

TRANSPORT PHENOMENA

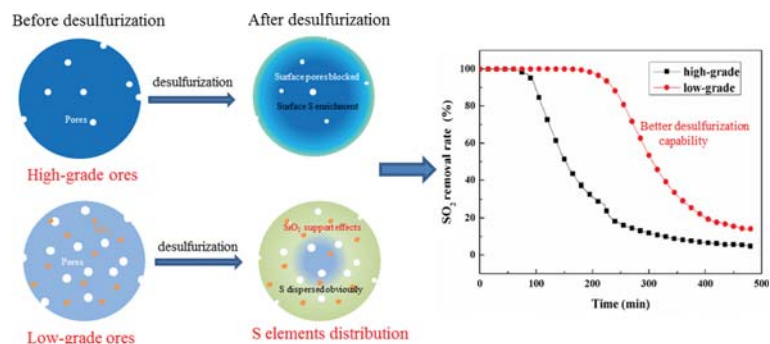
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| Yahaya Shagaiya Daniel,
Zainal Abdul Aziz, Zuhaila Ismail,
Arifah Bahar, and Faisal Salah | 1021 | Stratified electromagnetohydrodynamic flow of nanofluid supporting convective role |
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CATALYSIS, REACTION ENGINEERING

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|---|------|--|
| Reza Arvaneh, Amir Azizzadeh Fard,
Amin Bazaryari, Seyed Mehdi Alavi,
and Farzad Jokar Abnavi | 1033 | Effects of Ce, La, Cu, and Fe promoters on Ni/MgAl₂O₄ catalysts in steam reforming of propane |
| Shuai Wang, Li Lyu, Guobao Sima,
Ying Cui, Baoxia Li, Xueqin Zhang,
and Linhuo Gan | 1042 | Optimization of fructose dehydration to 5-hydroxymethylfurfural catalyzed by SO₃H-bearing lignin-derived ordered mesoporous carbon |
| Ye-Seul Jeong, Sang Hee An,
and Chae-Ho Shin | 1051 | Selective synthesis of acetonitrile by reaction of ethanol with ammonia over Ni/Al₂O₃ catalyst |

ENVIRONMENTAL ENGINEERING

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| Taye Saheed Kazeem,
Mukarram Zubair, Muhammad Daud,
Nuhu Dalhat Mu'azu,
and Mamdouh Ahmed Al-Harhi | 1057 | Graphene/ternary layered double hydroxide composites: Efficient removal of anionic dye from aqueous phase |
| Norasikin Saman, Helen Kong,
Safia Syazana Mohtar,
Khairiraihanna Johari,
Azmi Fadziyana Mansor, Onn Hassan,
Noorhalieza Ali, and Hanapi Mat | 1069 | A comparative study on dynamic Hg(II) and MeHg(II) removal by functionalized agrowaste adsorbent: breakthrough analysis and adsorber design |
| Yongxiang Chen, Yunjiao LI,
Xinlong Cao, Jianguo Li, Sanchuan Tang,
Wanqi Ye, and Xianzhen Zhang | 1082 | Mechanisms of dry flue-gas desulfurization using natural manganese oxide ores |



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| Anoar Ali Khan, Gopinath Halder,
and Asit Kumar Saha | 1090 | Kinetic effect and absorption performance of piperazine activator into aqueous solutions of 2-amino-2-methyl-1-propanol through post-combustion CO₂ capture |
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SEPARATION TECHNOLOGY, THERMODYNAMICS

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|--|------|--|
| Xiaoyu Lin, Leli Wang, Shi Jiang,
Longzhe Cui, and Guiping Wu | 1102 | Iron-doped chitosan microsphere for As(III) adsorption in aqueous solution: Kinetic, isotherm and thermodynamic studies |
| Samane Karimidost, Elham Moniri,
and Mahsasadat Miralinaghi | 1115 | Thermodynamic and kinetic studies sorption of 5-fluorouracil onto single walled carbon nanotubes modified by chitosan |

- Elfira Anuar, Syed Mohd Saufi, and Hafizuddin Wan Yussof 1124 **Effects of air gap on membrane substrate properties and membrane performance for biomass processing**
- Jie Wen, Dongdong Zhao, Yingying Lu, Jing Huang, Yanping Li, Hui Zhang, and Airong Li 1131 **Simultaneous desulfurization and denitrogenation of model fuels by polyethylene glycol-modified resorcinol/formaldehyde resin-derived carbon spheres**
- Jun Feng Su, Shu Yang, Ting Lin Huang, Xue Chen Bai, Jin Suo Lu, Lei He, and Min Li 1140 **Mechanism of the simultaneous removal of nitrate and Ni(II) by *Enterobacter* sp. CC76 through mixotrophic denitrification processes**
- Zeenat Arif, Naresh Kumar Sethy, Lata Kumari, Pradeep Kumar Mishra, and Bhawna Verma 1148 **Green synthesis of TiO₂ nanoparticles using *Cajanus cajan* extract and their use in controlling the fouling of ultrafiltration PVDF membranes**

MATERIALS (Organic, Inorganic, Electronic, Thin Films)

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- Jae-Yup Kim, Keun-Young Shin, Muhammad Hamid Raza, Nicola Pinna, and Yung-Eun Sung 1157 **Vertically aligned TiO₂/ZnO nanotube arrays prepared by atomic layer deposition for photovoltaic applications**
- Sungil Hong and Hyo Kim 1164 **Robust synthesis of coal bottom ash-based geopolymers using additional microwave heating and curing for high compressive strength properties**
- Xue Wang, Joong Hyun Kim, Yong Bong Choi, Hyug-Han Kim, and Chang-Joon Kim 1172 **Fabrication of optimally configured layers of SWCNTs, gold nanoparticles, and glucose oxidase on ITO electrodes for high-power enzymatic biofuel cells**
- Sibel Yazar, Ebru Kurtulbaş, Sinem Ortatoy, Gülten Atun, and Selin Şahin 1184 **Screening of the antioxidant properties of olive (*Olea europaea*) leaf extract by titanium based reduced graphene oxide electrode**
- Toha Thi Kim Huynh, Thao Quynh Ngan Tran, Hyon Hee Yoon, Woo-Jae Kim, and Il Tae Kim 1193 **AgNi@ZnO nanorods grown on graphene as an anodic catalyst for direct glucose fuel cells**
- Min Kwang Kim, Seo-Hyun Pak, Min Chang Shin, Chan-gyu Park, Edoardo Magnone, and Jung Hoon Park 1201 **Development of an advanced hybrid process coupling TiO₂ photocatalysis and zeolite-based adsorption for water and wastewater treatment**