



# RSC Applied Polymers

GOLD  
OPEN  
ACCESS

The application of polymers,  
both natural and synthetic

Interdisciplinary and open access

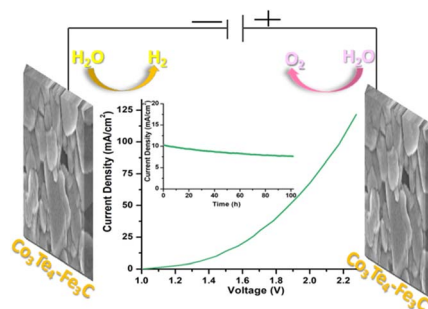
[rsc.li/RSCApplPolym](https://rsc.li/RSCApplPolym)

Fundamental questions  
Elemental answers

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### Facile synthesis of $\text{Co}_3\text{Te}_4\text{-Fe}_3\text{C}$ for efficient overall water-splitting in an alkaline medium

M. Abdul,\* Miao Zhang, Tianjun Ma, Nouf H. Alotaibi, Saikh Mohammad and Yin-Sheng Luo

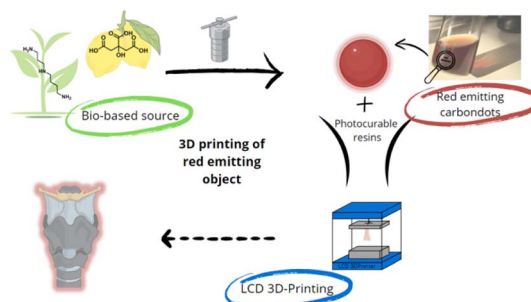


## PAPERS

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### Long-chain surface-modified red-emitting carbon dots as fluorescent additives for 3D printing vat-photopolymerization

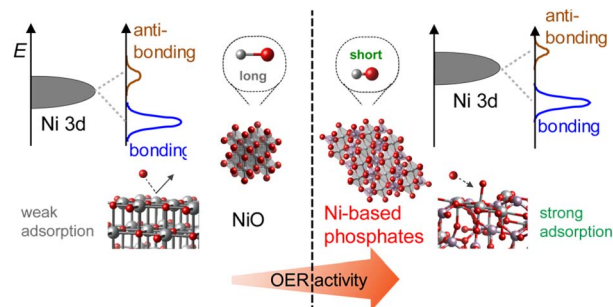
Simone Maturi, Andrea Baschieri, Erica Locatelli, Martina Bucciolli, Mauro Comes Franchini and Letizia Sambri\*



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### Oxygen evolution activity of nickel-based phosphates and effects of their electronic orbitals

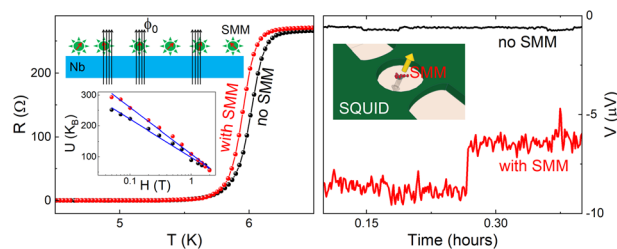
Yuuki Sugawara,\* Yuto Nakase, Gopinathan M Anilkumar, Keigo Kamata\* and Takeo Yamaguchi\*



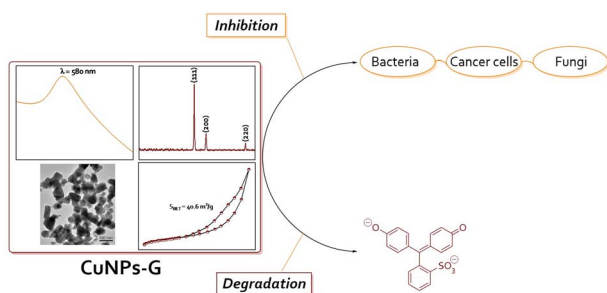
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### Interaction of Langmuir–Blodgett films of $\text{Mn}_{12}$ single molecule magnets with superconducting micro-tracks and nano-SQUIDs

Bibekananda Das,\* Tapas Senapati, Malaya K. Sahoo, Jogendra N. Behera\* and Kartik Senapati\*



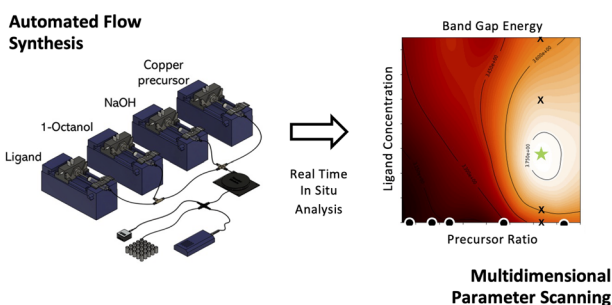
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### Studying the synthesis, antimicrobial activity, and phenol red removal of gelatin-stabilized copper nanoparticles

Trung Dien Nguyen,<sup>\*</sup> Sang Thanh Ngo, Yen Hai Hoang, Nhung Thi Tuyet Thai, Huong Thi Thu Nguyen and Gia Thi Ngoc Trinh

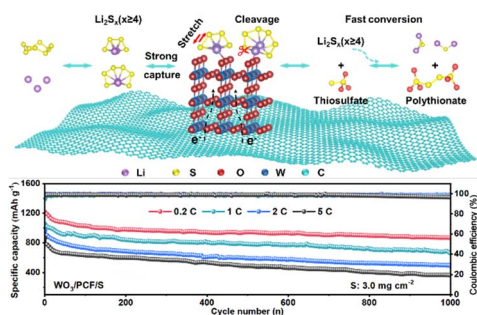
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### Flow synthesis and multidimensional parameter screening enables exploration and optimization of copper oxide nanoparticle synthesis

Neal Muntebvu, Zarina Akhmetbayeva, Steven Dunn and Philip D. Howes<sup>\*</sup>

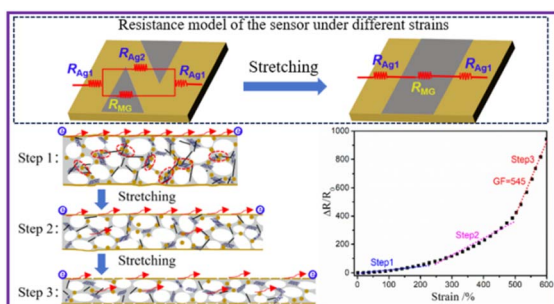
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### Tungsten oxide nanowire clusters anchored on porous carbon fibers as a sulfur redox mediator for lithium-sulfur batteries

Tongzhen Wang, Xiaofei Zhang, Jie Yang, Jiewu Cui, Jian Yan, Jiaqin Liu<sup>\*</sup> and Yucheng Wu<sup>\*</sup>

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### A high stretchability fiber based on a synergistic three-dimensional conductive network for wide-range strain sensing

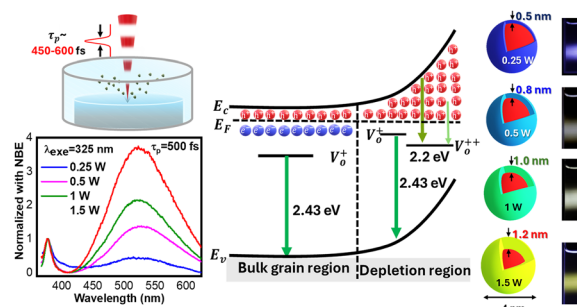
Wei Shi, Xing Yang, Langhuan Lei, Xiaozhi Huang, Jiali Lin, Qiuyu Liang, Wei Li<sup>\*</sup> and Jianrong Yang<sup>\*</sup>



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### Facile control of giant green-emission in multifunctional ZnO quantum dots produced in a single-step process: femtosecond pulse ablation

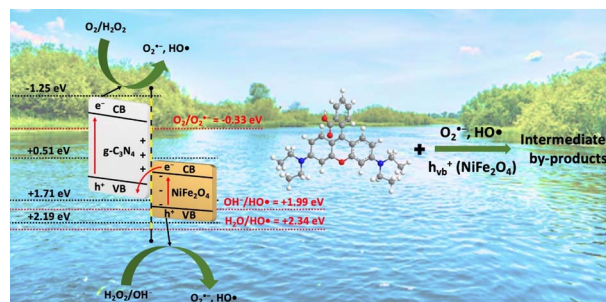
Anubhab Sahoo, Tejendra Dixit, Anshu Kumari, Sharad Gupta, R. Kothandaraman, P. P. Rajeev, M. S. Ramachandra Rao\* and Sivarama Krishnan\*



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### Synthesis of magnetic NiFe<sub>2</sub>O<sub>4</sub>/g-C<sub>3</sub>N<sub>4</sub> heterojunction photocatalysts for boosting dye degradation performance under visible-light irradiation

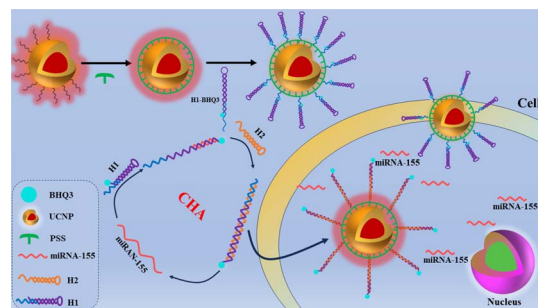
Loan Thi To Nguyen, Anh Thi Tu Duong, Nguyen Duc Bui, Viet Thi Mai Ngo, Hai Quang Nguyen, Hang Thi Thuy Nguyen, Giang Thanh Tran and Thuan Van Tran\*



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### Near-infrared DNA biosensors based on polysulfonate coatings for the sensitive detection of microRNAs

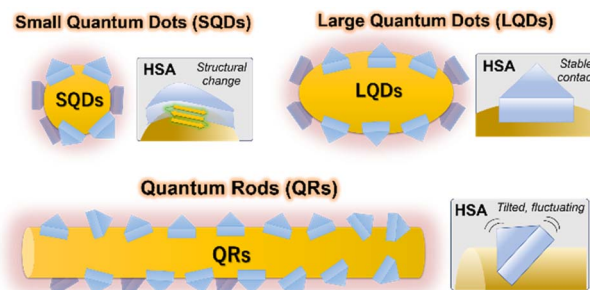
Xianghang Lin, Yang Yang, Wenzhang Zhu, Xiaorong He\* and Yunliang Liu\*



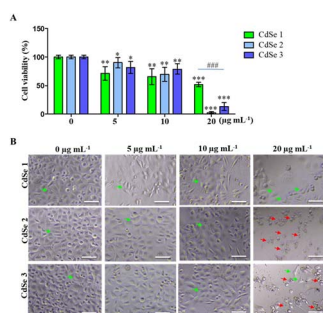
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### Protein corona formation on different-shaped CdSe/CdS semiconductor nanocrystals

Kunisato Kuroi,\* Yuta Kanazawa, Akane Shinaridome, Yuna Yasuda, Minkyoo Jung, Chan-Gi Pack and Fumihiko Fujii\*



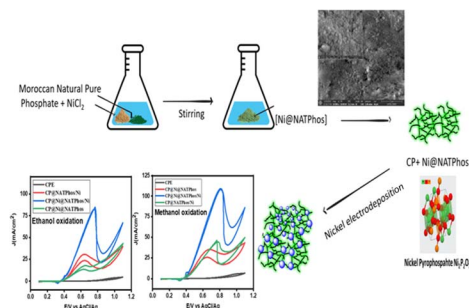
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### Chemically synthesized CdSe quantum dots induce apoptosis in AGS gastric cancer cells via ROS generation

L. T. T. Huong, N. P. Hung, N. T. Ha, N. T. Luyen, N. T. Hien, N. X. Ca and N. T. M. Thuy\*

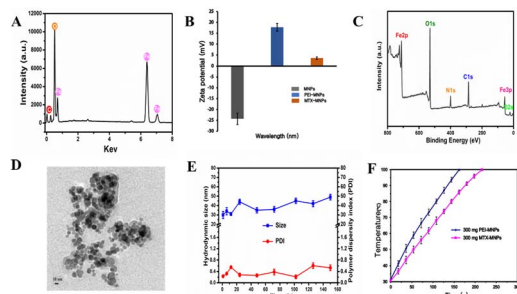
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### A sustainable approach using natural phosphates impregnated with nickel hydroxide nanoparticles: a cost-effective solution for alcohol oxidation<sup>†</sup>

Sanaa Chemchoub, Anas El Attar, Abdessamad Belgada, Saad Alami Younssi, Charafeddine Jama, Fouad Bentiss and Mama El Rhazi\*

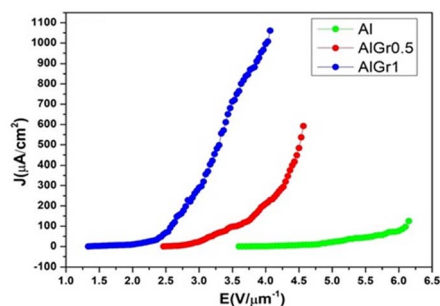
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### Study on the therapeutic effect and some immune factors by methotrexate modified superparamagnetic nanoparticles in rat mammary tumors

Li Huang, Xing Zhao, Jun Zhang, Jiquan Zhang, Weike Liao, Yanhua Fan, Jintian Tang,\* Zhixu He, Fuping Gao and Weiwei Ouyang\*

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### Field emission performance of graphene-incorporated aluminum-based metal matrix composite

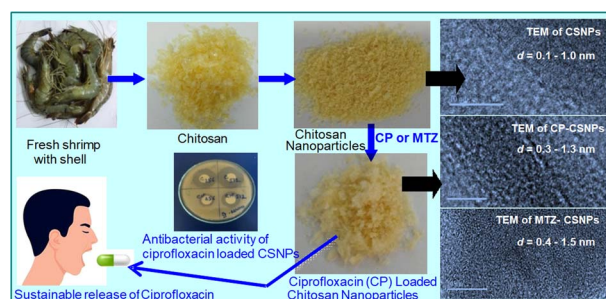
Sunil Kumar Pradhan,\* Pandiyarajan K., Shubham Patil, Padmakar G. Chavan, Raphael Longuinhos Monteiro Lobato, Jenaina Ribeiro-Soares\* and Dattatray J. Late\*



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### Electrostatic adsorptive loading of ciprofloxacin and metronidazole on chitosan nanoparticles to prolong the drug delivery process with preserved antibacterial activities: formulation and characterization

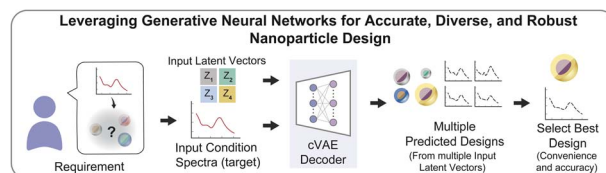
Fatema Tuj Jahura, Farhana Khanam Ferdousi, Abu Hena Mostofa Kamal, Anwar Ul-Hamid, Md. Qamrul Ehsan and Mohammad Abul Hossain\*



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### Leveraging generative neural networks for accurate, diverse, and robust nanoparticle design

Tanzim Rahman, Ahnaf Tahmid, Shifat E. Arman, Tanvir Ahmed, Zarin Tasnim Rakhy, Harinarayan Das, Mahmudur Rahman, Abul Kalam Azad, Md. Wahadoszamen and Ahsan Habib\*



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### Enzyme-free detection of creatinine as a kidney dysfunction biomarker using TiO<sub>2</sub> flow-through membranes

Nilem Khaliq, Ghafar Ali,\* Muhammad Asim Rasheed,\* Maaz Khan, Wazir Muhammad, Patrik Schmuki and Shafqat Karim

