1. Record Nr. UNINA9910131489203321 Electrochromic materials and devices / / edited by Roger J. Mortimer, **Titolo** David R. Rosseinsky, and Paul M. S. Monk; contributors Harlan J. Byker [and forty five others] Weinheim, Germany:,: Wiley-VCH Verlag GmbH & Co. KGaA,, 2015 Pubbl/distr/stampa ©2015 **ISBN** 3-527-67987-1 3-527-67985-5 3-527-67988-X Descrizione fisica 1 online resource (1518 p.) Disciplina 621.381045 Electrochromic devices - Materials Soggetti Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto Cover: Table of Contents: Related Titles: Title Page: Copyright: In memoriam; Preface; References; Acknowledgements; List of Contributors; Part I: Electrochromic Materials and Processing; Chapter 1: Electrochromic Metal Oxides: An Introduction to Materials and Devices; 1.1 Introduction; 1.2 Some Notes on History and Early Applications; 1.3 Overview of Electrochromic Oxides; 1.4 Transparent Electrical Conductors and Electrolytes: 1.5 Towards Devices: 1.6 Conclusions: Acknowledgement: References: Chapter 2: Electrochromic Materials Based on Prussian Blue and Other Metal Metallohexacyanates 2.1 The Electrochromism of Prussian Blue2.2 Metal Metallohexacyanates akin to Prussian Blue; 2.3 Copper Hexacyanoferrate; References; Chapter 3: Electrochromic Materials and Devices Based on Viologens; 3.1 Introduction, Naming and Previous Studies: 3.2 Redox Chemistry of Bipyridilium Electrochromes: 3.3 Physicochemical Considerations for Including Bipyridilium Species in ECDs: 3.4 Exemplar Bipyridilium ECDs: 3.5 Elaborations; References: Chapter 4: Electrochromic Devices Based on Metal Hexacyanometallate/Viologen Pairings; 4.1 Introduction 4.2 Hybrid (Solid-with-Solution) Electrochromic Devices 4.3 All-Solid

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Sommario/riassunto

Electrochromics change their color when an electric field is applied. The basic principles, materials classes and devices are explained by expert researchers with an emphasis on current and future applications.