

Volume 23, Number 3, June 2022

## CONTENTS

## Research Articles

<b>Sn-modified <math>\text{LiNi}_{0.9}\text{Co}_{0.05}\text{Mn}_{0.05}\text{O}_2</math> cathode with extraordinary electrochemical performances</b>	<i>Chea-Yun Kang and Seung-Hwan Lee</i>	243
<b>Characterization of SiC powders synthesized from rice husks and fused silica powder by carbothermal reduction reaction</b>	<i>Young-Hoon Yun</i>	247
<b>Structural and electrical properties of potassium tantalate niobate heterolayer thin films prepared by chemical solution deposition method</b>	<i>Byeong-Jun Park, Sam-Haeng Lee, Myung-Gyu Lee, Joo-Seok Park, Byung-Cheul Kim and Sung-Gap Lee</i>	252
<b>A review on the effects of ceramic sand particles on most casting defects</b>	<i>Malek Ali, Abderraouf Gheriss, Anwar H. Al-Assaf and Mohammad Ismail</i>	257
<b>Thermal analysis of functionally graded mullite - <math>\text{La}_2\text{O}_3</math> coated aluminium alloy piston using plasma spraying</b>	<i>B. Shreeram, M. Rajeshwaran, S.M. Jinnah, S. Nandhakumar and T.Ch. Anil Kumar</i>	263
<b>Parametric optimization of wear parameters on wear rate and coefficient of friction for hybrid (<math>\text{A356} + \text{TiB}_2 + \text{ZrO}_2</math>) metal matrix composites</b>	<i>Kanakaraj A, Mohan R and Viswanathan R</i>	268
<b>Optimization of <math>\text{CO}_2</math> laser welding process parameters on cupronickel alloys using multi-objective techniques</b>	<i>S. Karthick, V. Paramasivam, V Mohanavel and K. Arul</i>	278
<b>Phase and electrical properties of <math>\text{Ca}_3\text{Co}_4\text{O}_9</math> ceramic prepared by a citrate sol-gel route</b>	<i>S D Yudanto, S A Chandra, R Roberto, D P Utama, V O Herlina and Lusiana</i>	287
<b>Improvement of bioactivity on zirconia substrate by wollastonite slurry/spin coating</b>	<i>Jaeun Go and Jong Kook Lee</i>	292
<b>Wollastonite spin coating on zirconia substrate by sol-gel method</b>	<i>Hyunjung Park and Jong Kook Lee</i>	298
<b><math>\text{TiO}_2</math> addition into nuclear glass ceramic: Study of the crystalline phases, structure and chemical durability</b>	<i>Rafika Souag, Nour elhayet Kamel, Dalila Moudir, Yasmına Mouheb and Fayrouz Aouchiche</i>	304
<b>Analysis and research hotspots of ceramic materials in textile application</b>	<i>Ruihang Huang and Xiaoming Yang</i>	312
<b>Analysis of morphological and electrical properties of optoelectronic devices with trimethoxy(propyl)silane</b>	<i>Myung-Gyun Baek, Sang-Geon Park, Sang-Seok Yun, Jin-Sa Kim and Hong-Gyu Park</i>	320

<b>Synthesis of <i>in-situ</i> encapsulated ZnS<sub>x</sub>Se<sub>1-x</sub>/ZrSiO<sub>4</sub> composite as cool pigment on ceramic tiles for energy saving</b>	<i>Ti Zhang, Yanmin Wang, Shanjun Ke and Zhidong Pan</i>	326
<b>Optimization of multi passes friction stir process parameters on AA7075 Surface Hybrid Composite with reinforcement of SiC and Gr</b>	<i>Periasamy K, Sivashankar N, Viswanathan R and Balaji J</i>	335
<b>Comparison of microwave and conventional processing stainless steelmaking dust to prepare black ceramic pigments</b>	<i>Zhiqiao Li, Xiang Zhang, Guojun Ma, Rodrigue Armel Muvunyi and Dingli Zheng</i>	344
<b>Optical properties of the Bi<sub>2</sub>O<sub>3</sub> - B<sub>2</sub>O<sub>3</sub> - ZnO glass system combined with TiO<sub>2</sub> or Ag/TiO<sub>2</sub></b>	<i>Kieu Do Trung Kien, Nguyen Vu Uyen Nhi, Huynh Ngoc Minh and Do Quang Minh</i>	350
<b>A comparative study on tribological characteristics of Ti-6Al-4V and Ti-6Al-4V-ELI alloys using hybrid nanoparticles (Al<sub>2</sub>O<sub>3</sub> /MWCNT) cutting fluid</b>	<i>P. Bagyalakshmi, P. Ashoka Varthanan and P. Divyesh Randheer</i>	356
<b>Experimental investigation and optimization for surface roughness for turning of AISI 1040 steel</b>	<i>Seenivasan Murugesan, Venugopal Thangamuthu, Rohokale Milind Shivaji and Suresh Kumar R</i>	367
<b>Modeling and optimization of material removal rate and surface roughness for Al6010 HMMCs on WEDM using Response Surface Methodology</b>	<i>Mukesh Kumar, S.K. Tamang, Dipika Devi, M. Dabi, K. K. Prasad and R. Thirumalai</i>	373
<b>Investigation of mechanical properties and abrasive assisted electrochemical machining parameters on Al6061-10%TiB<sub>2</sub>-3%Gr hybrid ceramic composite</b>	<i>P. Satishkumar and N. Natarajan</i>	383
<b>3D printing for ceramic based PLA composites: Development, security, potential and challenges</b>	<i>G. Moulika and P. Ponnusamy</i>	391
<b>Effect of cryogenic treatment on nitinol alloy reinforced with mwcnt and its effect on high temperature wear analysis</b>	<i>V. Kavitha, R. Soundararajan and V. Senthil</i>	397
<b>Parametric optimization in machining of GFRP composite by taguchi grey relational analysis</b>	<i>Shivaperumal M, Thirumalai R, Kanman S and Yarrapragada K S S Rao</i>	404