

Table of Contents

Preface

Chapter 1: Membranes and Membrane Technologies

Polysulfone Hollow Fiber Membrane Mixed with Peat Clay Particles: Fabrication and Properties

M. Elma, R.A. Lestari, G.R.S. Dewi, N. Rahmadhaniah, Z. Tunnisa, R.A. Ghani, A. Rahma, R.M. Iqbal and M.H.D. Othman 3

Pectin as Pore Agent of Nylon 6.6 Membranes: Fabrication and Characterization

M. Elma, E.R. Aisyah, H. Hastati, R.H. Putri, Z. Tunnisa and R.A. Lestari 19

Chapter 2: Research of Modern Materials

Impact of Calcium Hydroxide Particle Size on the Intracanal Medicament Penetration Efficacy

A.N. Sidiqa, A. Afidi, M.S. Suntana, M.N. Zakaria, I.M. Joni and A.M. Maskoen 29

Theoretical Study of the Stability of CdSn Liquid Alloy at Different Temperatures

A.P. Singh, R.P. Chaudhary, M. Hussain, J. Mandal and I.S. Jha 37

Molecular Modeling Analysis of rGO/Fe₃O₄ Nanocomposite Molecules

S. Setianto, S. Ekawardhani, R. Rovina, C. Panatarani and I.M. Joni 53

Chapter 3: Engineering and Technological Solutions

Optimization of Sidoarjo Mud Akaline Fusion Process Using Taguchi Method

A.R. Nahara, E. Ningsih, R. Darmawan and S.R. Juliastuti 61

A Low-Fidelity Finite Element Model of Tire-Terrain Interaction for Autonomous Off-Road Vehicles

M.M. Shahzamanian Sichani 69

Spatial Interpolation to Predict Mangrove above-Ground Carbon in Loh Buaya, Komodo National Park, Indonesia

S.S. Rijal, A. Efendi, R. Rudianto, M.A. Prasidya and S. Noer'Aulia 83