

PRESS RELEASE

September 15, 2020

The winner of “Top Papers Award” in 2020

The annual Top Papers Award has been established since 2015 by the editorial board of *Nano Research* and the Tsinghua University Press (TUP). This award is open to any scientists worldwide who have published papers in *Nano Research* during the two preceding years. After the JCR is released in each year, the winner will be determined by the Award Committee (Editors-in-Chief, Associate Editors, representatives from TUP) according to the citation in the latest year and the contribution of the papers.

The awardees will receive a prize of RMB ¥10,000 and a certificate. The winner's name and work will be featured in *Nano Research* and other media.

We are pleased to announce that the sixth Top Papers Awards are presented to the following papers.

Top Papers

Confinedly implanted NiFe₂O₄-rGO: Cluster tailoring and highly tunable electromagnetic properties for selective-frequency microwave absorption. Zhang, Yanlan; Wang, Xixi; Cao, Maosheng*. 2018(3): 1426-1436.

Metal organic frameworks derived single atom catalysts for electrocatalytic energy conversion. Sun, Tingting; Xu, Lianbin; Wang, Dingsheng*; Li, Yadong. 2019(9): 2067-2080.

Review of MXenes as new nanomaterials for energy storage/delivery and selected environmental applications. Jun, Byung-Moon; Kim, Sewoon; Heo, Jiyong; Park, Chang Min; Her, Namguk; Jang, Min; Huang, Yi; Han, Jonghun*; Yoon, Yeomin*. 2019(3): 471-487.

Application of yolk-shell Fe₃O₄@N-doped carbon nanochains as highly effective microwave-absorption material. Qiao, Mingtao; Lei, Xingfeng; Ma, Yong; Tian, Lidong; He, Xiaowei; Su, Kehe; Zhang, Qiuyu*. 2018(3): 1500-1519.

Template-free large-scale synthesis of g-C₃N₄ microtubes for enhanced visible light-driven photocatalytic H₂ production. Zhou, Chao; Shi, Run; Shang, Lu; Wu, Li-Zhu; Tung, Chen-Ho; Zhang, Tierui*. 2018(6): 3462-3468.

Fast formation of single-unit-cell-thick and defect-rich layered double hydroxide nanosheets with highly enhanced oxygen evolution reaction for water splitting. Gao, Rui; Yan, Dongpeng*. 2018(4): 1883-1894.

Modulating the local coordination environment of single-atom catalysts for enhanced catalytic performance. Li, Xinyuan; Rong, Hongpan*; Zhang, Jiatao; Wang, Dingsheng*; Li, Yadong. 2020(7): 1842-1855.

Aqueous electrocatalytic N₂ reduction under ambient conditions. Cao, Na; Zheng, Gengfeng*. 2018(6): 2992-3008.

Electrosprayed porous Fe₃O₄/carbon microspheres as anode materials for high-performance lithium-ion batteries. Han, Wenjie; Qin, Xianying*; Wu, Junxiong; Li, Qing; Liu, Ming; Xia, Yue; Du, Hongda; Li, Baohua*; Kang, Feiyu. 2018(2): 892-904.

Photocatalysts for degradation of dyes in industrial effluents: Opportunities and challenges. Anwer, Hassan; Mahmood, Asad; Lee, Jechan; Kim, Ki-Hyun*; Park, Jae-Woo*; Yip, Alex C. K. 2019(5): 955-972.

CVD growth of fingerprint-like patterned 3D graphene film for an ultrasensitive pressure sensor. Xia, Kailun; Wang, Chunya; Jian, Muqiang; Wang, Qi; Zhang, Yingying*. 2018(2): 1124-1134.

Wafer-scale synthesis of monolayer WS₂ for high-performance flexible photodetectors by enhanced chemical vapor deposition. Lan, Changyong; Zhou, Ziyao; Zhou, Zhifei; Li, Chun; Shu, Lei; Shen, Lifan; Li, Dapan; Dong, Ruoting; Yip, SenPo; Ho, Johnny C.*. 2018(6): 3371-3384.

Yolk-shell structured Co-C/Void/Co₉S₈ composites with a tunable cavity for ultrabroadband and efficient low-frequency microwave absorption. Liu, Xiaofang*; Hao, Chengcheng; He, Lihua; Yang, Cheng; Chen, Yubin; Jiang, Chengbao; Yu, Ronghai. 2018(8): 4169-4182.

Nickel cobalt phosphide with three-dimensional nanostructure as a highly efficient electrocatalyst for hydrogen evolution reaction in both acidic and alkaline electrolytes. Ma, Bo; Yang, Zhengchun; Chen, Yantao*; Yuan, Zhihao*. 2019(2): 375-380.

Review on photocatalytic and electrocatalytic artificial nitrogen fixation for ammonia synthesis at mild conditions: Advances, challenges and perspectives. Xue, Xiaolan; Chen, Renpeng; Yan, Changzeng; Zhao, Peiyang; Hu, Yi; Zhang, Wenjun; Yang, Songyuan; Jin, Zhong*. 2019(6): 1229-1249.

Coordination-responsive drug release inside gold nanorod@metal-organic framework core-shell nanostructures for near-infrared-induced synergistic chemo-photothermal therapy. Li, Yantao; Jin, Jun; Wang, Dawei; Lv, Jiawei; Hou, Ke; Liu, Yaling*; Chen, Chunying*; Tang, Zhiyong*. 2018(6): 3294-3305.

Hierarchical coral-like NiMoS nanohybrids as highly efficient bifunctional electrocatalysts for overall urea electrolysis. Wang, Xiaoxia; Wang, Jianmei; Sun, Xuping*; Wei, Shuang; Cui, Liang; Yang, Wenrong; Liu, Jingquan*. 2018(2): 988-996.
