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# ChemComm

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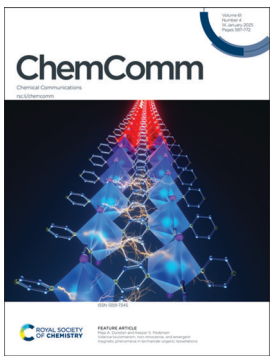


**Inside cover**
See Maja A. Dunstan and Kasper S. Pedersen, pp. 627–638. Image reproduced by permission of Kasper S. Pedersen from *Chem. Commun.*, 2025, **61**, 627.

## HIGHLIGHTS

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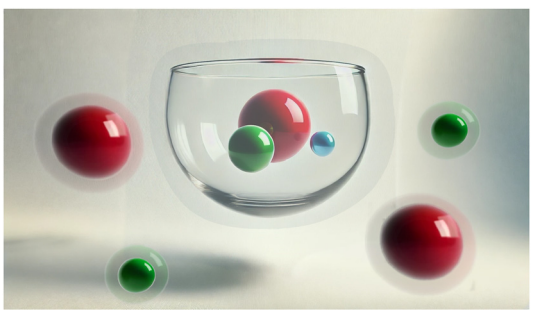
**Macrocyclic catalysis mediated by water: opportunities and challenges**

Dejun Zhang, Lingyun Wang, Wanqing Wu,* Derong Cao* and Hao Tang*



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**Implications of non-native metal substitution in carbonic anhydrase – engineered enzymes and models**

Dyuti Bhandary, Sam P. de Visser* and Gourab Mukherjee*

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## FEATURE ARTICLES

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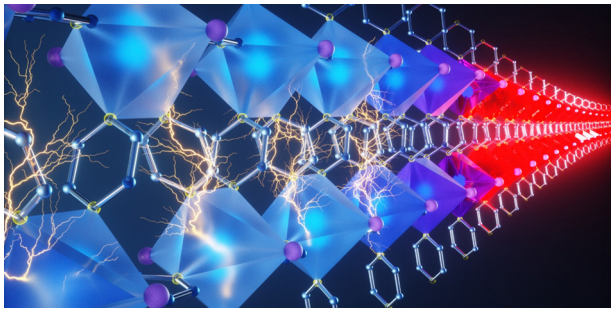
**Valence tautomerism, non-innocence, and emergent magnetic phenomena in lanthanide-organic tessellations**

Maja A. Dunstan* and Kasper S. Pedersen*



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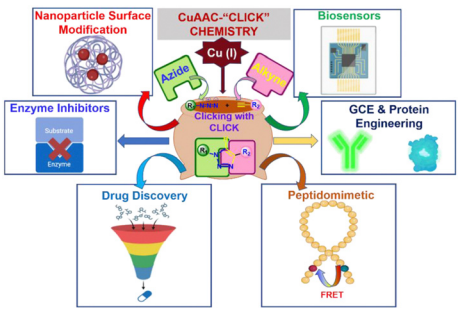
**Facets of click-mediated triazoles in decorating amino acids and peptides**

Subhendu Sekhar Bag,* Aniket Banerjee, Sayantan Sinha and Subhashis Jana

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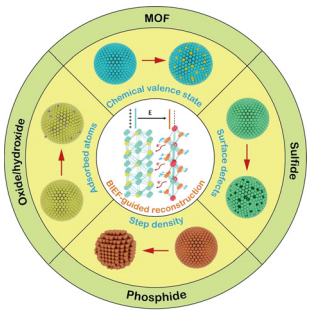
**Built-in electric field guides oxygen evolution electrocatalyst reconstruction**

Chunmei Ni, Kun Wang, Lei Jin, Yang Liu, Jie Chen, Lida Yang, Chanyuan Ji, Hui Xu,* Zhao Li* and Lin Tian*

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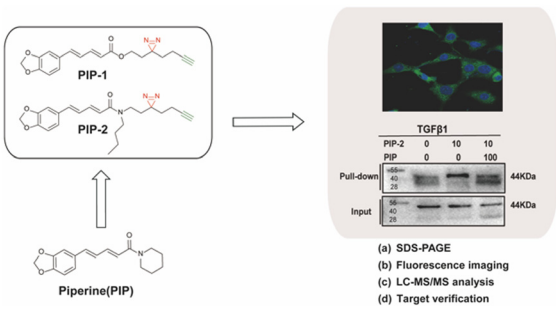
**Design and synthesis of piperine-based photoaffinity probes for revealing potential targets of piperine in neurological disease**

Li Shen, Yue Yang, Lijun Lu, Jili Huang, Wen He, Chunfang Zhao, Feng Guo, Chunbo Zhang,* Haijun Zhong* and Fan Liao*



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## COMMUNICATIONS

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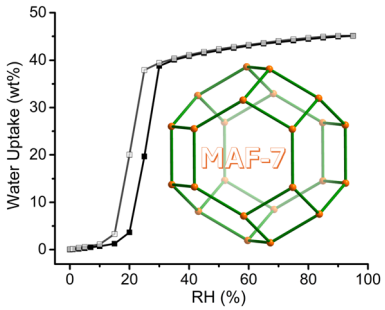


**Water sorption performance of the zeolitic metal azolate framework MAF-7**

Shi-Qiang Wang,* Shaza Darwish, Mei-Yan Gao, Yifei Luo, Jun Zhu, Xiaofei Zhang and Zhengtao Xu

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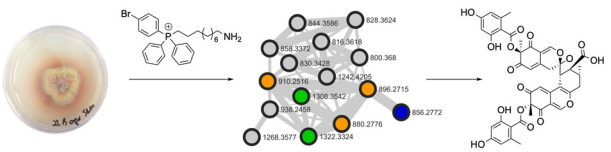

**Mass-tagged aminated probes for rapid discovery of azaphilic natural products in fungal crude extracts**

Victor Flon, Coralie Pavesi, Samuel Oger, Stéphane Leleu, Pascal Retailleau, Laurence K. Jennings, Soizic Prado* and Xavier Franck*

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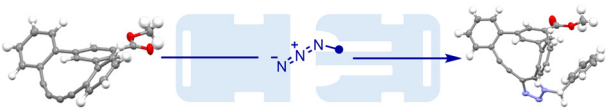

**TPDYs: strained macrocyclic diynes for bioconjugation processes**

Bernard D'Onofrio, Corentin Cruché, Kirsten N. Hurdal, Adem Hadjabdelhafid-Parisien, Joelle N. Pelletier,* Radu Iftimie,* Rebecca L. Davis* and Shawn K. Collins*

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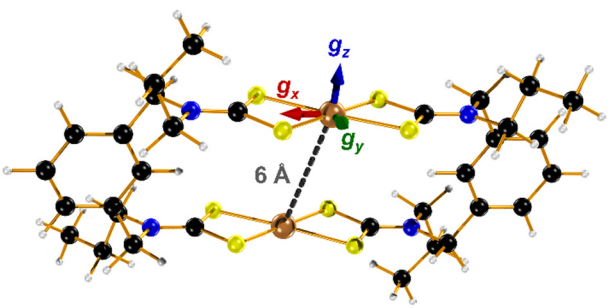


**A self-assembled metallo-macrocycle two-qubit spin system**

Gordon J. Douglas, Emma Richards and Stephen Sproules*



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## COMMUNICATIONS

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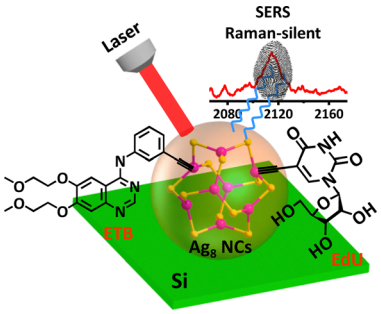
**Facile *in situ* synthesis of silver nanoclusters for promoting highly sensitive surface-enhanced Raman scattering detection of alkyne-tagged biomolecules**

Leixin Hou,* Mi Zhang, Daofu Liu, Mai Xu and Huilin Huang*

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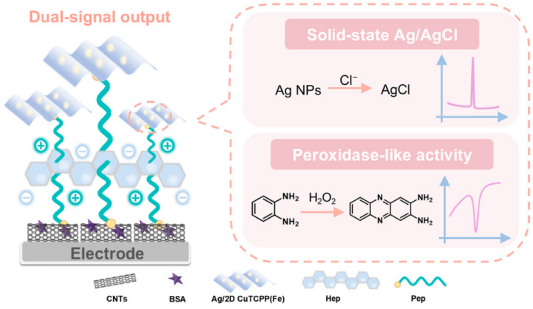
**A novel peptide electrochemical biosensor for heparin based on the dual "turn-on" signals of Ag/2D CuTCPP(Fe)**

Fan Zhao,* Jingyue Lan and Yunxi Liu

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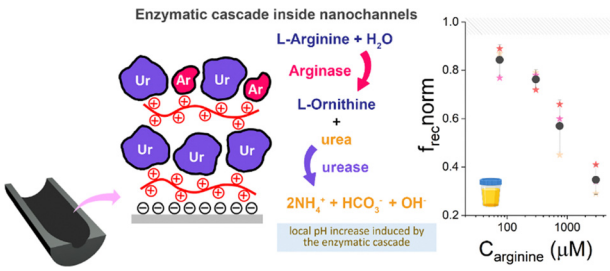
**Harnessing concerted functions in confined environments: cascading enzymatic reactions in nanofluidic biosensors for sensitive detection of arginine**

Marcos E. Gramajo, Lautaro Otero Maffoni, L. Miguel Hernández Parra, Waldemar A. Marmisollé, M. Lorena Cortez, M. Eugenia Toimil-Molares, Ana S. Peinetti* and Omar Azzaroni*

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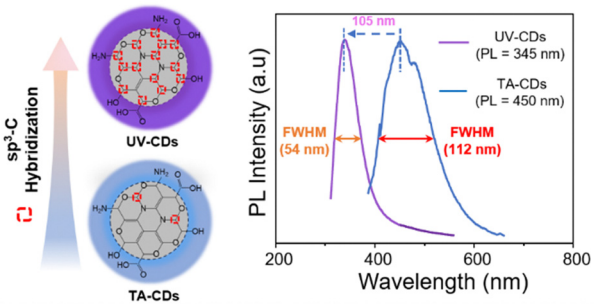
**Narrowing and blue-shifting photoluminescence of carbon dots by enhancing sp$^3$-C hybridization using a microreactor**

Zuxu Zhou, Kai Jiang,* Zihan Cheng, Jun Jiang, Fengshi Li, Yongjian Wu and Hengwei Lin*



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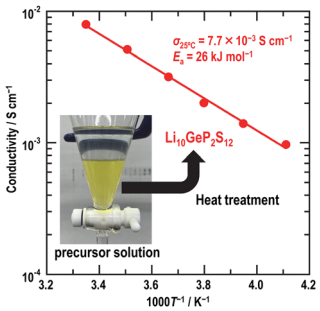


**Liquid-phase synthesis of $Li_4GeS_4$ and $Li_{10}GeP_2S_{12}$ electrolytes using water as the main solvent**

Hayata Tanigaki, Takuya Kimura, Eiji Kurioka, Kota Motohashi, Atsushi Sakuda, Masahiro Tatsumisago and Akitoshi Hayashi*

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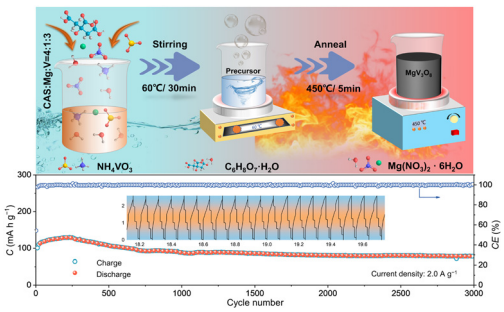


**An $MgV_3O_8$ anode exhibiting enhanced rate capability and stability for lithium storage applications**

Qi Wan, Jie Zhao, Xun Xu, Hechao Xu, Yu Liu, Wenshu Li, Qingchun Zhang, Zhiqin Cao,* Xijun Wei* and Yingze Song*

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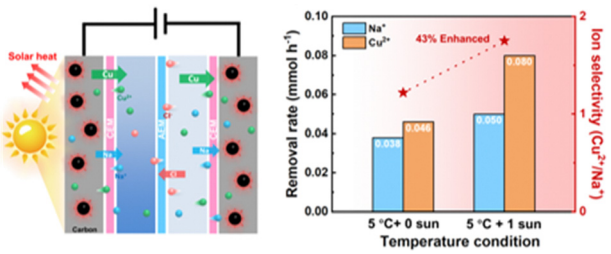


**Efficient removal of copper ions through photothermal enhanced flow-electrode capacitive deionization**

Mengyao He, Jiaqi Chen, Ziquan Wang, Zengye Chen and Libo Deng*

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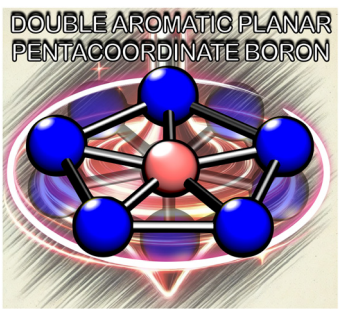


**Doubly σ- and π-aromatic planar pentacoordinate boron polyanions**

Williams García-Argote, Dumer S. Sacanamboy, Alejandro Vasquez-Espinal, Diego Inostroza, Luis Leyva-Parra,* Osvaldo Yañez* and William Tiznado*



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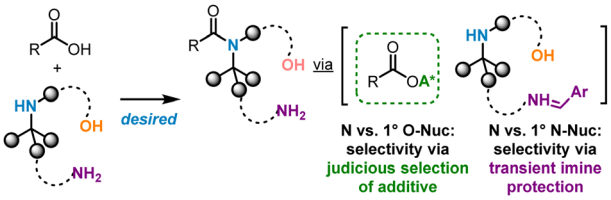
**General chemoselective hindered amide coupling enabled by TCFH-catalytic Oxyma and transient imine protection**

Qiuhan Li,* Sarah Napier, Andrew N. Singh, Thomas P. Vickery, Yi Fan, Edgar Hernandez, Tao Wang and Stephen M. Dalby

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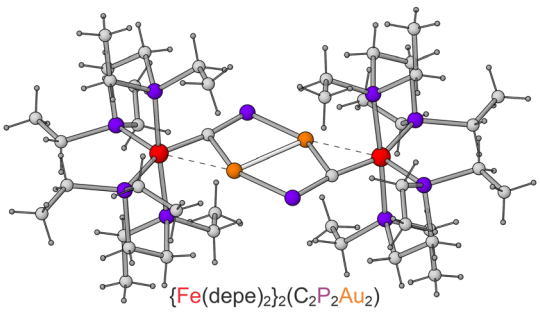
**Cyaphide group transfer from covalent metal complexes: contrasting pathways to transmetallation**

Eric S. Yang and Jose M. Goicoechea*

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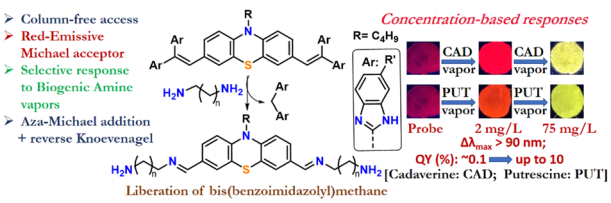
**Tetra-benzimidazoles flanking divinyl-phenothiazine: AIEgens as aza-Michael acceptors in concentration-tuned responses to biogenic amine vapors**

Sameer Singh, Kalyaneswar Mandal and Manab Chakravarty*

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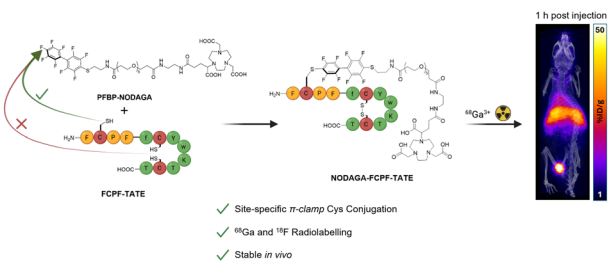
**Site-specific π-clamp-mediated radiosynthesis of $^{68}$Ga and $^{18}$F PET radiopharmaceuticals**

Thomas T. C. Yue, Jin Hui Teh, Eric Aboagye, Michelle T. Ma, Truc T. Pham* and Nicholas J. Long*



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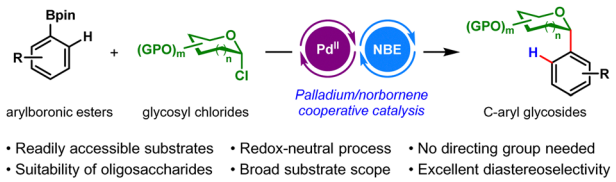


**Practical synthesis of *C*-aryl glycosides *via* redox-neutral Borono–Catellani reaction**

Dekang Xu, Xia Li, Ziyang Cui, Liming Cao, Hong-Gang Cheng and Qianghui Zhou*

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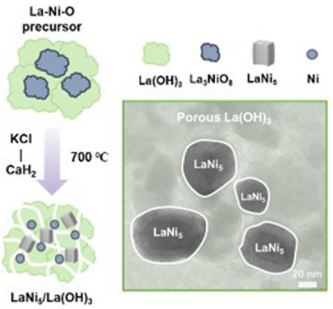


**One-pot synthesis of supported sub-micron $LaNi_5$ for hydrogen storage in a carbazole-type liquid organic hydrogen carrier**

Hongen Yu,* Yuxuan Shi, Zewei Xie, Rumei Jin, Youyu Lin, Dongsheng Geng, Xingguo Li and Jie Zheng*

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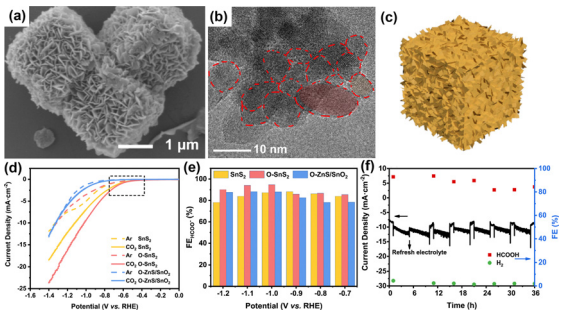


**Quadrangular prism-like oxidized tin sulfide for high activity $CO_2$ER to formate**

Jingru Zhang, Xi Hu, Haidong Li, Yanqiu Du,* Zidong Wei* and Xuejie Liu*

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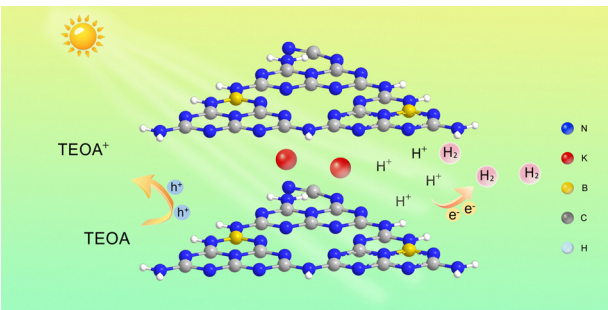


**Molten salt-assisted synthesis of boron-doped carbon nitride for photocatalytic hydrogen evolution**

Xingzhou Li, Yongkang Quan, Rongxing Chen, Guorong Wang, Yingzhen Zhang, Jianying Huang* and Yuekun Lai*



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## COMMUNICATIONS

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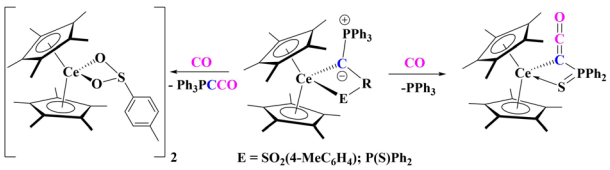
**Cerium(III) yldiide complexes with divergent CO reactivity**

Alexander J. Gremillion, Hemant Kumar, Iker Del Rosal, Steven P. Kelley, Laurent Maron,* Viktoria H. Gessner* and Justin R. Walensky*

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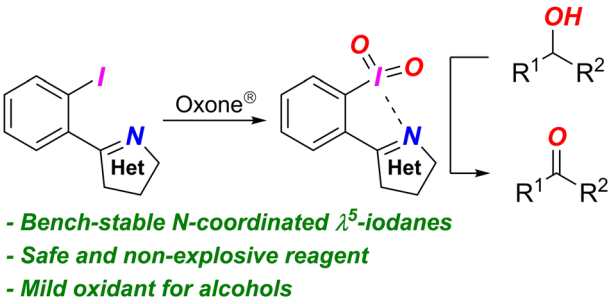
**N-Heterocycle-coordinated $\lambda^5$-iodanes as IBX alternatives for alcohol oxidations**

Nikita S. Antonkin, Yulia A. Vlasenko, Pim Puylaert, Boris J. Nachtsheim* and Pavel S. Postnikov*

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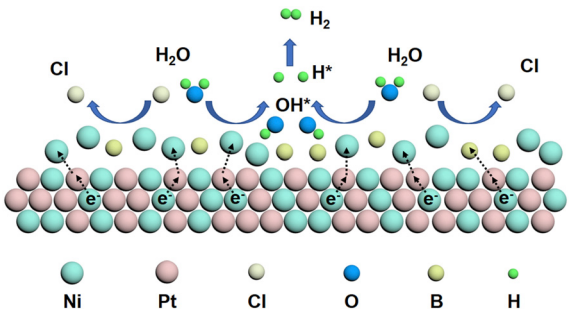
**Direct synthesis of PtNi coated with $Ni_3B$ for efficient electrochemical hydrogen evolution from seawater**

Xiong Yang, Yu-Xuan Xiao,* Fei Yu, Wen-Ying Zhao, Ling Shen, Jie Ying, Song Zhang, Kenneth I. Ozoemena, Christoph Janiak and Xiao-Yu Yang*

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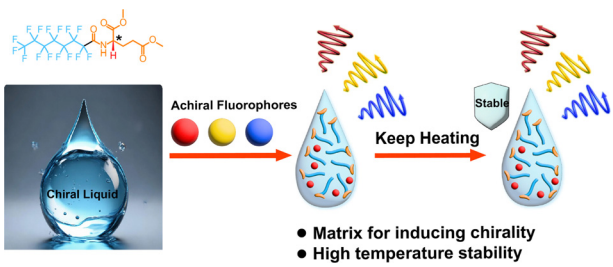
**A fluorinated chiral liquid with thermal robustness for inducing circularly polarized luminescence**

Zibing Xiao, Runjia Wang, Li Zhang* and Minghua Liu*



CORRECTIONS

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## Correction: Fast detection of penicillium rot and the conservation status of packaged citrus fruit using an optical array sensor

Alessia Cavallaro, Rossella Santonocito, Roberta Puglisi, Andrea Pappalardo, Federico La Spada, Rossana Parlascino, Mario Riolo, Santa Olga Cacciola, Nunzio Tuccitto* and Giuseppe Trusso Sfrazzetto*

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## Correction: Elucidating the influence of side chains on the self-assembly of semi-flexible mesogens

Raluca I. Gearba, Denis V. Anokhin and Dimitri A. Ivanov*

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