

Volume 26, Number 3, June 2025

CONTENTS

Research Articles

Effect of temperature on the electrochemical performance of lithium iron phosphate/carbon cathode materials for lithium-ion batteries	Zhuoer Fu	377
Reactive ultrafast high-temperature sintering of $(\text{La}_{0.2}\text{Gd}_{0.2}\text{Sm}_{0.2}\text{Eu}_{0.2}\text{M}_{0.2})_2\text{Zr}_2\text{O}_7$ ($M=\text{Y}$ or Yb) high-entropy ceramics	Jiahang Liu, Zhe Lu, Yeon-Gil Jung, Yan Li, Yanwen Zhou, Hao Chen, Jeong-Hun Son, Heekyu Choi and Jun-Seob Lee	386
Effect of lithium slag on the performance of cement mortar	Yuhan Tang, Youshuai Zhao, Xuetao Yue, Xuelei An, Xiaopeng Shang and Chonghao Liu	397
Research review of water-based epoxy resin modified cement based materials	Guohai Feng, Kai Li, Jie Zhang and Shuai Liu	406
Evaluation of mechanical and tribological properties of silicon nitride and titanium dioxide reinforced functionally graded aluminium metal matrix composites	Vadivel Muthusamy and T. Ramesh Kumar	418
Calcium phosphate porous bioceramics prepared by direct foaming	Kamrun Nahar Fatema, Md Rokon Ud Dowla Biswas, Kee Sung Lee and Ik Jin Kim	432
Microbial community dynamics and biogas optimization in full-scale anaerobic digesters across South Korea	Okkyoung Choi, Darsha Prabhakaran, Hyojeong Song, HyunJin Kim, Hyunook Kim, Jung Han Park, Amith Abraham and Byoung-In Sang	440
Effect of composite pore-forming agent on the performance of fly ash ceramic membrane support	Wenhao Shi, Yani Guo, Weixing Chen, Xiaoyu Yang, Yuhong Zhou and Zhigang Wang	450
Comparative study on composition and firing atmosphere of hare's fur glaze and oil spot glaze from Jian Kiln in Song Dynasty (960-1279 A.D.)	Caishui Jiang, Junming Wu, Huan Yu, Ting Luo, Zhen Yao, Fen Jiang and Xiaoxin Qiu	463
Preload effects in high-speed motorized spindles with full-ceramic bearings: dynamic and thermal analysis	Songhua Li, Jining Zhao, Yonghua Wang, Gefei Lin, Chao Wei, Zhongxian Xia, Chunni Jia and Tao Jing	472
Next-generation circular waste biorefineries based on biogas utilization using renewable energy: Process composition and economic analysis	Okkyoung Choi, Amith Abraham, Seongcheol Kang, Saehee Lee, Jung Han Park and Byoung-In Sang	483

Comparative study of incoloy 825 mechanical properties and microstructure via FSW with and without carbon nanotubes	<i>Varalakshmi Penugonda, Murali Govindarajan and Vijaya Kumar Bongarala</i>	492
Agrey fuzzy approach based machining process parameters optimization for Al 6063 alloy	<i>P. Saravana Kumar, Sujit Kumar, S. Pradeep, Tushar Yashawant Badgujar, B. Krishnaveni, G. Mahendran, Dhivakar Poosapadi, M. Premalatha, G.S.V. Seshu Kumar and K.K. Arun</i>	502
High surge energy capability and deterioration stability in ZnO varistors: role of sintering and post-heat-treatment conditions	<i>Yu-min Kim, Sung-man Kang, Sunshin Jung, Kyoung-joo Lee, Ji-hye Kwak and Seung-kyu Choi</i>	507
Optimization of process parameters in underwater friction stir welding of AA8011-SiC composites using MCDM techniques	<i>V. Vimala, B. Ashok Kumar, N. Viswanathan and S. Mayakannan</i>	512
Effects of Samarium and Yttrium doping on the structural and electrical properties of perovskite materials for SOFC applications	<i>Huijuan Mu and Xiaoqing Qiu</i>	526