Record Nr. UNINA9910876586203321 Methods and reagents for green chemistry: an introduction //edited **Titolo** by Pietro Tundo, Alvise Perosa, Fulvio Zecchini Pubbl/distr/stampa Hoboken, N.J., : Wiley-Interscience, c2007 **ISBN** 1-280-90110-1 9786610901104 0-470-12408-3 0-470-12407-5 Descrizione fisica 1 online resource (334 p.) Altri autori (Persone) TundoPietro <1945-> PerosaAlvise <1965-> ZecchiniFulvio <1968-> Disciplina 660/.286 Soggetti Environmental chemistry - Industrial applications **Environmental management** Chemical tests and reagents Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto METHODS AND REAGENTS FOR GREEN CHEMISTRY: CONTENTS: FOREWORD: PREFACE: CONTRIBUTORS: PART 1 GREEN REAGENTS: 1 The Four-Component Reaction and Other Multicomponent Reactions of the Isocyanides; 2 Carbohydrates as Renewable Raw Materials: A Major Challenge of Green Chemistry; 3 Photoinitiated Synthesis: A Useful Perspective in Green Chemistry; 4 Dimethyl Carbonate as a Green Reagent; PART 2 ALTERNATIVE REACTION CONDITIONS; 5 Ionic Liquids: "Designer" Solvents for Green Chemistry: 6 Supported Liquid-Phase Systems in Transition Metal Catalysis; 7 Organic Chemistry in Water: Green and Fast 8 Formation, Mechanisms, and Minimization of Chlorinated Micropollutants (Dioxins) Formed in Technical Incineration ProcessesPART 3 GREEN CATALYSIS AND BIOCATALYSIS; 9 Green Chemistry: Catalysis and Waste Minimization; 10 Seamless Chemistry

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Superacid Solid Materials as Noncontaminant Alternative Catalysts in Refining; 14 The Oxidation of Isobutane to Methacrylic Acid: An Alternative Technology for MMA Production; 15 Biocatalysis for Industrial Green Chemistry INDEX

Sommario/riassunto

This book aims to stimulate and promote the wide-ranging aspects of green chemistry and its major role in ensuring sustainable development. The book covers the following areas: green chemistry; green reagents and atom economy; safeguarding the atmosphere; industrial green catalysis; alternative reaction conditions; biocatalysis and green chemistry. This book is based on the third edition of the Collection of Lectures of the Summer Schools on Green Chemistry held in Venice, Italy in the summers of 1998-2003 (sponsored by the European Commission, TMR and Improving Programmes and carried out