Record Nr. UNINA9911019304903321 Autore Zhao Yue <1961-> **Titolo** Smart light-responsive materials: azobenzene-containing polymers and liquid crystals / / Yue Zhao And Tomiki Ikeda Hoboken, N.J., : Wiley, c2009 Pubbl/distr/stampa 9786612113314 **ISBN** 9781282113312 1282113313 9780470439098 0470439092 9780470439081 0470439084 Descrizione fisica 1 online resource (542 p.) Altri autori (Persone) IkedaTomiki 620.1/1295 Disciplina Soggetti Smart materials Polymers - Optical properties Azo compounds Liquid crystals Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di contenuto SMART LIGHT-RESPONSIVE MATERIALS; CONTENTS; Preface; Contributors: 1 AZOBENZENE POLYMERS FOR PHOTONIC APPLICATIONS: 1.1. Introduction to Azobenzene; 1.1.1. Azobenzene Chromophores; 1.1.2. Azobenzene Photochemistry; 1.1.3. Classes of Azobenzene Systems; 1.2. Photoinduced Motions and Modulations; 1.2.1. Molecular Motion; 1.2.2. Photobiological Experiments; 1.2.3. Photoorientation; 1.2.4. Domain Motion; 1.2.5. Macroscopic Motion; 1.2.6. Other Applications of Azobenzenes; Acknowledgment; References; 2 PHOTO-INDUCED PHENOMENA IN SUPRAMOLECULAR AZOBENZENE MATERIALS;

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## Sommario/riassunto

This book reviews the cutting-edge significant research in the field of smart light-responsive materials based on azobenzene polymers and liquid crystals. Emphasis is placed on the discovery of new phenomena from the past 5 years, their underlying mechanisms, new functionalities, and properties achieved through rational design. Edited by leading authorities in the field, Zhao and Ikeda, the chapters are authored by an internationally-recognized team of experts from North America, Europe, and Asia. Smart Light-Responsive Materials will serve to catalyze new research that will lead this field ov