

Environmental Science Nano

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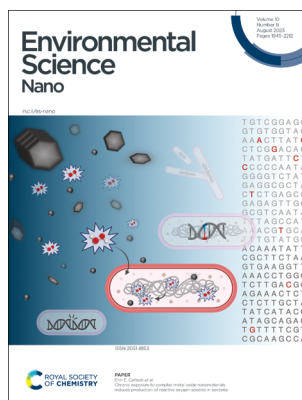
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Cover

See Zhenggao Xiao *et al.*, pp. 1966–1977.
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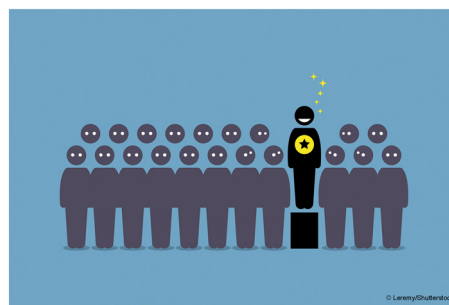
Inside cover

See Erin E. Carlson *et al.*, pp. 1978–1992.
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EDITORIAL

1954

Outstanding Reviewers for *Environmental Science: Nano* in 2022

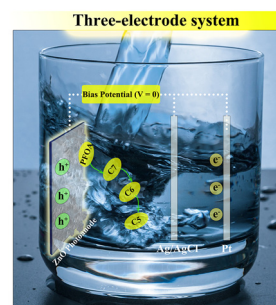


COMMUNICATION

1955

Photocatalytic and photoelectrocatalytic degradation of perfluorooctanoic acid by immobilised ZnO nanoparticles using electrophoretic deposition

Amir Hossein Navidpour, Javad Safaei, Guojin Zhang, Amin Mojiri, Bing-Jie Ni, Zhenguo Huang and John L. Zhou*



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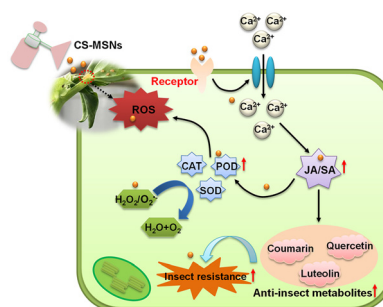


PAPERS

1966

Chitosan–silica nanocomposites induced resistance in faba bean plants against aphids (*Acyrtosiphon pisum*)

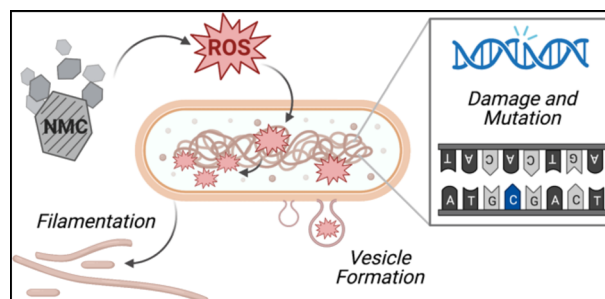
Haihua Ji, Jinghong Wang, Aiyuan Xue, Feiran Chen, Huijuan Guo, Zhenggao Xiao* and Zhenyu Wang



1978

Chronic exposure to complex metal oxide nanomaterials induces production of reactive oxygen species in bacteria

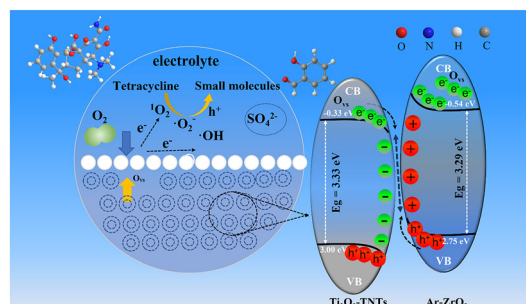
Deepti Sharan, Daniel Wolfson, Curtis M. Green, Paul Lemke, Alessandra G. Gavin, Robert J. Hamers, Z. Vivian Feng and Erin E. Carlson*



1993

Coupling effects between metal–organic framework derivatives and oxygen-deficient TiO₂ nanotubes: identified charge-transfer processes and photoelectric synergistic effect

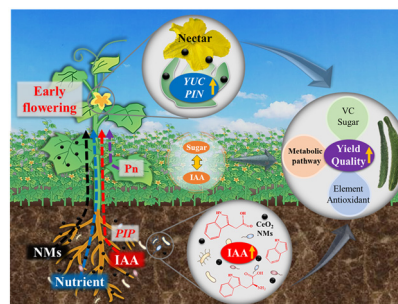
Honglin Zhang, Meiyong Jia, Jing Tong, Haihao Peng, Yiping Xiang, Zhaomeng Chen, Zhengyong Xu, Zhaohui Yang and Weiping Xiong*



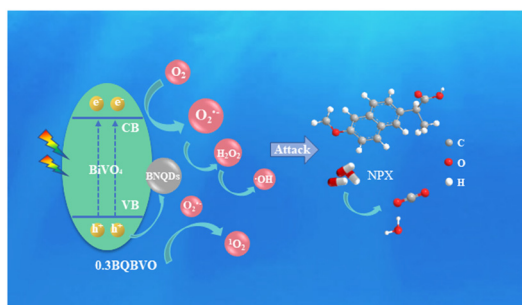
2010

Cerium oxide nanomaterials improve cucumber flowering, fruit yield and quality: the rhizosphere effect

Yan Feng, Chuanxi Wang, Feiran Chen, Xuesong Cao, Jing Wang, Le Yue* and Zhenyu Wang



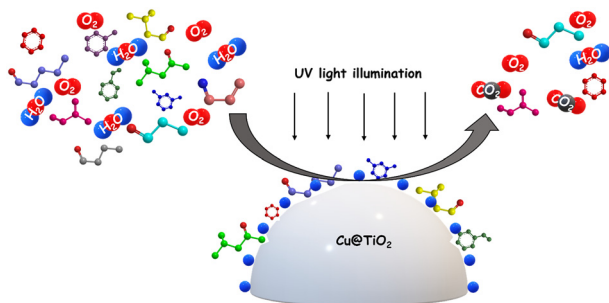
2022



Visible-light-driven BNQD/BiVO₄ material with enhanced photocatalytic activities for naproxen degradation and kinetic insights

Minghao Liu, Yongxian Chen, Daguang Li, Shoubin Huang, Zheng Fang, Zhenjun Xiao, Haijin Liu, Ping Chen,* Wenying Lv and Guoguang Liu*

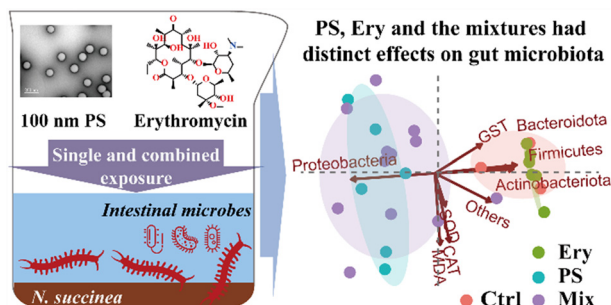
2035



Optimization of process variables for the concurrent removal of aliphatic and aromatic volatile organic compounds over a copper impregnated titanium dioxide photocatalyst

Swati Verma, Kumar Vikrant and Ki-Hyun Kim*

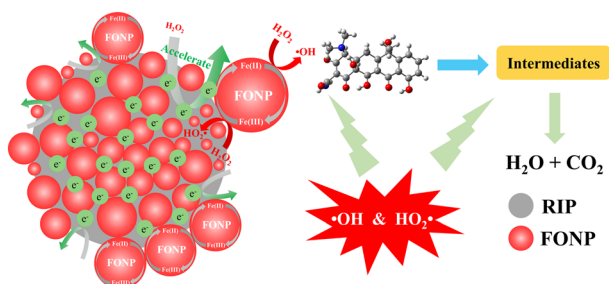
2053



Distinct effects of nano-polystyrene, erythromycin, and their mixtures on the composition and metabolic profile of intestinal microbiota in *Nereis succinea*

Dali Wang, Yuheng Zhong, Qi Ding, Xiaofeng Han, Kai Chen, Bo Pan and Jing You*

2066



Effective heterogeneous Fenton-like degradation of antibiotics by ferroferric oxide nanoparticle coated reduced iron powder with accelerated Fe(II)/Fe(III) redox cycling

Jiahui Zhou, Xuesong Li,* Qiuying Yi and Zhiwei Wang*

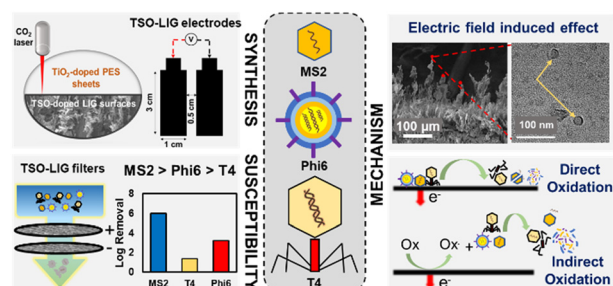


PAPERS

2077

Electrochemical inactivation of enteric viruses MS2, T4, and Phi6 using doped laser-induced graphene electrodes and filters

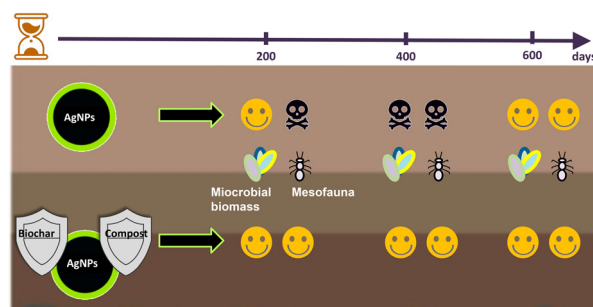
Akhila M. Nair, Ashish Kumar, Najmul H. Barbhuiya and Swatantra P. Singh*



2090

Long-term effects of silver nanoparticles (NM-300K) and soil amendments on soil respiration and mesofauna in a semi-field experiment

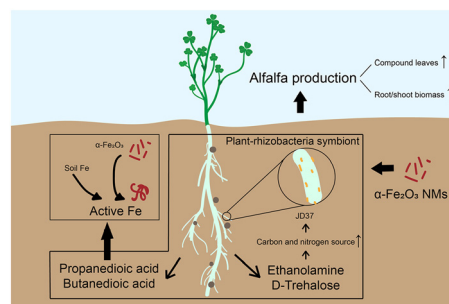
Xin Zhang,* Moira S. McKee and Juliane Filser



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α -Fe₂O₃ nanomaterials strengthened the growth promoting effect of *Pseudomonas aurantiaca* strain JD37 on alfalfa via enhancing the nutrient interaction of the plant–rhizobacteria symbiont

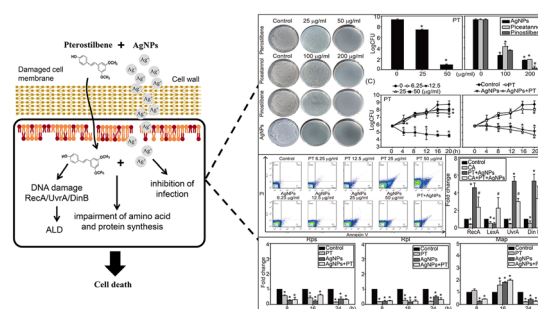
Tianying Zheng, Ting Wu, Jie Hou* and Daohui Lin



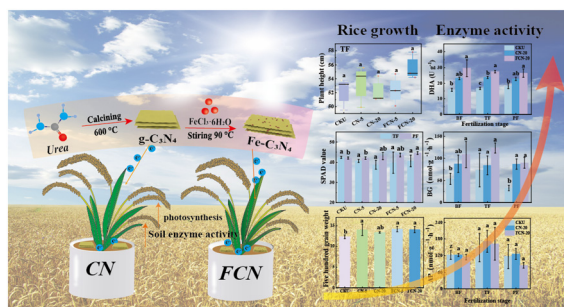
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Novel antibacterial activity of silver nanoparticles combined with pterostilbene against *Staphylococcus aureus* via induction of apoptosis-like cell death and downregulation of ribosomal gene expression

Yu-Hsuan Shih, Rosita Pranata, Yu-Chi Chen, Mei-Yi Liao, Yung-Hsuan Cheng, Yu-Ying Chen, Yi-Hsin Lai, Pei-Jane Tsai and Rong-Jane Chen*



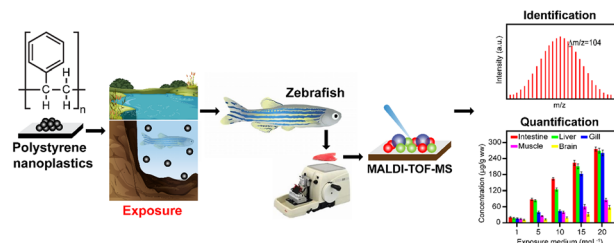
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g-C₃N₄ promotes agro-ecosystem productivity: a case study for rice

Jiahui Cheng, Xin Li,* Chenman Ding, Yanfang Feng, Pengfu Hou, Lihong Xue, Linzhang Yang and Shiyong He*

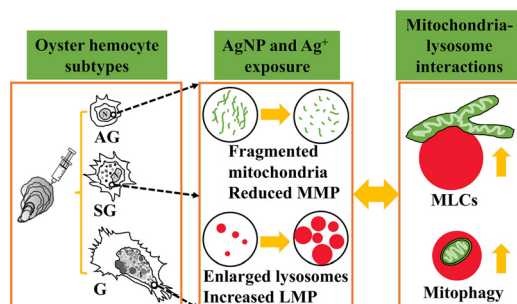
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Qualitative and quantitative analysis of accumulation and biodistribution of polystyrene nanoplastics in zebrafish (*Danio rerio*) via artificial freshwater

Théogène Habumugisha, Zixing Zhang, Jean Claude Ndayishimiye, François Nkinahamira, Constance Uwizewe, Eric Cyubahiro, Abdul Rehman, Changzhou Yan and Xian Zhang*

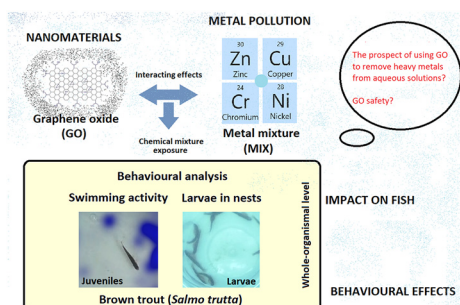
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Silver nanoparticles affect bidirectional crosstalk between mitochondria and lysosomes in hemocyte subtypes of the oyster *Crassostrea hongkongensis*

Yali Luo and Wen-Xiong Wang*

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Interacting effects of graphene oxide derivatives and trace metals on freshwater brown trout (*Salmo trutta* L.) behaviour at different stages of development

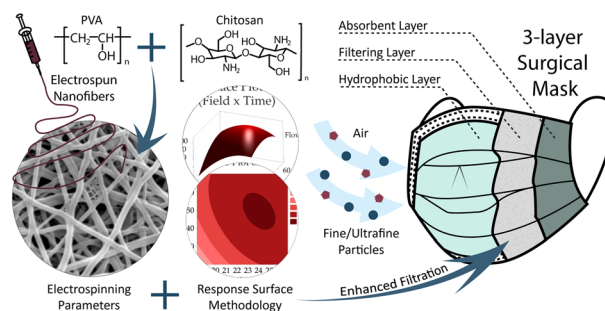
Tomas Makaras,* Živilė Jurgelėnė, Vidas Pakštas and Sergej Šemčuk



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Sustainable surgical masks: optimizing fine/ultrafine particle filtration using PVA/chitosan electrospun nanofibers

Gustavo Cardoso da Mata,* Maria Sirlene Morais, Wanderley Pereira de Oliveira and Mônica Lopes Aguiar*



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Achieving efficient uranium extraction by *in situ* ultrasonic texturization of commercial Fe powder

Boming Zhu, Hongwei Wu, Jie Kang, Xiaofang Yu, Tao Chen, Ru Cheng, Guolin Yang, Wencai Bai, Wenkun Zhu* and Rong He*

