

In boron hydride, borate anion and some aspects of boron—nitrogen chemistry structures can be complex, and the many figures and formulas in these volumes will make the compounds in question readily understandable to the reader. In Volume 1 the one-page chapter on the system boron/rare gases and the long chapter on the B/O systems are written in German, but T. Onak has provided his fine up-dating on boron hydrides in English. Most of Volume 2 is in German; however, the chapters on boron—halogen compounds written by B.H. Gragg are in English.

We must applaud the editors and the authors for their valiant efforts to bring their coverage of the voluminous boron literature up-to-date. No doubt they are already planning the Second Supplement!

*Department of Chemistry,
Massachusetts Institute of Technology,
Cambridge, Massachusetts 02139 (U.S.A.)*

DIETMAR SEYFERTH

Gmelin Handbook of Inorganic Chemistry, 8th Edition, *Sulfur*, Supplement Volume 3, *Sulfur Oxides*, H. Bitterer, volume editor-in-chief, Gmelin Institut für Anorganische Chemie der Max-Planck-Gesellschaft zur Förderung der Wissenschaften and Springer-Verlag, Berlin/Heidelberg/New York, xvi + 344 pages, DM 797, \$470.30 (in German).

This volume is part of the Gmelin Handbook series of supplements on sulfur and its compounds. The series already includes volumes on sulfur—nitrogen compounds (part 1), thionyl halides, and sulfur halides. It will be completed with the appearance of volumes on elemental sulfur, sulfuryl halides, hydrogen sulfide and sulfanes, the acids of sulfur, and sulfur—nitrogen compounds (parts 2 and 3), all in preparation, and on sulfur compounds in aqueous solution.

The present volume deals with the oxides of sulfur and the corresponding radical cations and anions. Aqueous chemistry is not included, as it will be part of the final supplement. The coverage starts with cyclopolysulfur monoxides and dioxides (S_nO and S_nO_2) and polysulfur oxides ($(S_nO)_x$), and continues to disulfur oxides, sulfur dioxide, sulfur trioxide, and sulfur peroxides, in that order. As one would expect, treatment of SO_2 and SO_3 comprises most of the volume (269 pages). Typically included in the coverage of each major oxide are preparation, electronic structure and properties, rotational and vibrational spectra, crystallographic data, mechanical and thermal properties, and chemical and photochemical behavior. The literature has been covered through 1977, and some more recent references are given. However, certain aspects of technology are treated selectively and from secondary sources. Thus the extensive literature on the detection, determination, and separation of atmospheric SO_2 is not complete. Coverage of organometallic chemistry is limited to about 6 pages dealing with reactions of SO_2 and SO_3 .

The volume is written in German, but English translation of the preface, table of contents, chapter titles and section headings, and a brief review starting each section are provided. The subject matter is extremely well organized, and desired information is easy to find.

The Gmelin Institute has maintained very high standards for the Handbook Series. The present volume continues in the best of that tradition. It will be a valuable addition to chemical libraries of academic, industrial, and governmental institutions.

*Department of Chemistry,
The Ohio State University,
Columbus, OH 43210 (U.S.A.)*

ANDREW WOJCICKI

JOURNAL OF ORGANOMETALLIC CHEMISTRY, VOL. 209, NO. 2

AUTHOR INDEX

- | | | |
|--------------------------|-------------------------------|-------------------------------|
| Amer, S., C28, C31 | Juthani, B., 211 | Rafikov, S.R., 139 |
| Antonovich, V.A., 233 | Khalilov, L.M., 139 | Robertson, J.A., C41 |
| Atovmjan, L.O., 147 | Kondrat'ev, P.V., 233 | Roobeek, C.F., 169 |
| Barton, T.J., C25 | Kramer, G., C28 | Sacconi, L., 219 |
| Beard, Jr., L.K., 245 | Kursanov, D.N., 233 | Saxena, N., 147 |
| Bianchini, C., 219 | Leeuwen, P.W.N.M. van,
169 | Sheikh, B., 161 |
| Burns, G.T., C25 | Levason, W., 161 | Silvon, M.P., 245 |
| Cheklov, A.N., 147 | Loim, N.M., 233 | Skell, P.S., 245 |
| Chicote, M.T., 271 | Lotz, S., 197 | Sokolova, Y.A., 147 |
| Cser, F., 183 | Mavrodiiev, V.K., 139 | Solov'eva, N.P., 233 |
| Darensbourg, D.J., C37 | Meli, A., 219 | Steen, N.D.C.T., C34 |
| Dehand, J., 255 | Mutet, C., 255 | Struchkov, Yu.T., 183 |
| D'Yachenko, O.A., 147 | Nurtdinova, G.V., 139 | Usón, R., 271 |
| English, R.B., C34 | Orlandini, A., 219 | Van der Heijden, H., 169 |
| Frijns, J.H.G., 169 | Pályi, G., 183 | Van Leeuwen, P.W.N.M.,
169 |
| Furmanova, M.G., 183 | Parnes, Z.N., 233 | Varmalov, A.V., 147 |
| Gailyunas, G.A., 139 | Petrovskii, P.V., 233 | Vicente, J., 271 |
| Galamb, V., 183 | Pfeffer, B., 255 | Werner, H., 197, 211 |
| Gysling, H.J., C41 | Poë, A., C28, C31 | Yuriev, V.P., 139 |
| Haines, R.J., C34 | Prostakov, N.S., 147 | Yusupova, F.G., 139 |
| Heijden, H. van der, 169 | | Zumbulyadis, N., C41 |
| Heiser, B., 197 | | |