

Table of Contents

A New Empirical Equation for Estimating Specific Surface Area of Supercapacitor Carbon Electrode from X-Ray Diffraction

M. Deraman, R. Daik, S. Soltaninejad, N.S.M. Nor, Awitdrus, R. Farma, N.F. Mamat, N.H. Basri and M.A.R. Othman

1

Attenuated Total Reflection Studies of Honeycomb Nanoporous GaN Thin Films

S.F. Cheah, S.C. Lee, S.S. Ng, F.K. Yam, A.H. Haslan and H. Zainuriah

9

Blocking Properties of Superparamagnetic Magnetite Nanoparticles and Gold/Superparamagnetic Magnetite Composite Nanoparticles

B.K. Sodipo and A.A. Aziz

15

Calculation of Electron Density Distribution in Cd_{0.5}Zn_{0.5}S by Density Functional Theory: Exploring its Bonding Character and Stability

A.P. Othman, A. Aadenan, M.M.A. Anas and G.A. Gopir

21

Conduction Mechanism of Enhanced CMC-NH₄Br Biopolymer Electrolytes

A.S. Samsudin and M.I.N. Isa

27

Fabrication and Properties of Multi-Walled Carbon Nanotubes Buckypaper

W.A.D. Wan Dalina, M. Mustapha, S.H. Tan, Z.A. Mohd Ishak and A.R. Mohamed

33

Glucose-Reduced MnO₂/Graphene Composites Electrode for Supercapacitor

A.S. Kamisan, A.I. Kamisan, T.I. Al-Irsyad Tunku Kudin, A.M.M. Ali, O.H. Hassan and M.Z.A. Yahya

39

Nanoglass: Present Challenges and Future Promises

M.R. Sahar and S.K. Ghoshal

45

Optical Characteristics of Erbium-Doped SiO₂/PVA Electrospun Nanofibers

M.K. Abd-Rahman, N.F.M. Suhaimi, E.E. Edwin, W. Dian and N.H. Abdul Halim

59

Particle Size Distribution of Cerate-Zirconate Powder Prepared via Three Different Methods

N.A. Ibarahim, N. Osman and M.A. Mohd Ishak

67

Photoconductivity of Pharma-Grade ZnO under UVA and White Light Exposure

L.C. Ann, S. Mahmud, S.K.M. Bakhori and A. Sirelkhatim

73

Transport Characteristics of Secondary Charged Particles Resulting from High Energy Neutron in Silicon

H.F. Abdul Amir and F.P. Chee

79

Transport Critical Current Density and Flux Pinning Enhancement in Nano-Sized PbO and HfO₂ Added (Bi_{1.6}Pb_{0.4})Sr₂Ca₂Cu₃O₁₀ Superconductor

N.A.A. Yahya and R. Abd-Shukor

85