

1. Record Nr.	UNINA9910831088803321
Titolo	Catalysis without precious metals [[electronic resource] /] / edited by R. Morris Bullock
Pubbl/distr/stampa	Weinheim, : Wiley-VCH, 2010
ISBN	3-527-63240-9 1-282-71241-1 9786612712418 3-527-63158-5 3-527-63159-3
Descrizione fisica	1 online resource (310 p.)
Classificazione	540
Altri autori (Persone)	BullockR. Morris
Disciplina	541.395
Soggetti	Catalysis Chemistry, Physical and theoretical
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Catalysis Without Precious Metals; Contents; Preface; List of Contributors; 1: Catalysis Involving the H Transfer Reactions of First-Row Transition Metals; 2: Catalytic Reduction of Dinitrogen to Ammonia by Molybdenum; 3: Molybdenum and Tungsten Catalysts for Hydrogenation, Hydrosilylation and Hydrolysis; 4: Modern Alchemy: Replacing Precious Metals with Iron in Catalytic Alkene and Carbonyl Hydrogenation Reactions; 5: Olefin Oligomerizations and Polymerizations Catalyzed by Iron and Cobalt Complexes Bearing Bis(imino)pyridine Ligands 6: Cobalt and Nickel Catalyzed Reactions Involving C-H and C-N Activation Reactions 7: A Modular Approach to the Development of Molecular Electrocatalysts for H ₂ Oxidation and Production Based on Inexpensive Metals; 8: Nickel-Catalyzed Reductive Couplings and Cyclizations; 9: Copper-Catalyzed Ligand Promoted Ullmann-type Coupling Reactions; 10: Copper-Catalyzed Azide-Alkyne Cycloaddition (CuAAC); 11: "Frustrated Lewis Pairs" : A Metal-Free Strategy for Hydrogenation Catalysis; Index
Sommario/riassunto	Written for chemists in industry and academia, this ready reference and

handbook summarizes recent progress in the development of new catalysts that do not require precious metals. The research thus presented points the way to how new catalysts may ultimately supplant the use of precious metals in some types of reactions, while highlighting the remaining challenges. An essential companion for organic and catalytic chemists, as well as those working with/on organometallics and graduate students. From the contents: * Catalysis Involving the H⁺ Transfer Reactions of First-Row Tran
