Environmental Science Nano

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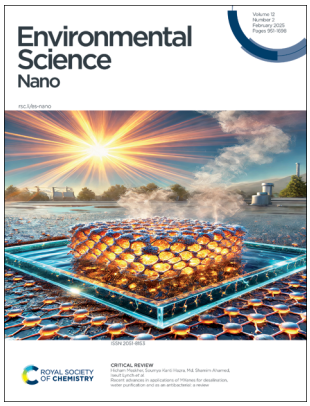

Cover
See Hicham Meskher, Soumya Kanti Hazra, Md. Shamim Ahamed, Iseult Lynch *et al.*, pp. 1012–1036.
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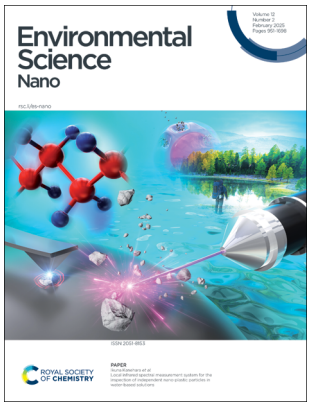

Inside cover
See Ikuna Kanehara *et al.*, pp. 1107–1115.
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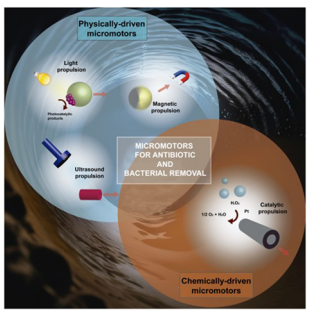
PERSPECTIVE



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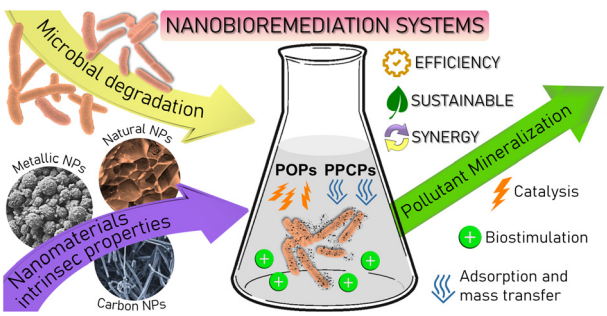

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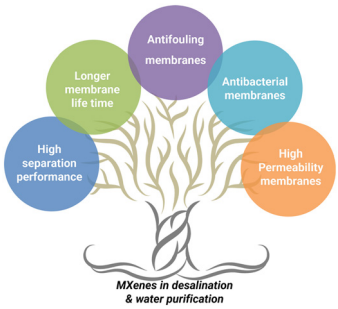

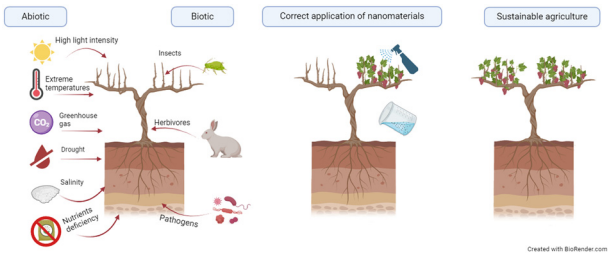

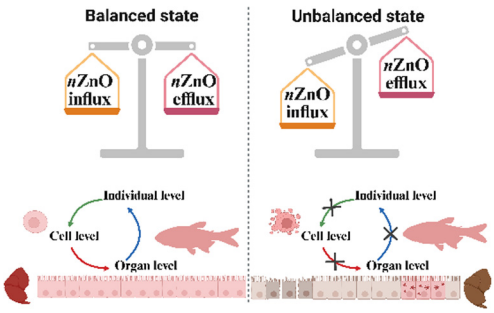

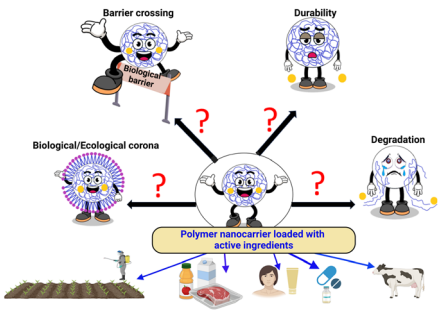

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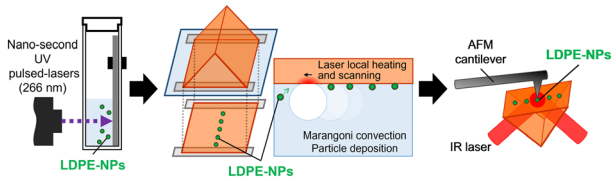

Local infrared spectral measurement system for the inspection of independent nano-plastic particles in water-based solutions

Ikuna Kanehara,* Tatsuhiro Nagasaka, Hirofumi Seki, Sho Fujii, Tsuyoshi Kimura, Masaya Yamamoto and Tadao Tanabe

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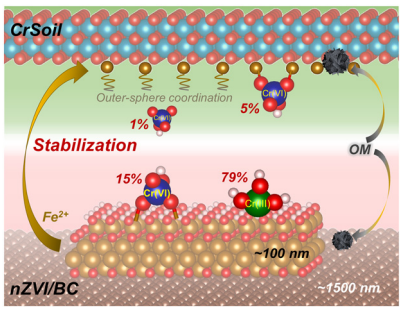

Red mud-based Fe/C nanostructured materials for multi-interface remediation of Cr(VI)-contaminated soil and stabilization

Shiyu Cao, Jiangshan Li,* Jing Nie, Yanbiao Shi, Jiaqi Dong, Lizhi Zhang and Qiang Xue

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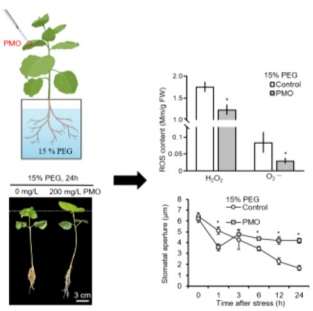

Mn_3O_4 nanoparticles maintain ROS homeostasis to modulate stomatal aperture to improve cotton drought tolerance

Yanhui Li, Yunpeng Tao, Wenying Xu, Han Wu, Guangjing Li, Lin Yue, Jiangjiang Gu, Fangjun Li, Honghong Wu,* Juan Pablo Giraldo* and Zhaohu Li*

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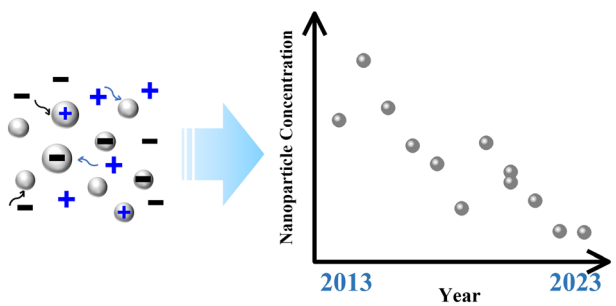

Characterizing airborne nanoparticles in six Chinese cities based on their interactions with natural air ions

Jin Wu, Hao Wu, Yiran Li, Tingyu Liu, Mei Zheng, Cheng Huang, Fang Zhang, Jun Zhao, Jianwu Shi, Xiaoxiao Li, Yongchun Liu, Rujing Yin, Xiaotong Chen, Qiang Zhang, Jiming Hao and Jingkun Jiang*

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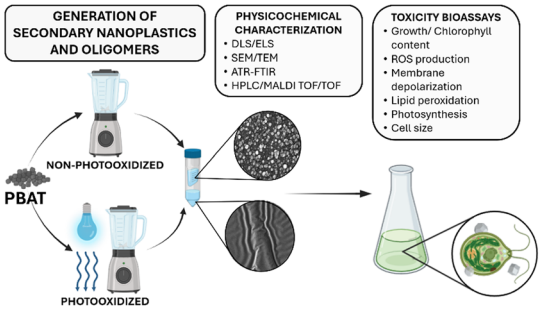
An improved method to generate secondary nanoplastics and oligomers: application in ecotoxicology

Silvia Gómez-Kong, Miguel Tamayo-Belda, Gerardo Pulido-Reyes, Carlos Edo, Irene Verdú, Francisco Leganés, Roberto Rosal, Miguel González-Pleiter and Francisca Fernández-Piñas*



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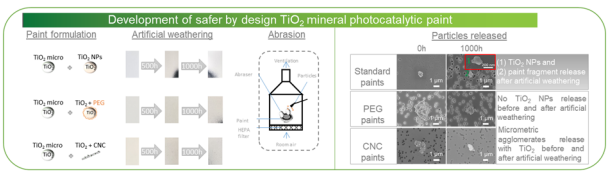
Towards the development of a safer by design mineral photocatalytic paint: influence of the TiO_2 modifications on particle release

A. Rosset, I. Michaud-Soret, I. Capron, H. Voisin, G. Brochard, V. Bergé, A. Benayad, A. Guiot, S. Clavaguera and S. Artous*



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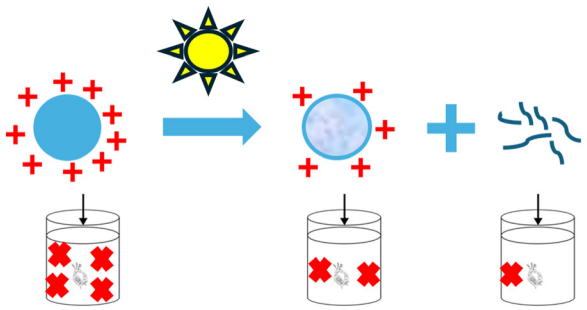
UV-B degradation affects nanoplastic toxicity and leads to release of small toxic substances

Mikael T. Ekvall, Raluca Svensson, Josep García Martínez, Annette M. Krais, Katja Bernfur, Thom Leiding, Martin Lundqvist and Tommy Cedervall*



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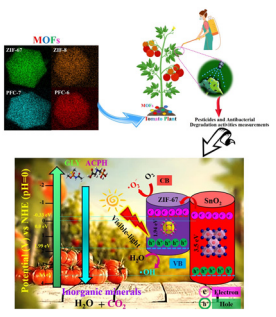
Designing MOF-based green nanomaterials for enhanced pathogen resistance and pesticide degradation in tomato plants

Shoaib Khan, Aoxue Wang,* Jiayin Liu,* Iltaf Khan,* Samreen Sadiq, Aftab Khan, Waleed Yaseen, Saeed Zaman, Abdul Mueed and Yuanyang Miao



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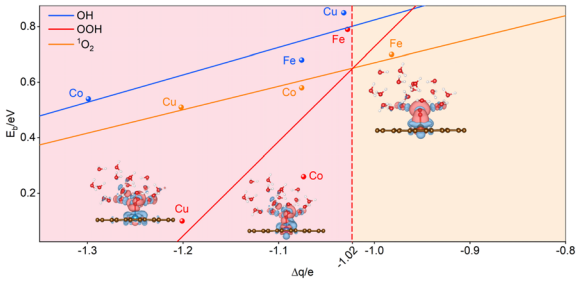

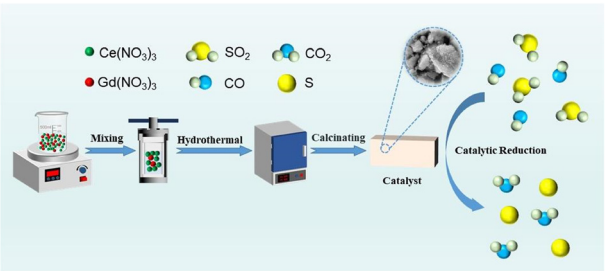

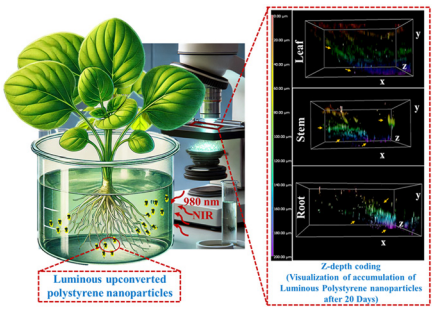

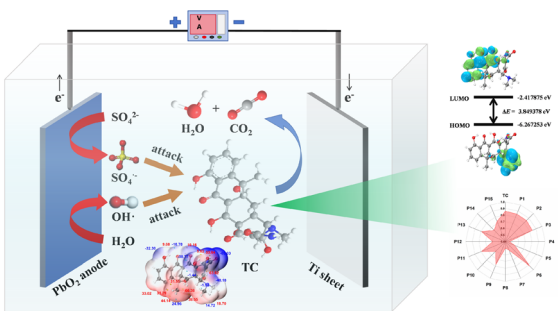

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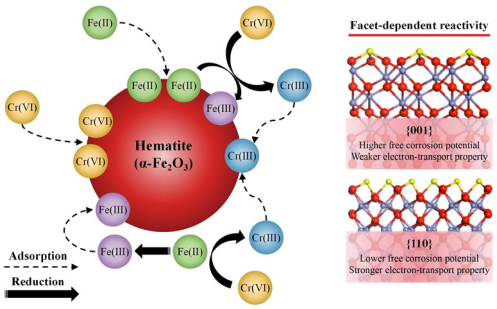

Facet-dependent hematite reactivity in Cr(VI) removal with Fe(II)

Shengnan Zhang, Lingyi Li, Junxue Li and Wei Cheng*

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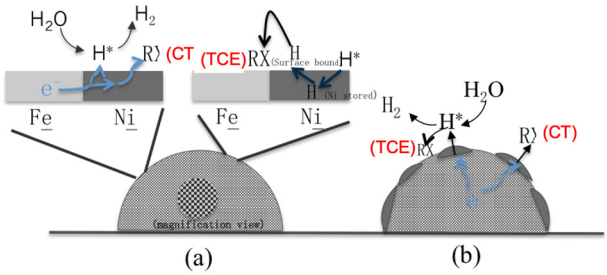

Influence of nickel loading on reactivity of Ni/Fe bimetallic nanoparticles toward trichloroethene and carbon tetrachloride

Caijie Wei,* Weizhong Wu, Xufei Zhao, Cheng Sun, Zehan Shi, Jun Yang and Minghong Wu*

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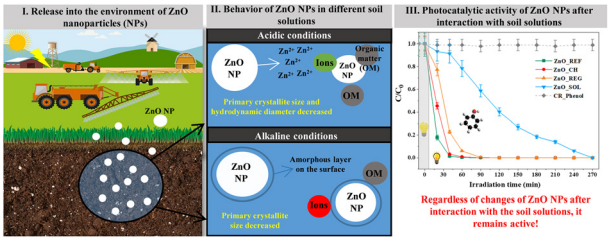

Impact of different soil solutions on the stability and photocatalytic activity of commercial zinc oxide nanoparticles

Karolina Solymos, Eszter Kanász, Áron Ágoston, Tamás Gyulavári, Benjámin Pálffy, Ákos Szamosvölgyi, Ákos Kukovecz, Zoltán Kónya and Zsolt Pap*

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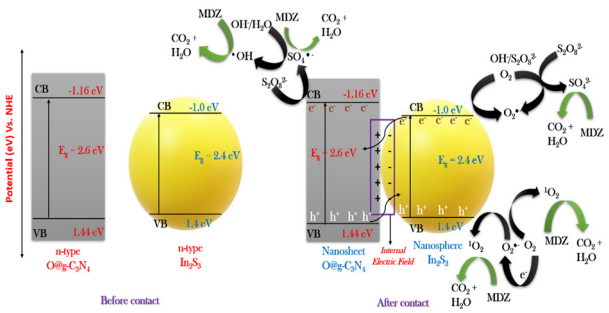

Bandgap-engineered In_2S_3 quantum dots anchored on oxygen-doped g-C_3N_4: forging a dynamic n–n heterojunction for enhanced persulfate activation and degradation of metronidazole

Soumya Ranjan Mishra, Vishal Gadore, Saptarshi Roy and Md. Ahmaruzzaman*

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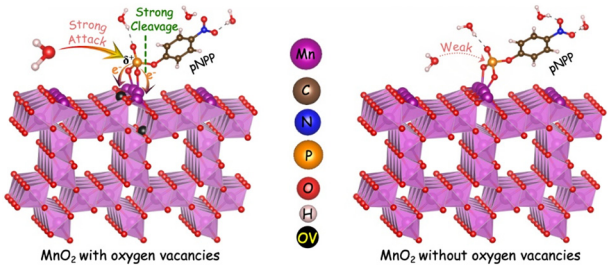

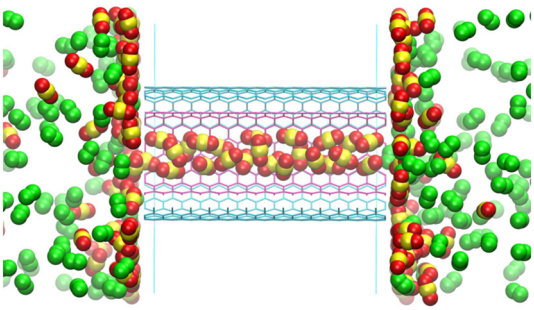

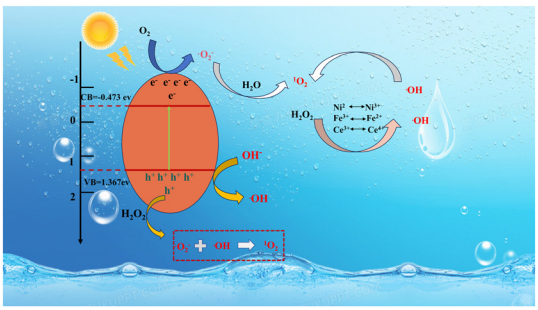

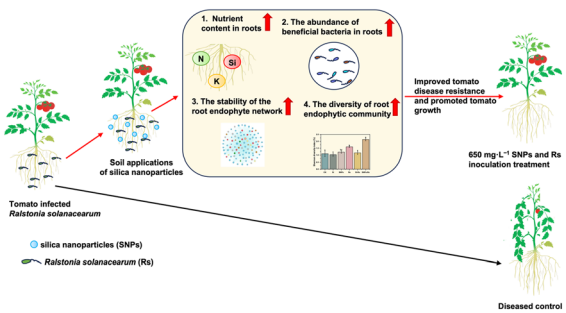

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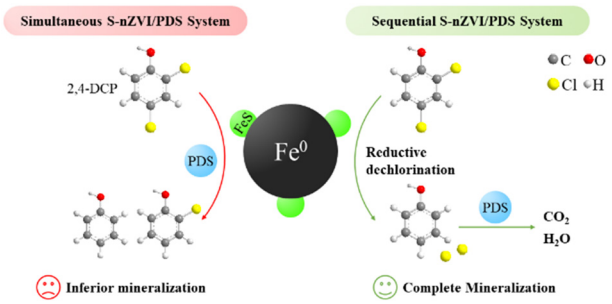

Complete degradation of 2,4-dichlorophenol in a sequential sulfidated nanoscale zero-valent iron/peroxydisulfate system: dechlorination, mineralization and mechanism

Zhoujie Pi,* Puyu Zhou, Kun Luo, Li He, Shengjie Chen, Zhu Wang, Shanshan Zhang, Xiaoming Li and Qi Yang*

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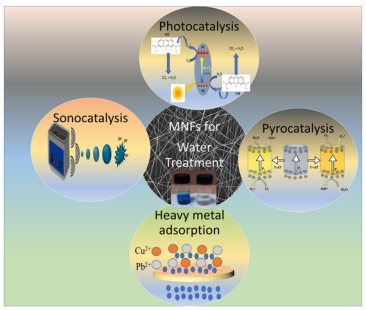

Piezoelectric nanogenerators with hybrid nanofibers: a dual approach for energy generation and wastewater treatment

Manish Kumar, Sumit Choudhary, Satinder K. Sharma and Jaspreet Kaur Randhawa*

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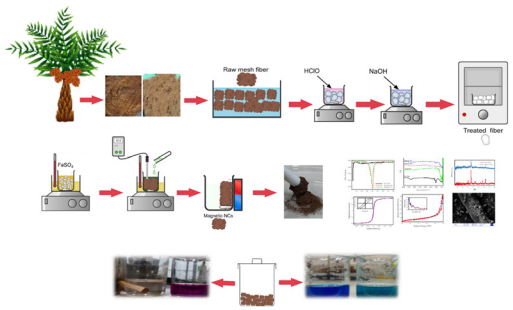

Biomass-based water purification: a simple and novel one-pot process for converting date palm mesh fibers into a valuable nanomagnetic composite for water treatment

Batool Vahedi Sarrygani, Fayezeh Samari* and Fatemeh Sedaghati

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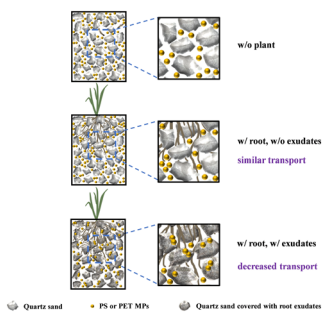

Quartz sand surface-bound rice root exudates decreased the transport of microplastics in porous media

Genyao Gu, Dan Wu, Yanan Liu, Junfu Wang, Yunfei Zhang, Xiaopeng Min and Li Cai*

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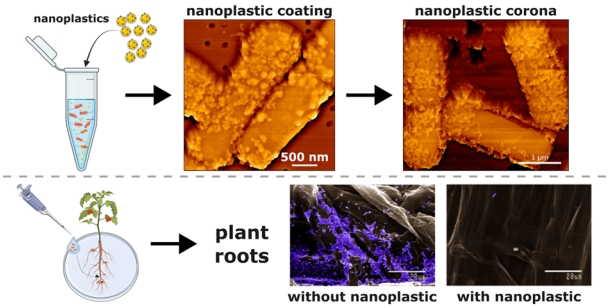

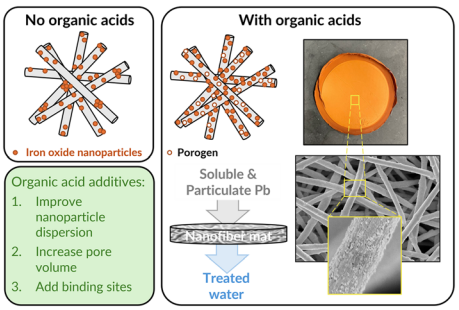

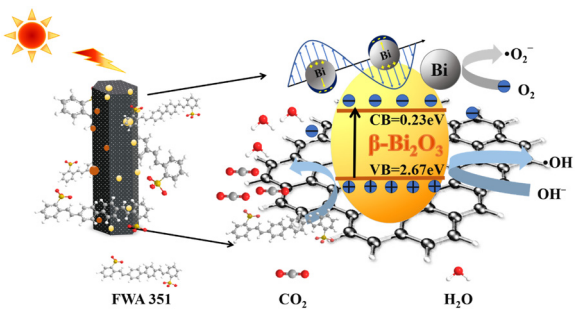

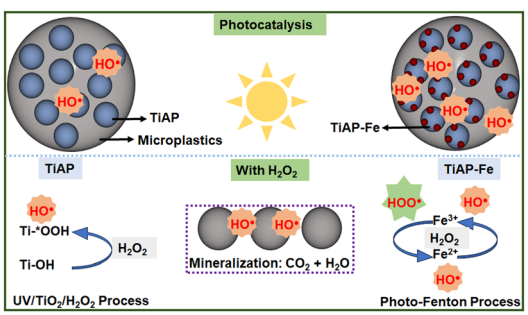

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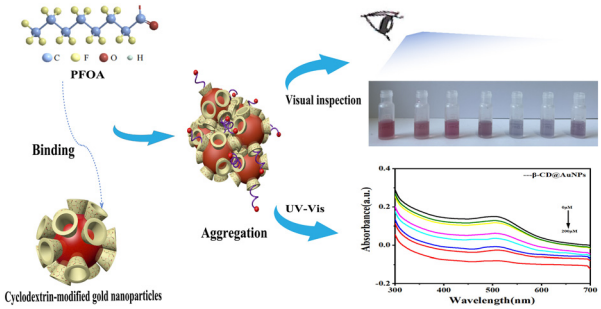
Colorimetric visualization detection of perfluorooctanoic acid based on host–guest interactions with cyclodextrin-modified gold nanoparticles

Jiateng Ma, Chuang Liu, Jiali Li, Zhiquan An, Bihong Zhang, Wenjun Hong, Cheng Ye, Minjie Li* and Liang-Hong Guo*



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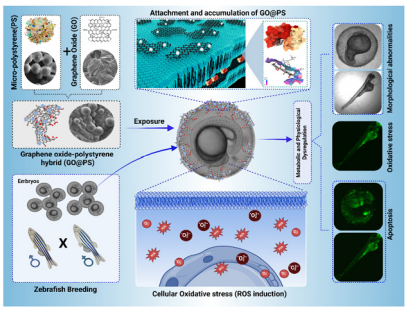
Unravelling the *in vivo* biotoxicity of a green-biofabricated graphene oxide–microplastic hybrid mediated by proximal intrinsic atomic interactions

Adrija Sinha, Sudakshya S. Lenka, Abha Gupta, Dibyangshee Singh, Anmol Choudhury, Shaikh Sheeran Naser, Aishee Ghosh, Faizan Zarreen Simnani, Aditya Nandi, Richa Mishra, Suresh K. Verma* and Mrutyunjay Suar*



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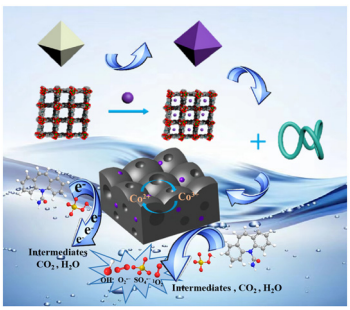
Efficient bimetallic metal–organic framework derived magnetic Co/N-PC-800 nanoreactor for peroxymonosulfate activation and carbamazepine degradation

Qiao-Qiao Huang, Yu-Mei Wang, Xun Fu, Xiao-Li Hu,* Jia-Wei Wang* and Zhong-Min Su*



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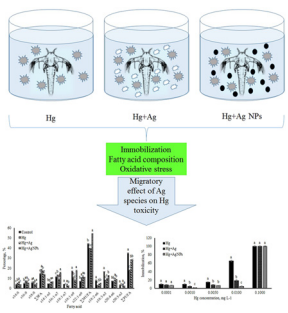
Toxicity of mercuric chloride when combined with ionic and nanoparticulate silver on *Artemia salina*: growth, fatty acid composition, oxidative stress, and lipid peroxidation

Nahid Ravantab, Zahra Ghasemi,* Seyed Ali Johari and Richard D. Handy



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