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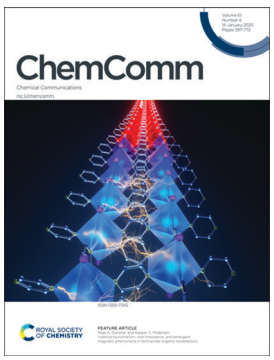
ISSN 1359–7345 CODEN CHCOFS 61(4) 587–772 (2025)

Cover
See Chunbo Zhang, Haijun Zhong, Fan Liao *et al.*, pp. 669–672. Image reproduced by permission of Fan Liao from *Chem. Commun.*, 2025, **61**, 669.



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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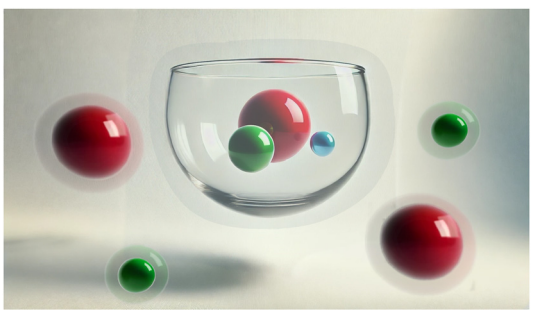
Macrocyclic catalysis mediated by water: opportunities and challenges

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



612

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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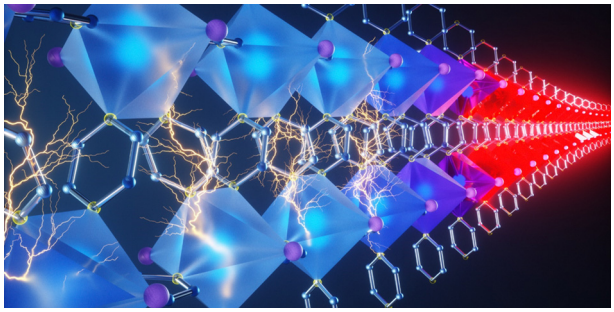
FEATURE ARTICLES

627

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

Maja A. Dunstan* and Kasper S. Pedersen*



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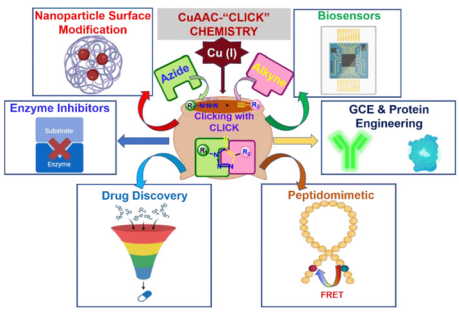
Facets of click-mediated triazoles in decorating amino acids and peptides

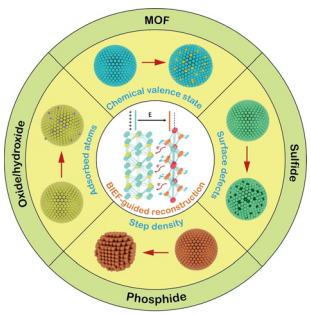
Subhendu Sekhar Bag,* Aniket Banerjee, Sayantan Sinha and Subhashis Jana



658

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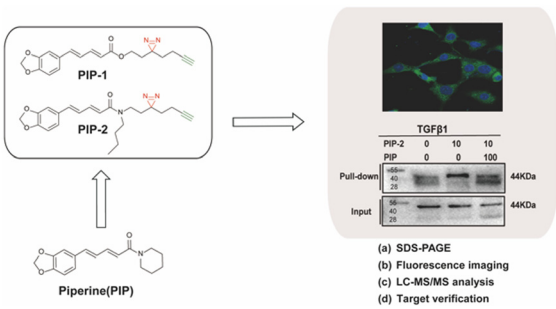
Design and synthesis of piperine-based photoaffinity probes for revealing potential targets of piperine in neurological disease

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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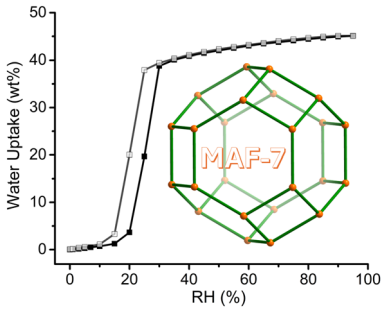

Water sorption performance of the zeolitic metal azolate framework MAF-7

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

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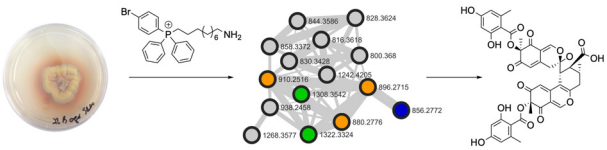

Mass-tagged aminated probes for rapid discovery of azaphilic natural products in fungal crude extracts

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

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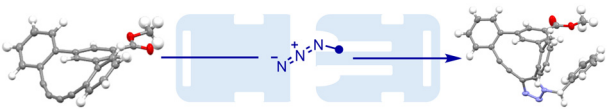

TPDYs: strained macrocyclic diynes for bioconjugation processes

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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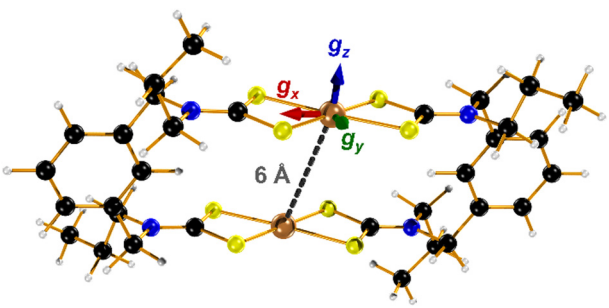

A self-assembled metallo-macrocycle two-qubit spin system

Gordon J. Douglas, Emma Richards and Stephen Sproules*

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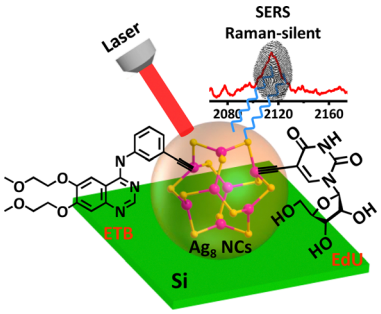
Facile *in situ* synthesis of silver nanoclusters for promoting highly sensitive surface-enhanced Raman scattering detection of alkyne-tagged biomolecules

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



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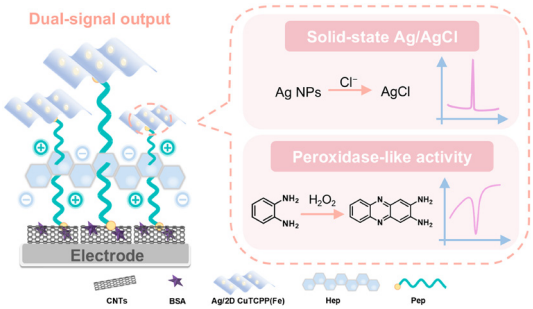
A novel peptide electrochemical biosensor for heparin based on the dual "turn-on" signals of Ag/2D CuTCPP(Fe)

Fan Zhao,* Jingyue Lan and Yunxi Liu



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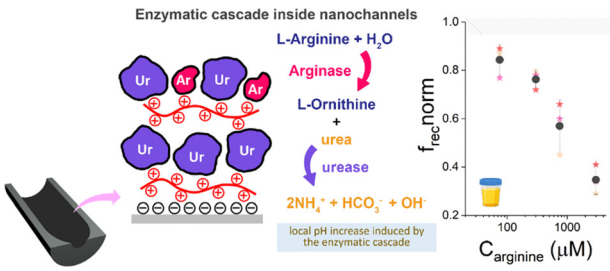
Harnessing concerted functions in confined environments: cascading enzymatic reactions in nanofluidic biosensors for sensitive detection of arginine

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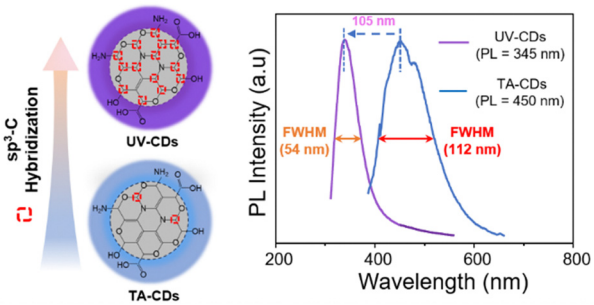
Narrowing and blue-shifting photoluminescence of carbon dots by enhancing sp^3-C hybridization using a microreactor

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



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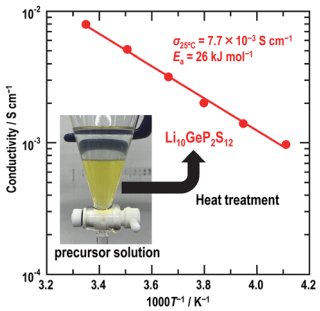

Liquid-phase synthesis of Li_4GeS_4 and $Li_{10}GeP_2S_{12}$ electrolytes using water as the main solvent

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

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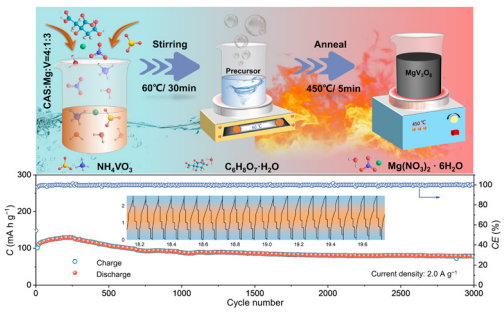

An MgV_3O_8 anode exhibiting enhanced rate capability and stability for lithium storage applications

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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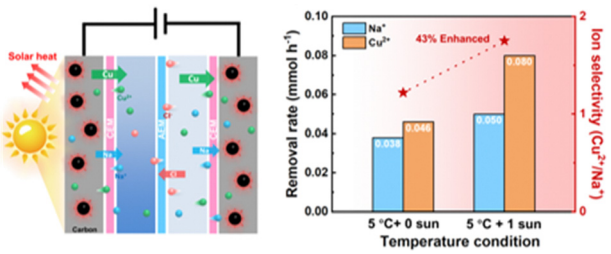

Efficient removal of copper ions through photothermal enhanced flow-electrode capacitive deionization

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

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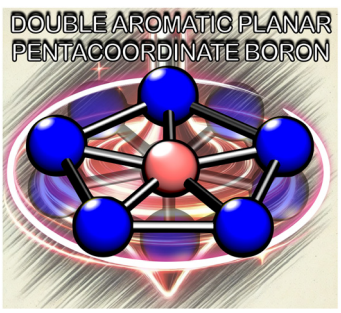

Doubly σ- and π-aromatic planar pentacoordinate boron polyanions

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

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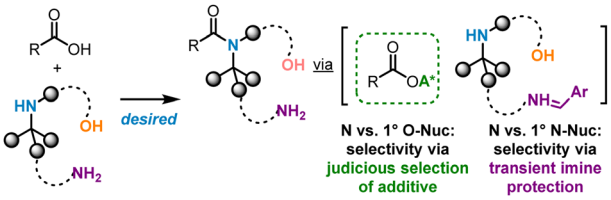
General chemoselective hindered amide coupling enabled by TCFH-catalytic Oxyma and transient imine protection

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



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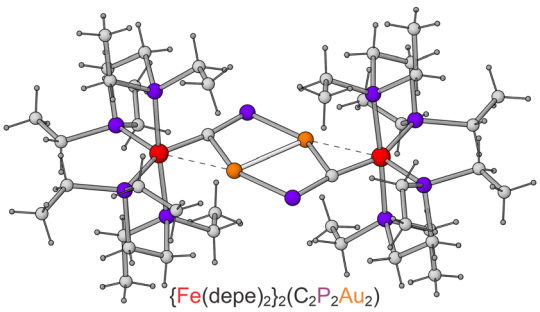
Cyaphide group transfer from covalent metal complexes: contrasting pathways to transmetallation

Eric S. Yang and Jose M. Goicoechea*



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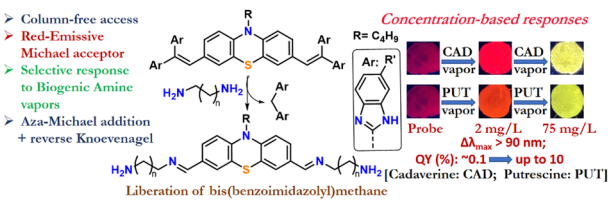
Tetra-benzimidazoles flanking divinyl-phenothiazine: AIEgens as aza-Michael acceptors in concentration-tuned responses to biogenic amine vapors

Sameer Singh, Kalyaneswar Mandal and Manab Chakravarty*



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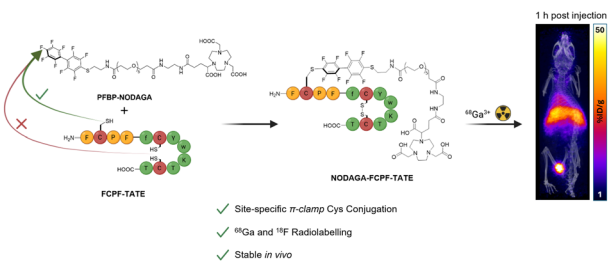
Site-specific π-clamp-mediated radiosynthesis of ^{68}Ga and ^{18}F PET radiopharmaceuticals

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



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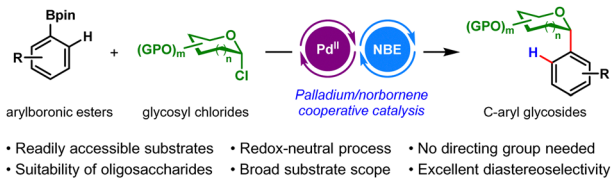

Practical synthesis of *C*-aryl glycosides *via* redox-neutral Borono–Catellani reaction

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

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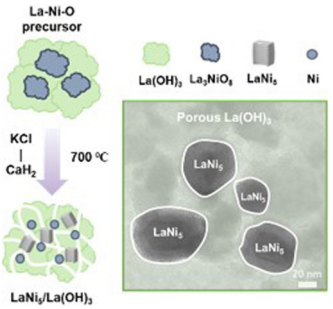

One-pot synthesis of supported sub-micron $LaNi_5$ for hydrogen storage in a carbazole-type liquid organic hydrogen carrier

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

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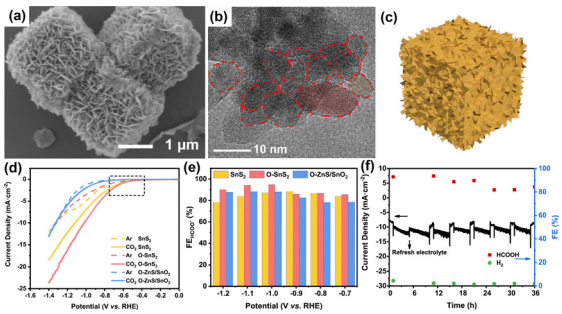

Quadrangular prism-like oxidized tin sulfide for high activity CO_2ER to formate

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

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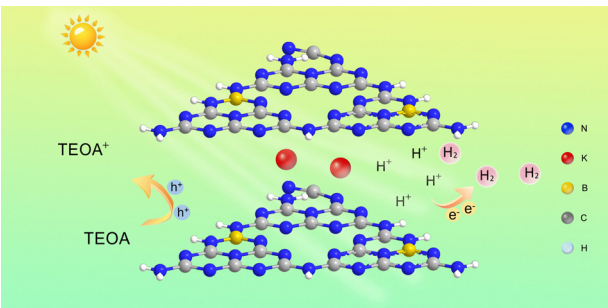

Molten salt-assisted synthesis of boron-doped carbon nitride for photocatalytic hydrogen evolution

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

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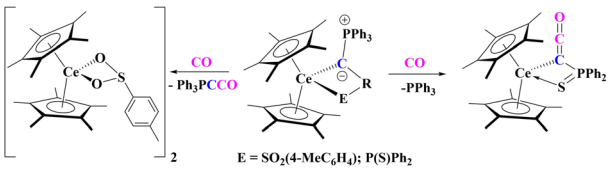
Cerium(III) yldiide complexes with divergent CO reactivity

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



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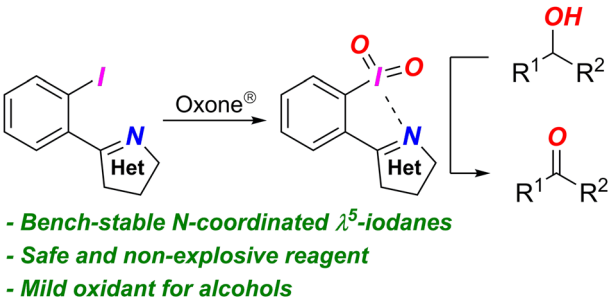
N-Heterocycle-coordinated λ^5-iodanes as IBX alternatives for alcohol oxidations

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



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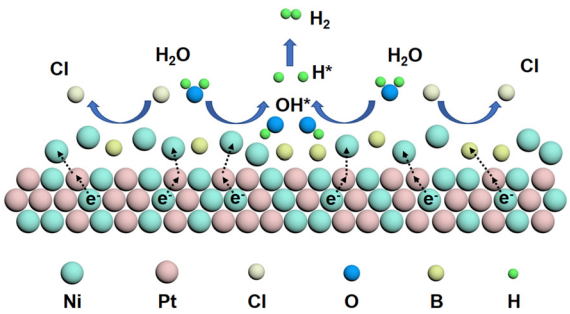
Direct synthesis of PtNi coated with Ni_3B for efficient electrochemical hydrogen evolution from seawater

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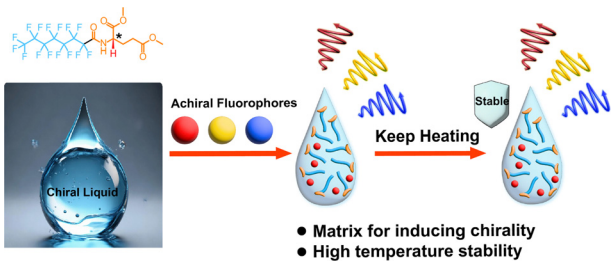
A fluorinated chiral liquid with thermal robustness for inducing circularly polarized luminescence

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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