

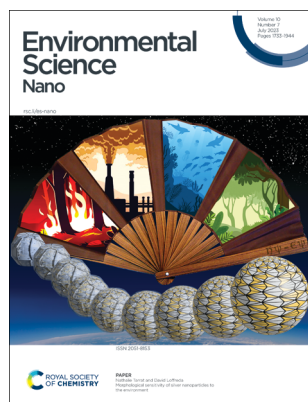
Environmental Science Nano

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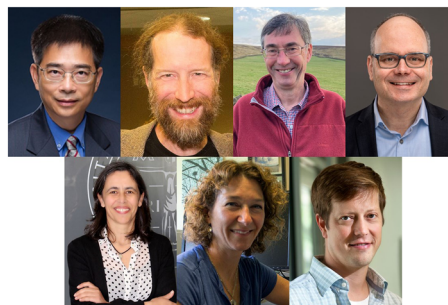
See Nathalie Tarrat and David Loffreda, pp. 1754–1767.
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EDITORIAL

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Best Papers from 2022 published in the *Environmental Science* journals of the Royal Society of Chemistry

Zongwei Cai, Neil Donahue, Kevin C. Jones, Kristopher McNeill, Céla Manaia, Paige J. Novak and Peter J. Vikesland

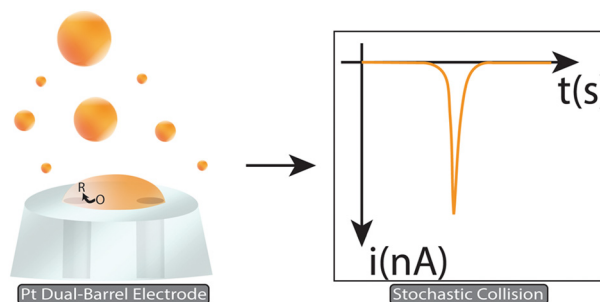


COMMUNICATIONS

1744

Single liquid aerosol nano-impact electrochemistry: accessing the droplet|air interface

Philip J. Kauffmann and Jeffrey E. Dick*



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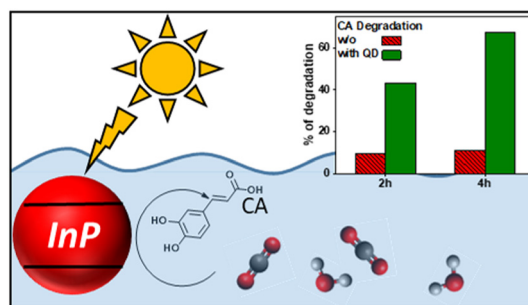


COMMUNICATIONS

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Environmentally friendly InP quantum dots as a visible-light catalyst for water treatment

Alexis Tran, Rodolphe Valleix, Matea Matic, Mohamad Sleiman,* Federico Cisnetti and Damien Boyer*

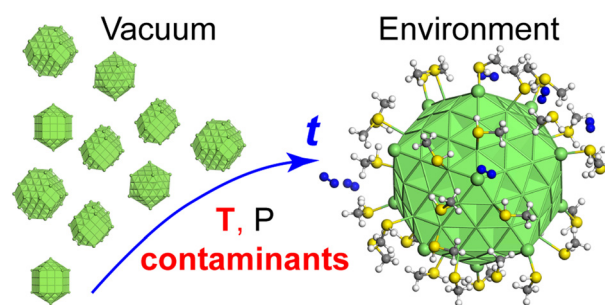


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Morphological sensitivity of silver nanoparticles to the environment

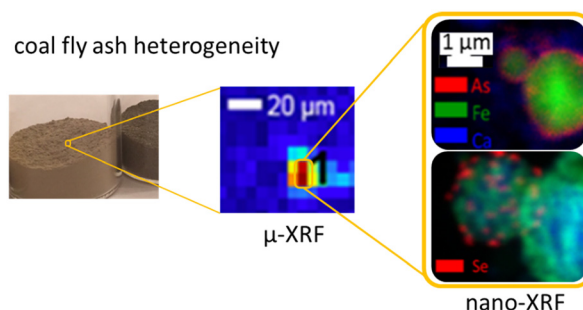
Nathalie Tarrat* and David Loffreda*



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Nanoscale heterogeneity of arsenic and selenium species in coal fly ash particles: analysis using enhanced spectroscopic imaging and speciation techniques

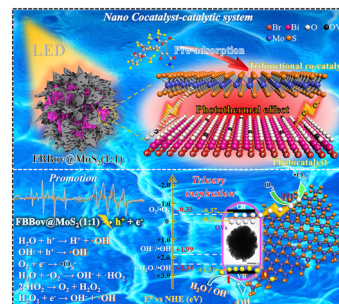
Nelson A. Rivera Jr,* Florence T. Ling, Zehao Jin, Ajith Pattammattel, Hanfei Yan, Yong S. Chu, Catherine A. Peters and Heileen Hsu-Kim*



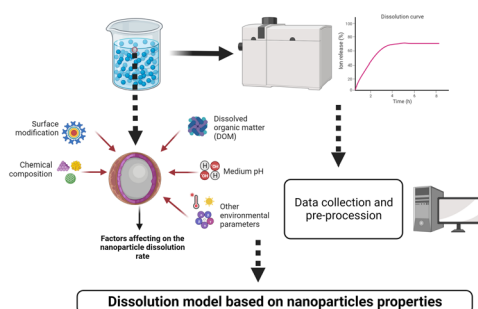
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Nano cocatalyst–catalytic system for boosting photothermal–photocatalytic water treatment enabled by visible LEDs

Jiaxin Ni, Zongsu Wei, Aiwen Wang, Dongmei Liu,* Wei Wang, Xiumei Song and Zipeng Xing*



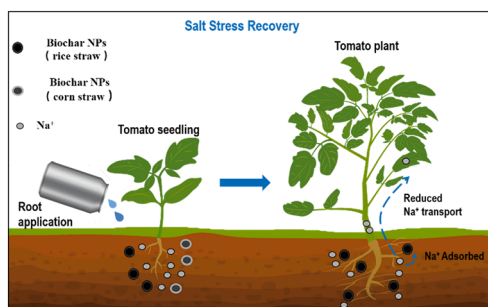
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Developing and verifying a quantitative dissolution model for metal-bearing nanoparticles in aqueous media

Yuchao Song,* Vivi Rottschäfer, Martina G. Vijver and Willie J. G. M. Peijnenburg

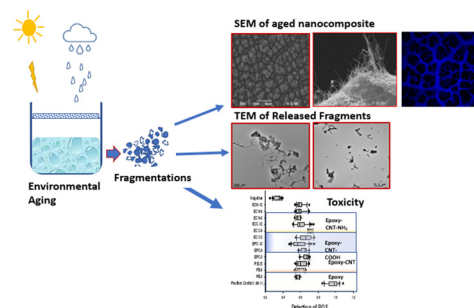
1800



Biochar nanoparticles alleviate salt stress in tomato (*Solanum lycopersicum*) seedlings

Ran Tao, Yinlong Zhang, Jing Yang, Tianxi Yang, Jason C. White and Yu Shen*

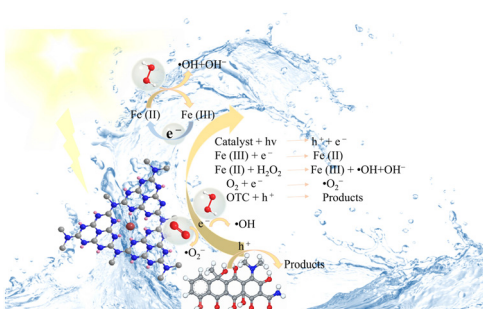
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Fragmentation and release of pristine and functionalized carbon nanotubes from epoxy-nanocomposites during accelerated weathering

Endalkachew Sahle-Demessie,* Changseok Han, Eunice Varughese, Brad Acrey and Richard Zepp

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Insights into Fenton-like oxidation of oxytetracycline mediated by Fe-doped porous g-C₃N₄ nanomaterials: synthesis, performance and mechanism

Xiuqin Huo, Huan Yi, Eydhah Almatrafi, Dengsheng Ma, Yukui Fu, Lei Qin, Wu Xia, Ling Xiang, Fuhang Xu, Huchuan Yan, Chengyun Zhou, Guangming Zeng* and Cui Lai*

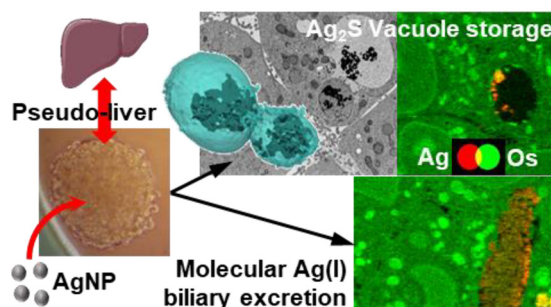


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Deciphering silver nanoparticle fate in liver up to biliary excretion using HepG2/C3A spheroids in scenarios mimicking different exposure pathways

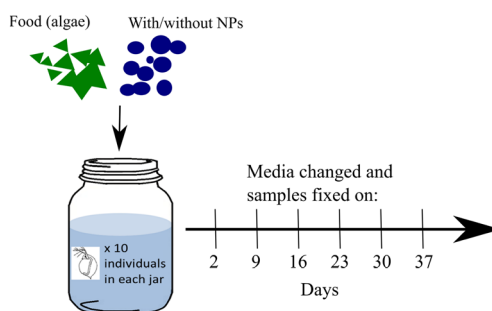
Yousr Rekik, Vanessa Tardillo Suárez, Vikas Raj Sharma, Mireille Chevallet, Benoit Gallet, Denis Falconet, Peggy Charbonnier, Isabelle Kieffer, Rémi Tucoulou, Pierre-Henri Jouneau,* Giulia Veronesi* and Aurélien Deniaud*



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Metabolomics-based analysis in *Daphnia magna* after exposure to low environmental concentrations of polystyrene nanoparticles

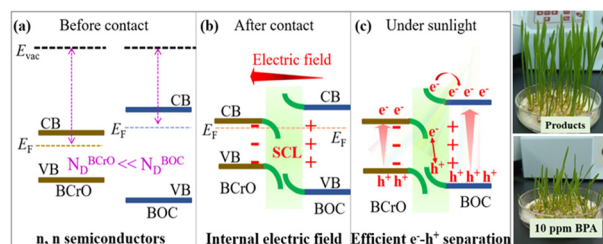
Egle Kelpsiene, Tommy Cedervall* and Anders Malmendal



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Revealing the charge transfer mechanism and assessing product toxicity in the 2D/1D Bi₂O₂CO₃/Bi₈(CrO₄)O₁₁ heterostructure system

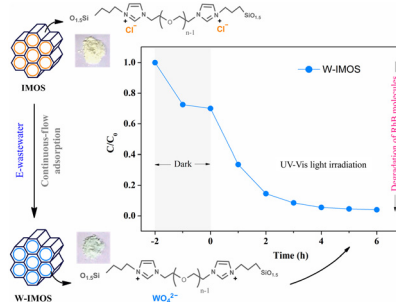
Yang Yang, Xiaomeng Gu, Kexin Gong, Sugang Meng,* Jian Lei, Xiuzhen Zheng, Yiqing Feng* and Shifu Chen*



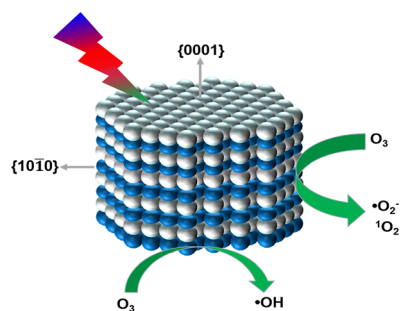
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Application of ionic mesoporous silica in selective recovery of tungstate ions through column adsorption and subsequent photocatalytic degradation of an organic dye

Manish K. Dinker, Sandesh S. Raut and Prashant S. Kulkarni*



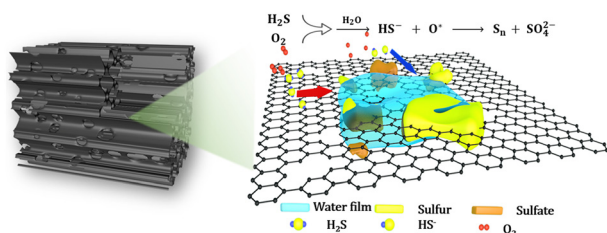
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Synergistic effect of exposed facets and surface defects of ZnO nanomaterials for photocatalytic ozonation of organic pollutants

Yang Yang, Junmin Peng, Huilin Tao, Zhou Yang, Yidong Hou,* Wei Lin* and Jinshui Zhang*

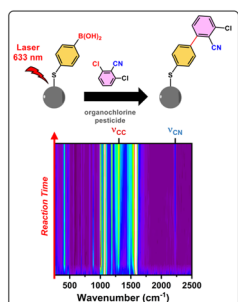
1907



Bamboo derived activated carbon as a highly efficient catalyst for the oxidation and adsorption of hydrogen sulfide at room temperature

Shi Du, Xin Liu, Yue Liu, Junhao Wang, Dongxu Liu, Jianxiao Yang* and Xin Zhang*

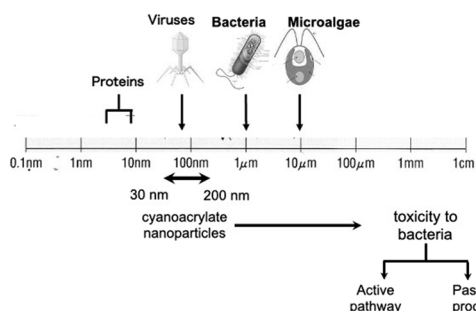
1920



SERS-based detection of an organochlorine pesticide through surface plasmon-induced C–C coupling

Douglas S. Lopes, Ester V. Miranda, Rômulo A. Ando and Paola Corio*

1932



Comparable antibacterial effects and action mechanisms of ethyl cyanoacrylate nanoparticles on *Bacillus subtilis* and *Escherichia coli* evaluated by transcriptome and morphological changes

Fean Davisunjaya Sarian* and Takeshi Ohama

