

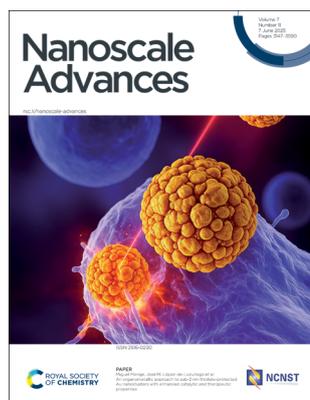
# Nanoscale Advances

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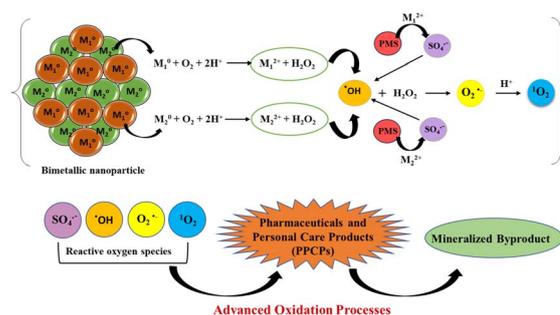
**Cover**  
See Miguel Monge, José M. López-de-Luzuriaga *et al.*, pp. 3228–3235. Image reproduced by permission of Miguel Monge from *Nanoscale Adv.*, 2025, 7, 3228.

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#### Advantages of Transition Metals

- > Electron Configuration
- > Coordination Chemistry
- > Surface Properties
- > Thermal Stability
- > Variable Oxidation States
- > High Catalytic Activity



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# EES Batteries

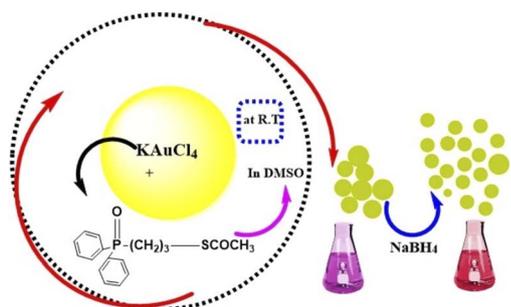
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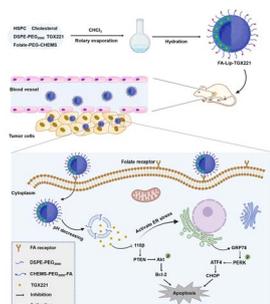
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### Gold nanoparticles functionalized by phosphine oxide derivatives: characterization and influence of ligand structure on their stability

Wanisa Abdussalam-Mohammed,<sup>\*</sup> Mashaal M. Alshaikh, Pawan Shah and Ajaya Bhattarai<sup>\*</sup>

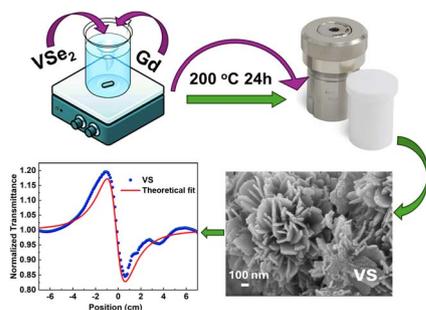
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### Folate receptor-targeted pH-sensitive liposomes loaded with TGX-221 against prostate cancer by inhibiting PI3K/110 $\beta$ signaling

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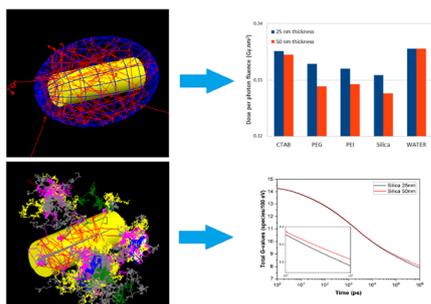
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### Optical nonlinearity of Gd-doped VSe<sub>2</sub> nanoflowers for photonic device applications

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### The role of coating layers in gold nanorods' radioenhancement: a Monte Carlo analysis

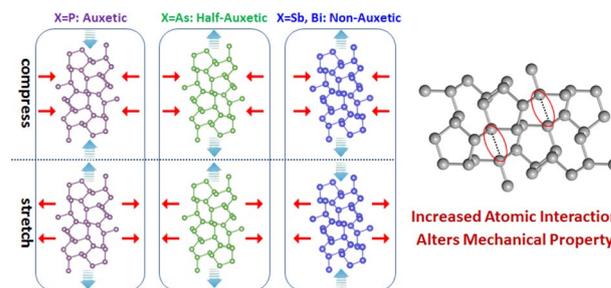
Taheri A.,<sup>\*</sup> Khandaker M. U.,<sup>\*</sup> Rabus H., Moradi F. and Bradley D. A.



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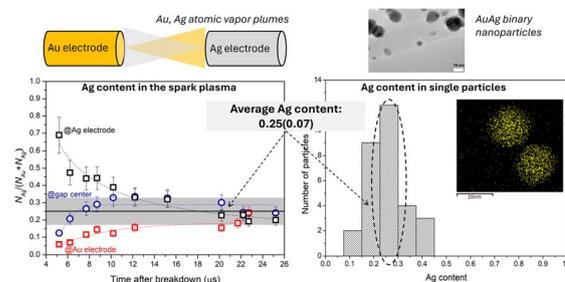
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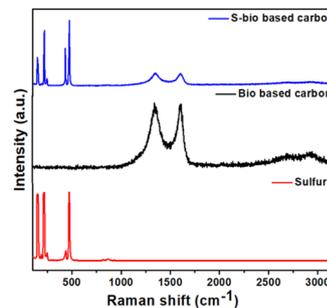
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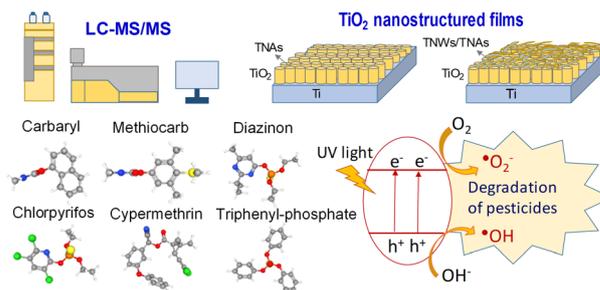
Surjit Sahoo,\* Thiba Nagaraja, Monika Michalska and Suprem R. Das\*



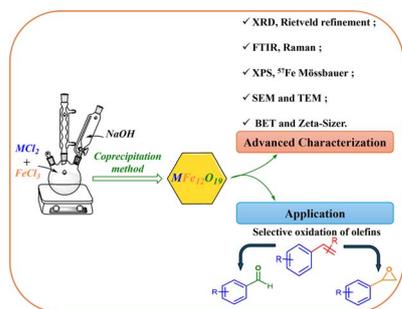
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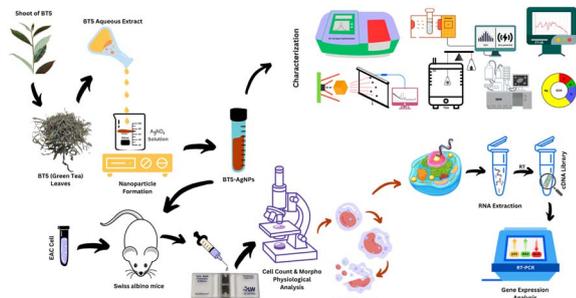
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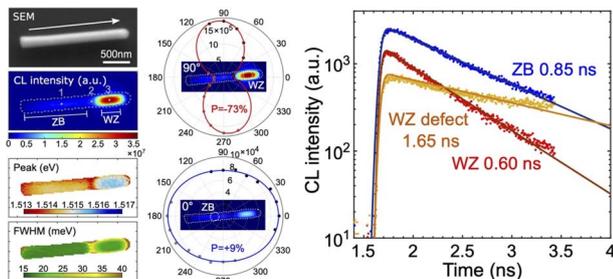
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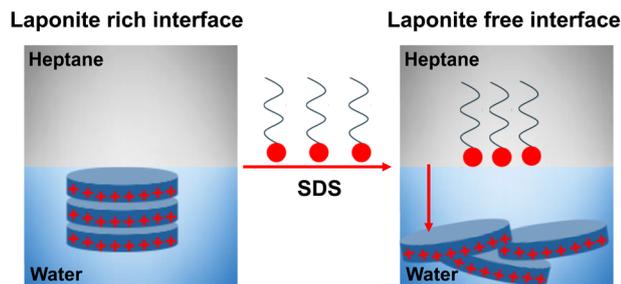
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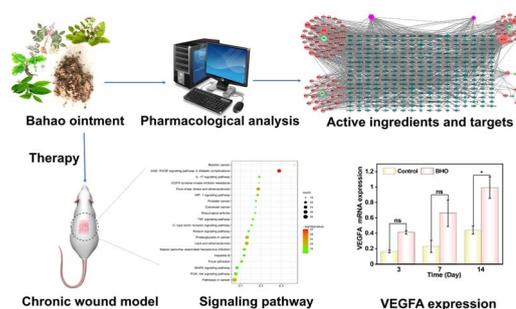
Sohaib Mohammed, Ahmed W. Alsmail, Hassnain Asgar, Prince Ochonma, Antonios Kouloumpis, Yang Jia, Rituparna Hazra, Ivan Kuzmenko, Emmanuel P. Giannelis and Greeshma Gadikota\*



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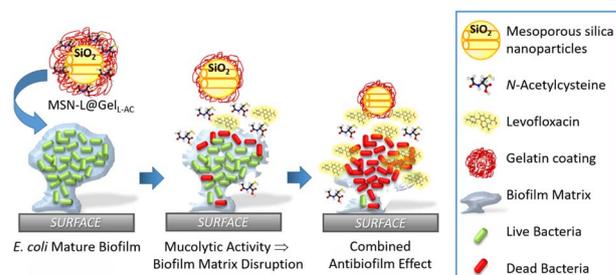
Han-Ying Qian, Lu Chen, Xiao-Man Zhang, Le Qiu, Fei Wang, Ting Feng, Jie Shan,\* Xun Yuan\* and Xu-Lin Chen\*



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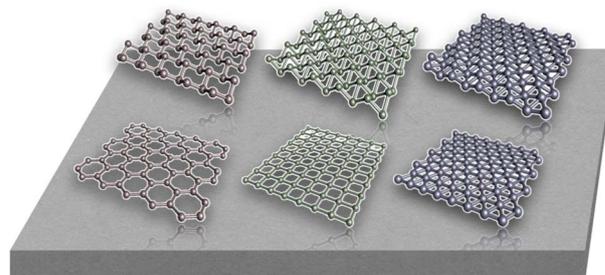
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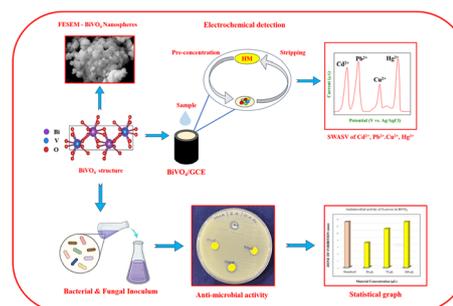
Pekka Koskinen\* and Kameyab Raza Abidi



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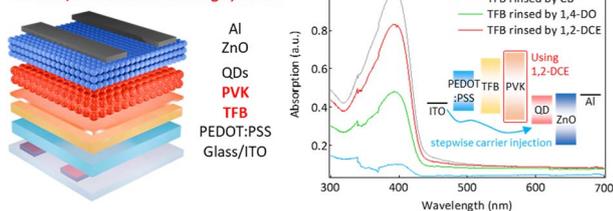
### Simultaneous electrochemical detection of heavy metal ions using a sol-gel synthesized BiVO<sub>4</sub> nanosphere modified electrode and its antimicrobial activity

Keerthana Madhivanan, Raji Atchudan, Sandeep Arya and Ashok K. Sundramoorthy\*



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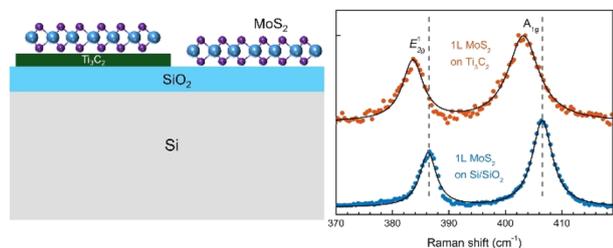
All solution processed QD-LEDs with TFB/PVK double HTL using 1,2-DCE



### Improved performance of all-solution-processed quantum dot light-emitting diodes with TFB/PVK double-hole transport layers using 1,2-dichloroethane

Jaeyeop Lee, Woon Ho Jung, Kyoungun Lee, Yeyun Bae, Minseok Choi, Jiyeon Oh, Jaehoon Lim and Jeongkyun Roh\*

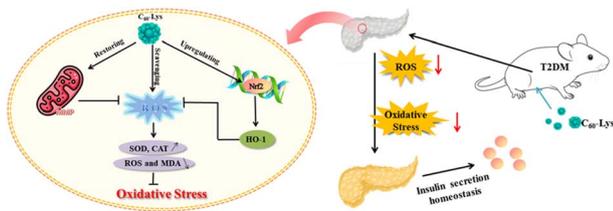
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Ethan Pollack, Qiaohui Zhou, Elham Loni, Kenneth Agbakansi, Ahmad Majed, Fei Wang, Ali Soleymani, Melena Busse, Michael Naguib and Xin Lu\*

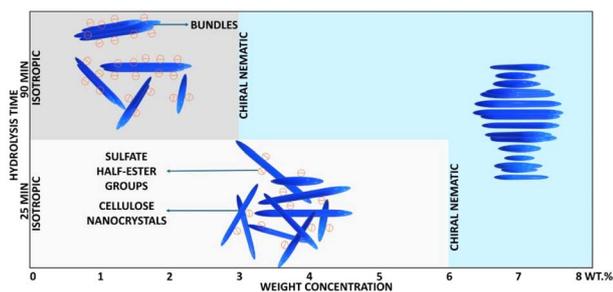
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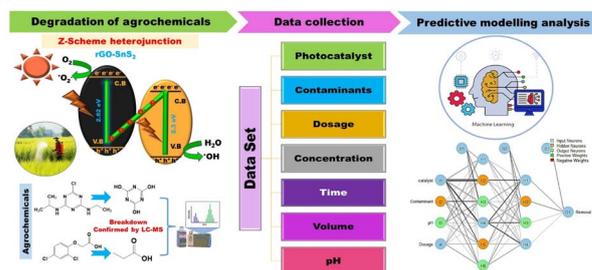
Shiyao Hong, Ashley Bean, Yuan Fang, Nathalie Lavoine\* and Lucian Lucia\*



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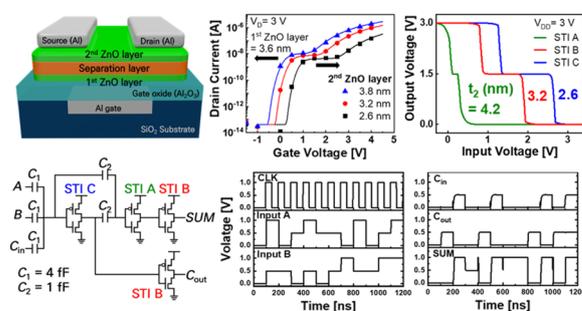
Jinal Patel, Megha Parmar, Syed Shahabuddin,\*  
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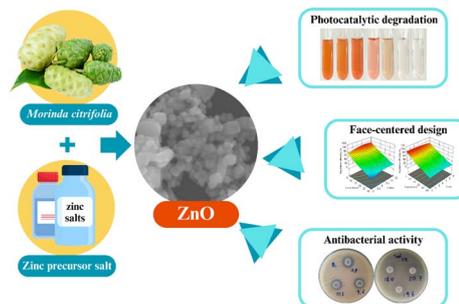
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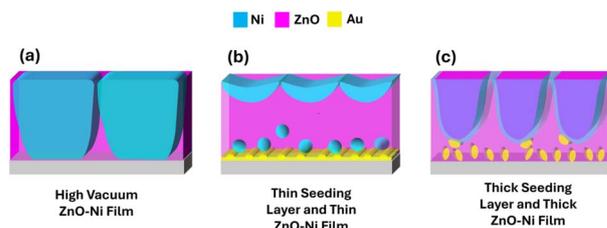
Ngoan Thi Thao Nguyen, Anh Nguyen Quynh Phan,  
Thuan Van Tran\* and Thuy Thi Thanh Nguyen\*



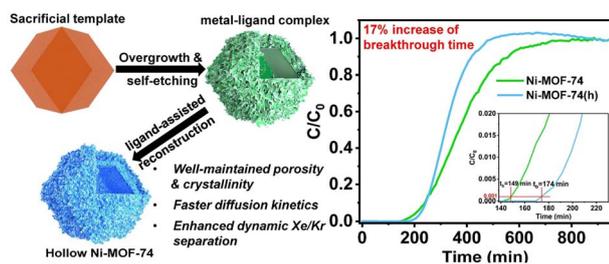
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## Morphology and property tuning in ZnO–Ni hybrid metamaterials in vertically aligned nanocomposite (VAN) form

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Anirutha Gnanasabai, Abhijeet Choudhury, Yizhi Zhang,  
Jianan Shen, Juanjuan Lu, Aleem Siddiqui, Raktim Sarma  
and Haiyan Wang\*



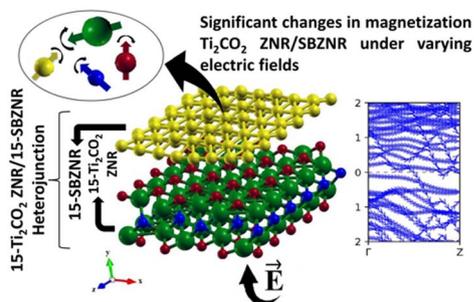
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### A facile two-step synthesis of hollow MOF-74 for enhanced dynamic Xe/Kr separation

Chunhui Wu,<sup>\*</sup> Xiaoling Wu, He Zhou, Youshi Zeng, Xinxin Chu,<sup>\*</sup> Wei Liu and Tao Li<sup>\*</sup>

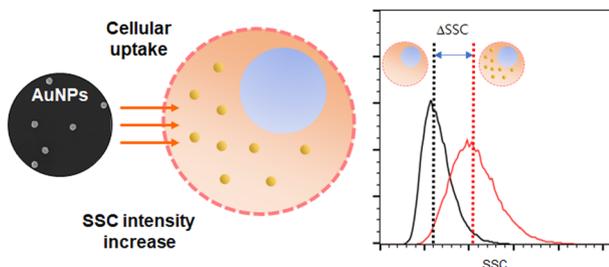
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Mahdi Shirazinia and Edris Faizabadi<sup>\*</sup>

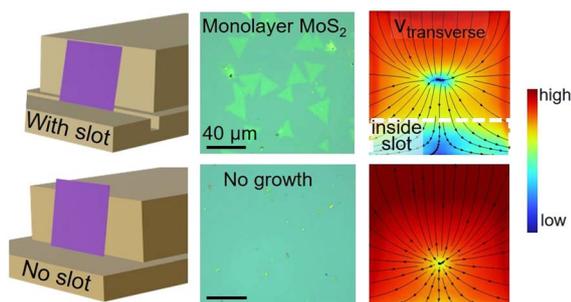
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### Quantification of cellular uptake of gold nanoparticles *via* scattering intensity changes in flow cytometry

Hye Ji Shin, Minjeong Kwak, Ik Hwan Kwon, Sook Heun Kim and Ji Youn Lee<sup>\*</sup>

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Abhinav Sinha, Manvi Verma, Nandeesh Kumar K. M., Keerthana S. Kumar, Ananth Govind Rajan<sup>\*</sup> and Akshay Singh<sup>\*</sup>



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Sarah E. Dean,<sup>\*</sup> Josephine Munro, Neuton Li, Robert Sharp, Dragomir N. Neshev and Andrey A. Sukhorukov

