

# Nanoscale Advances

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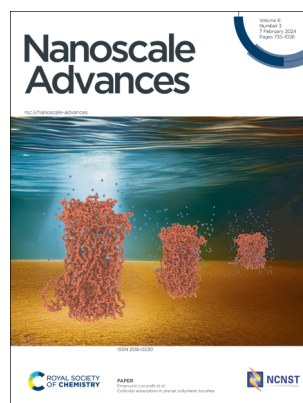
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## IN THIS ISSUE

ISSN 2516-0230 CODEN NAADAI 6(3) 735–1026 (2024)



**Cover**  
See Wendel Wohlleben, Stefania Sabella *et al.*, pp. 798–815. Image reproduced by permission of Stefania Sabella from *Nanoscale Adv.*, 2024, **6**, 798.



**Inside cover**  
See Emanuele Locatelli *et al.*, pp. 816–825. Image reproduced by permission of Clemens Franz Vorsmann (University of Padova) from *Nanoscale Adv.*, 2024, **6**, 816.

## EDITORIAL

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### Introduction to Bionanocomposites

Sabu Thomas, Maya Jacob John and Aji P. Mathew



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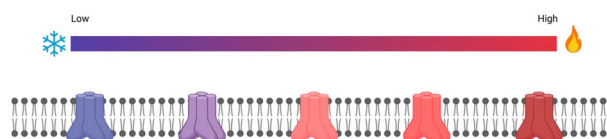
### Metallic nanostructure-based aptasensors for robust detection of proteins

Navid Rabiee, Sepideh Ahmadi, Kamal Rahimizadeh, Suxiang Chen and Rakesh N. Veedu\*

#### Aptasensors for protein detection



- Aptamer SELEX
- Optical/Electrochemical (bio)sensor development
- Nanoparticles@Aptamer conjugation/decoration



# Fuelling your energy research



## Energy & Environmental Science

Agenda-setting research in energy science and technology

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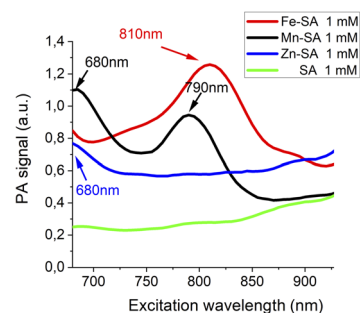
\*Visit [rsc.li/metrics-explainer](https://rsc.li/metrics-explainer) for more information

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### Mn(III), Fe(III) and Zn(II)-serum albumin as innovative multicolour contrast agents for photoacoustic imaging

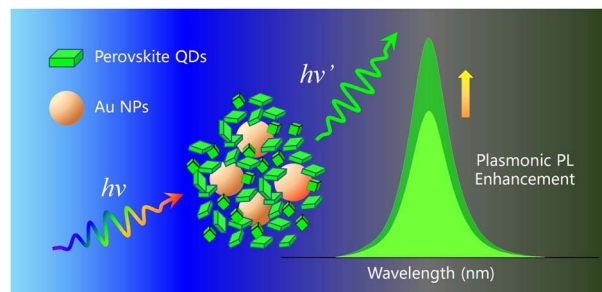
Enza Di Gregorio,\* Angelo Scarciglia, Alessandro Amaolo and Giuseppe Ferrauto



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### Enhancing photoluminescence performance of perovskite quantum dots with plasmonic nanoparticles: insights into mechanisms and light-emitting applications

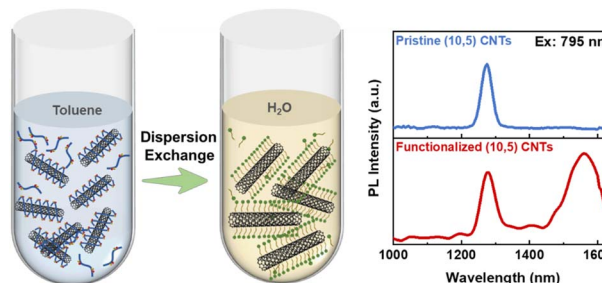
Gautham Kumar, Chien-Chung Lin, Hao-Chung Kuo and Fang-Chung Chen\*



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### Polymer removal and dispersion exchange of (10,5) chiral carbon nanotubes with enhanced 1.5 μm photoluminescence

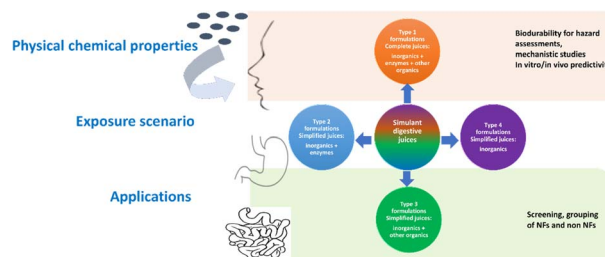
Yahui Li, Ye Liu, Feng Jin, Leitao Cao, Hehua Jin, Song Qiu\* and Qingwen Li\*



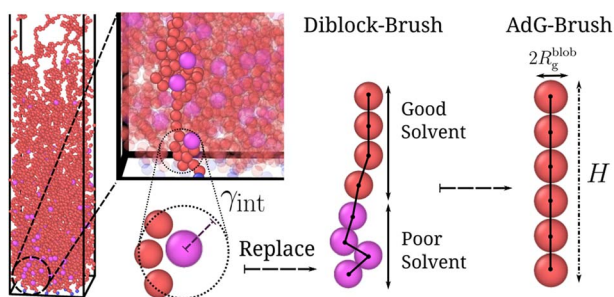
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Luisana Di Cristo, Johannes G. Keller, Luca Leoncino, Valentina Marassi, Frederic Loosli, Didem Ag Seleci, Georgia Tsiliki, Agnes G. Oomen, Vicki Stone, Wendel Wohleben\* and Stefania Sabella\*



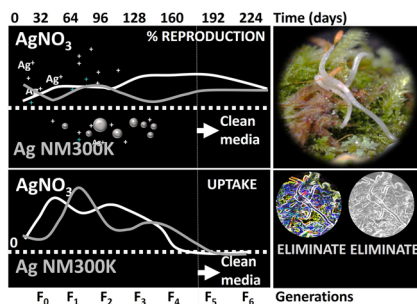
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### Colloidal adsorption in planar polymeric brushes

Clemens Franz Vorsmann, Sara Del Galdo, Barbara Capone and Emanuele Locatelli\*

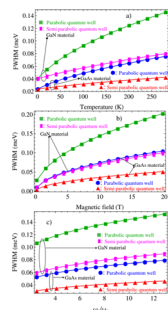
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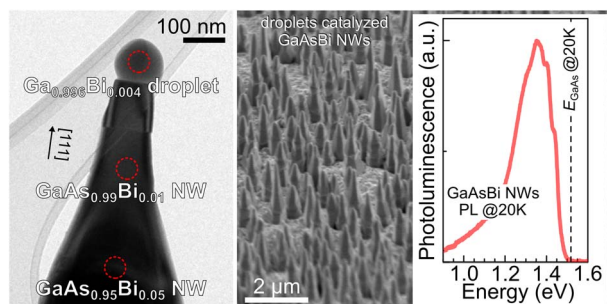
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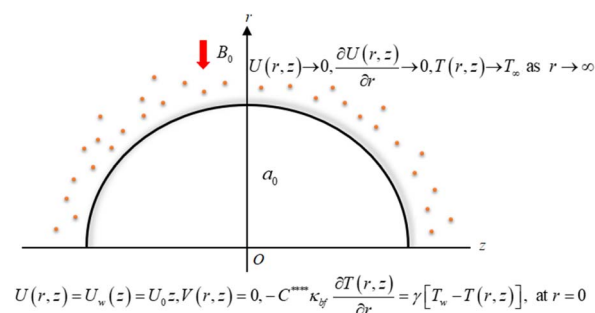
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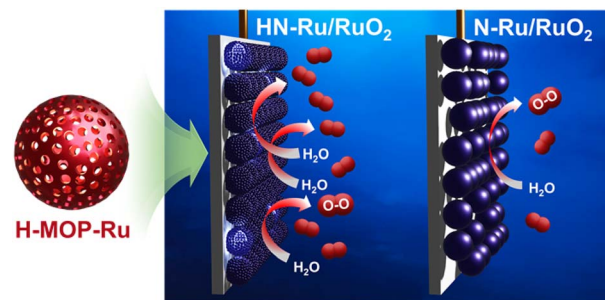
Khursheed Muhammad,\* Bilal Ahmed, Mohamed Sharaf, Mohammad Afikuzzaman and Emad A. Az-Zo'bi



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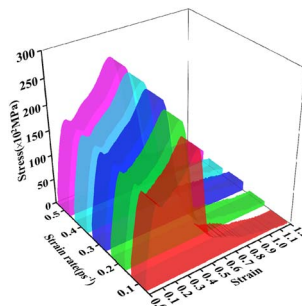
Kyoungil Cho, June Young Jang, Yoon-Joo Ko, Yoon Myung\* and Seung Uk Son\*



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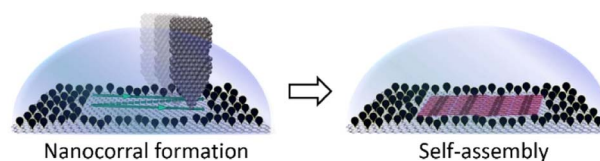
Xianfa Li,\* Junyu An, Shuisheng Chen, Guoqiang Chen, Yi Liu, Yongjun Shi and Long Zhou



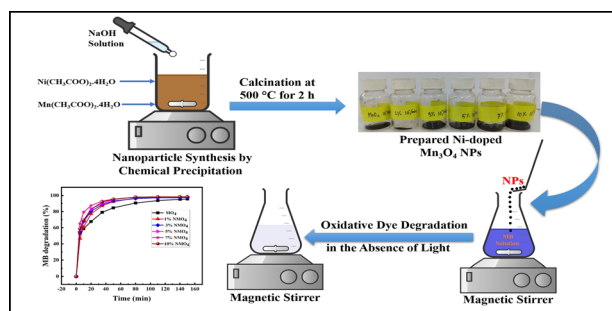
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### Chiral induction in substrate-supported self-assembled molecular networks under nanoconfinement conditions

Zeno Tessari, Tamara Rinkovec and Steven De Feyter\*



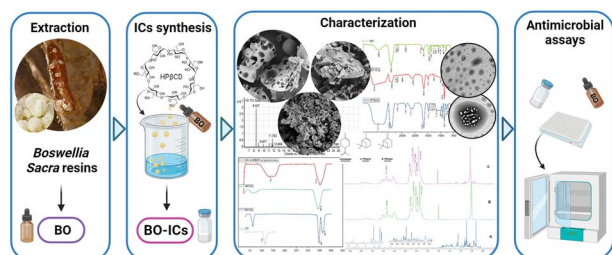
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### Phase tunable nickel doped $\text{Mn}_3\text{O}_4$ nanoparticle synthesis by chemical precipitation: kinetic study on dye degradation

Jasim Uddin, Rahim Abdur, Md. Rifat Hossain, Shahin Aziz, Mohammad Shah Jamal,\* Md. Aftab Ali Shaikh\* and Mosharof Hossain\*

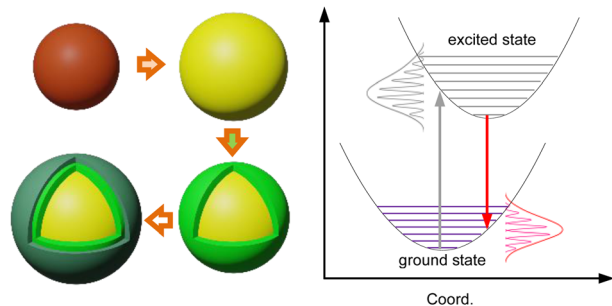
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Obaydah Abd Alkader Alabrahim, Salim Alwahibi and Hassan Mohamed El-Said Azzazy\*

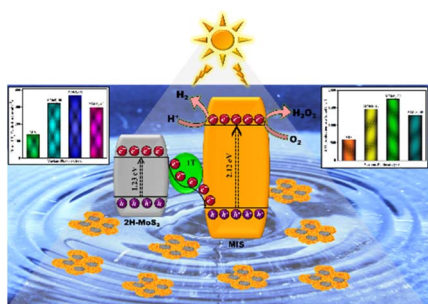
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### Enhancement mechanism of quantum yield in core/shell/shell quantum dots of $\text{ZnS-AgIn}_5\text{S}_8/\text{ZnIn}_2\text{S}_4/\text{ZnS}$

Seonghyun Jeong, Minji Ko, Sangwon Nam, Jun Hwan Oh, Seung Min Park, Young Rag Do\* and Jae Kyu Song\*

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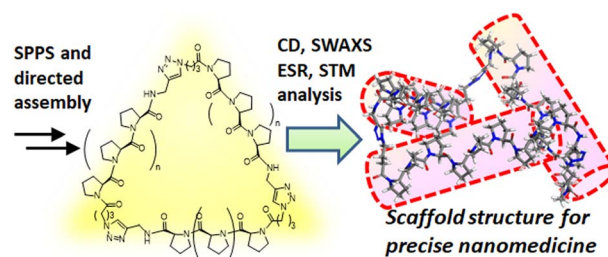
Sarmistha Das, Lopamudra Acharya, Lijarani Biswal and Kulamani Parida\*



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### Comprehensive characterization of polyproline tri-helix macrocyclic nanoscaffolds for predictive ligand positioning

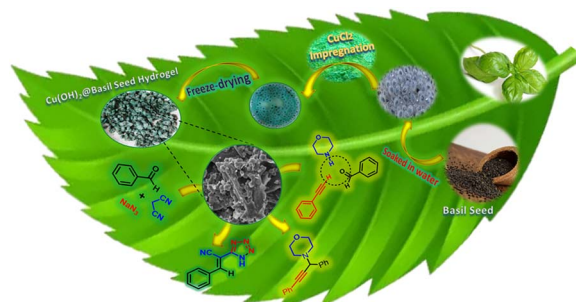
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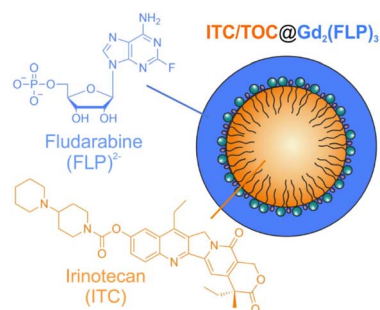
Effat Samiee Paghaleh, Eskandar Kolvari,\* Farzad Seidi and Kheibar Dashtian



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David Rudolph, Myrto Ischyropoulou, Juliana Pfeifer, Joanna Napp,\* Ute Schepers,\* Frauke Alves\* and Claus Feldmann\*



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Yangqi Ji, Haifeng Lv\* and Xiaojun Wu\*

