1. Record Nr. UNINA9910141288103321 Autore Kappe C. Oliver Titolo Microwaves in organic and medicinal chemistry [[electronic resource] /] / C. Oliver Kappe, Alexander Stadler and Doris Dallinger Weinheim,: Wiley-VCH, c2012 Pubbl/distr/stampa **ISBN** 3-527-64784-8 1-280-66359-6 9786613640529 3-527-64782-1 3-527-64785-6 Edizione [2nd ed.] Descrizione fisica 1 online resource (686 p.) Methods and principles in medicinal chemistry;; v. 52 Collana Altri autori (Persone) **DallingerDoris** StadlerAlexander <1973-> Disciplina 615.19 Soggetti Microwaves Organic compounds - Synthesis Pharmaceutical chemistry Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Previous ed.: 2005. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Microwaves in Organic and Medicinal Chemistry: Contents; Preface: Personal Foreword to the First Edition; Personal Foreword to the Second Edition: 1 Introduction: Microwave Synthesis in Perspective: 1.1 Microwave Synthesis and Medicinal Chemistry; 1.2 Microwave-Assisted Organic Synthesis (MAOS): A Brief History; 1.3 Scope and Organization of the Book; References; 2 Microwave Theory; 2.1 Microwave Radiation; 2.2 Microwave Dielectric Heating; 2.3 Dielectric Properties; 2.4 Microwave versus Conventional Thermal Heating; 2.5 Microwave Effects; 2.5.1 Temperature Monitoring in Microwave Chemistry 2.5.2 Thermal Effects (Kinetics)2.5.3 Specific Microwave Effects; 2.5.4 Nonthermal (Athermal) Microwave Effects; References; 3 Equipment Review; 3.1 Introduction; 3.2 Domestic Microwave Ovens; 3.3 Dedicated Microwave Reactors for Organic Synthesis: 3.4 Single-Mode Instruments; 3.4.1 Anton Paar GmbH; 3.4.1.1 Monowave 300; 3.4.2

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## Sommario/riassunto

Tailored to the needs of medicinal and natural products chemists, the second edition of this unique handbook brings the contents up to speed, almost doubling the amount of chemical information with an additional volume. As in the predecessor, a short introductory section covers the theoretical background and evaluates currently available instrumentation and equipment. The main part of the book then goes on to systematically survey the complete range of published microwave-assisted synthesis methods from their beginnings in the 1990's to mid-2011, drawing on data from more than 5,000 reports