Record Nr. UNINA9910827565403321 **Titolo** Organoselenium chemistry: synthesis and reactions / / edited by Thomas Wirth Pubbl/distr/stampa Weinheim,: Wiley-VCH, c2012 **ISBN** 3-527-64195-5 1-283-86988-8 3-527-64196-3 3-527-64194-7 Edizione [1st ed.] Descrizione fisica 1 online resource (464 p.) WirthThomas <1964-> Altri autori (Persone) Disciplina 547.05724 Soggetti Organoselenium compounds Selenium compounds 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 and index. Nota di contenuto Organoselenium Chemistry: Synthesis and Reactions; Contents; Preface; List of Contributors; 1: Electrophilic Selenium; 1.1 General Introduction; 1.1.1 Synthesis of Electrophilic Selenium Reagents; 1.1.2 Reactivity and Properties; 1.2 Addition Reactions to Double Bonds; 1.2.1 Addition Reaction Involving Oxygen-Centered Nucleophiles; 1.2.2 Addition Reaction Involving Nitrogen-Centered Nucleophiles: 1.2.3 Addition Reactions Involving Carbon-Centered Nucleophiles; 1.2.4 Addition Reaction Involving Chiral Nucleophiles or Chiral Substrates; 1.3 Selenocyclizations: 1.3.1 Oxygen Nucleophiles 1.3.2 Nitrogen Nucleophiles1.3.3 Competition between Oxygen and Nitrogen Nucleophiles; 1.3.4 Carbon Nucleophiles; 1.3.5 Double Cyclization Reactions; References; 2: Nucleophilic Selenium; 2.1 Introduction: 2.1.1 Development of Nucleophilic Selenium Reagents: 2.1.2 Examples of Recent Applications; 2.2 Properties of Selenols and Selenolates; 2.2.1 Electronegativity of Selenium; 2.2.2 Tautomerism of Selenols; 2.2.3 Nucleophilicity of Selenolates; 2.3 Inorganic Nucleophilic Selenium Reagents; 2.3.1 Conventional Reagents; 2.3.2 New Reagents: 2.4 Organic Nucleophilic Selenium Reagents

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Sommario/riassunto

Selenium-based methods in synthetic chemistry have developed rapidly over the past years and are now offering highly useful tools for organic synthesis. Filling the gap for a comprehensive handbook and ready reference, this book covers all modern developments within the field, including biochemical aspects. The chemistry chapters are organized according to the different reactivities of various selenium compounds and reagents, with each chapter dealing with a special reaction type. Also includes a table with 77Se NMR shifts to aid in practical problems. From the Contents