Journal of Materials Chemistry A

Materials for energy and sustainability

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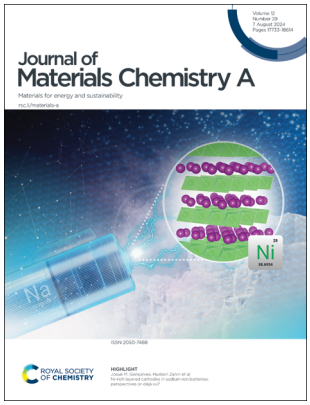
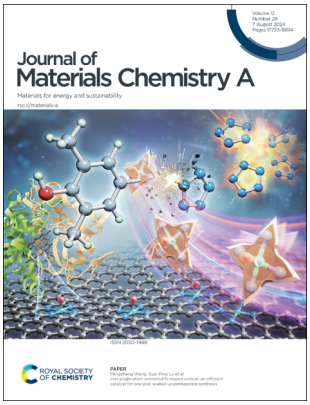
IN THIS ISSUE

ISSN 2050-7488 CODEN JMCAET 12(29) 17733–18614 (2024)



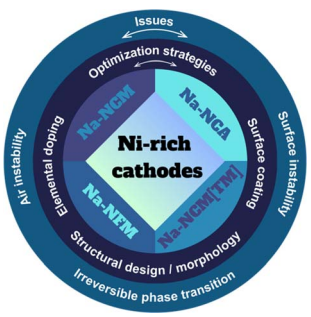
Cover
See Josué M. Gonçalves, Hudson Zanin *et al.*, pp. 17756–17770. Image reproduced by permission of Josué M. Gonçalves from *J. Mater. Chem. A*, 2024, **12**, 17756.



Inside cover
See Pengcheng Wang, Guo-Ping Lu *et al.*, pp. 18096–18103. Image reproduced by permission of Guo-Ping Lu from *J. Mater. Chem. A*, 2024, **12**, 18096.

EDITORIAL

HIGHLIGHT



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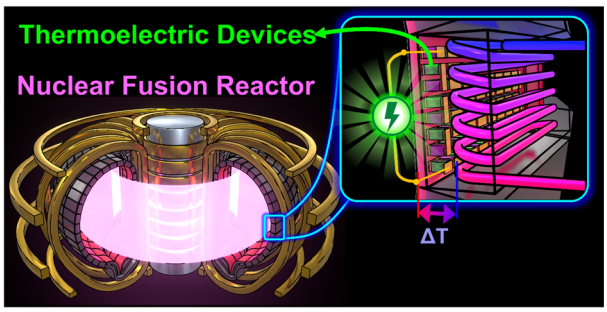

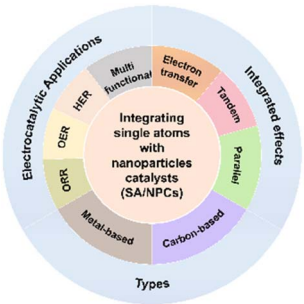

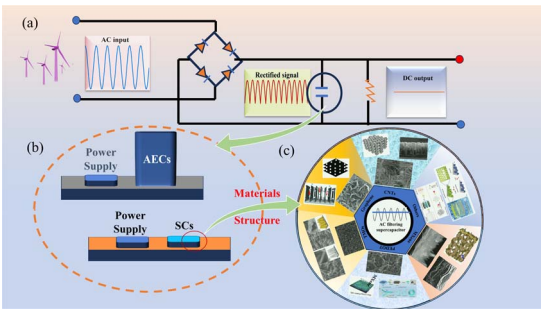

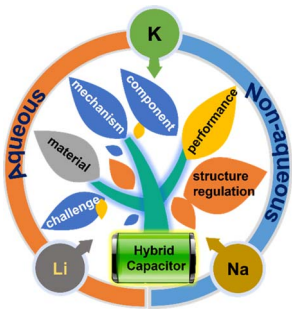

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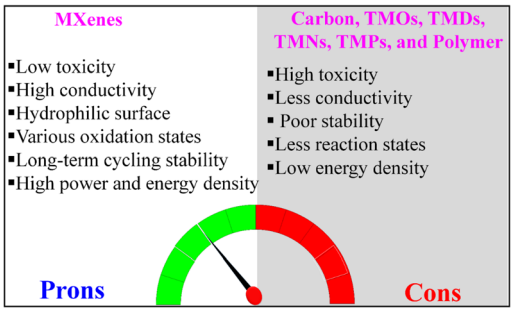

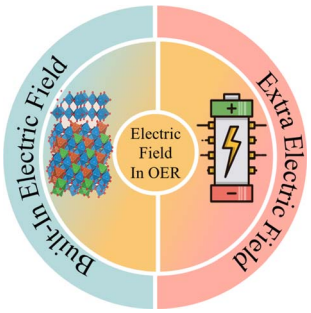

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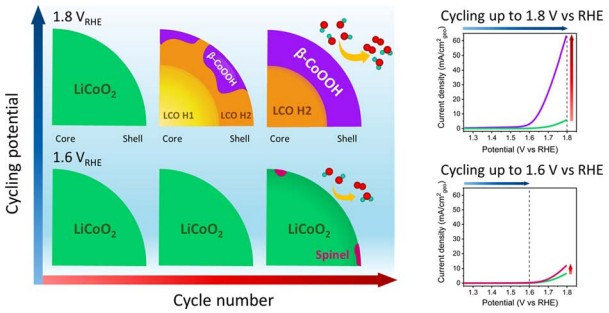

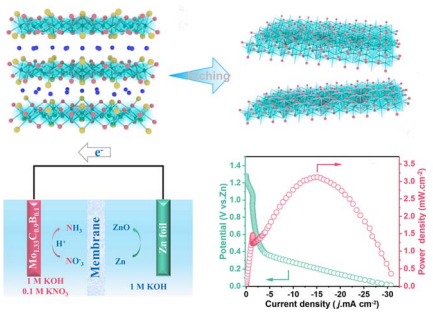

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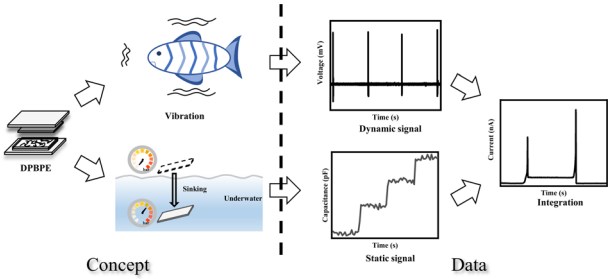

Synchronous monitoring of underwater dynamic/static pressure based on piezoelectric/capacitive polyester elastomer/carbon nanotube composites

Yuxing Tang, Qing Dang, Wei Zhang, Haiquan Guo, Hong Pan, Yong Xiang, Bin Liao* and Xiaoran Hu*

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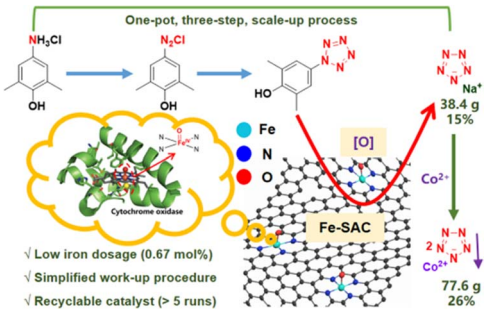
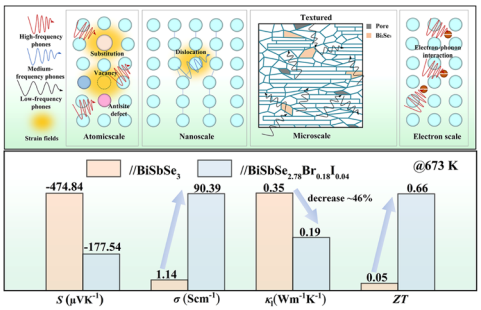


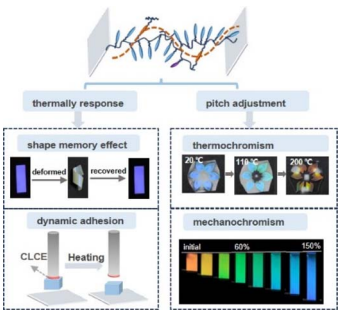
Iron single-atom anchored N-doped carbon: an efficient catalyst for one-pot, scaled-up pentazolate synthesis

Pengbo Wang, Xiaopeng Zhang, Shuaijie Jiang, Zheting Dong, Ruyi Lu, Yuangang Xu, Pengcheng Wang* and Guo-Ping Lu*



Synergistic optimization of the thermoelectric performance of $BiSbSe_3$ using doping and multi-scale defect engineering

Xiaowei Shi, Zhen Tian, Quanwei Jiang, Yu Yan, Huijun Kang,* Enyu Guo, Zongning Chen and Tongmin Wang*



High-strength thermochromic and mechanochromic liquid-crystal elastomers with responsive shape memory and dynamic adhesion

Lu Li, Xi Yin, Yu-Xi Zhao, Ling-Ying Shi,* Ke-Ke Yang* and Yu-Zhong Wang

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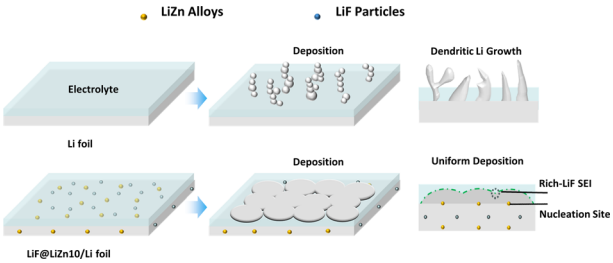

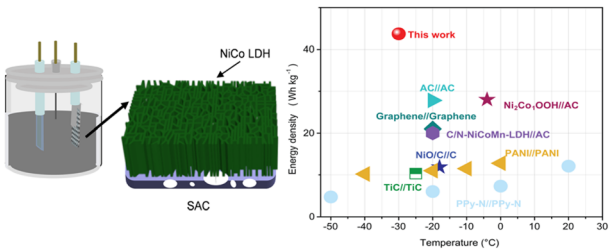

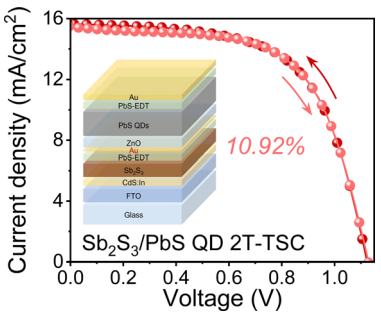

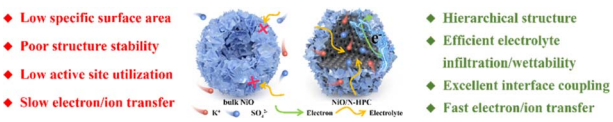

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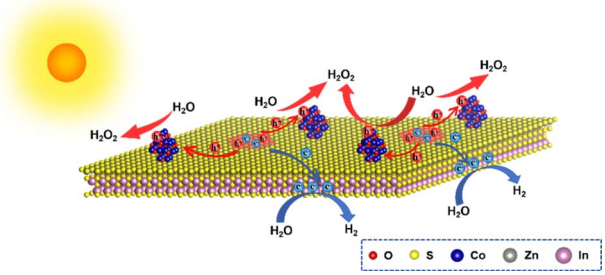

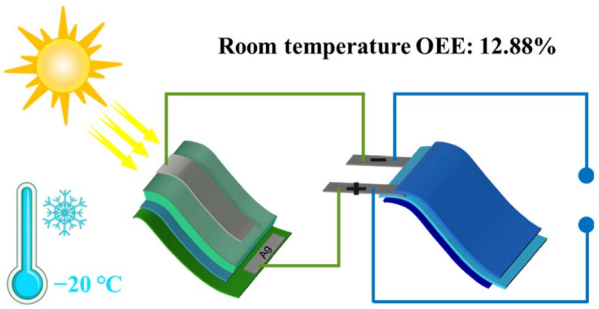

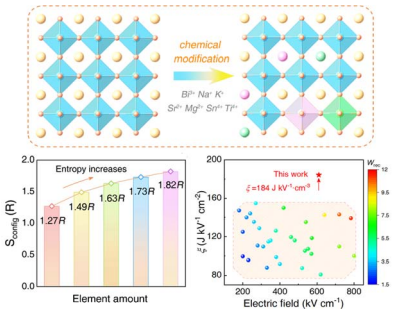

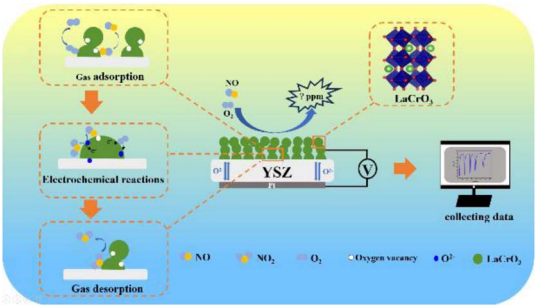

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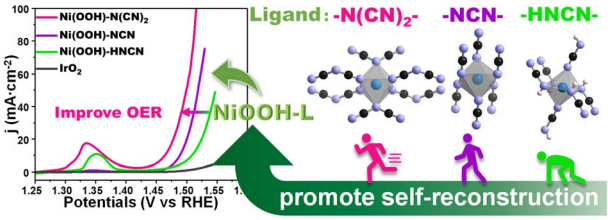

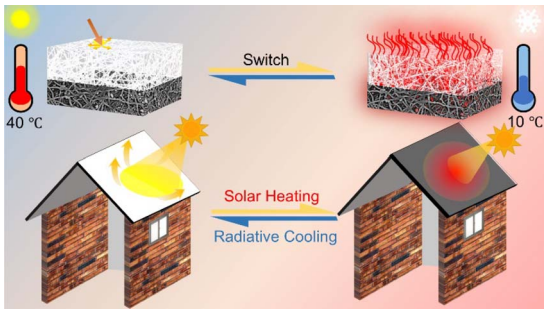

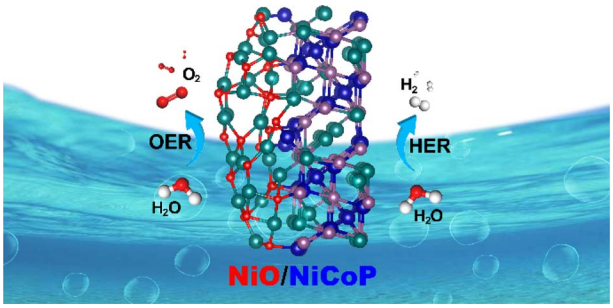

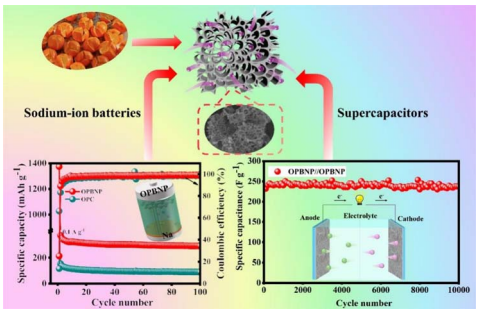

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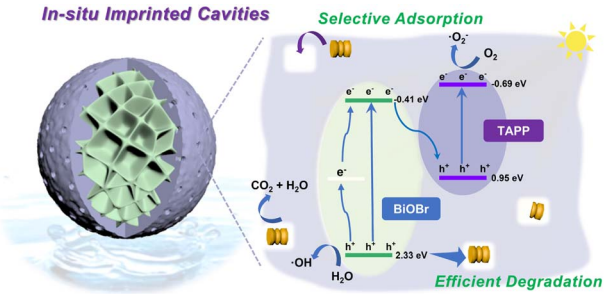
18381

In situ imprinted cavity fabrication within BiOBr@porphyrin composites for selective and efficient degradation of trace norfloxacin

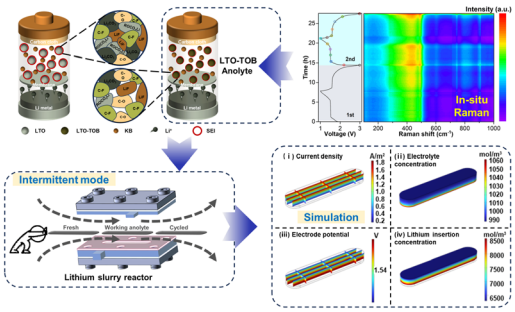
Xuemeng Tian, Pengcheng Wang, Yue Wang, Xiaoyu Shi, Long Zhang, Jinfeng Liu, Yangyang Wang and Ruixia Gao*



18393

Enhanced stability and the lithium storage mechanism of oxygen vacancy-induced heterogeneous $Li_4Ti_5O_{12}/TiO_2$(B) anolytes

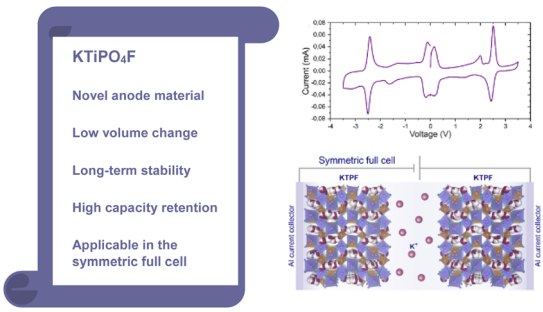
Fengjie Zhang, Wenhao Fang, Xiangkun Wu and Xingmei Lu*



18404

Exploring $KTiPO_4F$ as a robust polyanion anode material for potassium-ion batteries

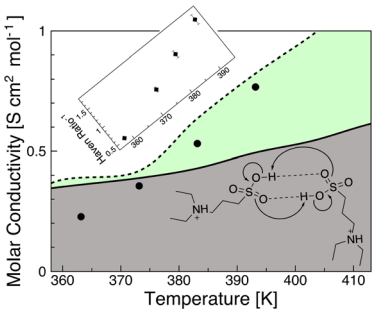
Vahid Ramezankhani,* Nikita D. Luchinin, Sergey N. Marshenya, Maxim V. Zakharkin, Alexander A. Golubnichiy, Anatolii V. Morozov, Olga Emilianova, Keith J. Stevenson, Evgeny V. Antipov, Artem M. Abakumov and Stanislav S. Fedotov*



18412

Superionicity by design: high proton conductivity in a fluorine-free protic ionic liquid

Hanno Maria Schütz, Stefano Nejrotti, Henry Adenusi, Alessandro Mariani,* Enrico Bodo,* Matteo Bonomo,* Alessandro Innocenti, Claudia Barolo, Xinpei Gao and Stefano Passerini*



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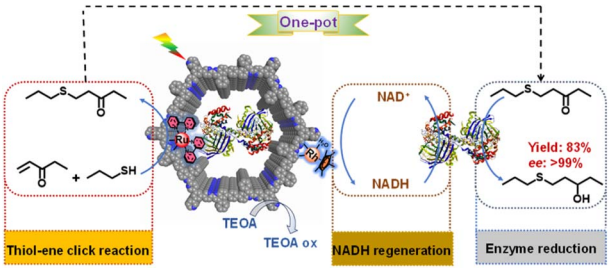

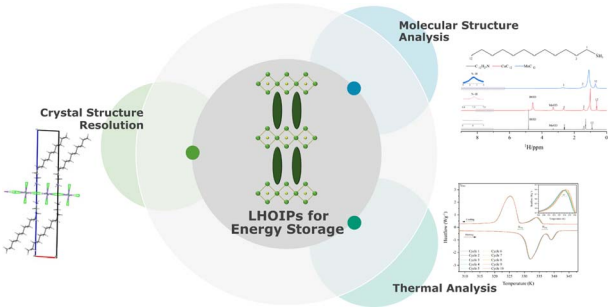

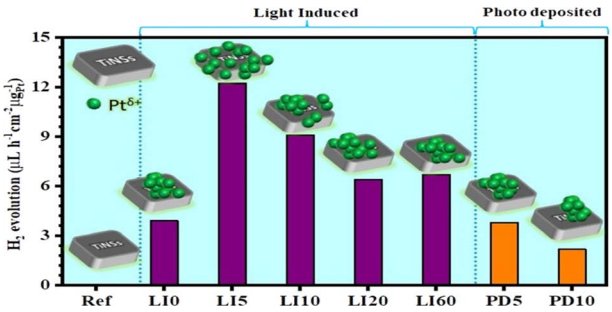

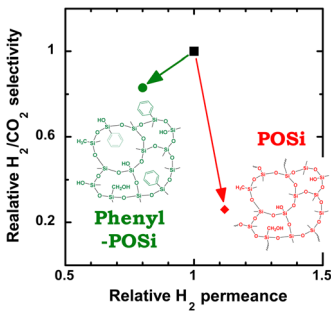

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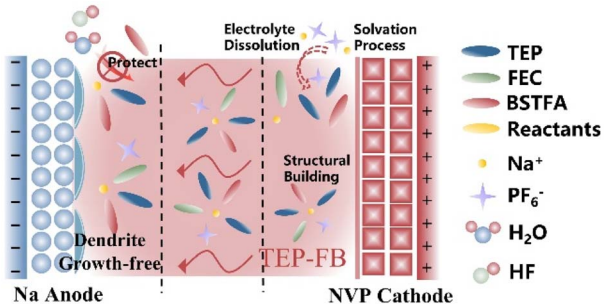
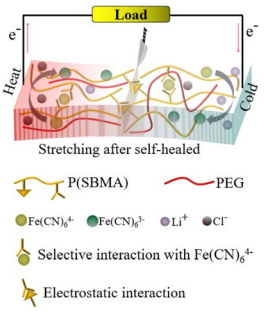


Inhibition of sodium dendrites by solvent structural reorganization for non-flammable high-performance sodium-metal batteries

JiYuan You, Bo Zhang, Tianle Li, Yuqian Li and Wenju Wang*

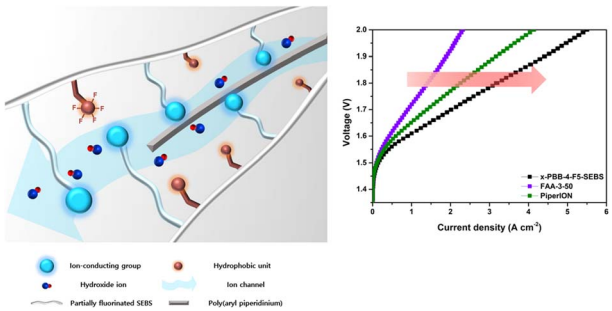
18582



A hydrogel thermoelectrochemical cell with high self-healability and enhanced thermopower both induced by zwitterions

Youfa Liu, Li Yin, Sheng Chen, Yao Liu, Qingjiang Liu, Liangliang Yang, Yingchun Li, Qian Zhang* and Yan Huang*

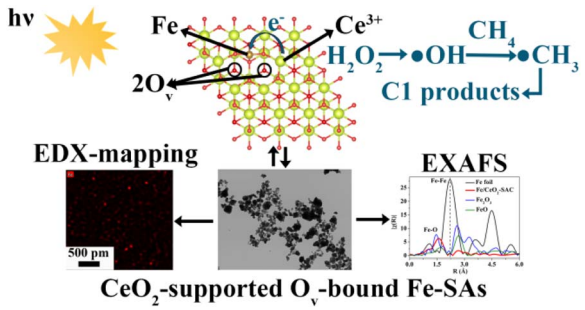
18593



Crosslinked high-performance anion exchange membranes based on poly(dibenzyl *N*-methyl piperidine) and pentafluorobenzoyl-substituted SEBS

Soomin Jeon, SeongMin Han, Junghwa Lee, Kyungwhan Min, Sang Yong Nam* and Tae-Hyun Kim*

18604



Highly efficient ambient temperature photo-oxidation of CH_4 to C_1 products over CeO_2 supported single-atom Fe with oxygen vacancies

Hailong Tang, Yongqing Ma, Chuhong Zhu, Min Wang, Ganhong Zheng, Xiao Sun* and Meiling Wang*