Nanoscale

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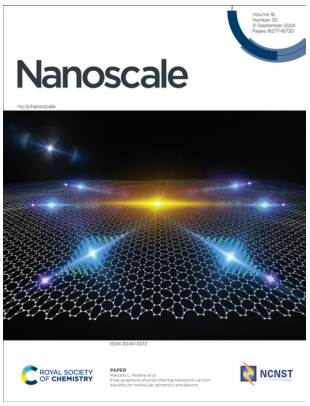

Cover
See Marcelo L. Pereira *et al.*, pp. 16430–16438.

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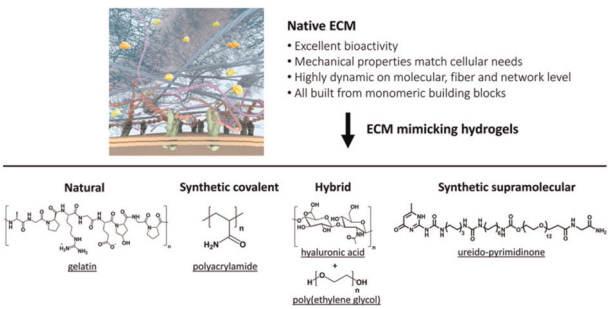
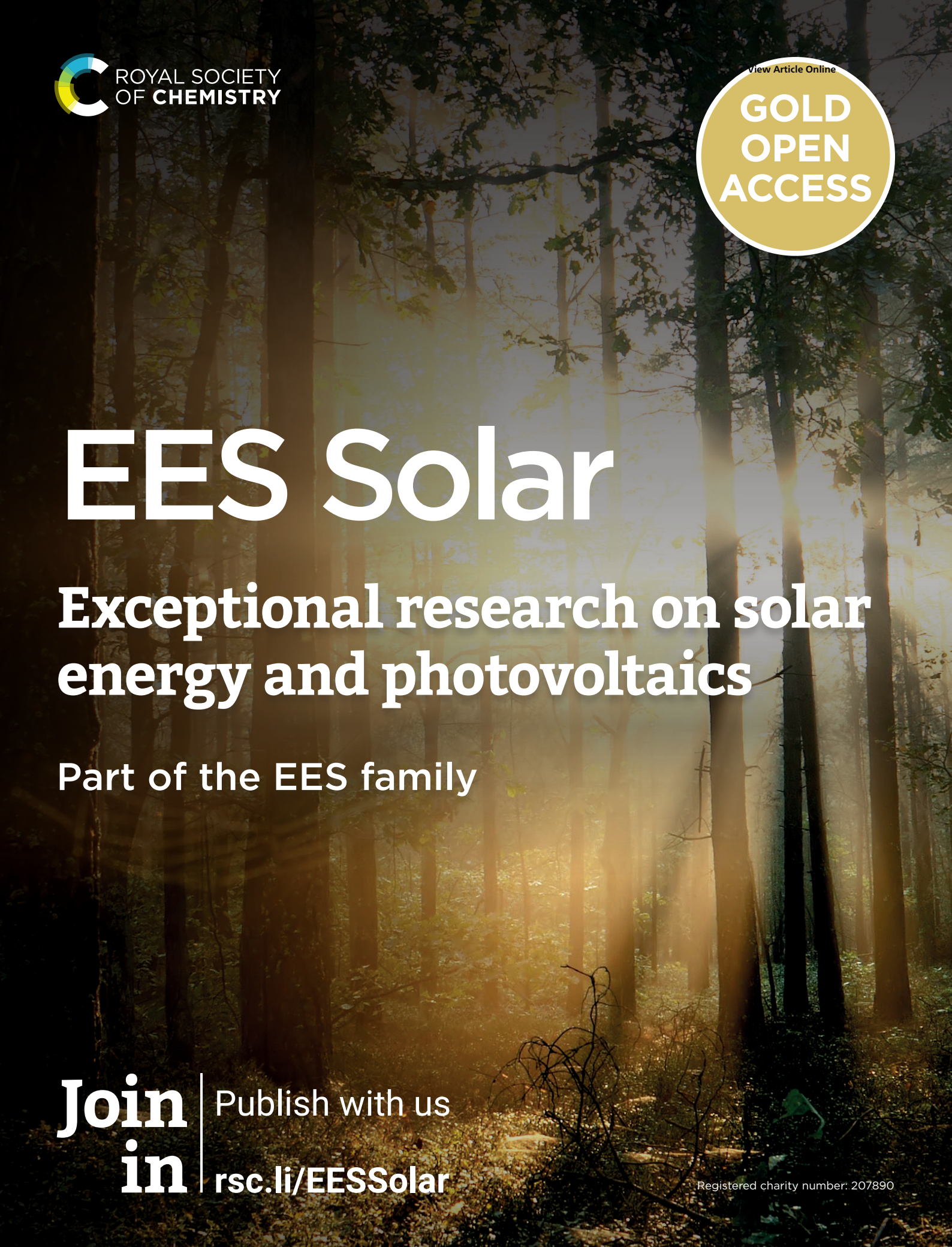
REVIEWS

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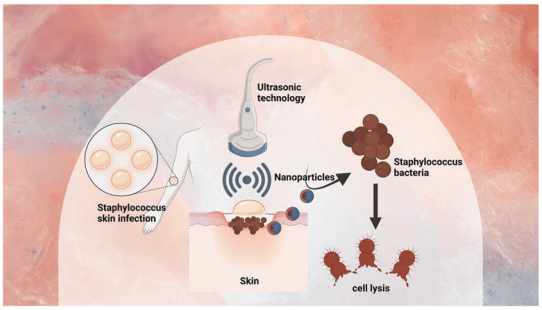
Ultrasonic nanotechnology for the effective management of *Staphylococcus aureus* skin infections: an update

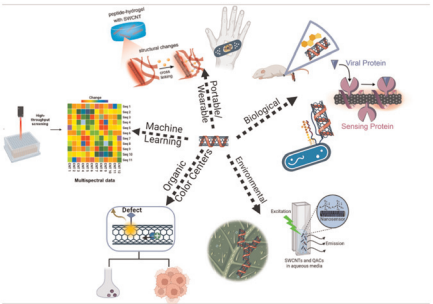
Naveen Thanjavur, Anantha Lakshmi Buddolla, Laxmi Bugude, Viswanath Buddolla* and Young-Joon Kim*



16344

Recent advances on applications of single-walled carbon nanotubes as cutting-edge optical nanosensors for biosensing technologies

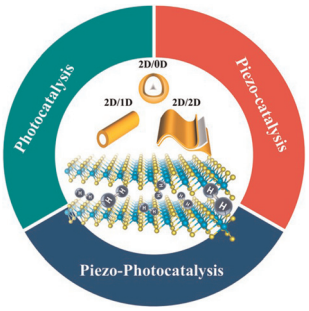
Hannah M. Dewey, Ashley Lamb and Januka Budhathoki-Uprety*



16376

Advances in the heterostructures for enhanced hydrogen production efficiency: a comprehensive review

Chen-Yo Tsai, Wei-Hsuan Chang, Ming-Yen Lu* and Lih-Juann Chen*



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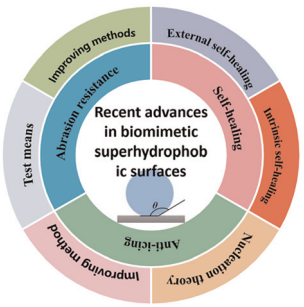
16404

Recent advances in biomimetic superhydrophobic surfaces: focusing on abrasion resistance, self-healing and anti-icing

Jing Luo and Zhiguang Guo*



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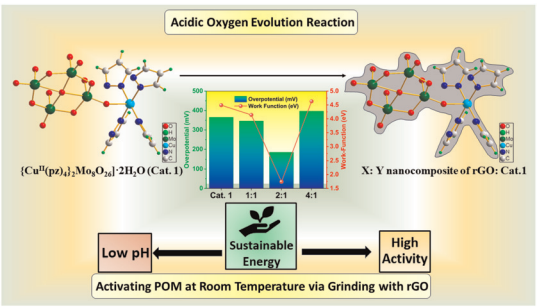

Deciphering the work function induced local charge regulation towards activating an octamolybdate cluster-based solid for acidic water oxidation

Harshita Bagdwal, Parul Sood, Arshminder Kaur Dhillon, Ashi Singh and Monika Singh*

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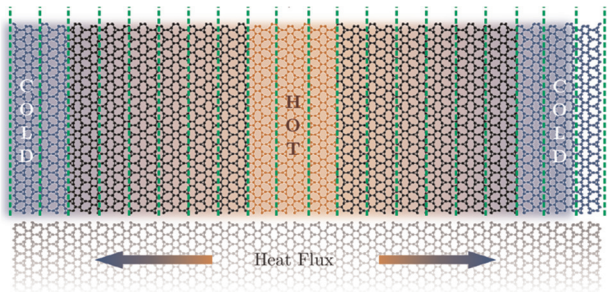

Irida-graphene phonon thermal transport *via* non-equilibrium molecular dynamics simulations

Isaac M. Felix, Raphael M. Tromer, Leonardo D. Machado, Douglas S. Galvão, Luiz A. Ribeiro, Jr and Marcelo L. Pereira, Jr*

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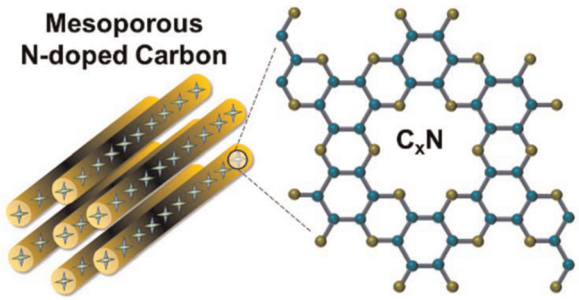
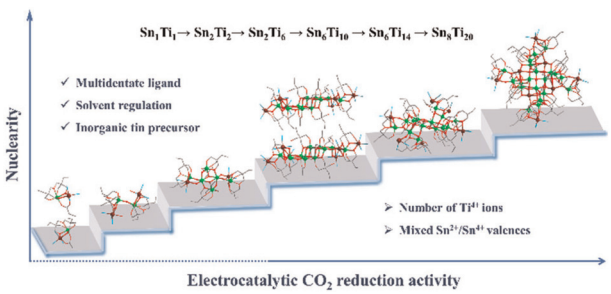


Aminotriazine derived N-doped mesoporous carbon with a tunable nitrogen content and their improved oxygen reduction reaction performance

Jefrin M. Davidraj, C. I. Sathish,* Premkumar Selvarajan, Mohammed Fawaz, Vibin Perumalsamy, Xiaojiang Yu, Mark B. H. Breese, Jiabao Yi* and Ajayan Vinu*

16451



Modulated assembly and structural diversity of heterometallic Sn–Ti oxo clusters from inorganic tin precursors

Hui-Fang Zhao, Fang-Fang Liu, Qing-Rong Ding, Di Wang, Jian Zhang and Lei Zhang*

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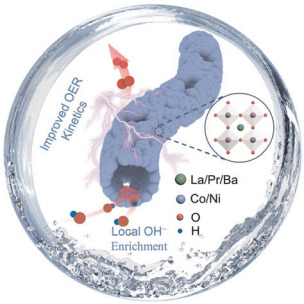

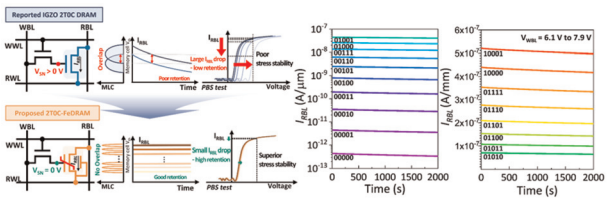

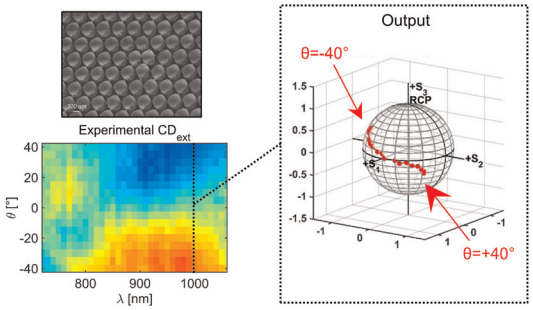

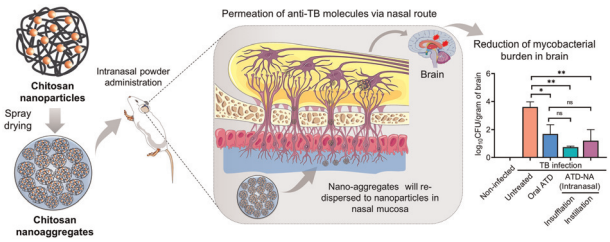

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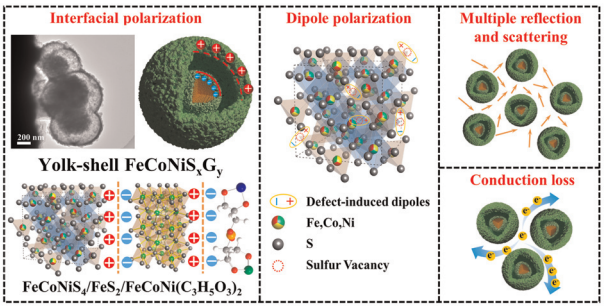
Design of a yolk–shell ternary metal sulfide with a tunable structure for high-performance electromagnetic wave absorption

Zhaobo Liu, Yan Zhao* and Zhiwei Liu*



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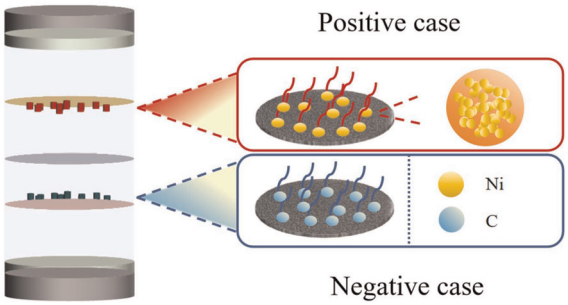
Fabrication and assembly of supercapacitors based on Ni-based MOFs and their derivative materials for enhancing their electrochemical performances

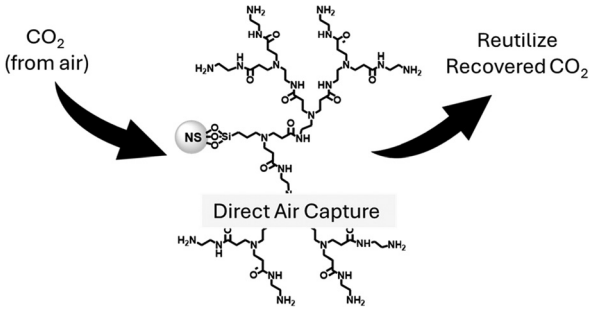
Wen-Ze Li, Ying Yang, Xiao-Sa Zhang, Yu Liu and Jian Luan*



16571

Nanosilica polyamidoamine dendrimers for enhanced direct air CO_2 capture

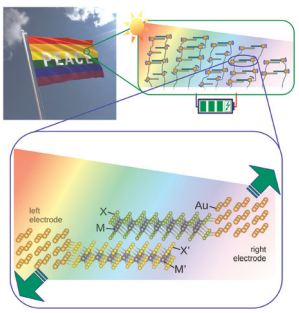
Vaishnavi Kulkarni, Jayashree Parthiban and Sanjay Kumar Singh*



16582

First-principles guidelines to select promising van der Waals materials for hybrid photovoltaic–triboelectric nanogenerators

Antonio Cammarata,* Jemal Yimer Damte* and Tomas Polcar



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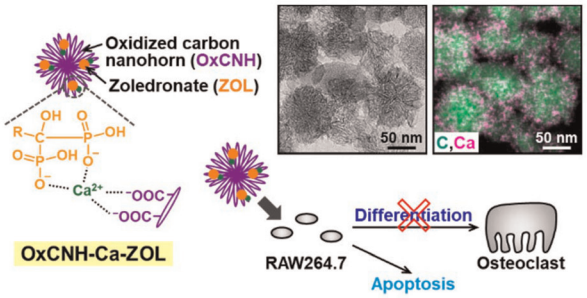

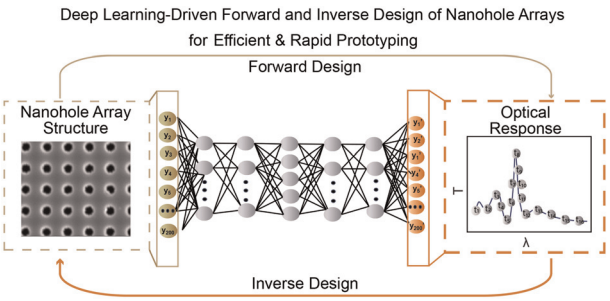

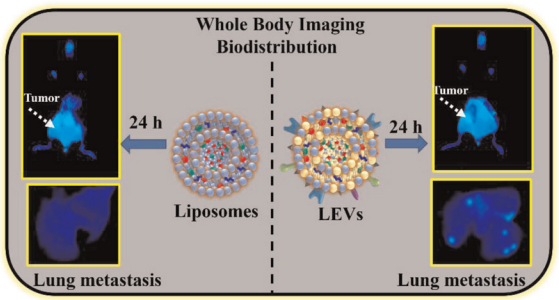

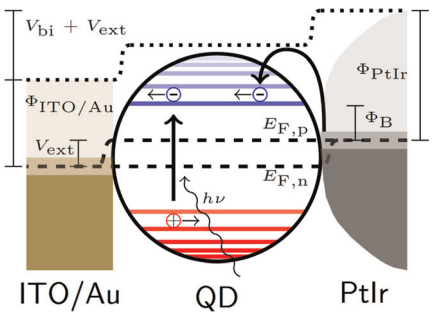

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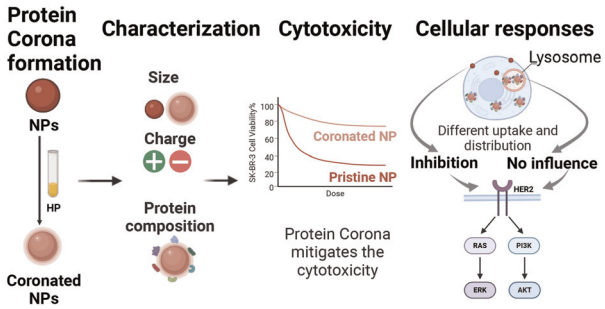

Protein corona alleviates adverse biological effects of nanoplastics in breast cancer cells

Siyao Xiao, Junbiao Wang, Luca Digiacomo, Augusto Amici, Valentina De Lorenzi, Licia Anna Pugliese, Francesco Cardarelli, Andrea Cerrato, Aldo Laganà, Lishan Cui, Massimiliano Papi, Giulio Caracciolo, Cristina Marchini* and Daniela Pozzi*

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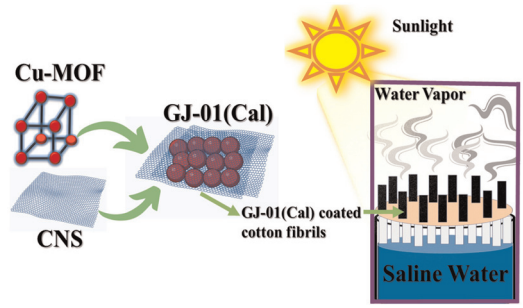

De novo Cu-MOF@CNS nanocomposite coated on a cotton fibrils framework for sustainable solar-driven desalination

Geetika Jain, Sinu Sanghamitra, Monalisa Mukherjee, Mrinal Kanti Mandal,* Rajib Ghosh Chaudhuri* and Sandip Chakrabarti*

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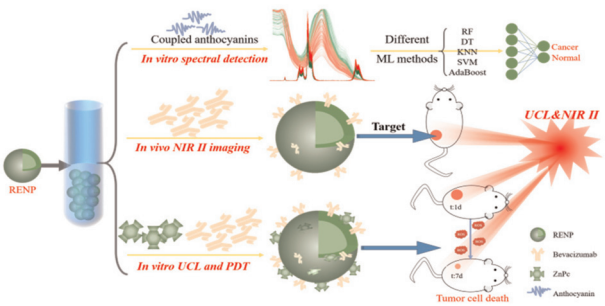

Upconversion and NIR-II luminescent rare earth nanoparticles combined with machine learning for cancer theranostics

Hanyu Liu, Ziyue Ju, Xin Hui, Wenjing Li and Ruichan Lv*

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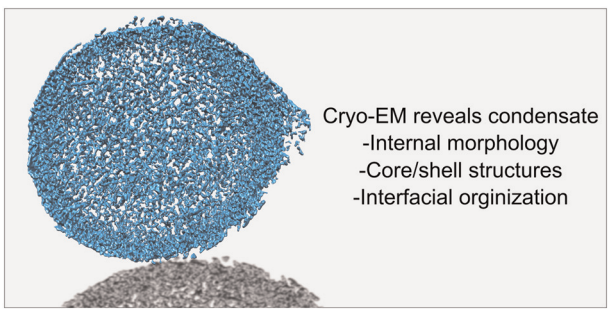

Revealing nanoscale structure and interfaces of protein and polymer condensates *via* cryo-electron microscopy

Aoon Rizvi, Bruna Favetta, Nora Jaber, Yun-Kyung Lee, Jennifer Jiang, Nehal S. Idris, Benjamin S. Schuster, Wei Dai and Joseph P. Patterson*

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Field enhancement induced by surface defects in two-dimensional $ReSe_2$ field emitters

Filippo Giubileo,* Enver Faella, Daniele Capista, Maurizio Passacantando, Ofelia Durante, Arun Kumar, Aniello Pelella, Kimberly Intonti, Loredana Viscardi, Sebastiano De Stefano, Nadia Martucciello, Monica F. Craciun, Saverio Russo and Antonio Di Bartolomeo*