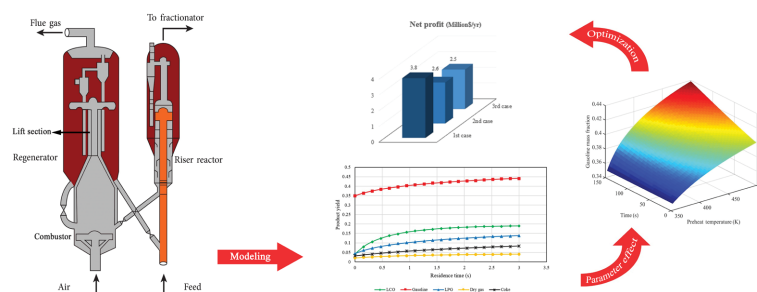


REVIEW PAPER

- Haozhou Liu, Jingxu Yang, 1659 **A non-aqueous phase extraction system using tributyl phosphate for H_3PO_4 separation from wet-process superphosphoric acid: Extraction equilibrium and mechanism**
Xiuying Yang, Chao Hu, and Lin Yang

PROCESS SYSTEMS ENGINEERING, PROCESS SAFETY

- Khashayar Yaghoubi, Neda Gilani, 1673 **Study of gradual and sudden operating condition variations to optimize energy and mass consumption of an industrial fluidized catalytic cracking (FCC) unit with a high-efficiency regenerator**
Sorood Zahedi Abghari, Farangis Fallah Mehneh, and Mohammad Eisazadeh



- Behrad Haghghi, Amin Saleh, 1688 **A combined cycle power plant integrated with a desalination system: Energy, exergy, economic and environmental (4E) analysis and multi-objective optimization**
Hassan Hajabdollahi, and Mohammad Shafiey Dehaj

- Jae Hun Jeong, Seungwoo Kim, 1709 **Multi-objective optimization of a methanol synthesis process: CO_2 emission vs. economics**
Myung-June Park, and Won Bo Lee

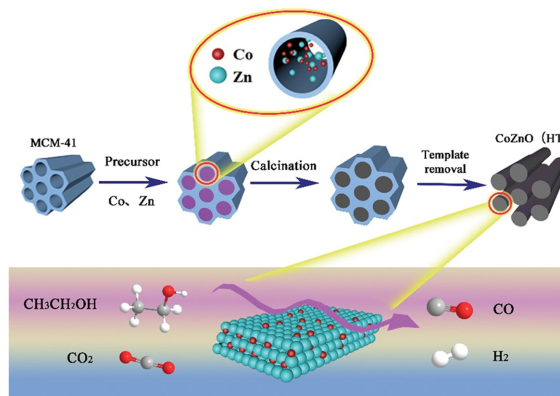
TRANSPORT PHENOMENA

- Shuangcheng Fu, Gang Cao, 1717 **Numerical study of fly ash deposition process in low temperature economizer under SCR conditions**
Guofu Ou, Faqi Zhou, and Luyu Li

- Guanfeng Zheng, Qingtai Xiao, 1729 **Analysis of heat transfer performance of ORC direct contact heat exchanger by GRA-VMD-LSSVM model using optimization**
Shusheng Zhu, Hua Wang, Jian Geng, Shuang Zhao, and Junwei Huang

CATALYSIS, REACTION ENGINEERING

- Feifei Li, Jiale Dong, Mingyue Wang, 1744 **Ethanol dry reforming over ordered mesoporous Co-Zn composite oxide for syngas production**
Xingtao Lin, Weijie Cai, and Xianyun Liu



Zuojun Wei, Yuran Cheng, Mengting Chen, Yuhua Ye, and Yingxin Liu 1753 **Design of low-loaded NiRe bimetallic catalyst on N-doped mesoporous carbon for highly selective deoxygenation of oleic acid to n-heptadecane**

Hyeok Jae Yoo and Young Soo Ko 1762 **Effect of the physicochemical properties of SiO₂ on performance of supported metallocene catalyst**

Junyu Zhang, Fulong Zhu, Ying Zhang, Mingyuan Zhu, Hongling Li, and Bin Dai 1768 **Chitosan-based porous carbon as a support for Zn-based catalysts in acetylene acetoxylation**

ENERGY

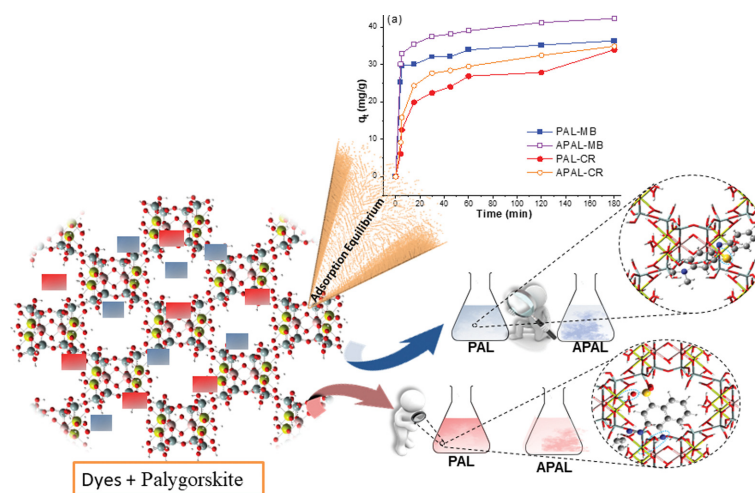
Yuhui Ma 1775 **Carbon aerogel from waste corrugated cardboard: Facile preparation, characterization, and application to solar steam generation and adsorption**

Weilin Weng, Jianhong Chen, Qingcui Liu, Feng Yu, Jianning Wu, Zhiyong Liu, and Banghua Peng 1788 **One-step synthesis of Ni₃N@C hybrid and its catalytic activity for overall water splitting**

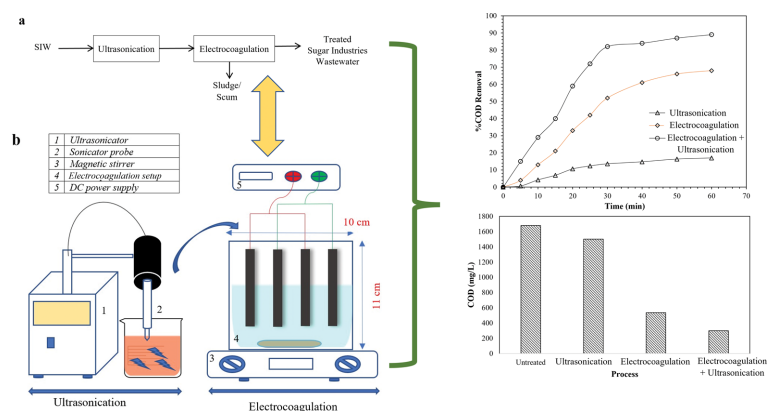
Gwang Seon Park, Su In Mo, Jun Ho Kim, and Jeong Woo Yun 1796 **Characteristics of Li₂CO₃ as sintering aid for Ce_{0.8}Sm_{0.2}O_{2-δ} electrolyte in solid oxide fuel cells**

ENVIRONMENTAL ENGINEERING

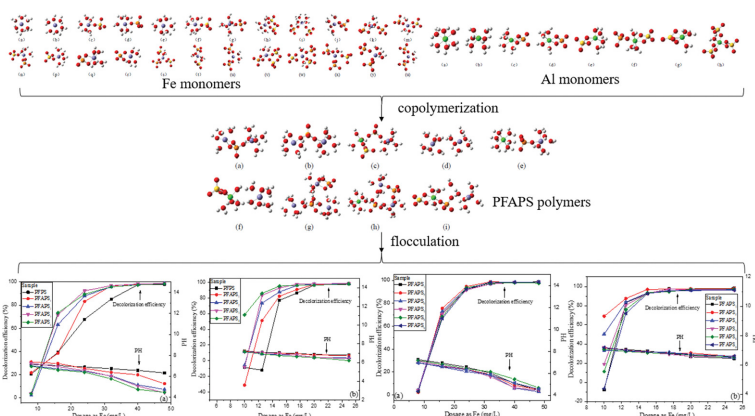
Anne Beatriz Figueira Câmara, Rafael Viana Sales, Carlos Vital dos Santos Júnior, Miguel Angelo Fonseca de Souza, Clenildo de Longe, Thiago Medeiros Chianca, Rosangela Dala Possa, Luiz Carlos Bertolino, and Luciene Santos de Carvalho 1805 **Eco-friendly adsorption of dye pollutants by palygorskite in aqueous effluents: Experimental and computational studies**



Ratnesh Kumar Patel, Ravi Shankar, Prateek Khare, and Prasenjit Mondal 1821 **Ultrasonication coupled electrochemical treatment of sugar industry wastewater: Optimization, and economic evaluation**



Shaopu Li and Yong Kang 1831 **Polymerization mechanism of polyferric aluminum phosphatic sulfate (PFAPS) and its flocculation effect on simulated dye wastewater**



Xiaoting Zhang, Shusheng Zhang, Gangfeng Ouyang, and Rungping Han 1839 **Removal of Cr(VI) from solution using UiO-66-NH₂ prepared in a green way**

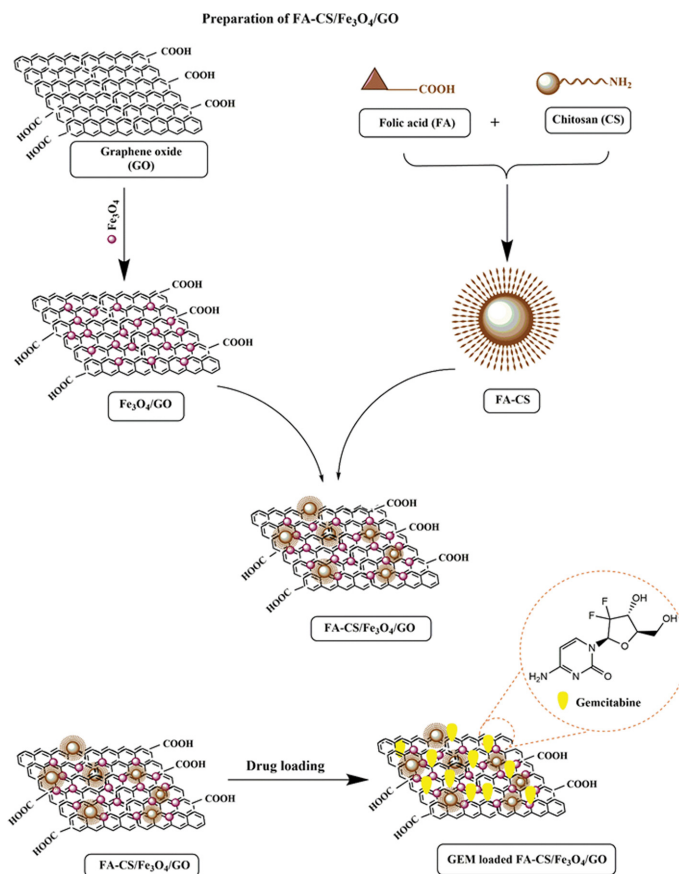
Qunshan Wei, Yanxia Zhang, Kai Zhang, Josphat Igadwa Mwasiagi, Xiaoxiang Zhao, Christopher W. K. Chow, and Rui Tang 1850 **Removal of direct dyes by coagulation: Adaptability and mechanism related to the molecular structure**

Seo-Hyun Pak, Jung Hoon Park, and Chan-gyu Park 1863 **Preparation of polydopamine-coated TiO₂ composites for photocatalytic removal of gaseous ammonia under 405 nm violet-blue light**

Yue Hu, Meiting Zhi, Shilin Chen, Wenguan Lu, Yinlong Lai, and Xiaobing Wang 1872 **Efficient removal of Cr(VI) by spent coffee grounds: Molecular adsorption and reduction mechanism**

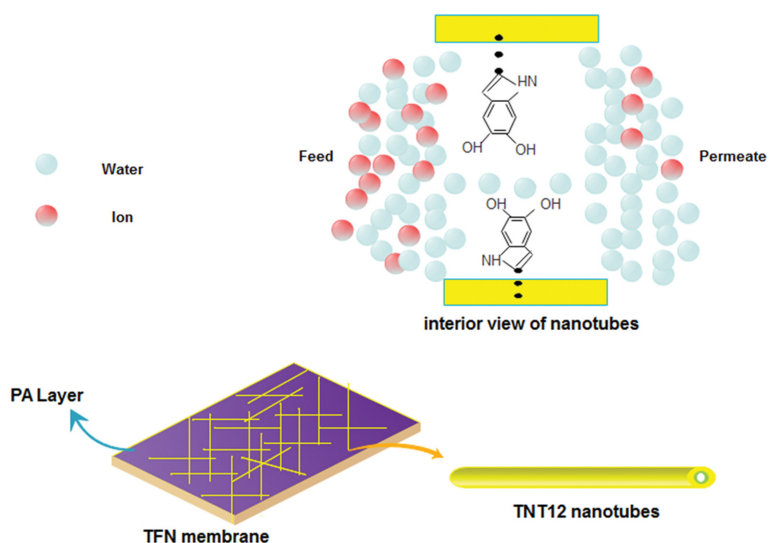
BIOTECHNOLOGY

Arsalan Ashuri, Mahasadat Miralinaghi, and Elham moniri 1880 **Evaluation of folic acid-conjugated chitosan grafted Fe₃O₄/graphene oxide as a pH- and magnetic field-responsive system for adsorption and controlled release of gemcitabine**



SEPARATION TECHNOLOGY, THERMODYNAMICS

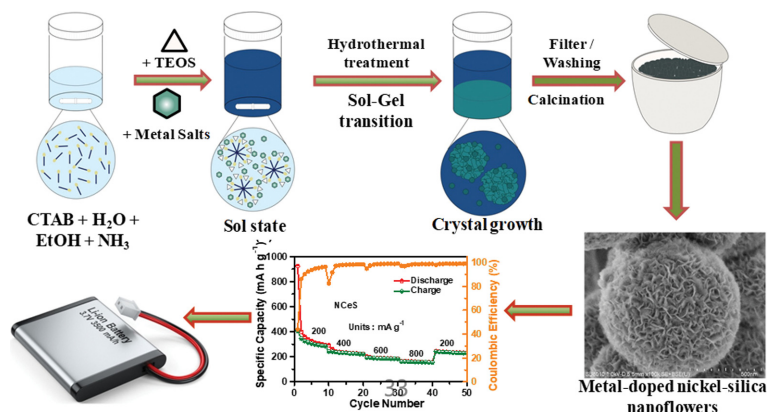
- Shuai Yuan, Ruofeng Wang, Qi Zhang, Yanjun Li, and Peng Gao 1891 **Extraction and phase transformation of iron in fine-grained complex hematite ore by suspension magnetizing roasting and magnetic separation**
- Zeynab Fallahnejad, Gholamreza Bakeri, and Ahmad Fauzi Ismail 1902 **Performance of TFN nanofiltration membranes through embedding internally modified titanate nanotubes**



- Iryanti Fatyasari Nata, Doni Rahmat Wicakso, Agus Mirwan, Chairul Irawan, Rinna Juwita, Niken Angraini Astuti, and Rizka Tiara An-Nisa 1919 **High potential of amine rice husk magnetic biocomposites for Cu(II) ion adsorption and heterogeneous degradation of contaminants in aqueous solution**
- Liyang Liu, Jiale You, Haonan Zhu, and Wei Tan 1927 **Indicator of percolation transition in graphite oxide suspension containing cations**
- Hui Niu, Yuyu Feng, Jie Ding, Wei Zhang, Chenxing Hu, Qingxiang Zhang, Chen Zhang, and Cuiqing Li 1936 **Deep dechlorination of hydrocarbon oil by reactive adsorption on TiO₂-based metal oxides**

MATERIALS (Organic, Inorganic, Electronic, Thin Films)

- Salih Çölmekçi, Ali Karpuz, and Hakan Köçkar 1946 **Magnetic properties affected by structural properties of sputtered Ni/Cu multi-layer films with different thicknesses of Ni layers**
- Shan-Shan Yao, Ming-Zhan Gao, Zhao-Yang Feng, Fan-Long Jin, and Soo-Jin Park 1952 **Thermal and mechanical properties of poly(lactic acid) reinforced with silanized basalt scales**
- Nabanita Pal, Jae Won Jo, Daulatabad Narsimulu, Eun-Bum Cho, and Jae Su Yu 1959 **Hierarchical multi-metal-doped mesoporous NiO-silica nanoparticles towards a viable platform for Li-ion battery electrode application**



- Wei Dong, Miao Zhao, Fan-Long Jin, and Soo-Jin Park 1968 **Enhanced electrical conductivity and electromagnetic shielding efficiency of epoxy resin using graphene nanoplatelets**