

Table of Contents

Editorial Note

Electrical Properties Optimization of Ba_{0.9}Sr_{0.1}TiO₃ Thin Films Deposited by Sol-Gel	1
D. Fasquelle, M. Mascot and J.C. Carru	
Slowly Relaxing Structural Defects of Zinc Films with Excited States Induced by Ion Recombination Processes	11
M. Obara, M. Hamasaki, K. Obara and H. Manaka	
Al-Si/SiC Metal Matrix Composites Produced by Spontaneous Infiltration	21
A. Zulfia	
Development of Steel Wire Rope – Reinforced Aluminium Composite for Armour Material Using the Squeeze Casting Process	27
D. Rahmalina, B.T. Sofyan, B. Suharno and E.S. Siradj	
Mechanical Properties Evaluation of Woven Coir and Kevlar Reinforced Epoxy Composites	36
R. Azrin Hani Abdul, A. Roslan, M. Jaafar, M.N. Roslan and S. Ariffin	
Electroless Deposition of Metal Oxide on SiC Particles Reinforced for Producing Al-Si /SiC Metal Matrix Composites	43
A. Zulfia, T. Mas'udah and S. Lutfi	
Precipitates in Biomedical Co-Cr-Mo-C-Si-Mn Alloys	51
T. Narushima, Alfirano, S. Mineta, S. Namba, T. Yoneda and K. Ueda	
Development and Characterization of Bovine Hydroxyapatite Porous Bone Graft for Biomedical Applications	59
M.K. Herliansyah, Suyitno, P. Dewo, M.H. Bin Abdul Shukor and A. Ide-Ektessabi	
The Effects of Plates Position in Vertical Casting Producing Thin Wall Ductile Iron	66
B. Suharno, J.W. Soedarsono, T.P. Soemardi and R.D. Sulamet-Ariobimo	
Analytical and Experimental Models of Porosity Formation of Duralumin Cast in Vacuum Casting System	76
W. Suprapto, B. Suharno, J.W. Soedarsono and D. Priadi	
Current-Voltage Characteristics of Side-Gated Silicon Nanowire Transistor Fabricated by AFM Lithography	84
S.D. Hutagalung and K.C. Lew	
Nanocrystallinity Enhancement of TiO₂ Nanotubes by Post-Hydrothermal Treatment	90
A.H. Yuwono, N. Sofyan, I. Kartini, A. Ferdiansyah and T.H. Pujianto	
Local Structure and Magnetic Properties of FeMnAl Nanocrystalline and Amorphous Alloys	100
K. Tarigan, D.S. Yang and S.C. Yu	
Wettability, Electrical and Mechanical Properties of 99.3Sn-0.7Cu/Si₃N₄ Novel Lead-Free Nanocomposite Solder	106
M.A.A. Mohd Salleh, M.H. Hazizi, Z.A. Ahmad, K. Hussin and K.R. Ahmad	
Synthesis and Characterization of Novel Polyurethanes Based on N,N'-1,2-Ethanediylbis-(4-Hydroxy-Pantanamide) and 4-Hydroxy-N-(2-Hydroxyethyl)-Pantanamide	112
M. Chalid	
Determination of Copper Dissolution Activation Energy in Concentrated Hydrogen Peroxide	120
N. Sofyan	
Analysis of the Fe-Ti and Mg-Ti-Fe Alloys Prepared by High Energy Ball Milling and their Hydrogen Capacity	129
H. Suwarno	
Study of the Electrical Conductivity of Oil Palm Fiber Carbon	137
N. Indayaningsih, A. Zulfia, D. Priadi and S. Hendrana	
Neural Networks with Radial Basis Function and NARX Structure for Material Lifetime Assessment Application	143
M.I.P. Hidayat and W. Berata	
Preparation of Porous Ceramic with Controllable Additive and Firing Temperature	151
H. Aripin, L. Lestari, L. Agusu, I.N. Sudiana, N. Jumsiah, I. Rahmatia, B.S. Purwasasmita, L. Nurdwijayanto, S. Mitsudo and S. Sabchevski	