

Landolt—Börnstein. Numerical Data and Functional Relationships in Science and Technology. New Series (Ed. in Chief, K.-H. Hellwege)

(A) *Group III: Crystal and Solid State Physics. Vol. 7, Structure Data of Inorganic Compounds. Part F, Key Elements d^4 — d^8 Elements* (Eds. K.-H. Hellwege and A.M. Hellwege), Springer-Verlag, Berlin - Heidelberg - New York, 1977, xxvi + 778 pages, DM 780.

(B) *Group II: Atomic and Molecular Physics. Vol. 9, Magnetic Properties of Free Radicals* (Eds. H. Fischer and K.-H. Hellwege): *Part b, Organic C-Centered Radicals*, by A. Berndt, H. Fischer, and H. Paul. Springer-Verlag, Berlin - Heidelberg - New York, 1977, xvii + 782 pages, DM 780.

These volumes are the latest additions to the important Landolt—Börnstein series.

One volume (A) presents crystal structure data for the polynary oxo-compounds of the 6th to 8th sub-group (Cr, Mo, W, Mn, Tc, Re, Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, and Pt). The references cited were listed in sub-volume 7g, published in 1974, and the index of substances will be published for the whole of Volume III/7 in sub-volume 7h. As usual in these sub-volumes the listing is of chemical formula and mineral name (in some cases also the trivial name), space group, lattice constants, number of formula units in unit cell, density, structure type, and scope of the structure determination. The method used is specified in each case, and sometimes additional information is given, e.g. on colour or magnetic properties.

The second volume (B) is of more direct interest to organometallic chemists, and in view of the increasing attention being paid to free radical processes in organometallic chemistry, many readers of this journal will wish to have this volume available to them. For each radical it lists the spin-Hamilton parameters g and a , along with the methods used to generate the radical and to measure the parameters, and the relevant reference(s). The account falls into two main sections, viz. Non-conjugated carbon radicals (which includes vinyl and aryl radicals), by H. Fischer, and Carbon-radicals with conjugated π -systems, by A. Berndt. The latter section ranges from radicals with 3 conjugated π -electrons to those with 19 such electrons (mainly radicals of the triphenylmethyl and related types). Radicals bearing organometallic substituents are, of course, included; those containing silicon and tin being by far the most numerous.

Much painstaking work goes into compilations of this type, and they are high quality products in all senses. It is thus not surprising that the price is high, but the U.S. dollar and Pound Sterling equivalents on the day of writing of this review (viz. U.S. \$373 and £205) are impressive reminders of the sad decline of the American and especially the British currencies. Alternatively, they may be an indication of the difficulties German publishers will face as a consequence of the rise in value of the Deutschmark.

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