

## IN THIS ISSUE

ISSN 1144–0546 CODEN NJCHES 49(38) 16467–16894 (2025)



## Cover

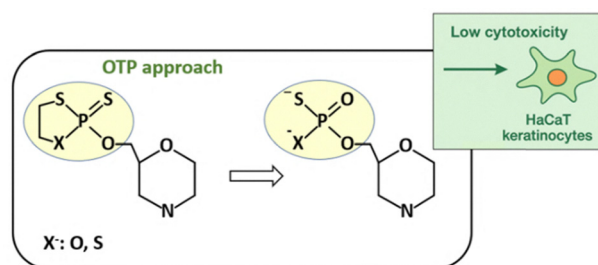
See Shigeyuki Yamada *et al.*, pp. 16485–16492.  
Image reproduced by permission of Shigeyuki Yamada from *New J. Chem.*, 2025, 49, 16485.

## COMMUNICATION

16481

### Biologically relevant morpholino nucleoside thio- and dithiophosphates via an oxathiophospholane approach

Katarzyna Jastrzębska,\* Justyna Jakubowska, Agata Szymańska, Weronika Stępnik, Roza Pawłowska and Arkadiusz Chworos

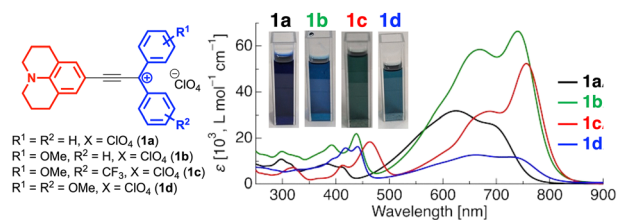


## PAPERS

16485

### Triarylmethane dye ethynologue with a fused julolidine motif as a compact dye in the near infrared range

Hayato Kitaoka, Kazuki Kobayashi, Motohiro Yasui, Tsutomu Konno and Shigeyuki Yamada\*



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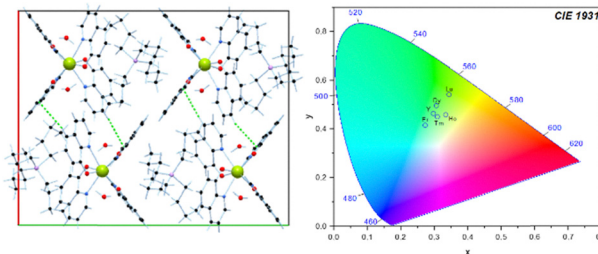


## PAPERS

16493

### Crystal chemistry and luminescence properties of tetrabutylphosphonium tetrakis(8-quinolinato)-lanthanide $[P_{4444}][Ln(Q)_4] \cdot 2X$ ( $X = H_2O$ and $(CH_3)_2CO$ )

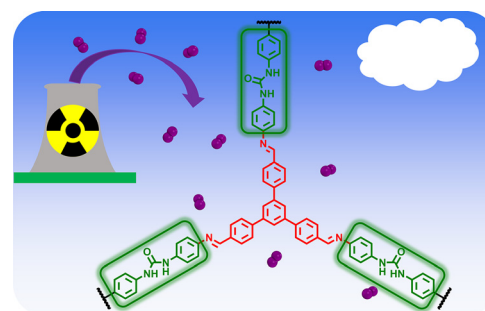
Stefanie Kammereck, Guillaume Bousrez, Olivier Renier, Veronica Paterlini, Volodymyr Smetana and Anja-Verena Mudring\*



16501

### Urea-engineered porous organic polymers for efficient iodine capture in vapor and liquid phases

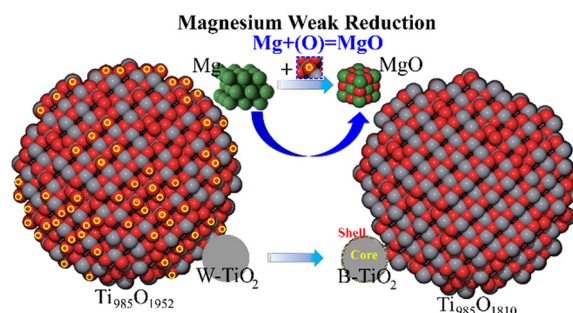
Wenyao Zhang, Shulei Feng, Junhua Bai and Junwen Wang\*



16507

### Preparation of black nano-titanium dioxide by a B<sub>2</sub>O<sub>3</sub> sealed magnesium weak reduction method and kinetic analysis

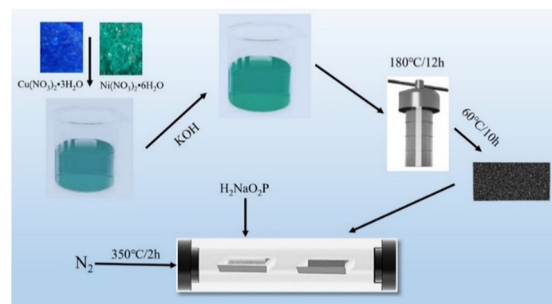
Wenjing Peng, Jun Li,\* Peng Liu,\* Xiang Li, Enhui Wu, Xiaojing Tang, Jianzhong Tang, Jing Hou, Zhong Xu, Yuan Zhang, Bo Zhang and Shuzhong Chen



16521

### Cu<sub>3</sub>P/NiO@NF heterostructure for highly efficient alkaline oxygen evolution reaction

Dandan Liang, Weili Hou, Huan Xu, Mengting Zhu, Ziyang Cheng and Yufeng Sun\*

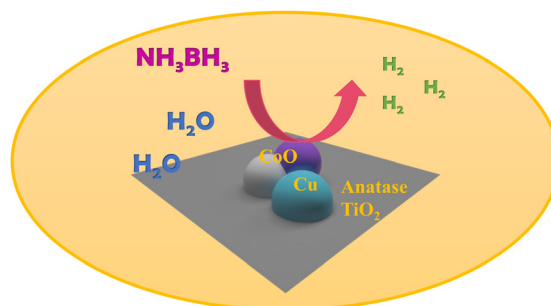




16583

### Synergistic Cu–Co dual active sites on anatase TiO<sub>2</sub> for efficient ammonia borane hydrolysis

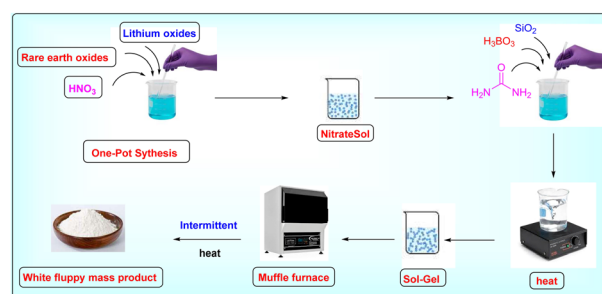
Longyin Zhao, Sen Tian, Ye Tao and Lan Yang\*



16592

### Nano-synthesis and characterization of Er<sup>3+</sup>, Ho<sup>3+</sup> and Li<sup>+</sup> co-doped, Er<sup>3+</sup> and Li<sup>+</sup> co-doped and Ho<sup>3+</sup> and Li<sup>+</sup> co-doped lanthanum borosilicate luminescent materials (LaBSiO<sub>5</sub>) by a sol-gel pyrolysis method for forensic applications

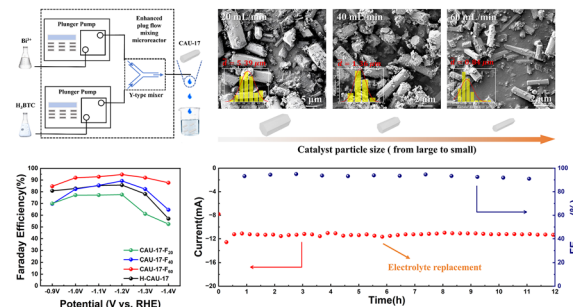
R. Mehala, T. Thanalakshmi and A. Karthikeyani\*



16608

### Microfluidic continuous synthesis of size-tunable CAU-17 for efficient electrocatalytic CO<sub>2</sub> reduction

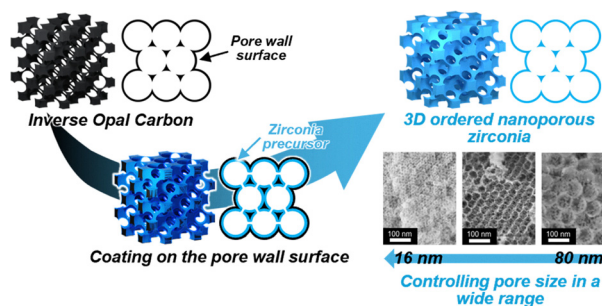
Xiaoyuan Luo, Zhenze Han, Xuetian Guo, Yu Wei\* and Yan Gao\*



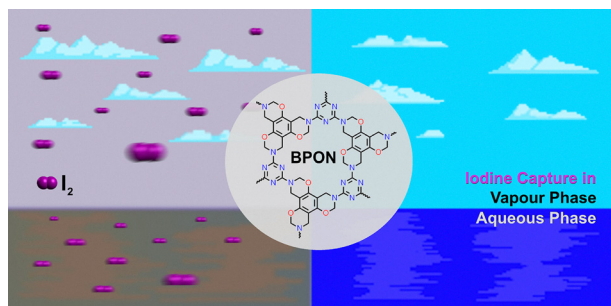
16617

### Fabrication of three-dimensionally ordered mesoporous zirconia using nanoporous carbon as a scaffold

Takamichi Matsuno,\* Gen Koinuma, Hiroaki Wada, Atsushi Shimojima and Kazuyuki Kuroda



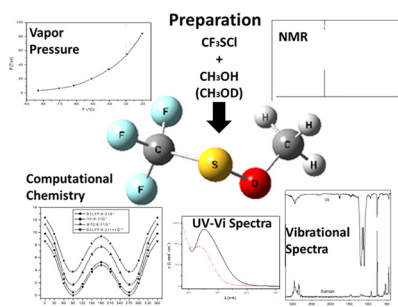
16625



### Benzoxazine-linked porous organic networks for effective iodine capture

Batu Sercan Canturk, Mustafa Erdogmus, Yasmin Gecalp, Hasan Sahin\* and Onur Buyukcakir\*

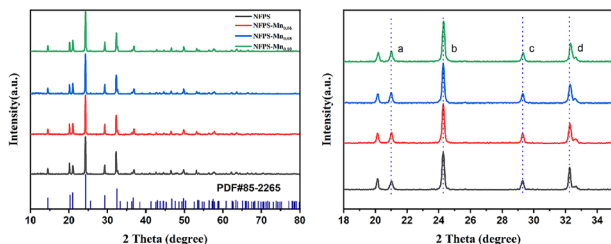
16635



### Unveiling $\text{CF}_3\text{SOCH}_3$ : synthesis, spectroscopic characterization, and conformational behavior of *S*-(trifluoromethyl)-*O*-(methyl) thioperoxide

M. Cuaquira Reina, E. Espitia Cogollo, M. F. Erben, Sonia E. Ulic,\* Helmut Beckers, Helge Willner and Carlos O. Della Védova\*

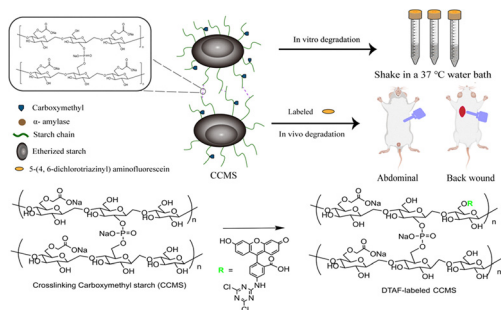
16643



### Manganese ion doping effect on $\text{NaFe}_2\text{PO}_4(\text{SO}_4)_2$ for high electrochemical performances as cathode material for battery application

Yilei Sun, Yao Liu, Haixia Wang, Zeda Meng,\* Jae Doc Na and Won-Chun Oh\*

16654



### Immobilization of fluorescein on hemostatic starch particles for tracking degradation and distribution *in vivo*

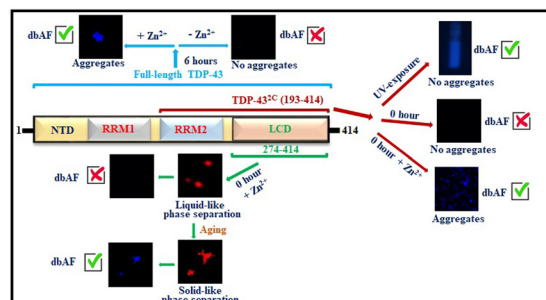
Hao Liu, Yun Bai, Yabin Zhu and Bin He\*



16669

### Enhanced *in vitro* aggregation, but not phase separation, of TDP-43 and its C-terminal fragments generates intrinsic deep-blue autofluorescence

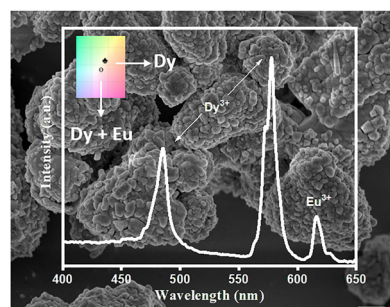
Preethi Saravanan, Vidhya Bharathi, Priyadarshini Veerabhadraswamy and Basant K Patel\*



16691

### Enhanced white light generation via $\text{Eu}^{3+}$ co-doping and $\text{Dy}^{3+} \rightarrow \text{Eu}^{3+}$ energy transfer in $\text{Ca}_3\text{WO}_6$ phosphors for WLEDs

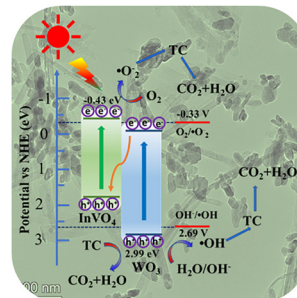
Naresh Degda



16700

### Construction of a Z-scheme $\text{WO}_3/\text{InVO}_4$ heterojunction for enhanced tetracycline photodegradation efficiency

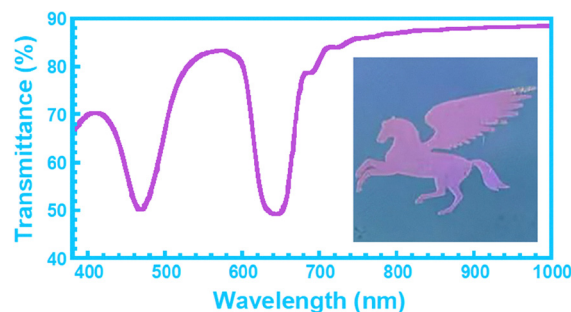
Xia Gong, Guichen Ping, Jinmei Li, Hongjing Ding, Ruixue Cui and Quanquan Shi\*



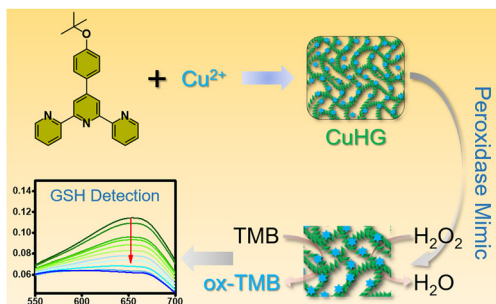
16707

### A cholesteric liquid crystal elastomer film with dual helical pitches formed by molecular diffusion

Ruizhuo Gui, Limin Wu,\* Yi Li, Wei Liu and Yonggang Yang\*



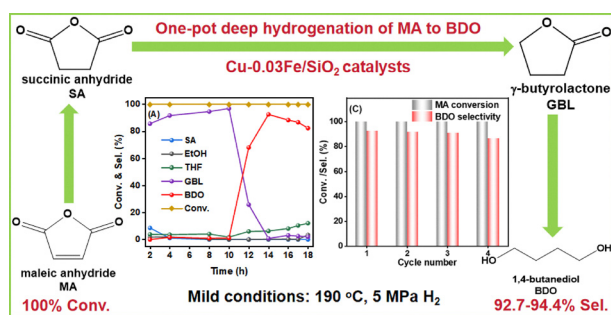
16713



### Copper-induced *tert*-butoxy-substituted terpyridine hydrogel for enhanced peroxidase-like activity and colourimetric glutathione sensing

Sourav Sutradhar, Suryakamal Sarma, Sonali Palo, Parnashabari Sarkar, Tridib Kumar Sarma and Biswa Nath Ghosh\*

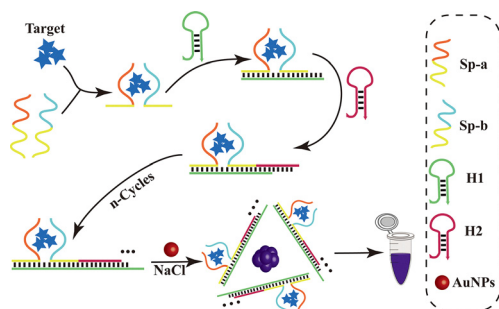
16723



### Efficient Cu–0.03Fe/SiO<sub>2</sub> catalysts for one-pot deep hydrogenation of maleic anhydride to 1,4-butanediol

Yuli Jing, Yufei Li, Junwen Chen, Kai Cui, Peng Wu and Xiaohong Li\*

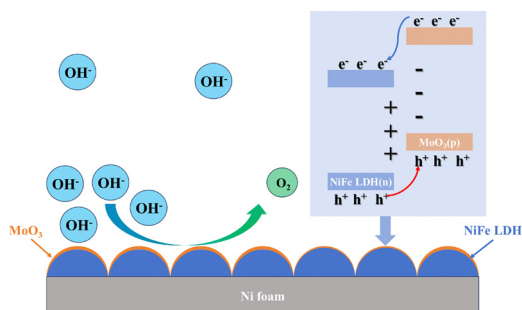
16734



### Smartphone-assisted colorimetric detection of tobramycin based on a dual-split aptamer remodeling-initiated target-hybridization chain reaction

Shuanglong Ying, Mei Li,\* Qian Song and Qingyou Cai\*

16740



### One-step ultrasound-assisted synthesis of a MoO<sub>3</sub>/NiFe LDH heterojunction for an efficient oxygen evolution reaction

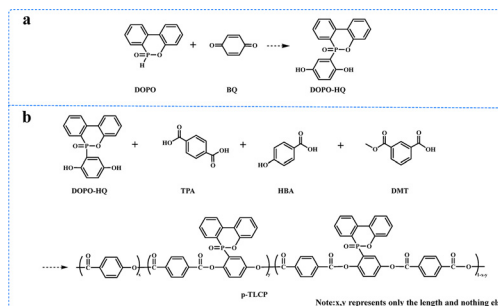
Yuhao Li, Jie Zhou, Qianqian Dong, Jihao Liu, Junjie Wang, Yaru Wen, Qianqian Jin, Zijun Sun, Jinghua Liu and Xiong He\*



16750

### Flame-retardant *in situ* reinforced PBT via a DOPO-based phosphorus-containing thermoliquid crystal copolyester

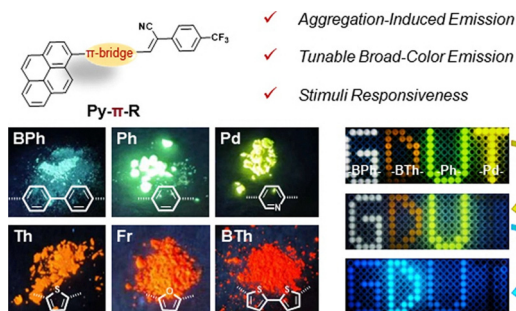
Zhongliang Guo, Yuqin Zhu, Yu Mi, Zhiyong Zhang, Huiying Wen,\* Lubin Liu, Miaojun Xu and Bin Li\*



16764

### Aromatic heterocyclic $\pi$ -bridge engineering for broad-color tunable and stimuli-responsive pyrene-based AIEgens

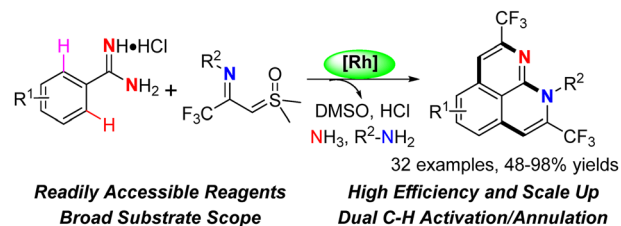
Shan Liang, Jialin Li, Jieyu Lin, Wei Liu, Zhenkai Na, Junru Chen,\* Chongyang Zeng\* and Xing Feng\*



16773

### Synthesis of trifluoromethyl-functionalized benzo[de][1,8]naphthyridines via Rh(III)-catalyzed two-fold C–H activation of benzamidines hydrochlorides and annulation with CF<sub>3</sub>-imidoyl sulfoxonium ylides

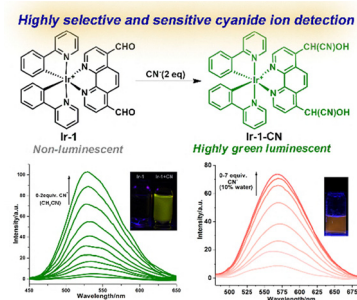
Qihua Chen, Feng Han and Zhengkai Chen\*



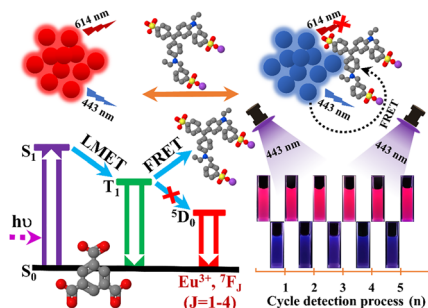
16778

### An organoiridium(III) complex-based probe for rapid and highly selective dual channel detection of cyanide ions

Jogat Gogoi, Monosh Rabha and Snehadinarayan Khatua\*



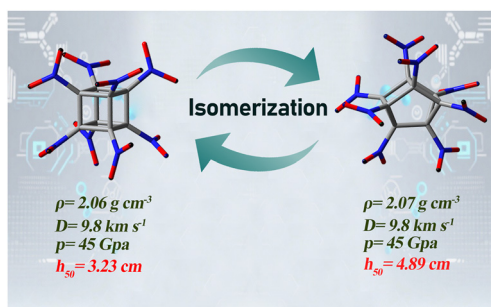
16787



## Design of a $\text{Eu}^{3+}$ -post-synthetic modified MOF ratiometric fluorescent probe for recyclable recognition of light green SF

Kuiyu Yi\* and Qifeng Zhao

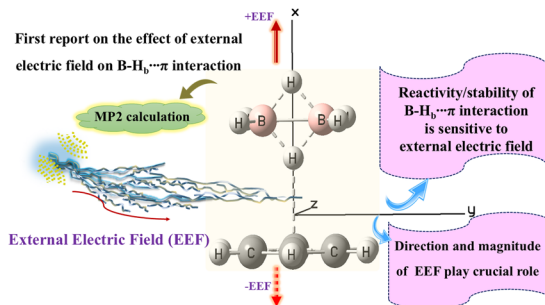
16797



## Cage engineering via isomerism: a computational study of octanitrocuneane ( $\text{C}_8\text{N}_8\text{O}_{16}$ ) as a potential high-energy density material

Yunlu Li,\* Dongrun Tang, Mei Xue, Shangbiao Feng, Guanchao Lan and Jianlong Wang

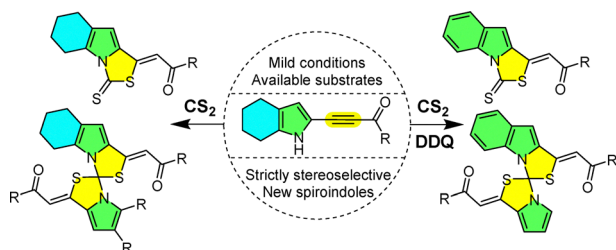
16804



## Can external electric field influence the $\text{B-H}\cdots\pi$ interaction? a computational insight

Bapan Saha

16820



## Synthesis of functionalized thiazoloindole-3-thiones and their spirocongeners from 2-acylethynyl-4,5,6,7-tetrahydroindoles and carbon disulfide

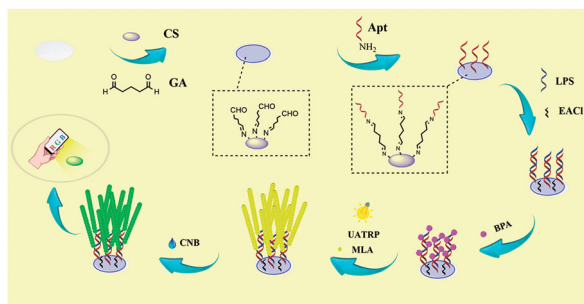
Denis N. Tomilin, Sophia A. Stepanova, Tatyana N. Borodina, Igor A. Ushakov and Boris A. Trofimov\*





## PAPERS

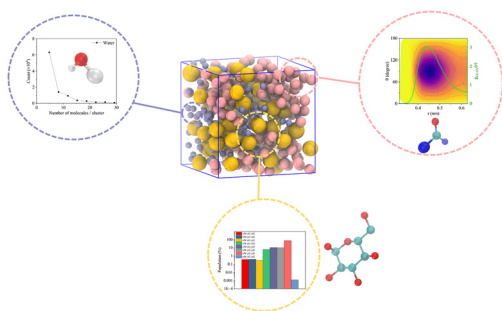
16870



### Smartphone-based paper LPS sensor: achieving picomolar ultra-sensitive detection

Shipeng Jiang, Siyu Han, Xinyi Wang, Yueran Ma, Yue Chen, Mingyang Sun, Peiran Meng, Shaokai Du and Yue Sun\*

16879



### *In silico* investigation of the microscopic structural features of a glucose-based deep eutectic solvent

Soham Sarkar

## CORRECTION

16892

### Correction: Molecular docking and computational assessment of spectroscopic analysis of ethyl 3-(4-chloro-2-methylphenylamino)-3-phenylacrylate as a potential antibacterial agent

Wissam Habibi, Saadia Ouizat, Mohamed Chellegui,\* Bushra Shakoor, Marwa Alaqarbeh, Mohamed Adel Sayed, Mostafa Khouili, Abdessamad Tounsi, Haydar A. Mohammad-Salim and Mohamed Anouar Harrad

