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Titolo	High performance pigments [[electronic resource] /] / edited by Edwin B. Faulkner and Russell J. Schwartz
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Altri autori (Persone)	SmithHugh M (Hugh MacDonald)
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Nota di contenuto	High Performance Pigments; Contents; Preface; List of Contributors; Part I; 1 Introduction to Inorganic High Performance Pigments; 1.1 Introduction; 1.2 Survey of Inorganic Pigments; 1.3 New Candidates on the Catwalk of Color; 1.4 Challenges for the Future; 2 Bismuth Vanadates; 2.1 Introduction; 2.2 Historical Background; 2.3 Manufacture; 2.4 Properties and Applications; 2.4.1 Chemical Properties; 2.4.2 Physical Properties; 2.4.3 Coloristic Properties; 2.4.4 Dispersibility; 2.4.5 Light Fastness and Weather Resistance; 2.4.6 Chemical and Solvent Resistance; 2.5 Applications; 2.5.1 Coatings 2.5.2 Plastics2.5.2.1 Properties; 2.5.2.2 Applications; 2.5.2.3 Conformity of Pigments for Plastics Coloration to Food and Drug Regulations; 2.6 Toxicology; 2.6.1 Acute Toxicity; 2.6.2 Chronic Toxicity; 2.7 Ecology; 3 Cadmium Pigments; 3.1 Introduction; 3.2 Pigment History; 3.2 Raw Materials; 3.2.1 Cadmium; 3.2.2 Selenium; 3.3 Chemistry of Cadmium, Selenium and Cadmium Sulfide; 3.3.1 Cadmium; 3.3.2 Selenium; 3.3.3 Substitution in the CdS Lattice; 3.4 Method of Pigment Manufacture; 3.4.1 General Points; 3.4.2 Cadmium Oxide Formation; 3.4.3 Cadmium Metal Dissolution; 3.4.4 Other Solution Making

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

2. Record Nr.	UNINA9910960261603321
Titolo	Daughter cells : properties, characteristics, and stem cells // Ayane Hitomi and Masuyo Katoaka, editors
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ISBN	1-61761-748-2
Edizione	[1st ed.]
Descrizione fisica	1 online resource (345 p.)
Collana	Cell biology research progress series
Altri autori (Persone)	HitomiAyane KatoakaMasuyo
Disciplina	571.8/44
Soggetti	Cell division Cell differentiation Stem cells
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	""DAUGHTER CELLS: PROPERTIES, CHARACTERISTICS AND STEM CELLS""; ""CONTENTS""; ""PREFACE""; ""DAUGHTER CELLS OF MICROALGAE""; ""ABSTRACT""; ""INTRODUCTION""; ""THE CELL CYCLE IN CHLAMYDOMONAS AND DUNALIELLA""; ""Cell Cycle Stages in Synchronous Cultures of Chlamydomonas""; ""Commitment to Division in Chlamydomonas""; ""Light Quality and the Division Process in Chlamydomonas""; ""Cell Cycle Control Proteins in Chlamydomonas""; ""Genetic Control of Cell Cycle Regulators in Chlamydomonas""; ""Circadian Rhythms and the Cell Cycle in Chlamydomonas"" ""Morphological Changes over the Cell Cycle in Chlamydomonas"" Chloroplast Division in Chlamydomonas""; ""Changes in Photosynthetic Performance during the Cell Cycle in Chlamydomonas""; ""The Sexual Life Cycle of Chlamydomonas""; ""Cell Cycle Proteins in Dunaliella""; ""THE CELL CYCLE IN CHLORELLA AND NANNOCHLORIS""; ""Early Work with Synchronous Cultures of Chlorella""; ""Nitrogen Metabolism of Synchronous Cultures of Chlorella""; ""a€œGianta€? Cells of the Emerson Strain of Chlorella""; ""Circadian Rhythms of Daughter Cell Production in Chlorella""; ""Cell Division in Nannochloris"" ""THE CELL CYCLE IN SCENEDESMUS""""Cell Cycle Patterns in Scenedesmus""; ""Special Features of the Cell Cycle Related to the Colonial Habit""; ""Co-ordination of Cellular and Organellar Events in

the Scenedesmus Cell Cycle"; "Cell Cycle Regulatory Proteins in Scenedesmus"; "THE CELL CYCLE IN DIATOMS"; "Cell Synchrony and the Si-requirement in Diatoms"; "Cell Cycle-related Metabolic Changes in Diatoms"; "Sexual Reproduction in the Diatoms"; "THE CELL CYCLE IN EUGLENA"; "Circadian Gating of Cell Division in Euglena"; "THE CELL CYCLE IN DINOFLAGELLATES"
 "Circadian Rhythms and the Cell Cycle in Dinoflagellates"
 "The Role of Light in the Circadian Cycle in Dinoflagellates"; "Cell Cycle Regulatory Proteins and the Circadian Cycle in the Dinoflagellates"; "Molecular Genetics of Circadian Regulation in Dinoflagellates"; "THE CELL CYCLE IN UNICELLULAR CYANOBACTERIA"; "Studies with Synechococcus"; "Studies with Prochlorococcus"; "Circadian Rhythms and Cyanobacterial Cell Division"; "CONCLUSION"; "REFERENCES"; "STEM CELLS AND MORPHOGENETIC DEVELOPMENTAL PROGRAMS IN PLANTS"; "ABSTRACT"; "INTRODUCTION"
 "Propagation: Its Modes, Types and Forms"
 "THE MODES OF ORGANISM FORMATION, PROPAGATION AND RENEWAL"; "Seed Propagation"; "Vegetative Propagation"; "Genetic Grounds for Viviparity"; "NONTRADITIONAL NOTIONS OF THE TYPES AND MODES OF REPRODUCTION"; "Morphogenesis Pathways"; "Embryoidogeny: A New Category of Vegetative Propagation"; "Gametophytic Embryoidogeny"; "Foliar Embryoidogeny"; "Rhizogenous Embryoidogeny"; "Parallelism in the Development of Sexual and Somatic Embryos"; "Initial Cells of Sexual and Somatic Embryos"; "Initial Cells of Sexual Embryo"
 "Initial Cells of Somatic Embryos (Monozygotic, Nucellar, Integumentary, Foliar, Cauligenous and Rhizogenous) in Natural Conditions"

Sommario/riassunto

This book summarizes some of the major processes involved in the production of daughter cells as they have been reported from work mainly with synchronous cultures of microalgae over the 50 years or so since that technique was first developed. It highlights the key findings that have led to our present understanding of cell cycle processes in microalgae with particular reference to those that control daughter-cell production. The authors of this book also systematize the data on molecular genetic system controlling drosophila bristle morphogenesis and proposes an integral scheme of its functioning. In addition, the current understanding of kidney regeneration after injury are examined from the perspective of renotropic factors, renal stem/progenitor cells, and stem cell therapies. In unicellular and multicellular organisms, asymmetric division enables segregation of damaged molecules into one daughter cell. The authors suggest that partition of damaged proteins and organelles and segregation of template DNA may function together to produce long-lived stem cells. Daughter cells' behavior of the chlorarachniophytes are also described and the evolution and biological implications are discussed. Lastly, recent advances in stem cell biology are summarized, and ways in which clinical medicine could take advantage of this fascinating field of biology are examined.