipulative techniques, especially in connection with vacuum line operations, which are still in current use by organometallic chemists.

Whereas Stock was essentially an experimentalist, as indeed was Wiberg, the field of polyhedral boron chemistry is now on a very firm structural and theoretical foundation, largely due to the work of W.N. Lipscomb, who provides the second chapter. Subsequent contributions refer to experimental work and are by, respectively, S.G. Shore on smaller boron hydrides, W. Büchner and H. Niederprüm on boron—hydrogen derivatives as reducing agents, K. Niedenzu on aminoboronation, B.M. Mikhailov on cyclic coordination of boron compounds, R. Köster on organoboranes in synthesis and analysis, N.N. Greenwood on metalloboranes, and the Czech group (Plešek and Heřmánek and co-workers) on *nido*-heteroboranes. All these authors have substantial reputations in the field and the specialist will be pleased to have so much useful work summarised in this volume.

These articles represent selected lectures presented at the Third International Meeting on Boron Chemistry, Munich and Ettal, 1976. The meetings now appear to have become biannual occasions and the book commemorates the centenary of the birth of Alfred Stock.

The International Conferences on Coordination Chemistry have established themselves as possibly the most important regular gathering of inorganic chemists. The volume under review presents the plenary lectures at the XVIIth I.C.C.C., which was attended by hundreds of chemists from countries all over the world. The conference stems from humble beginnings, the first having been held in 1950 at the laboratories of I.C.I. Ltd. (the Frythe). It is appropriate that the introductory lecture of this, the twentyfifth anniversary of the first I.C.C.C., should have been given by Professor J. Chatt, who was the instigator of these conferences and the host at the first meeting. He provides a lively historical background to some of the earlier conferences and then goes on to review briefly some of his current work and ends with some speculations regarding future developments. Readers of this journal will, of course, long have recognised Professor Chatt's pioneering contributions to the related field, that of organometallic chemistry.

The next section is by H. Hartmann, who provides a brief account of "25 years of ligand-field-theory". The development of that subject as far as chemistry was concerned, played an important part in the concurrent experimental activity of coordination chemistry. It may be that Prof. Hartmann's

achievements have been somewhat overlooked in the English speaking world.

The third writer, P.L. Pauson, also uses the "25 years" as central to his theme, in this particular case that of aromatic transition-metal complexes, which is very appropriate since he was one of the co-discoverers of ferrocene. In characteristically modest fashion, he provides a well balanced, although inevitably brief, review of sixty-nine references, with only a small minority coming from his own laboratory.

In this company, J.M. Lehn appears as a mere stripling, despite his already very considerable achievements, not least in the field of cryptates. This is the field he chooses to review and sub-titles the article "Macropolycyclic inclusion complexes".

The final contributor is Professor H. Schäfer, one of the great German experimentalists working in his own distinct area. The article is in German and is entitled "Coordination compounds in the gas phase". His main topic relates to dimeric or polymeric molecules having chloride bridges, not necessarily to the same element. A technique particularly associated with Schäfer's laboratory is that of chemical transfer reactions. This particular chapter is free from carbon. However, metal halides are an important starting material for organometallic compounds, so it is likely that organometallic chemists will find something of interest in this chapter also.

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