

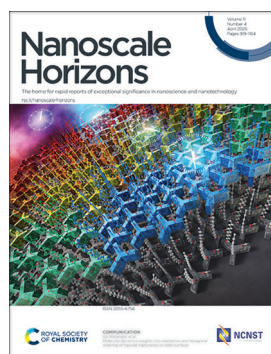
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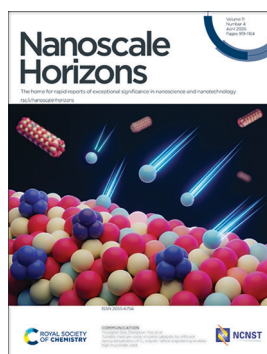
## IN THIS ISSUE

ISSN 2055-6756 CODEN NHAOAW 11(4) 919-1164 (2026)



### Cover

See Go Watanabe *et al.*, pp. 999–1005.  
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### Inside cover

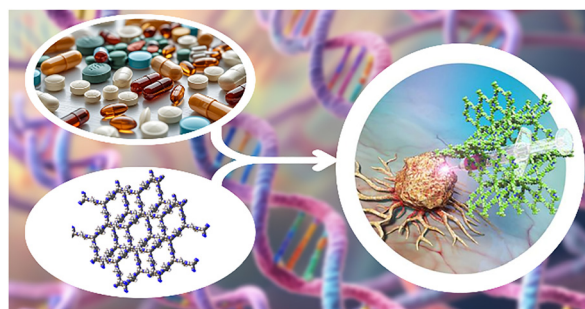
See Youngran Seo, Dongwon Yoo *et al.*, pp. 1006–1010.  
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## REVIEWS

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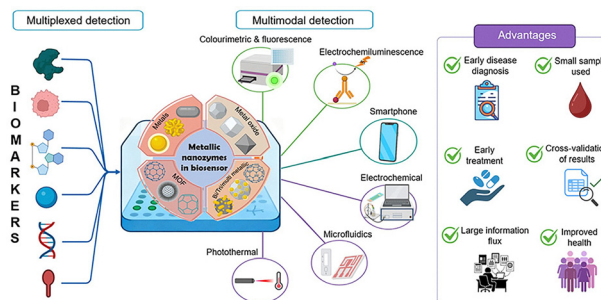
Tsukasa Irie, Saikat Das\* and Yuichi Negishi\*



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### Advancing metallic nanozymes for multiplexed multimodal biosensing in early disease diagnostics

Batrisyia Safwah Mohd Salleh and Minhaz Uddin Ahmed\*



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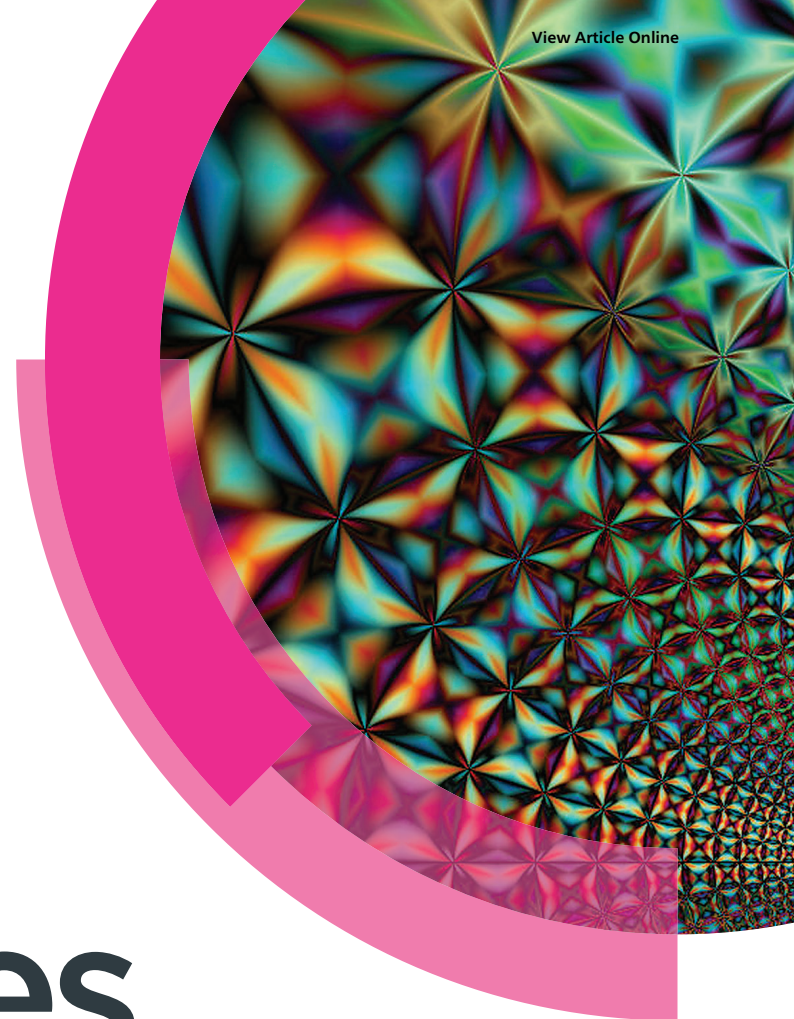


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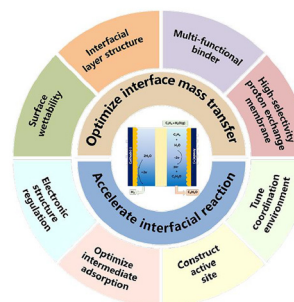


## REVIEWS

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### Direct electrocatalytic epoxidation of olefins: advances in membrane electrode assemblies and beyond

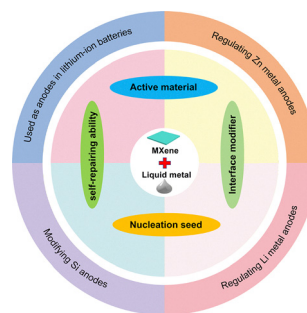
Yuzheng Li, Hui Li, Yinghua Zhang, Yuting Du, Xifeng Yu, Ruiji Wang, Zhongtao Li\* and Yan Lin\*



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### Advances of MXene/liquid metal composites for next-generation rechargeable batteries

Xiaolu Yu, Jie Cheng, Bin Li, Kun Zhang, Bowen Zhang, Wanpeng Zhou, Maofeng Zhang, Peng Wang, Shenglin Xiong and Chuanliang Wei\*

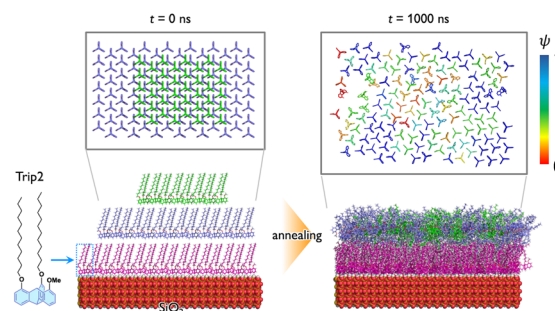


## COMMUNICATIONS

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### Molecular dynamics insights into orientation and hexagonal ordering of tripodal triptycenes on solid surfaces

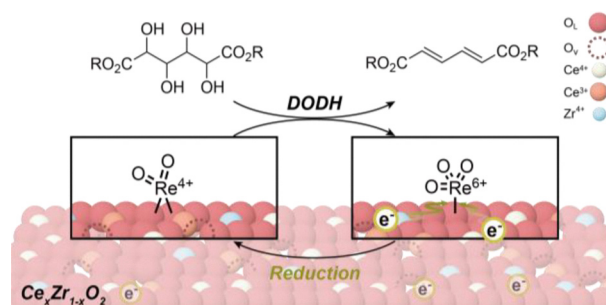
Kaito Nitta, Yoshiaki Shoji, Takanori Fukushima and Go Watanabe\*



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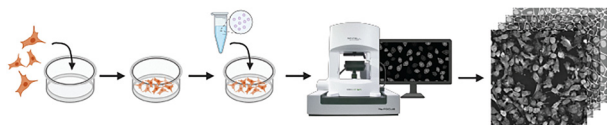
### Tunable rhenium–ceria–zirconia catalysts for efficient deoxydehydration of C<sub>6</sub> polyols: lattice engineering enables high muconate yield

Guk Hee Yim, Hyunwoo Choi, Hyeonjeong Son, Juhye Park, Ahyun Jeon, Youngran Seo\* and Dongwon Yoo\*



## COMMUNICATIONS

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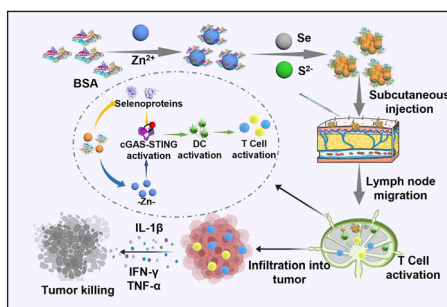
Automated analysis of cell contents:

Area and perimeter	Confluency and count	Mean refractive index
Health index	Total dry mass	Lipid droplet density

### Subcellular nanoparticle trafficking investigated with label-free, live cell imaging

Elizabeth B. Nelson, Gil Covarrubias, Namita Nabar, Victoria F. Gomerding, Anderson Scott, Paula T. Hammond and Joelle P. Straehla\*

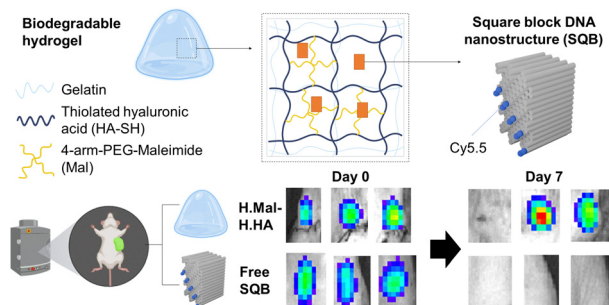
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### Zinc-selenium synergistic nanopatform for augmented cancer immunotherapy via trace-elements-mediated immunomodulation

Hang Liu, Mingjing Cao,\* Weixian Zhou, Lu Li and Chunying Chen\*

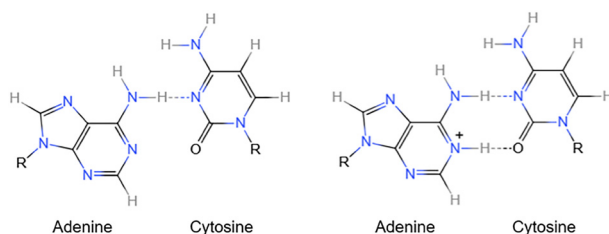
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### Enhanced stability and sustained delivery of structurally dense DNA nanostructures via a biodegradable hydrogel platform

Youngjin Choi, Yeonju Song, Bo Kyung Cho, Sang Jin Baek, Jin Myeong Wang, Su Hyun Seok, William M. Shih, Junsang Doh,\* Youngmee Jung\* and Ju Hee Ryu\*

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### RNA nanostructures based on three-letter coding with non-canonical base pairs

Jianqiu Zhao, Yan Qin, Qiancheng Xiong, Fang Fang\* and Bryan Wei\*

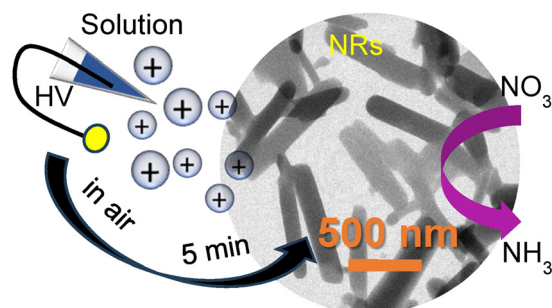


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### Ambient microdroplet synthesis of Pt and Pt–Cu nanorods from homogeneous solutions for electrocatalytic nitrate reduction

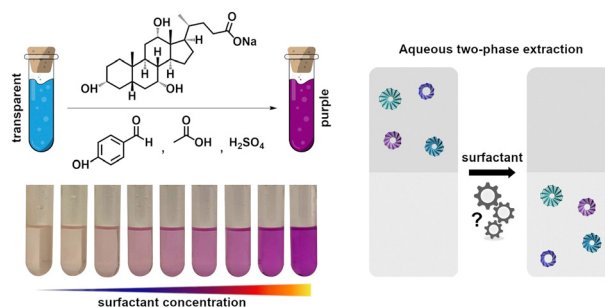
Kandampully Sahadevan Aswathi, Keerthana Unni, Sinchan Mukhopadhyay, Anirban Som, Soham Chowdhury, Sourav Kanti Jana, Depanjan Sarkar\* and Thalappil Pradeep\*



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### Colorization of optically transparent surfactants to track their movement in biphasic systems used for differentiation of nanomaterials

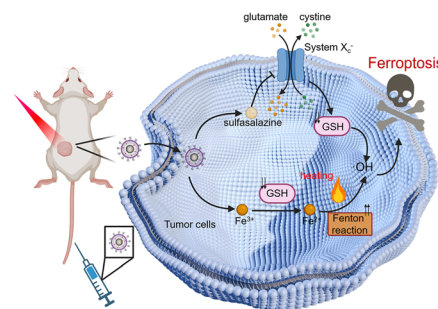
Blazej Podlesny,\* Lukasz Czapura and Dawid Janas\*



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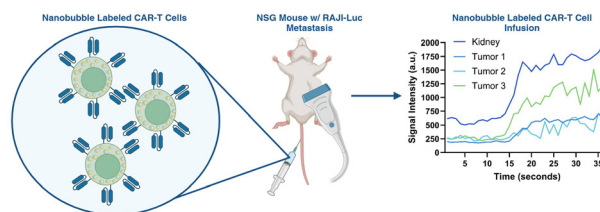
Juxin Gao, Hengze Ding, Qinghua Wu, Yuhang Hu, Yifan Yan, Minming Chen, Chunjie Wang, Zhuang Liu and Liangzhu Feng\*



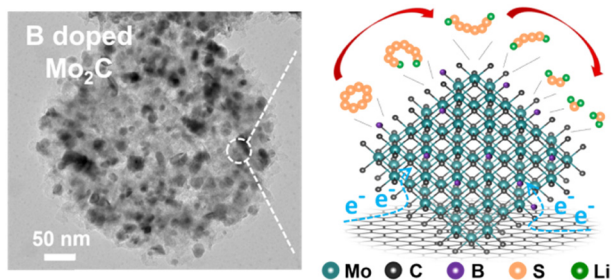
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### In vivo tracking of CAR-T cells in tumors via nanobubble-based contrast enhanced ultrasound

Dorian Durig, Jude Franklin, Reshani Perera, Zachary Jackson, Smitha Hosahalli Vasanna, Michael C. Kolios, David N. Wald\* and Agata A. Exner\*



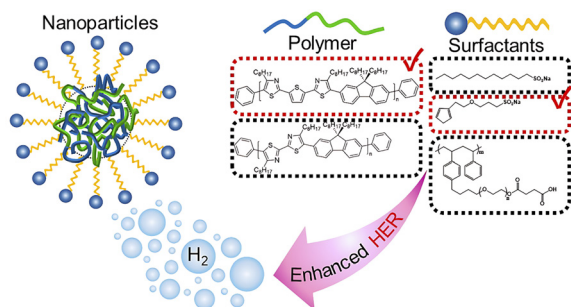
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### Boron-doping engineering of molybdenum carbide on nitrogen-rich carbon nanospheres: a synergistic adsorption–conversion modifier for high-performance lithium–sulfur batteries

Pengqian Guo,\* Jing Lin, Wenxuan Hu, Jinchi Huang, Pangquan Huang, Weixin Chen, Xiuwan Li, Xia Lu and Xinhua Guo\*

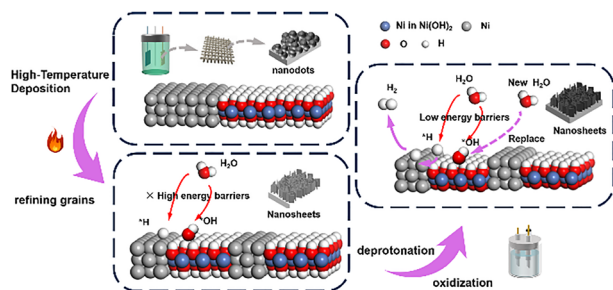
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### Designing bithiazole-based conjugated polymers as alternatives to benzothiadiazoles for photocatalytic hydrogen evolution

Taekmin Kim, WonJo Jeong, Sanghyeok An, Junho Kim, Gayoung Ham, Seungok Pyo, Hyojung Cha,\* In Hwan Jung\* and Dae Sung Chung\*

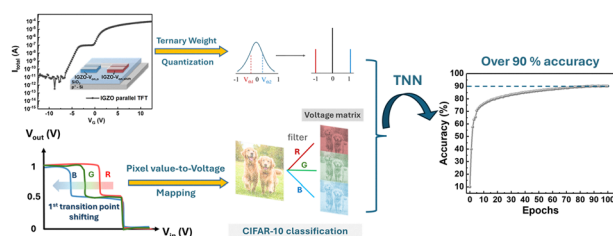
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### A highly active and durable hybrid Ni/NiOOH catalyst by synergistic high-temperature deposition and electrochemical oxidation for hydrogen evolution

Kebin Yang, Weibing Wu\* and Yizhong Lu\*

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### An IGZO phototransistor-based ternary inverter integrating optical sensing and weight quantization in ternary neural networks for color image recognition

Wun-Yun Lin, Yong-Yi Huang, Yu-Chieh Chen, Chen-Gang Jang, Li-Chung Shih and Jen-Sue Chen\*

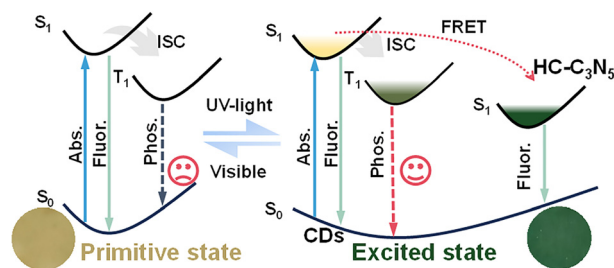


## COMMUNICATIONS

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**Boosted photochromic properties by carbon dots based on Förster resonance energy transfer**

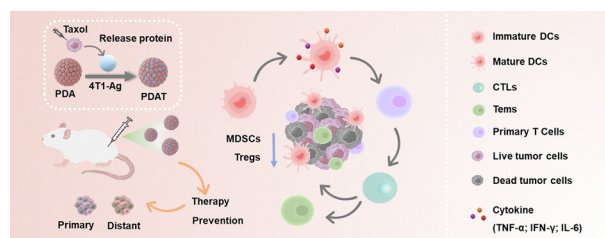
Liqiang Kuang, Pengnian Shan, Keyi Chen, Xiaoyang Zhou, Lijing Wang, Weilong Shi,\* Chunsheng Li\* and Yan Yan\*



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**Nanovaccines of polydopamine@tumor-associated antigens with robust prophylactic and therapeutic efficacy for cancer immunotherapy**

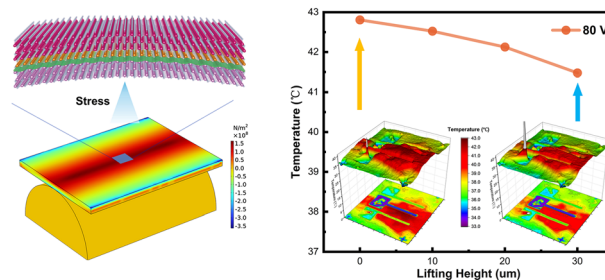
Hongxin Liu, Min Zheng\* and Zhigang Xie\*



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**Piezotronic probe modulates the piezoelectric-electric-thermal coupling field in GaN power electronics**

Zilong Dong, Yuxiu Liu, Wei Sha, Bingjun Wang, Ding Li, Yuxin Wang, Jiangwen Wang, Peiran Tian, Yong Long, Junyi Zhai\* and Weiguo Hu\*



## CORRECTION

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**Correction: Unlocking interstitial fluid for acute coronary syndrome diagnosis: ultrasensitive troponin I detection using imprinted polymer nanoparticles**

Joshua Saczek, Amy Dann, Robert D. Crapnell, Craig E. Banks, Rhiannon E. Johnson, Francesco Canfarotta, Joanna Czulak, Alan Thomson, Azfar Zaman, Ioakim Spyridopoulos, Katarina Novakovic, Marloes Peeters and Jake McClements\*

