

Table of Contents

Preface

Synthesis and Characterization of Calcium Silicate from Rice Husk Ash and Shell of Snail <i>Pomacea canaliculata</i> by Solid State Reaction	
R. Phuttawong, N. Chantaramee, P. Pookmanee and R. Puntharod	1
Effect of pH and Freezing Condition on Cryogel Encapsulation of Curcumin	
N. Sowasod, K. Nakagawa, T. Charinpanitkul and W. Tanthapanichakoon	9
Development of Chemical Sensor Array for Rice Aroma Detection	
P. Lorwongtragool and T. Kerdcharoen	15
Composition and Oxidation State of Cobalt and Nickel-Iron Oxide Colloidal Nanoparticles in Liquid Phase	
T. Rutirawut, W. Limphirat, A. Sinsarp, K. Tivakornsasithorn, T. Srihirin and T. Osotchan	21
Effect of Addition of Microsilica and Nanoalumina on Compressive Strength and Products of High Calcium Fly Ash Geopolymer with Low Concentration NaOH	
P. Chindaprasirt and K. Somna	29
Glycine-Nitrate Combustion Synthesis of ZrO₂-Y₂O₃ Nanopowders	
E.I. Denisova, I.A. Ustyuzhaninova, V.V. Kartashov, V.A. Volkovich, I.V. Chernetskiy and A.V. Vlasov	37
Fabrication and Characterization of Conducting PANI Nanofibers via Electrospinning	
S. Santibenchakul, S. Chaiyasith and W. Pecharapa	45
Effect of pH and Temperature on Physical Properties of Zinc Aluminate Based Nanostructure Synthesized via Co-Precipitation Method	
W. Mekprasart, S. Worasawat and W. Pecharapa	53
Different Photoresponses for Positive and Negative Biases of CuPc/C60 Heterojunction Nanostructures	
T. Juagwon, K. Subannajui and T. Osotchan	61
Thermal Annealing Effect on Real Time Atomic Relocation of Iron-Cobalt Alloys Prepared by Electro-Deposition	
K. Wetsawan, P. Prachopchok, T. Juagwon, W. Limphirat, K. Tivakornsasithorn, A. Sinsarp and T. Osotchan	69
Electrical Contact Properties of Micro-Injection Molded Polypropylene/CNT/CB-Composites on Metallic Electrodes	
M. Heinrich, R. Decker, J. Schaufuss, J. Troeltzsch, J. Mehner and L. Kroll	77
The Characterization of Bismuth Vanadate Powder Synthesized by a Modified Microwave Method	
P. Pookmanee, P. Intaphong and S. Phanichphant	85
Diode Parameters of Mesa Structural n-Type Nanocrystalline FeSi₂/p-Type Si Heterojunctions Prepared by Lift-Off Photolithography	
N. Promros, S. Funasaki, M. Takahara, R. Iwasaki, M. Shaban and T. Yoshitake	91
Synthesis of Carbon Nanoparticles via Co-Pyrolysis of Waste Slop Oil and Ferrocene	
W. Chaiwat, T. Janjarasskul, A. Eiad-Ua, N. Viriya-Empikul, T. Charinpanitkul and K. Suttiponpanit	97
Study on Effect of Acid and Heat Treatments of Multi-Walled Carbon Nanotubes on Benzene Detection	
T. Chobsilp, W. Wongwiriyapan, C. Issro, W. Muangrat, W. Chaiwat, A. Eiad-Ua, T. Charinpanitkul and K. Suttiponpanit	105
Influence of Vanadium on Cement Properties and Leaching Analysis	
S. Sinyoung and P. Kajitvitchyanukul	113
Effects of Nickel on Properties of Cement Mortar Derived from the Co-Burning of Industrial Waste and its Leaching Behavior	
S. Sinyoung, E. Taweekitwanit and P. Kajitvitchyanukul	121
Effects of Temperature on I-V Characteristics of InAs/GaAs Quantum-Dot Solar Cells	
S. Sriphan, S. Kiravittaya, S. Thainoi and S. Panyakaew	129
A Development of Graphene Based Chemiresistive Sensor: Demonstrations on pH Sensing, and Cell Detection	
S. Srimives, W. Klongthong, K. Selamassakul, N. Peaunbida, S. Jiamjitton, C. Phamornnak, C. Plabplueng, B. Oonkhanond and T. Charinpanitkul	137