Record Nr. UNINA9910147019003321 New frontiers in asymmetric catalysis [[electronic resource] /] / edited **Titolo** by Koichi Mikami, Mark Lautens Pubbl/distr/stampa Hoboken, N.J., : Wiley-Interscience, c2007 **ISBN** 1-280-90102-0 9786610901029 0-470-09799-X 0-470-09800-7 Descrizione fisica 1 online resource (436 p.) Altri autori (Persone) MikamiKoichi LautensM (Mark) 541.395 Disciplina 541/.395 Soggetti Catalysis - Research Asymmetry (Chemistry) - Research 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 NEW FRONTIERS IN ASYMMETRIC CATALYSIS: CONTENTS: PREFACE: CONTRIBUTORS: 1 Ligand Design for Catalytic Asymmetric Reduction: 1.1 Introduction; 1.2 Hydrogenation of Olefins; 1.2.1 Enamide Hydrogenation with Rhodium Catalysts: 1.2.2 Hydrogenation of Functionalized Olefins with Ruthenium Catalysts; 1.2.3 Hydrogenation of Simple Olefins with Iridium Catalysts; 1.3 Reduction of Ketones; 1.3.1 Hydrogenation of Functionalized Ketones; 1.3.2 Hydrogenation of Simple Ketones; 1.3.3 Transfer Hydrogenation of Ketones; 1.3.4 Hydroboration of Ketones; 1.4 Reduction of Imines; References 2 Ligand Design for Oxidation2.1 Introduction; 2.2 Catalytic Enantioselective Epoxidation of Unfunctionalized Olefins; 2.3 Enantioselective Metal-Catalyzed Baeyer-Villiger Oxidation; 2.4 Optical Resolution during Oxidation of Alcohols; 2.5 Catalytic Enantioselective Oxidative Coupling of 2-Naphthols; 2.6 Concluding Remarks; References: 3 Ligand Design for C-C Bond Formation: 3.1 Introduction: 3.2 1,4-Addition and Related Reactions; 3.2.1 Copper Catalysis; 3.2.2

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Sommario/riassunto

A compilation of recent advances and applications in asymmetric catalysis The field of asymmetric catalysis has grown rapidly and plays a key role in drug discovery and pharmaceuticals. New Frontiers in Asymmetric Catalysis gives readers a fundamental understanding of the concepts and applications of asymmetric catalysis reactions and discusses the latest developments and findings. With contributions from preeminent scientists in their respective fields, it covers:*
""Rational"" ligand design, which is critically dependent on the reaction type (reduction, oxidation, and C-C bond