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Titolo	Sustainable Aquaculture / / edited by Faisal I. Hai, Chettiyappan Visvanathan, Ramaraj Boopathy
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-73257-9
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (332 pages) : illustrations
Collana	Applied Environmental Science and Engineering for a Sustainable Future, , 2570-2173
Disciplina	639.8
Soggetti	Pollution Freshwater ecology Marine ecology Water Hydrology Biotechnology Freshwater and Marine Ecology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Aquaculture and the Environment: Towards sustainability -- 2. Sustainable Aquaculture: Socio-Economic and Environmental Assessment -- 3. Sustainable Fishing Methods in Asia Pacific Region -- 4.Sustainable Aquafeed -- 5. Sustainable production of shrimp in Thailand -- 6. Aquaponics: A commercial niche for sustainable modern aquaculture -- 7. Aquaponics Production and Practices - a System Perspective -- 8. Estimating Carbon Footprint under an intensive aquaculture regime -- 9. Impact of Pharmaceutically Active Compounds in Marine Environment on aquaculture - 10. Waste Treatment in Recirculating Shrimp Culture Systems.
Sommario/riassunto	This book is about important relevant recent research topics in sustainable aquaculture practices. A critical assessment of the sustainable finishing methods and the aspect of sustainable aquaculture feed is presented in this volume. A special focus has been given to socio-economic and environmental assessment of aquaculture

	practices and analysis of carbon footprint under an intensive aquaculture regime. Aquaponics as a niche for sustainable modern aquaculture has been highlighted. The effect of use of pharmaceuticals to prevent fish disease on the surrounding marine environment is an emerging area of concern, and a critical discussion on this aspect is included in the book. The spread of organic waste and nutrients released by fish farms to natural water bodies has raised considerable concerns. Therefore the methods to prevent their dispersion and removal (treatment) have been comprehensively covered in this book. This book is an essential read for academician, researchers, and policy makers in the field of aquaculture. .

2.

Record Nr.	UNINA9910726276603321
Autore	Othman Mahmod Bin
Titolo	Proceedings of the 1st International Conference of New Energy : ICNE 2022, 1-2 Dec, Sarawak, Malaysia / / edited by Mahmod Bin Othman, Samsul Ariffin Abdul Karim, Cecilia Devi Wilfred, Kean Chuan Lee, Rajalingam Sokkalingam
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023
ISBN	9789819908592 9789819908585
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (191 pages)
Collana	Springer Proceedings in Energy, , 2352-2542
Altri autori (Persone)	KarimSamsul Ariffin Abdul WilfredCecilia Devi LeeKean Chuan SokkalingamRajalingam
Disciplina	620.1
Soggetti	Materials Catalysis Force and energy Physics Sustainability Green chemistry Materials for Energy and Catalysis Applied and Technical Physics Green Chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa

Livello bibliografico	Monografia
Nota di contenuto	Intro -- Foreword -- Preface -- Editorial for the Special Issue "Hydrogen as the New Sustainable Renewable Energy" -- Chapter Introduction -- Contents -- Editors and Contributors -- Effect of Feedstock Composition on the Methanol Synthesis via the CO2 Hydrogenation Process -- 1 Introduction -- 2 Methodology -- 2.1 Preparation of Catalyst Support -- 2.2 Supported Cu/ZnO-Based Catalyst with Addition of Promoter -- 2.3 Catalyst Characterization -- 2.4 Catalytic Performance Evaluation -- 3 Results and Discussion -- 3.1 Morphology of Catalyst -- 3.2 Textural Properties -- 3.3 Phase Analysis -- 3.4 Reducibility and Basicity Studies -- 3.5 Catalytic Activity -- 4 Conclusion -- References -- Inhibition of Ammonia Emission by Buffer Solution in Ammonia Borane Hydrolysis -- 1 Introduction -- 2 Experimental Methods -- 2.1 Catalyst Preparations -- 2.2 Ammonia Emission Control Test -- 2.3 Analysis of the Mechanism of Ammonia Release Inhibition -- 3 Results and Discussion -- 3.1 Emission Behavior of Ammonia -- 3.2 The Mechanism of Ammonia Emission Control -- 4 Conclusions -- References -- Cold Startup of a PEFC Studied by Operando Visualization of Ice and Oxygen Partial Pressure -- 1 Introduction -- 2 Experimental -- 3 Results and Discussion -- 4 Conclusions -- References -- In Silico of Hydrogen Rich Gas from Formic Acid by Steam Reforming Process via DFT Calculation -- 1 Introduction -- 2 Method on Computational Chemistry -- 3 Results and Discussions -- 3.1 DFT Method Validation -- 3.2 Quantum Chemical Parameters -- 4 Conclusion -- References -- The Effect of Second Metals Towards Physicochemical Properties of Nickel-Based Catalyst Supported on Reduced Graphene Oxide for Hydrogenation of Carbon Dioxide into Methane -- 1 Introduction -- 2 Methodology -- 2.1 Materials -- 2.2 Synthesis of Catalysts -- 2.3 X-Ray Diffraction Analysis. 2.4 Surface Area and Porosity Analysis -- 2.5 H2-TPR Analysis -- 3 Results and Discussion -- 3.1 X-Ray Diffractogram of Catalysts -- 3.2 Surface Area and Porosity -- 3.3 Reduction Behaviour and Metal-Support Interaction -- 4 Conclusion -- References -- Photocatalytic Pre-treatment of Lignocellulosic Biomass for Biohydrogen Production -- 1 Introduction -- 2 Materials and Methodology -- 2.1 Synthesis of TiO2 Nanotubes Photocatalyst -- 2.2 Photocatalytic Pre-treatment of Palm Kernel Expeller -- 2.3 Chlorella Vulgaris Stock Cultivation -- 2.4 Experimental Setup for Hydrogen Production Using Palm Kernel Expeller -- 3 Results and Discussion -- 4 Conclusions -- References -- Effect of Nitrogen Doping on Optoelectronic Properties of TiO2 Anatase Model for Solar Hydrogen Production: A DFT + U Approach -- 1 Introduction -- 2 Methodology -- 3 Results and Discussion -- 3.1 Structural Properties and Stability of the Models -- 3.2 Electronic Structure/Characteristics -- 3.3 Optical Properties -- 4 Conclusion -- References -- Natural Dye and Activated Carbon from Theobroma Cacao as Photosensitizer and Counter Electrode for Titania-Based Dye-Sensitized Solar Cell -- 1 Introduction -- 2 Methodology -- 2.1 Synthesis of Cacao Pod Husk Activated Carbon (CPHAC) -- 2.2 Sensitizers Preparation -- 2.3 Fabrication of Dye-Sensitized Solar Cell -- 2.4 Dye-Sensitized Solar Cell Assembly -- 2.5 Characterization of the Dye-Sensitized Solar Cells -- 3 Results and Discussions -- 3.1 Field Emission Scanning Electron Microscopy -- 3.2 Energy-Dispersive X-ray Spectroscopy (EDX) -- 3.3 Surface Area and Porosity Analysis -- 3.4 UV-Visible Spectroscopy -- 3.5 Photocurrent-voltage Measurement

-- 4 Conclusion -- References -- Solvation-Free Energy and Thermodynamic Properties of Hydrogen Adsorption Inside Porous HKUST-1 Composite Through Molecular Dynamics Simulation -- 1 Introduction.
2 Methodology -- 3 Result and Discussion -- 3.1 Force Field Validation -- 3.2 Solvation-Free Energy and H2 Adsorption Inside HKUST-1 at Different Temperature -- 4 Conclusion -- References -- Effect of Temperature on the Hydrogen Adsorption and Transportation Inside MOF-5 Through Molecular Dynamics Simulation -- 1 Introduction -- 2 Methodology -- 3 Result and Discussion -- 3.1 Force Field Validation -- 3.2 Solvation-Free Energy Inside IRMOF-1 at Different Temperatures -- 4 Conclusion -- References -- A Review on Bio-hydrogen Production from Food Waste: Potential and Challenges -- 1 Introduction -- 2 Compositions of the Food Waste Toward Hydrogen Production -- 2.1 Carbohydrate -- 2.2 Fats and Lipids -- 2.3 Protein -- 3 Advantages and Limitations of H2 Production from Food Waste -- 4 Conclusions -- References -- Facile Fabrication of PTA@MOF-808H Nanocomposites in Acidic Media Employing Hydrogen Peroxide for Catalytic Oxidative Desulfurization of Fuel Oil -- 1 Introduction -- 2 Materials and Method -- 2.1 Synthesis and Preparation of MOF-808 and Composites -- 2.2 Characterization of Material -- 2.3 Catalytic ODS Reaction -- 3 Results and Discussion -- 3.1 Characterization of Samples -- 3.2 Catalytic Result -- 4 Conclusion -- References -- Photoelectrocatalytic Properties of B@g-C3N4/PANI in CO2 Reduction to Ethanol for Hydrogen Seasonal Storage -- 1 Introduction -- 2 Experimental -- 2.1 Materials -- 2.2 Preparation of Boron-Doped-g-C3N4/PANI -- 2.3 Catalyst Characterisation -- 2.4 Photoelectrochemical Measurement -- 3 Result and Discussion -- 3.1 Characterization of B@g-C3N4/PANI -- 3.2 Photoelectrochemical Performance -- 4 Ethanol Production -- 5 Conclusion -- References -- Progresses in Improving Mechanical Properties of Maraging Steel MS1 Through Laser Additive Manufacturing for Renewable Energy Application -- 1 Introduction.
2 Materials and Experiments -- 2.1 Preparation of Sample -- 2.2 Experiments -- 3 Results and Discussion -- 3.1 Mechanical Properties -- 3.2 Atomic Force Microscopy (AFM) Profile -- 3.3 Microscopic Profile -- 3.4 Mesoporous Testing -- 4 Conclusion -- References -- Non-noble Metal Nanoparticles Formed in Interlayer of Layered Double Hydroxide for Hydrogen Production via Sodium Borohydride Hydrolysis Reaction -- 1 Introduction -- 2 Experimental -- 2.1 Materials -- 2.2 Catalyst Preparation -- 2.3 Structural Characterization -- 2.4 Evaluation of Hydrogen Generation Property -- 3 Results and Discussion -- 3.1 Structural Characterization -- 3.2 Hydrogen Production Property -- 4 Conclusion -- References -- Chloralkali and Hydrogen Generation from Produced Water -- 1 Background/ Problem Statement -- 2 Method -- 3 Results -- 4 Novel Information -- 5 Challenges and Opportunities -- 6 Conclusion -- References -- Ammonia as a Hydrogen Vector: Validated Large Eddy Simulation of Ammonia Co-Firing in a Pilot-Scale Coal Combustor -- 1 Introduction -- 2 Experimental Setup -- 3 Numerical Setup -- 4 Grid-Convergence Analysis -- 5 Results and Discussion -- 6 Conclusion -- References -- Author Index.

Sommario/riassunto

This book presents peer-reviewed articles from the 1st International Conference on New Energy (ICNE 2022), held on 1–2 December at Sarawak in Malaysia. This book highlights the current trends/studies on fundamental of hydrogen technologies and the application of hydrogen as the new sustainable renewable energy. Topics included but not limited to are: hydrogen production, its storage and transportation, and

hydrogen utilization. This book contributes in making green hydrogen competitive and ready for a scale up in the 2030s, towards the objective of reaching net zero emissions by 2050.