

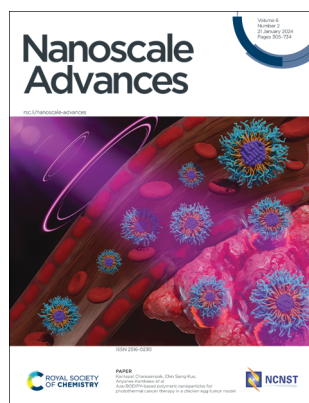
# Nanoscale Advances

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**Cover**  
See Kantapat Chansaenpak, Chin Siang Kue, Anyanee Kamkaew *et al.*, pp. 406–417. Image reproduced by permission of Kantapat Chansaenpak from *Nanoscale Adv.*, 2024, 6, 406.



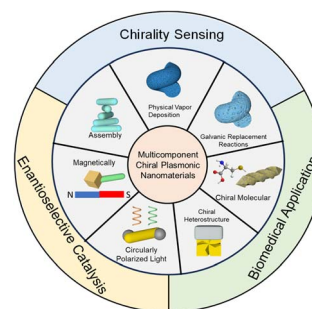
**Inside cover**  
See Xiaojuan Sun, Dabing Li *et al.*, pp. 418–427. Image reproduced by permission of Ke Jiang, Xiaojuan Sun, Dabing Li from *Nanoscale Adv.*, 2024, 6, 418.

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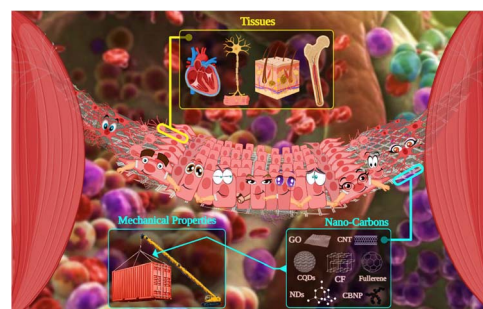
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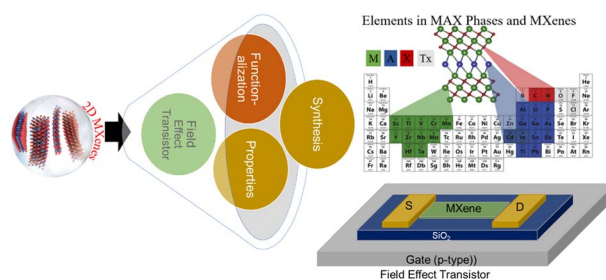
Fundamental questions  
Elemental answers

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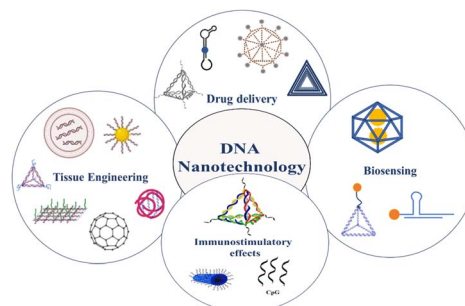
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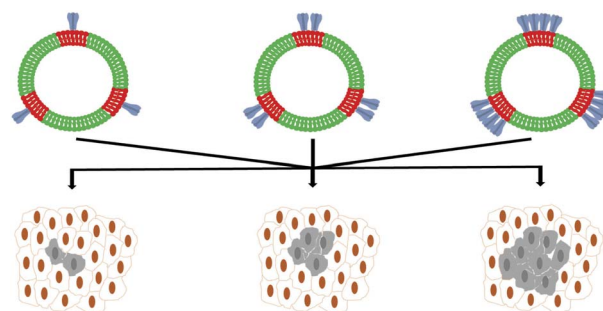


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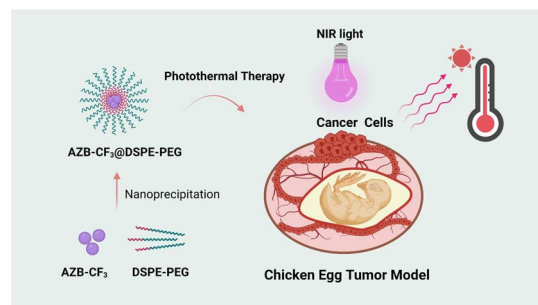


## PAPERS

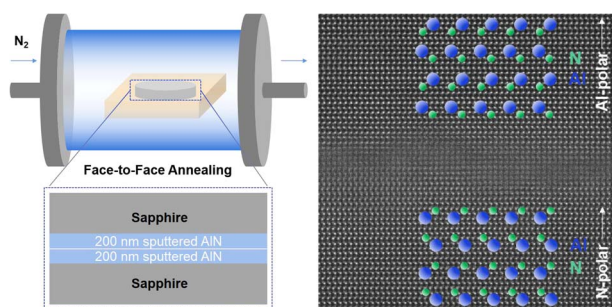
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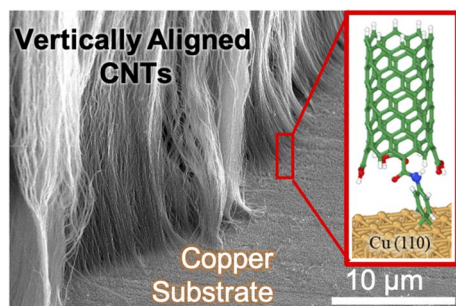
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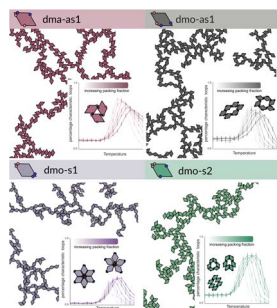
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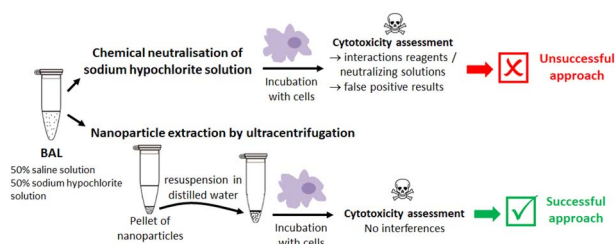
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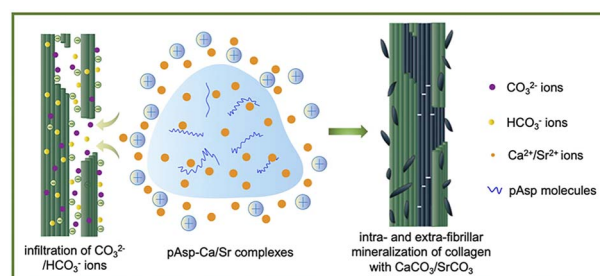
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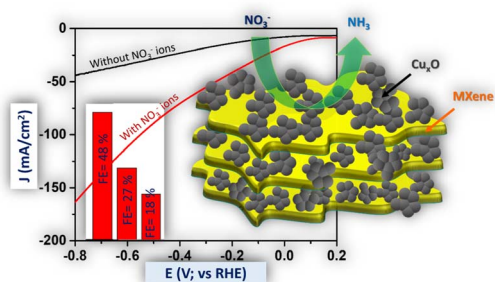
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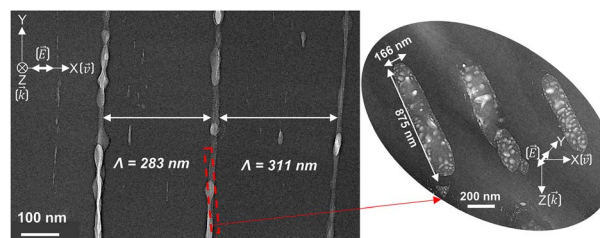
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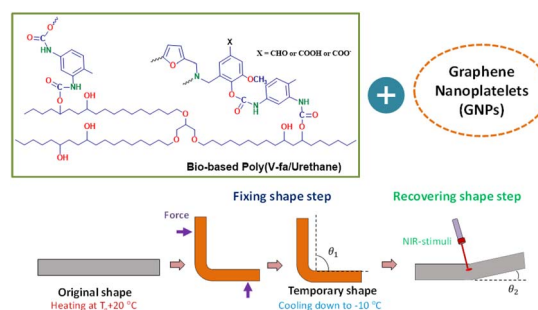
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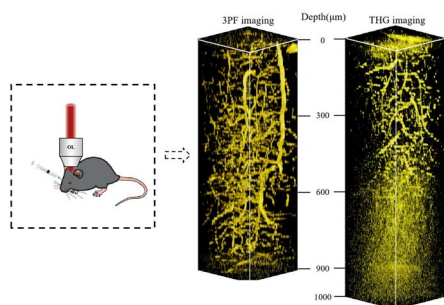
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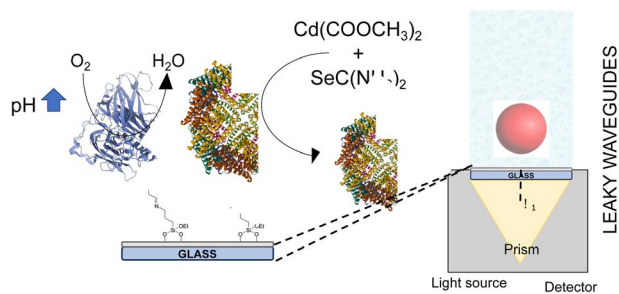
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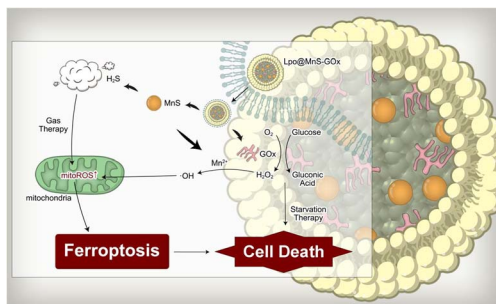
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### Bioelectrochemically triggered apoferritin-based bionanoreactors: synthesis of CdSe nanoparticles and monitoring with leaky waveguides

Angelo Tricase, Bushra Alhenaki, Verdiana Marchianò, Luisa Torsi, Ruchi Gupta\* and Paolo Bollella\*

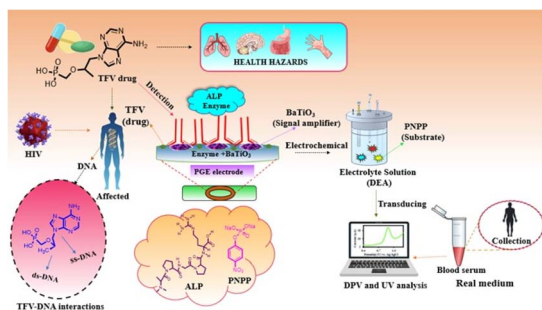
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### Liposome-coated nanoparticle triggers prostate cancer ferroptosis through synergetic chemodynamic-gas therapy

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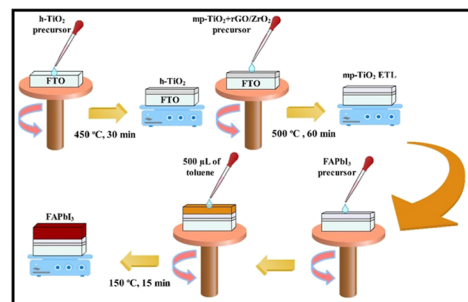
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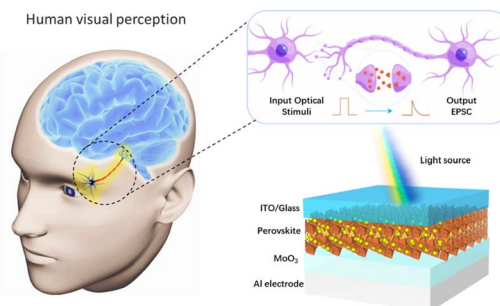
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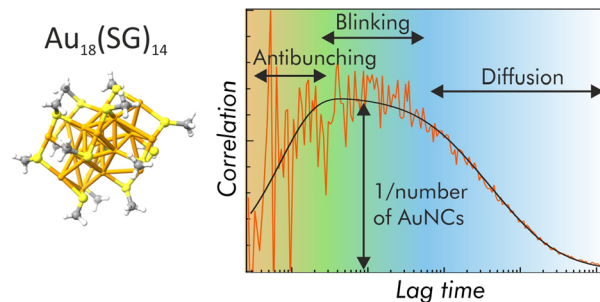
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Yi Li, Anran Yu,\* Hongyi Zhu\* and Yiqiang Zhan\*



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### Unveiling the photoluminescence dynamics of gold nanoclusters with fluorescence correlation spectroscopy

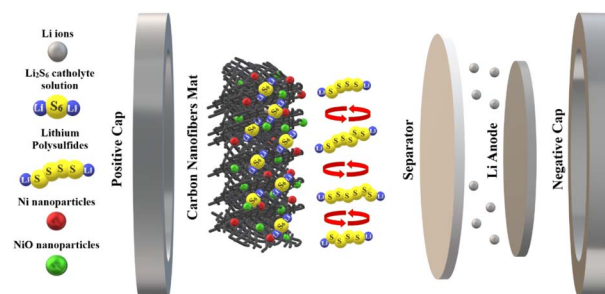
Malavika Kayyil Veedu, Julia Osmólska, Agata Hajda,  
Joanna Olesiak-Bańska and Jérôme Wenger\*



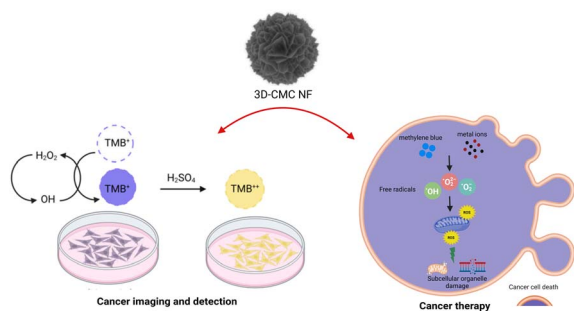
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### Nickel and nickel oxide nanoparticle-embedded functional carbon nanofibers for lithium sulfur batteries

Islam Rakhimbek, Nurzhan Baikalov, Aishuak Konarov,  
Almagul Mentbayeva, Yongguang Zhang  
and Zhumabay Bakenov\*



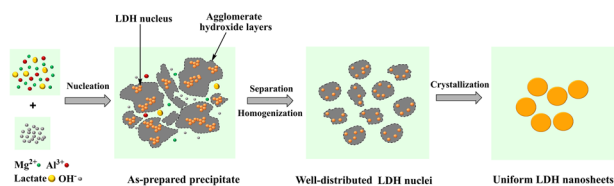
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### A self-assembled three-dimensional hierarchical nanoflower: an efficient enzyme-mimetic material for cancer cell detection that improves ROS generation for therapy

Chandran Murugan, Hyoryong Lee and Sukho Park\*

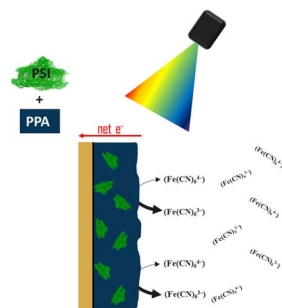
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Minh Vuong Phan,\* Thi Kim Thoa Tran, Quynh Nhu Pham, Manh Huy Do, Thi Hong No Nguyen, Minh Ty Nguyen, Thanh Thao Phan and Thi Xuan Hang To

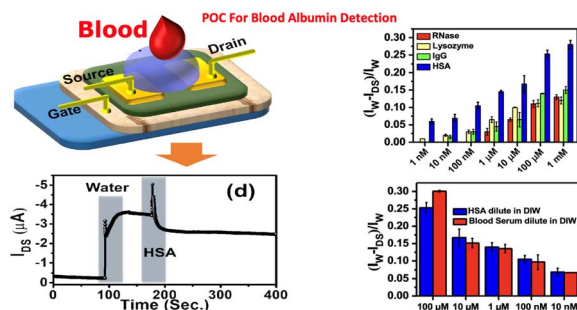
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Marc A. Nabhan, Allison V. Cordova-Huaman, David E. Cliffel and G. Kane Jennings\*

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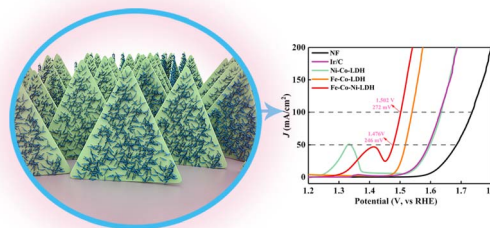
Ajoy Mandal, Suman Mandal, Samik Mallik, Sovantal Mondal, Subhendu Sekhar Bag and Dipak K. Goswami\*



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### Synergistic effect of composition gradient and morphology on the catalytic activity of amorphous FeCoNi-LDH

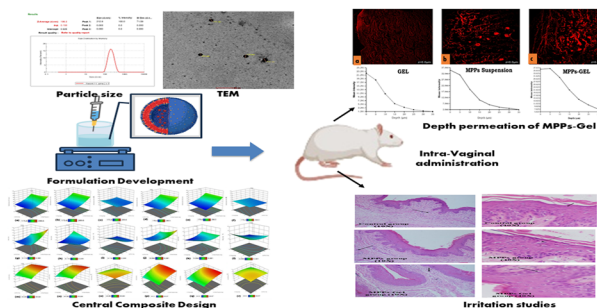
Yuan-Yuan Li,\* Xiao Nan Fu, Lin Zhu, Ying Xie, Gong Lei Shao, Bing-Xin Zhou, Wei-Qing Huang, Gui-Fang Huang and Na Wang



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### *In silico* and *in vitro* assessment of an optimized QbD-guided myoinositol and metformin-loaded mucus-penetrating particle-based gel for the amelioration of PCOS

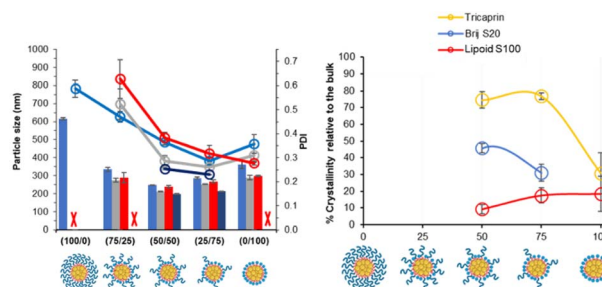
Uzma Farooq, Mohd Aamir Mirza, Abdullah Alshetali, Sradhanjali Mohapatra, Pooja Jain, Nazia Hassan, Zeenat Iqbal\* and Asgar Ali\*



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### Navigating the challenges of lipid nanoparticle formulation: the role of unpegylated lipid surfactants in enhancing drug loading and stability

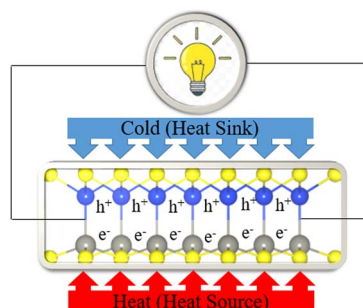
Cameron Hogarth, Keith Arnold, Steve Wright, Heba Elkateb, Steve Rannard and Tom O. McDonald\*



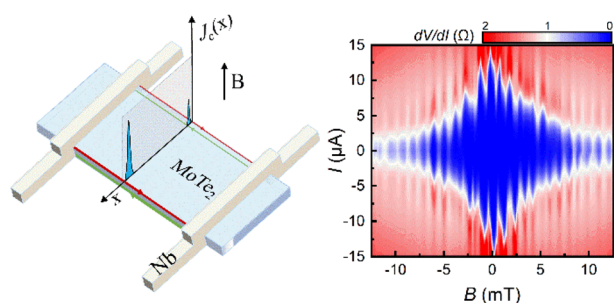
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### Optical and thermoelectric properties of new Janus ZnMN<sub>2</sub> (M = Ge, Sn, Si and N = S, Se, Te) monolayers: a first-principles study

Basit Ali, Muhammad Idrees, Tahani A. Alrebdi, Bin Amin and Qaisar Alam\*



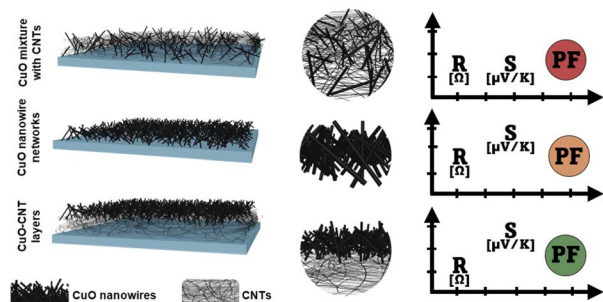
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### Asymmetric edge supercurrents in $\text{MoTe}_2$ Josephson junctions

Pingbo Chen, Jinhua Wang, Gongqi Wang, Bicong Ye, Liang Zhou, Le Wang, Jiannong Wang, Wenqing Zhang, Weiqiang Chen, Jiawei Mei and Hongtao He\*

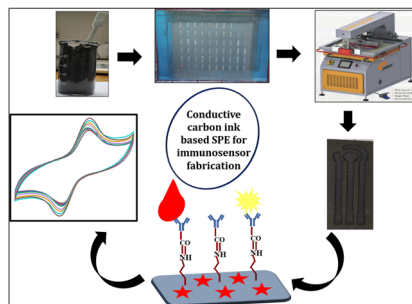
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### Synthesis and enhanced room-temperature thermoelectric properties of $\text{CuO}$ -MWCNT hybrid nanostructured composites

Raitis Sondors, Davis Gavars, Elmars Spalva, Artis Kons, Rynno Lohmus, Margarita Volkova, Raimonds Meija and Jana Andzane\*

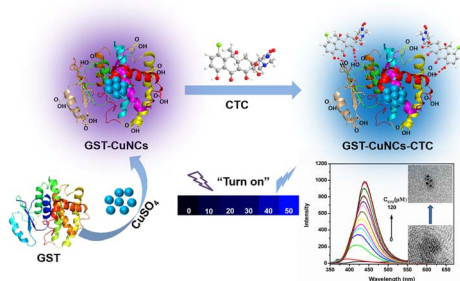
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### Nano-modified screen-printed electrode-based electrochemical immunosensors for oral cancer biomarker detection in undiluted human serum and saliva samples

Payal Gulati, Avinash Kumar Singh, Amit K. Yadav, Kiran Pasbola, Perna Pandey, Rinu Sharma, Alok Thakar and Pratima R. Solanki\*

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### Glutathione S-transferase templated copper nanoclusters as a fluorescent probe for turn-on sensing of chlorotetracycline

Jiaxi Wang, Wenting Chen, Lei Cao, Mengyan Zhou, Yongkang Geng, Yifei Liu, Shushu Ding\* and Ding-Yi Fu\*



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**Correction: A novel study on the preferential attachment of chromophore and auxochrome groups in azo dye adsorption on different greenly synthesized magnetite nanoparticles: investigation of the influence of the mediating plant extract's acidity**

Kaouthar Ahmouda,\* Moussa Boudiaf and Boubaker Benhaoua

