

1. Record Nr.	UNINA9910139000803321
Titolo	Copper-mediated cross-coupling reactions / / edited by Gwilherm Evano, Laboratoire de chimie organique, Service de chimie et physicochimie organiques, Universite libre de Bruxelles, Brussels, Belgium, Nicolas Blanchard, Universite de Strasbourg, Ecole europeenne de chimie, polymeres et Materiaux, Laboratoire de chimie moleculaire associe au CNRS, Strasbourg, France
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , [2014] ©2014
ISBN	1-118-69047-8 1-118-69065-6 1-118-69068-0
Descrizione fisica	1 online resource (836 p.)
Classificazione	SCI013050
Altri autori (Persone)	EvanoGwilherm BlanchardNicolas
Disciplina	546/.652595
Soggetti	Copper catalysts Copper - Reactivity Chemical bonds Organic compounds - Synthesis
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	Machine generated contents note: Introduction Copper catalysis from an historical perspective: a legacy from the past Gwilherm Evano and Nicolas Blanchard PART 1 FORMATION OF C-HETEROATOM BONDS Chapter 1: Modern Ullmann-Goldberg Chemistry: Arylation of N-nucleophiles with Aryl Halides Yongwen Jiang and Dawei Ma Chapter 2: Ullmann condensation today: arylation of alcohols and thiols with aryl halides Anis Tlili and Marc Taillefer Chapter 3: Copper-Catalyzed Formation of C-P Bonds with Aryl Halides Carole Alayrac and Annie-Claude Gaumont Chapter 4: Alternative and Emerging Reagents for the Arylation of Heteronucleophiles Luc Neuville Chapter 5: Beyond Ullmann-Goldberg Chemistry: Vinylation, Alkynylation and Allenylation of Heteronucleophiles Kevin Jouvin and Gwilherm Evano Chapter 6:

Aromatic/Vinylic Finkelstein Reaction Alicia Casitas and Xavi Ribas Chapter 7: Insights into the Mechanism of Modern Ullmann-Goldberg Coupling Reactions Alicia Casitas and Xavi Ribas PART 2 FORMATION OF C-C BONDS Chapter 8: Modern Copper-Catalyzed Hurtley Reaction: Efficient C-Arylation of CH-Acid Derivatives Irina P Beletskaya and Alexey Yu Fedorov Chapter 9: Copper-Catalyzed Cyanations of Aryl Halides and Related Compounds Thomas Schareina and Matthias Beller Chapter 10: Copper-Mediated Aryl-aryl Bond Formation Leading to Biaryls: A Century After Ullmann Breakthrough Yoshihiko Yamamoto Chapter 11: Copper-Catalyzed Alkynylation, Alkenylation and Allylation Reaction of Aryl Derivatives Ren-Jie Song and Jin-Heng Li Chapter 12: Copper-Catalyzed Alkynylation and Alkenylation Reaction of Alkynyl Derivatives: New Access to Diynes and Enynes Ruimao Hua Chapter 13: Copper-Mediated Alkenylation Reaction of Alkenyl Derivatives: a Straightforward Elaboration of 1,3-Dienes Hao Li, Songbai Liu, and Lanny S Liebeskind Chapter 14: Emerging Areas in Copper-Mediated Trifluoromethylations: Catalytic and Oxidative Cross-Coupling Processes Kevin Jouvin, Celine Guissart and Gwilherm Evano PART 3 APPLICATIONS OF COPPER CATALYZED CROSS COUPLING REACTIONS: HETEROCYCLES, NATURAL PRODUCTS, PROCESS AND SUSTAINABLE CHEMISTRY Chapter 15: Copper-Mediated Cyclization Reactions: New Entries to Heterocycles Daoshan Yang and Hua Fu Chapter 16: Copper-Mediated C-N Bond Forming Reactions: New Opportunities in Natural Product Synthesis Jihoon Lee and James S Panek Chapter 17: Natural Products and C-O/C-S Bond Forming Reactions: Copper Showed the Way Doron Pappo Chapter 18: Copper-Catalyzed C-C Bond Formation in Natural Product Synthesis: Elegant and Efficient Solutions to a Key Bond Disconnection Morgan Donnard and Nicolas Blanchard Chapter 19: Process Chemistry and Copper Catalysis Klaus Kunz and Norbert Lui Chapter 20: Reusable Catalysts for Copper-Mediated Coupling Reactions under Heterogeneous Conditions Zhiyong Wang, Changfeng Wan and Ye Wang.

---

#### Sommario/riassunto

"Providing insight into the use of copper in cross-coupling reactions as a cost-efficient alternative to palladium, Copper-Mediated Cross Coupling Reactions provides a complete up-to-date collection of the available catalytic systems and processes. This essential reference covers a broad scope of copper-mediated reactions, their variations, key advances, improvements, and an array of applications that have revolutionized copper catalysis for any industry involving organic synthesis. The text discusses recently developed methods for conducting copper-mediated reactions with supported catalysts, which allow for recyclable and reusable systems"--

---