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3.4.5 Precipitation; 3.4.6 Filtration and Washing; 3.4.7 Drying; 3.4.8 Calcination; 3.4.9 Wet Milling; 3.4.10 Removal of Soluble Cadmium; 3.4.11 Final Drying and Milling; 3.5 Physical Properties; 3.6 Regulatory Issues; 3.7 Uses; 4 Cerium Pigments; 4.1 Introduction; 4.2 Rare Earth Sulfides and the Origins of their Color.; 4.3 Cerium Sulfide Pigment: Manufacture; 4.4 Properties and Applications; 4.4.1 Coloration of Plastics; 4.4.2 Paint and Coatings Application; 4.4.3 Miscellaneous Applications; 4.5 Toxicology and Environmental Aspects; 4.6 Toxicological and Environmental Concerns during the Manufacturing Process; 5 Complex Inorganic Color Pigments: An Overview.; 5.1 Introduction; 5.2 Structures of CICPs; 5.3 Production of CICPs; 5.4 Titanate Pigments; 5.4.1 Rutile Titanates; 5.4.2 Spinel Titanates; 5.4.3 Other Titanates; 5.5 Aluminate Pigments; 5.6 Cobalt Aluminates; 5.7 Cobalt Chromium Aluminates; 5.8 Chromites and Ferrites; 5.9 Black CICPs; 5.10 Brown Pigments; 5.11 Green Chromites; 6 Titanate Pigments: Colored Rutile, Priderite, and Pseudobrookite Structured Pigments; 6.1 Introduction; 6.2 History; 6.2.1 Doped-Rutile (DR) Pigments; 6.2.2 Priderite Pigments; 6.2.3 Pseudobrookite Pigments; 6.3 Synthesis; 6.3.1 DR Pigments; 6.3.2 Priderite Pigments; 6.3.3 Pseudobrookite Pigments; 6.4 Applications; 6.5 Properties; 6.5.1 Spectral Properties; 6.5.1.1 Visible Spectral Characterization; 6.5.1.2 UV and NIR Spectral Characterization; 6.5.2 Physical Properties; 6.5.2.1 Particle Size Distribution; 6.5.2.2 X-ray Diffraction Characterization; 6.5.2.3 Specific Gravity; 6.5.2.4 Oil Absorption and Specific Surface Area; 6.5.2.5 Powder Flow and Dusting; 6.5.3 Chemical Properties; 6.5.3.1 pH Measurement; 6.5.3.2 Weathering

Sommario/riassunto

High Performance Pigments have become increasingly important in recent years, with a growth rate well in advance of the more classical types of pigments. This book provides up-to-date information on the market for high performance pigments, synthesis, reaction mechanisms, physical and chemical properties, applications, regulatory affairs, toxicology and ecotoxicology. It is the only one on the market covering all high performance pigments in a single volume, offering both producers and users of High Performance Pigments the opportunity to review and update their understanding of latest tech
