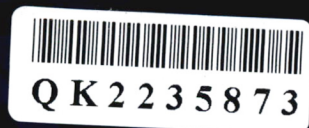




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REVIEW ARTICLE

- 1165** A review on the application of nanofluids in enhanced oil recovery

Jinjian Hou, Jinze Du, Hong Sui, Lingyu Sun

RESEARCH ARTICLE

- 1198** Sulfonic acid-functionalized mesoporous silica catalyst with different morphology for biodiesel production

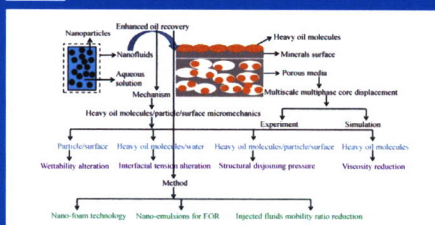
Vinayak Hegde, Parimal Pandit,
Pranita Rananaware, Varsha P. Brahmkhatri

- 1211** Ultrasound-assisted co-precipitation synthesis of mesoporous $\text{Co}_3\text{O}_4\text{-CeO}_2$ composite oxides for highly selective catalytic oxidation of cyclohexane
- Shangjun Fu, Kuyi You, Zhenpan Chen, Taobo Liu,
Qiong Wang, Fangfang Zhao, Qihong Ai,
Pingle Liu, He'an Luo

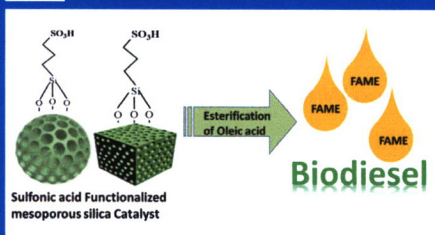
- 1224** The modification of titanium in mesoporous silica for Co-based Fischer–Tropsch catalysts
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- 1237** Preparation and properties of a silver particle-coated and 1-dodecanethiol-modified superhydrophobic melamine sponge for oil/water separation
- Xiaofei Sun, Shijie Feng, Zhe Zhang, Pengyu Zhang,
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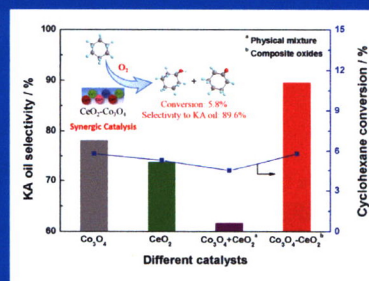
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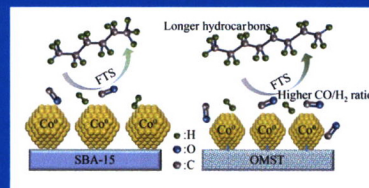
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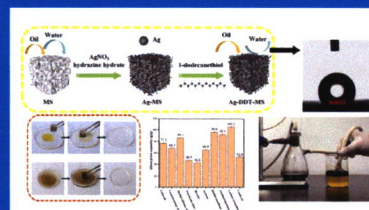
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1247 Facile generation of highly durable thiol-functionalized polyhedral oligomeric silsesquioxane based superhydrophobic melamine foam

Meng Li, Yuanfeng Fang, Chun Liu, Mengmeng Zhou, Xiaomei Miao, Yongbing Pei, Yue Yan, Wenjun Xiao, Huayu Qiu, Lianbin Wu

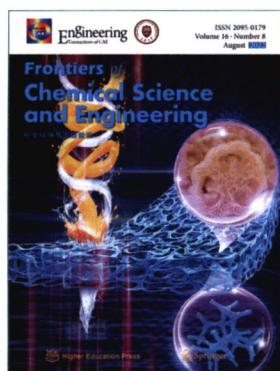
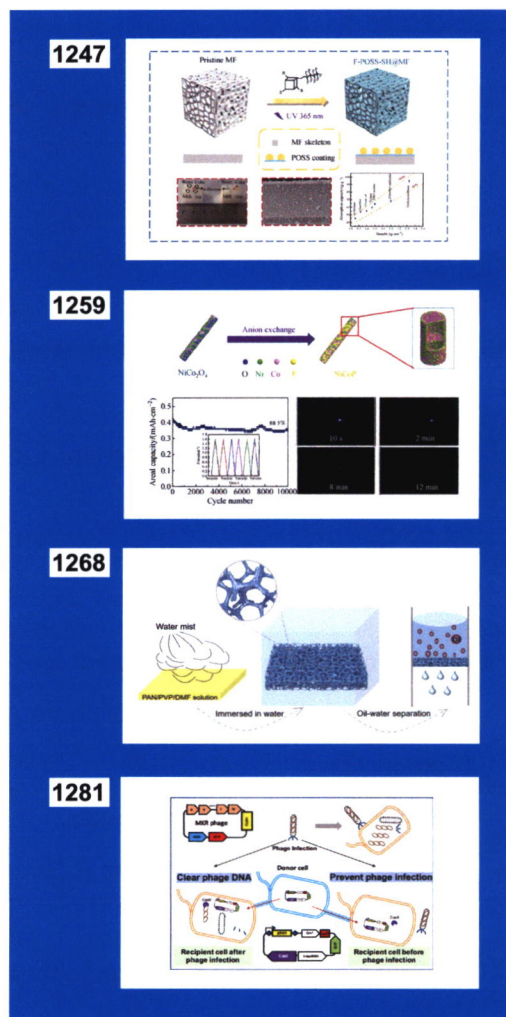
1259 Engineering the grain boundary: a promising strategy to configure NiCoP₄O₁₂/NiCoP nanowire arrays for ultra-stable supercapacitor

Mengqi Cui, Zining Wang, Yuanye Jiang, Hui Wang

1268 Bicontinuous porous membranes with micro-nano composite structure using a facile atomization-assisted nonsolvent induced phase separation method

Jing Wang, Guoyuan Pan, Yu Li, Yang Zhang, Hongwei Shi, Xuanbo Liu, Hao Yu, Muhua Zhao, Yiqun Liu, Changjiang Wu

1281 Mobile CRISPR-Cas9 based anti-phage system in *E. coli*
Zhou Cao, Yuxin Ma, Bin Jia, Ying-Jin Yuan



COVER

The micro-nano composite structure can endow separation membranes with special surface properties. Herein, a novel and simple atomization-assisted nonsolvent induced phase separation method has been developed. By using this method, a bicontinuous porous microfiltration membrane with robust micro-nano composite structure was obtained via commercially available polymers of polyacrylonitrile and polyvinylpyrrolidone. The membrane exhibits superhydrophilicity in air and superoleophobicity underwater. The membrane can separate both surfactant-free and surfactant-stabilized oil-in-water emulsions with high separation efficiency and permeation flux. With excellent antifouling property and robust microstructure, the membrane can be easily recycled for long-term separation. The simple, efficient, cost-effective preparation method and excellent membrane properties indicate the great potential of the developed membranes in practical applications. (Jing Wang, Guoyuan Pan, Yu Li, Yang Zhang, Hongwei Shi, Xuanbo Liu, Hao Yu, Muhua Zhao, Yiqun Liu, Changjiang Wu, pp. 1268–1280)

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