

1. Record Nr.	UNINA9910373885503321
Titolo	Methods for Electrocatalysis : Advanced Materials and Allied Applications // edited by Inamuddin, Rajender Boddula, Abdullah M. Asiri
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-27161-7
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (VI, 473 p.)
Disciplina	541.395
Soggetti	Materials science Force and energy Catalysis Renewable energy resources Electrochemistry Energy Materials Renewable and Green Energy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Earth abundant elctrocatalyst -- Metal–Organic Frameworks for Electrocatalysis -- Single-Atom Electrocatalysts For Water Splitting -- Electrocatalysis: Application of nanocomposite materials -- Polymer electrocatalysis -- Oxygen Evolution Reaction -- Electrocatalysts for photochemical water-splitting -- Role of earth-abundant/carbonaceous electrocatalysts as cocatalyst for solar water splitting -- Cationic electrocatalysis in effecting the electrosynthesis of tungsten carbide nanopowders in molten salts -- Microalgae-based Systems Applied to Bioelectrocatalysis -- Current Trends in Electrodeposition of Electrocatalytic Coatings -- Carbon based Electrocatalysts -- State-of-the-Art Advances and Perspectives for Electrocatalysis -- Electrocatalysts for photoelectrochemical water splitting -- Oxygen reduction reaction -- History, progress, and development of electrocatalysis -- Characterization of Electrocatalyst -- Interface chemistry of platinum-based materials for electrocatalytic

hydrogen evolution in alkaline conditions.

Sommario/riassunto

This book explores key parameters, properties and fundamental concepts of electrocatalysis. It also discusses the engineering strategies, current applications in fuel-cells, water-splitting, metal-ion batteries, and fuel generation. This book elucidates entire category viewpoints together with industrial applications. Therefore, all the sections of this book emphasize the recent advances of different types of electrocatalysts, current challenges, and state-of-the-art studies through detailed reviews. This book is the result of commitments by numerous experts in the field from various backgrounds and expertise and appeals to industrialists, researchers, scientists and in addition understudies from various teaches. .
