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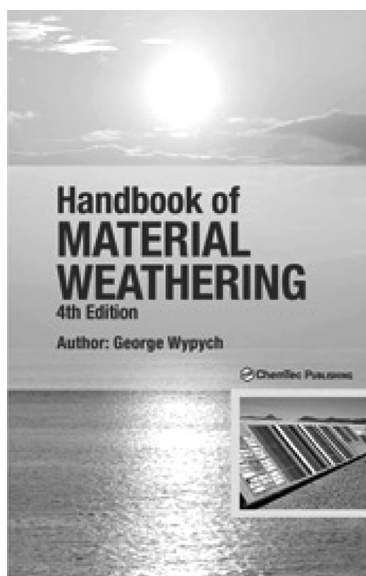
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Book Review

Dr. Eng. George Wypych. *Handbook of Material Weathering*, 4th ed. 2007. 810 p. ISBN 978-1-895198-38-6. ChemTec Publishing, 38 Earswick Dr., Toronto, Ontario M1E 1C6, Canada; www.chemtec.org



The most comprehensive book on material weathering has been systematically updated since its first edition in 1988. It reviews all current publications. It deals with important current issues such as material durability, conservation of energy and resources, and protection of the environment.

The fourth edition includes advances in knowledge that have taken place most recently. The new data and the information are integrated with information included in previous editions to form consistent up-to-date analysis of the most important findings. In many instances

new findings make previous understanding obsolete. This revision is based on the analysis of over 2000 research papers published since the previous edition. This book raises many questions but also helps to find answers on theory (principles of photophysics and photochemistry in application to weathering), stress factors (radiation, temperature, water, pollutants, and stress), methods of measurement (40 groups of analytical methods of specimen testing), climatic conditions, methods of weathering (complete description of techniques used in outdoor and laboratory exposures), weathering effect, polymer degradation (42 groups of polymers and rubbers), weathering of different products (31 groups of different products), effect of process additives on weathering, stabilization, biodegradation, environmental stress cracking, recycling, corrosion, and deterioration of stones in historical monuments.

With this amount of information, clearly organized and explained, this book is an important reference monograph for those involved in studying material durability, producing materials for outdoor use and actinic exposure, research chemists in the photochemistry field, chemists and material scientists designing new materials, users of manufactured products, those who control the quality of manufactured products, and students who want to apply their knowledge to real materials.

Knowledge of the subject of weathering helps to test and design materials that

- Are more durable
- Decrease waste
- Permit recycling
- Reduce environmental pollution

The book aims at providing comprehensive, up-to-date information on weathering, thus reducing the time for searching for answers in many different sources. Previous editions are used in more than 60 countries as the reference source of information on weathering. The past 10 years produced twice as many papers than the total number of papers included in the first two editions. These important new findings change how we approach various aspects of weathering today.

Mag Hanson