

1. Record Nr.	UNINA9910227343903321
Autore	Hermenegildo García (Ed.)
Titolo	Nanoparticles for Catalysis
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2017
ISBN	3-03842-537-0
Descrizione fisica	1 electronic resource (X, 154 p.)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>The present book is aimed at illustrating the width of applications of metal nanoparticles in catalysis. It covers aspects such as metal nanoparticles preparation using natural biomolecules to the catalytic, photocatalytic and electrocatalytic activity of supported metal nanoparticles. In catalysis, metal nanoparticles exhibit general activity in oxidation and reduction reactions and the book contains examples of both types of processes in which the nanoparticles are on carbon supports or embedded inside the voids of microporous crystalline metal organic frameworks. Metal nanoparticles are also widely used in photocatalysis to enhance light absorption through plasmon band and the efficiency of the photochemical process. Besides classical applications, the use of metal nanoparticles is expanding rapidly in the field of renewable energies, going from catalysts for solid fuels electrodes to novel Li-O₂ batteries.</p>