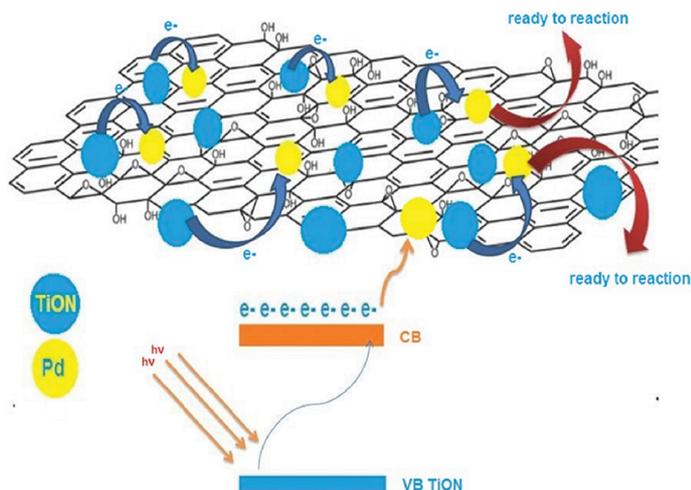


INVITED REVIEW PAPER

- Mazhar Ul-Islam, Muhammad Wajid Ullah, Shaukat Khan, and Joong Kon Park 925 **Production of bacterial cellulose from alternative cheap and waste resources: A step for cost reduction with positive environmental aspects**

CATALYSIS, REACTION ENGINEERING

- Yeonsun Sohn, Dong-gun Kim, Ji Ho Lee, Sujin Lee, In Seon Hwang, Soo-Hyoung Lee, Sung Jong Yoo, and Pil Kim 938 **Defect-controlled Fe-N-doped carbon nanofiber by ball-milling for oxygen reduction reaction**
- Hossein Mahdavi, Mahdi Rezaei, Leila Ahmadian-Alam, and Mostafa Mohammadpour Amini 946 **A novel ternary Pd-GO/N-doped TiO₂ hierarchical visible-light sensitive photocatalyst for nanocomposite membrane**



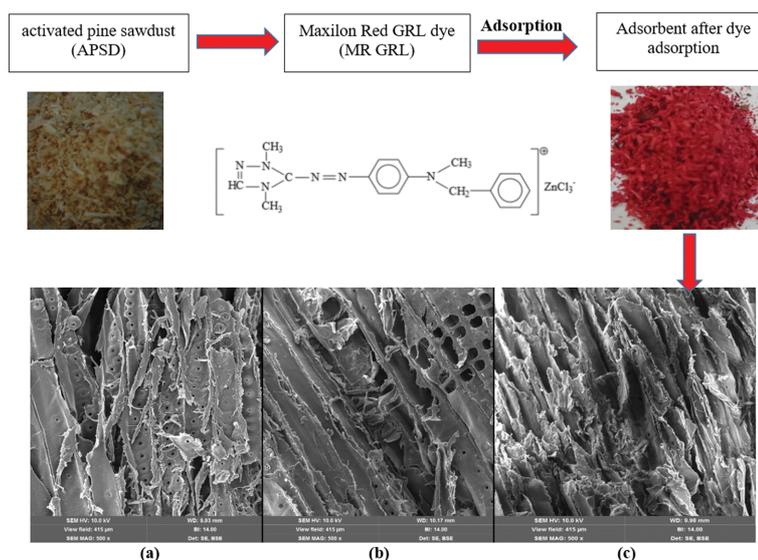
A series of PVDF-based photocatalytic nanocomposite membranes filled with Pd-GO/TiON as a visible light sensitive photocatalyst were fabricated. Evaluating the yield of Pd-GO/TiON photocatalysts is obtained around 99% and 70% for heterogeneous system and the prepared PhNM containing 3% Pd-GO/TiON, respectively.

- Tianlin Ma, Jianfei Ding, Xueli Liu, Gangling Chen, and Jiandong Zheng 955 **Gas-phase dehydration of glycerol to acrolein over different metal phosphate catalysts**
- Ping Dai, Xiaowei Sun, Dongyan Xu, and Feng Tan 961 **Kinetics and mechanism study of H-acid degradation by peroxymonosulfate activation with Co₃O₄-Fe₂O₃/Al₂O₃**

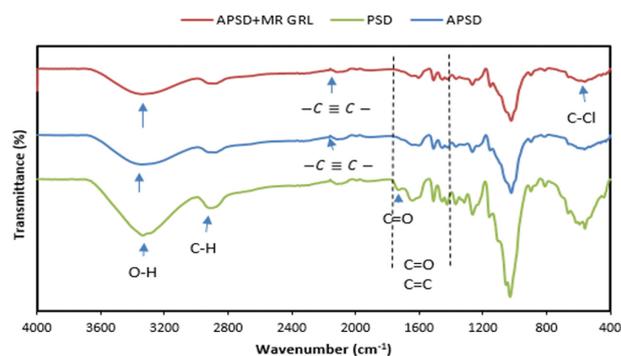
ENVIRONMENTAL ENGINEERING

- Reza Ali Fallahzadeh, Mohammad Hassan Ehrampoush, Mohsen Nabi Meybodi, Mohammad Taghi Ghaneian, Arash Dalvand, Fariborz Omid, Mohammad Hossein Salmani, Hossien Fallahzadeh, and Amir Hossein Mahvi 969 **Application of photoelectro-fenton process modified with porous cathode electrode in removing resistant organic compounds from aquatic solutions: modeling, toxicity and kinetics**
- Yanxin Wei, Aimin Ding, Fabao Luo, Na Li, and Chengli Yao 978 **Comparison of polysilicic acid (PSiA) and magnesium sulfate modified polysilicic acid (PMSiS) for effective removal of Congo red from simulated wastewater**

985 **Highly efficient removal from aqueous solution by adsorption of Maxilon Red GRL dye using activated pine sawdust**



SEM images of adsorbents (a) PSD (b) APSD before MR GRL adsorption (c) APSD after MR GRL adsorption.



FTIR spectra of PSD, APSD and APSD+MR GRL.

BIOTECHNOLOGY

- | | | |
|--|------|--|
| Thi Hoa Le, Dal Ho Lee,
Ji Hyeon Kim, and Sang Joon Park | 1000 | Synthesis of enhanced fluorescent graphene quantum dots for catecholamine neurotransmitter sensing |
| Samy M. Shaban and Dong-Hwan Kim | 1008 | The influence of the Gemini surfactants hydrocarbon tail on in-situ synthesis of silver nanoparticles: Characterization, surface studies and biological performance |
| Hongjie Bian, Gaoyang Wang,
Mengfei Cao, Ziyuan Wang,
and Jiandong Cui | 1020 | Improved biodegradation of polyvinyl alcohol by hybrid nanoflowers of degrading enzymes from <i>Bacillus niacini</i> |

SEPARATION TECHNOLOGY, THERMODYNAMICS

- | | | |
|---|------|---|
| Ji Hye Park, Haroon Ur Rasheed,
Kwang Hee Cho, Hyung Chul Yoon,
and Kwang Bok Yi | 1029 | Effects of magnesium loading on ammonia capacity and thermal stability of activated carbons |
| Hong Joo Lee, Min Kwang Kim,
Seung Hwan Lee, and Jung Hoon Park | 1036 | CH₄/CO₂ separation from biogas stream using porous hydrophobic ceramic hollow fiber membrane contactors |
| Tentu Nageswara Rao, Sanjit Gaikwad,
Tentu Manohra Naidu, and Sangil Han | 1042 | Extraction and determination of pesticide residues in water using carbon nanotubes coupled with gas chromatography-mass spectroscopy |
| Gi Hyeon Moon, Sungjin Park,
Seul Chan Park, Byung Su Kim,
Jaeyoung Jang, and Yong Soo Kang | 1050 | Intrinsically microporous oligomers as organic porogens for mixed-matrix membranes |

Seoin Hwang, Jae-Ryoung Song, 1057 **Enhanced separation performance of three-zone simulated moving bed chromatography with ModiCon strategy**
Ngoc Lan Mai, and Yoon-Mo Koo

MATERIALS (Organic, Inorganic, Electronic, Thin Films)

- Dong-seob Jeong, 1066 **Investigation on the performance of SnS solar cells grown by sputtering and effusion cell evaporation**
Vasudeva Reddy Minnam Reddy,
Mohan Reddy Pallavolu, Haeyun Cho,
and Chinho Park
- Young-Sang Cho, Hyeong Jin Lee, 1071 **Photocatalytic degradation of methylene blue using three-dimensional porous graphene-titania microparticles under UV light**
and Sohyeon Sung
- Jin-Seok Kim and Ho Young Jo 1086 **Formation of calcium carbonates from Ca(OH)₂-H₂O-supercritical CO₂ using a rapid spraying method**
- Huiyuan Guan, Jundong Wang, 1097 **A facile method to synthesize magnetic nanoparticles chelated with Copper(II) for selective adsorption of bovine hemoglobin**
Siyuan Tan, Qiang Han,
Qionglian Liang, and Mingyu Ding