

BOOK REVIEW

Philip A. SCHWEITZER Corrosion and Corrosion Protection Handbook.
Marcel Dekker, Inc. New York, 1983. pp 521.

The book was published as the Volume 19. of the series "Mechanical Engineering". It provides useful informations for experts who are somehow in connection with corrosion and corrosion protection. According to the handbook character it contains 115 figures and 101 tables. The book is divided into 11 chapters, in each chapter the list of the most important papers (altogether 291 references) gives further help for the more profound study. The chapters have introduction with a brief summary of the theoretical principles, after the authors recite the fundamental properties first of all the characteristics connected with corrosion, finally they give several examples for the practical application. The content and structure of the book can be characterized by the following titles of chapters:

1. Fundamentals and prevention of metallic corrosion
2. Cathodic protection
3. Development and application of corrosion-resistant metals and alloys
4. Development and application of plastic materials
5. Development and application of inorganic nonmetallic materials
6. Development and application of elastomers
7. Coatings
8. Linings
9. Corrosion monitoring
10. Corrosion testing techniques
11. Selecting materials of construction

Nearly half part of the book (along 237 pages in chapter 3) deals with the properties of corrosion-resistant metals and alloys. This chapter surveys the various metals and alloys in 9 subchapters in the following classification:

Carbon steel and low alloy steel, Stainless steels, Nickel and high nickel alloys, Copper and copper alloys, Aluminium alloys, Titanium, Tantalum, Zirconium, Cast alloys.

Some critical remarks are summarized in the following.

The handbook is compiled by 16 authors. As a consequence of this fact, the chapters are not uniform, their structure and size differs from each other. The editor of the book could not reduce the heterogeneity, it is characteristic that some chapters do not contain figures, tables and list of references. As far as the disproportions are concerned I mention that in chapter 3.4. 17 tables, in chapter 3.6. 16 tables can be found and a quarter of all the listed references (75 out of 291) is related to chapter 3.8. treating of zircon. At the same time chapter 7 concerning coatings and coats of paint would have required larger size and more detailed description, since painting is the most wide-spread method of corrosion protection.

Despite of the mentioned deficiencies the handbook contains numerous data, characteristic informations and provides considerable help for all those who are engaged in corrosion protection jobs.

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