Table of Contents

Preface

Chapter	1:	Green	Constru	ction
---------	----	-------	---------	-------

Waste Glass in Road Construction: A Review A.K. Ogundana and S.A. Afolalu	3	
Emerging Trends in Sustainable Materials for Green Building Constructions O.S. Orenuga, O. Adebisi and I. Adediran		
Chapter 2: Materials and Technologies for Water and Wastewater Treatment		
Removal of Heavy Metals from Petroleum Industry Wastewater Using Indigenous Microalgae Scenedesmus sp P. Paramasivam and G.P. Maniam	25	
Performances Study of Polyvinylidene Fluoride (PVDF)/Waste Eggshell (WES) Mixed-Matrix Membrane for Copper Removal U.S. Mohd Zubir and S.A. Rahman	31	
Preparation and Characterization of Sodium Alginate Based Composite Beads for Manganese Removal		
H.A. Samad, N. Kamal and S.M.A.S. Mohd Nurddin	39	
Graphitic Carbon Nitride (g-C ₃ N ₄) Microrods and Nanosheets Photocatalysts Immobilized on Water Hyacinth Cellulose Sponge for Photodegradation B. Pattanasiri and S. Sangjan	47	
Effects of Cupric Ion Adsorption onto the Modified Pineapple Pulp as a Biochar Adsorbent P. Charnkeitkong and S. Sripiboon	57	
Removal of Copper(Cu) from Wastewater Using Modified Recycle Carbon Black (RCB) Waste Tyre		
M.A.I. Nordin, N.A.H. Ab Aziz, U.F. Md Ali, A.A. Ahmad and M.I.H.M. Dzahir	63	
Effects of Halloysite Nanotube (HNT) on the Cd ²⁺ Adsorption Capacity of Cellulose Acetate (CA) Thin Film Membranes M.J. Llana, K.J.J.L. Tabucan, J.A.M.C. Cosico, P.E.C. Maglalang and J.C. Millare	69	
Fabrication of Polysulfone - Zeolite Nanocomposite Membrane for Water and Wastewater		
Treatment Applications J.C. Millare, J.C.T. Enriquez, L.K.M. Domingo and V.U. Lagura	77	
Structural and Magnetic Behavior of MFe ₂ O ₄ Nanopowders for Water Treatment G. Sugurbekova, E. Sugurbekov, G. Demeuova, A. Gabdullina and R. Kudaibergenova	83	
Chapter 3: Biodiesel Production and Applications		
A Vehicle Fleet Study to Investigate the Effect of B20 and B10 Usage on Engine Oil		
Degradation D.J. Thaddeus, N. Jalil, H.L.L. Nang and N.H. Kiat	93	
Silica Based Material as a Potential Adsorbent in Reducing Sterol Glucoside Level in Palm Oil Biodiesel M.N.F. Abd Malek and G.P. Maniam	103	
Prediction of Cumulative Biomethane Yield Using Artificial Neural Network - Case Study of an Industrial Biogas Plant R.O. Dada and O.T. Laseinde	113	
Tranesterification and Comparative Analysis of Bio Diesel Production Using Blighia Sapida (Ackee Seed) as Substrate L. Rominiyi, B. Adaramola, J.F. Eiche, O.T. Oginni, D.V. Ewere and T.O. Oni	123	

133
143
155
165
173