

Organic Photochromes

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Chromic Phenomena Peter Bamfield,Michael Hutchings,2018-08-22 Chromic or colour related phenomena are produced in response to a chemical or physical stimulus This new edition will update the information on all those areas where chemicals or materials interact with light to produce colour a colour change or luminescence especially in the imaging analysis lighting and display areas The book has been restructured to show greater emphasis on applications where coloured compounds are used to transfer energy or manipulate light in some way therefore reducing the details on classical dyes and pigments In the past eight years since the previous edition there has been a remarkable increase in the number of papers and reviews being produced reflecting the growth of interest in this area This ongoing research

interest is matched by a large number of new technological applications gaining commercial value covering e.g. biomedical areas, energy, data storage, physical colour, bio-inspired materials and photonics. This book appeals to industrial chemists, professionals, postgraduates and as high level recommended reading for colour technology courses.

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Photochemistry Angelo Albini, 2011-09-01 Reviewing photo-induced processes that have relevance to the wide ranging academic and commercial disciplines and interests in chemistry, physics, biology and technology, this series is essential reading. Each volume comprises sections concerned with photophysical processes in condensed phases, organic aspects which are subdivided by chromophore type, polymer photochemistry and photochemical aspects of solar energy conversion.

2D Nanomaterials for Energy Applications Spyridon Zafeirotas, 2019-11-22 2D Nanomaterials for Energy Applications: Graphene and Beyond discusses the current state of the art of 2D nanomaterials used in energy related applications. Sections cover nanogenerators, hydrogen storage and theoretical design. Each chapter focuses on a different energy application, thus allowing readers to gain a greater understanding of the most promising 2D materials in the field. The book's ultimate goal lies in describing how each energy technology is beneficial; hence it provides a valuable reference source for materials scientists and engineers. The physical and chemical properties of 2D materials can be effectively tuned through different strategies such as controlling dimensions, the crystallographic structure and defects, or doping with heteroatoms. This flexibility facilitates the design of 2D materials for dedicated applications in the field of energy conversion and storage. Offers a single source for the major practical applications of 2D materials in the field of energy conversion and storage. Explores how 2D materials are being used to create new, more efficient industrial energy products and devices. Compares a variety of 2D materials showing how the properties of a range of these materials make them beneficial for specific energy applications.

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