

Table of Contents

Preface

Chapter 1: Polymers and Composites

Preparation and Properties of VPCS/PMPS Composites

Q.H. Mu, D. Peng, J.H. Li and F. Wang 3

Synthesis and Properties of One-Component Addition-Crosslinking Silicone Resin

D. Peng, Q.H. Mu, J.H. Li and F. Wang 9

Effect of PC Percentages on Hardness and Notched Impact Strength of PBT/PC Blends

T.H.N. Pham, N.P.D. Tran, T.K. Tran, T.T. Nguyen, X.T. Vo, N.T. Tran, V.T. Tran, M.T.U. Tran and V.H. Hoang 17

Chapter 2: Materials Processing

Applying FCCCD Response Surface Method in Studying the Cutting Power of Wood Materials

N.H. Loc and V.T. Tran 25

Chapter 3: Corrosion Inhibition

Inhibition Effect of Aminophen Fluid Derivative on the Corrosion of 1070 Aluminum

R.T. Loto and C.A. Loto 35

Gravimetric and Statistical Analysis of Combined Protection Performance of *Lavandula latifolia* and *Ricinus communis* on Low Carbon Steel

R.T. Loto, C.A. Loto and O. Olaniyan 43

Gravimetric and Statistical Data Analysis of the Protection Performance of *Aloe vulgaris* and *Nicotiana tabacum* Leaf Extracts on 1070 Aluminum and Mild Steel

R.T. Loto, C.A. Loto and A. Israel 53

Chapter 4: Materials and Technologies in Construction

Flexural Behavior (Load-Strain Curve) of Reinforced Concrete Beams Covered by Gypsum Layers and Exposed to Elevated Temperatures

R.S. Warwar and A.M.I. Said 63

Predicting Effective Parameters in Cyclic Behavior of Reinforced Masonry Walls with Shotcrete Using Artificial Neural Networks

M.H. Baghban, S.A. Hashemi, E.S. Hashemi and M.H. Aghaei 71

A Review on Mechanical Properties of Deformation Mechanism of Tubular Nanostructures: Molecular Dynamics Simulations

P.C. Tsai and Y.R. Jeng 79

Methods of Modeling Contact between Concrete and Fiber Concrete

M. Vavruš and P. Koteš 87

Stiffness Modulus of Aged Asphalt Mixtures

D. Briliak and E. Remišová 93

Carbonation Depth and Chloride Ion Penetration Properties of Rubberised Concrete Incorporated Ground Blast Furnace Slag

M.H. Baghban, A.M. Mhaya, I. Faridmehr and F.H. Ghasan 101