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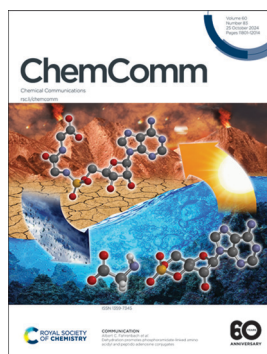
IN THIS ISSUE

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Cover

See Paul D. Beer *et al.*, pp. 11916–11919. Image reproduced by permission of Gurshinder Kaur.



Inside cover

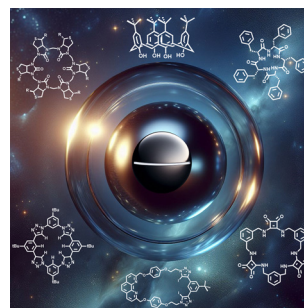
See Albert C. Fahrenbach *et al.*, pp. 11920–11923. Image reproduced by permission of Albert C. Fahrenbach from *Chem. Commun.*, 2024, **60**, 11920.

HIGHLIGHT

11812

Macrocyclic receptors for anion recognition

Farhad Ali Mohammed, Tangxin Xiao, Leyong Wang and Robert B. P. Elmes*

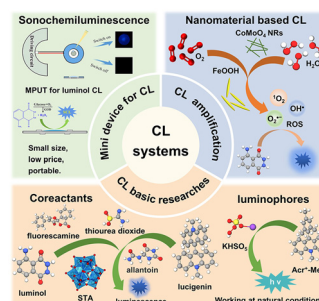


FEATURE ARTICLES

11837

Development of chemiluminescent systems and devices for analytical applications

Zhiyong Dong, Fangxin Du, Saima Hanif, Yu Tian* and Guobao Xu*



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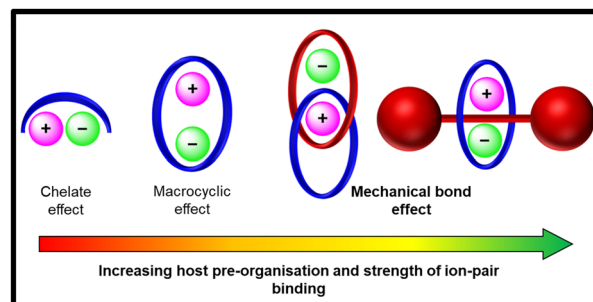
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FEATURE ARTICLES

11849

Mechanically interlocked host systems for ion-pair recognition

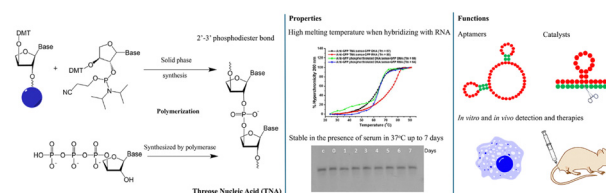
Arya Arun, Hui Min Tay and Paul D. Beer*



11864

Versatility of threose nucleic acids: synthesis, properties, and applications in chemical biology and biomedical advancements

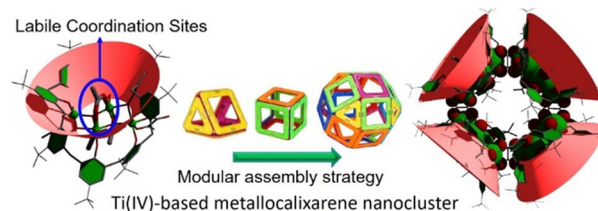
Dick Yan Tam, Pan Li, Ling Sum Liu, Fei Wang, Hoi Man Leung and Pik Kwan Lo*



11890

Advancements in calixarene-protected titanium-oxo clusters: from structural assembly to catalytic functionality

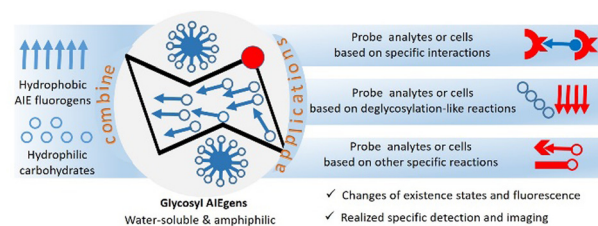
Xin-Yu Chen, Qing-Yi Liu, Wei-Dong Yu,* Jun Yan and Chao Liu*



11899

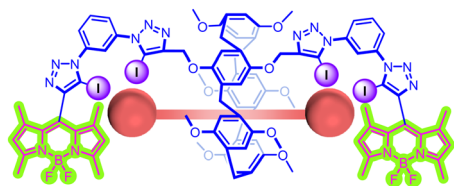
Recent advances in sugar-based AIE luminogens and their applications in sensing and imaging

Guang-jian Liu, Jing-dong Zhang, Wei Zhou, Gai-li Feng and Guo-wen Xing*



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11916

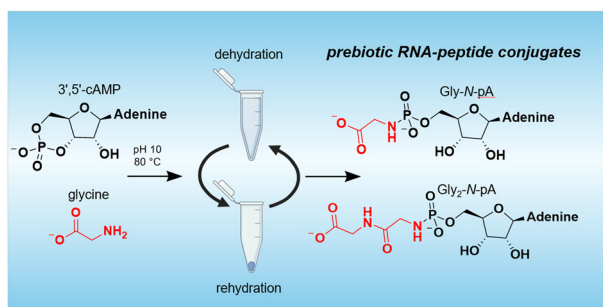


- ✓ Halogen bonding + hydrophobic effect = strong binding in aqueous media
- ✓ Sensing of dicarboxylates and neutral chemical warfare agent simulant

Halogen bonding BODIPY-appended pillar[5]arene for the optical sensing of dicarboxylates and a chemical warfare agent simulant

Andrew J. Taylor, Jamie T. Wilmore and Paul D. Beer*

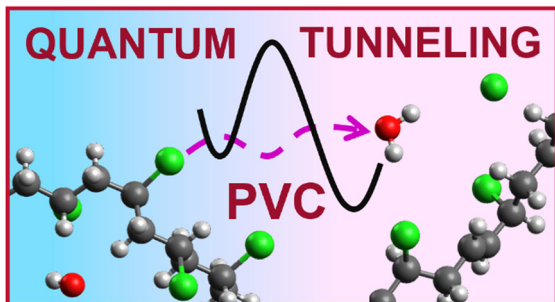
11920



Dehydration promotes phosphoramidate-linked amino acidyl and peptido adenosine conjugates

Yaam Deckel, Joshua J. Brown, Tejaswi Senthilkumar and Albert C. Fahrenbach*

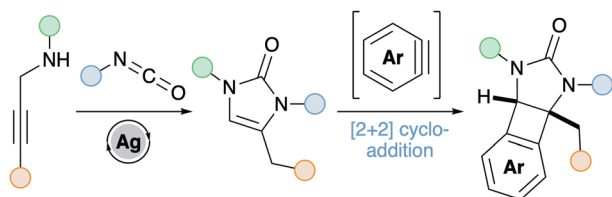
11924



Quantum tunnelling dominates chloride leaching from polyvinyl chloride

Gbolagade Olajide and Tibor Szilvási*

11928



- novel stereochemically defined *syn*-1,2-diamino framework
- amenable to one-pot process from propargylic amine
- cleave C=O bond to ring-open cyclic urea in product BCBs

syn-1,2-Diaminobenzocyclobutenes from [2+2] cycloaddition of 2-imidazolones with arynes

Haseeb Ur Rehman Shah, Qi Li and Christopher R. Jones*



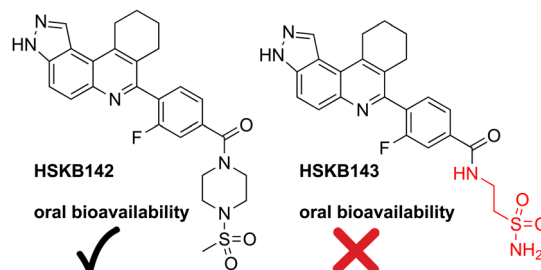
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11932

Orally bioavailable STING antagonist synthesized via multi-component Povarov–Doebner type reaction

Kofi B. Owusu, Jyotrimayee Samal, Delmis E. Hernandez and Herman O. Sintim*

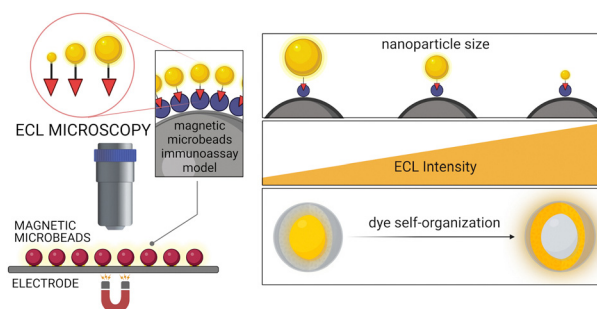
Stimulator of interferon genes (STING) antagonists



11936

Dye self-organization in doped silica nanoparticles increases the electrochemiluminescence emission in magnetic bead-based assays

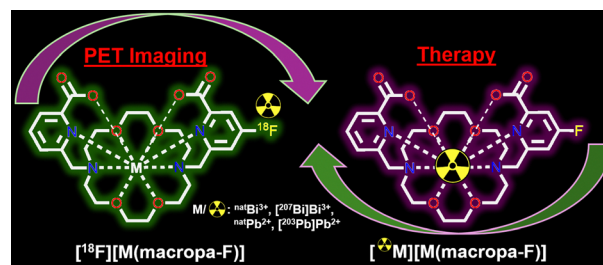
Yemataw Addis Alemu, Marinella Difonzo, Damiano Genovese, Francesco Paolucci, Luca Prodi, Enrico Rampazzo* and Giovanni Valentini*



11940

Fluorine-18 incorporation and radiometal coordination in macropa ligands for PET imaging and targeted alpha therapy

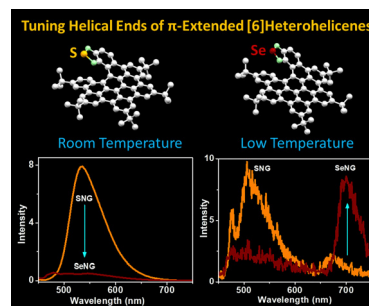
Thines Kanagasundaram, Yang Sun, Kevin K. Lee, Samantha N. MacMillan, Pedro Brugarolas* and Justin J. Wilson*



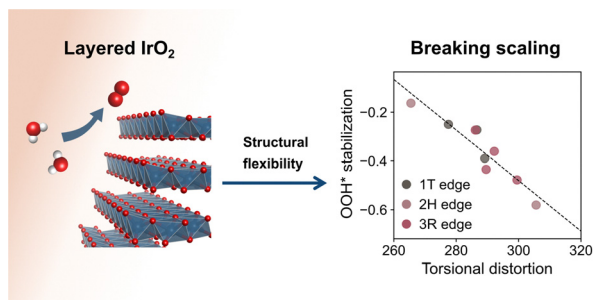
11944

Tailoring helical ends of π -extended [6]heterohelicenes to control optical, and electrochemical features

Viksit Kumar, Sangram D. Dongre, Geethu Venugopal, Aswini Narayanan and Sukumaran Santhosh Babu*



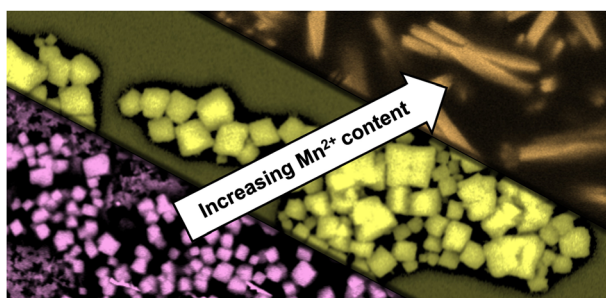
11948



Theoretical insights into layered IrO₂ for the oxygen evolution reaction

Xian Zhong, Xin-He Liu, Hong-Jie Peng* and Xinyan Liu*

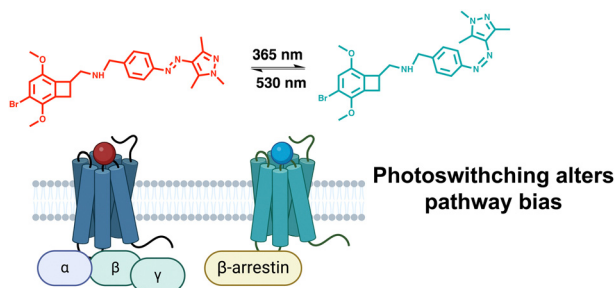
11952



Manganese-enriched CsPbCl₃ perovskite nanocrystals for self-assembled supercrystals

Victoria Lapointe and Marek B. Majewski*

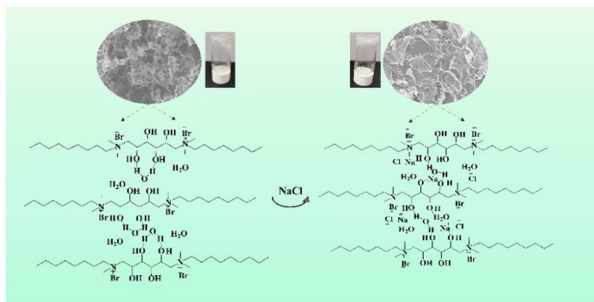
11956



Photoswitchable TCB-2 for control of the 5-HT_{2A} receptor and analysis of biased agonism

Alireza Jafar Esmaeili, Pantea Montazeri, Jasmine Cristina Gomez, Didier J. Dumervil, Faezeh Safar Nezhad and Rachel C. Steinhardt*

11960



Bio-based hydrogels induced by salts

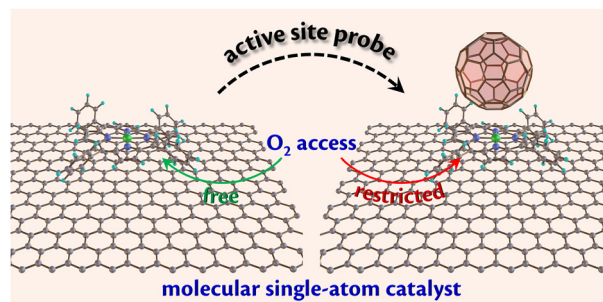
Pei Zhang, Yaoyu Yin, Xing Tong, Peng Chen, Zhuosen He, Zhihong Li, Baocai Xu, Ce Wang,* Xinchen Kang* and Buxing Han*



11964

Fullerene as a probe molecule for single-atom oxygen reduction electrocatalysts

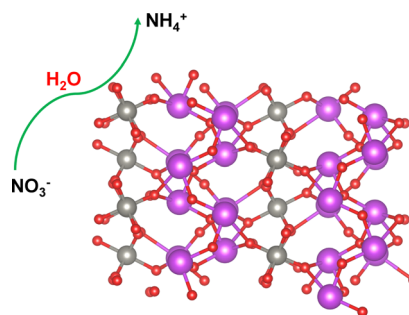
Ning Li, Kun Guo,* Song Lu, Lipiao Bao, Zhixin Yu and Xing Lu*



11968

Oxygen vacancies in Bi₂WO₆ enable robust nitrate reduction reaction catalysis

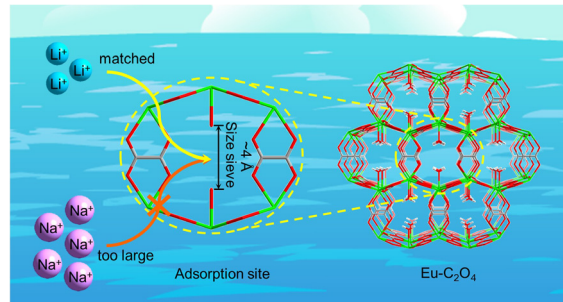
Qing Ren, Cong Zhou, Yumei Feng, Yifei Li, Yuhua Xie, Yingjie Yu, Chunsheng Li, Yazhou Chen,* Yan Sun* and Fang Luo*



11972

Strong size sieving effect in a rigid oxalate-based metal-organic framework for selective lithium extraction

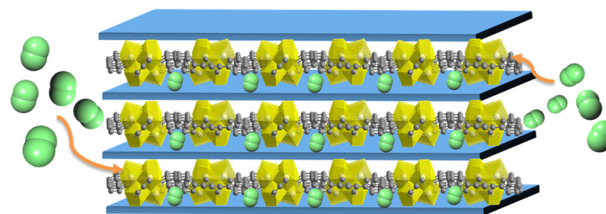
Wenhao Huang, Zhonghang Chen, Peng Cheng and Wei Shi*



11976

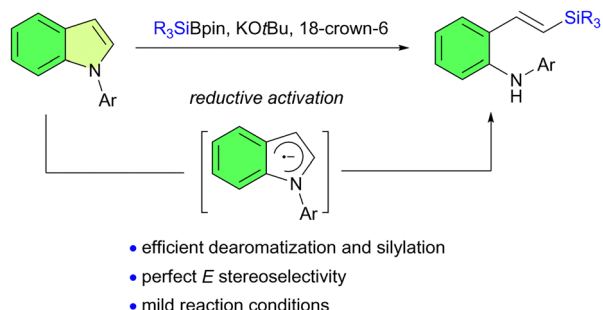
Hydrogen storage in a sandwich structure by assembly of BNs and MOFs

Lu Sun, Xiaojia Huang, Yihan Kong, Jiangtao Jia* and Guangshan Zhu



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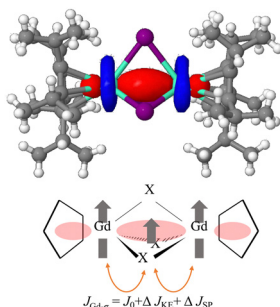
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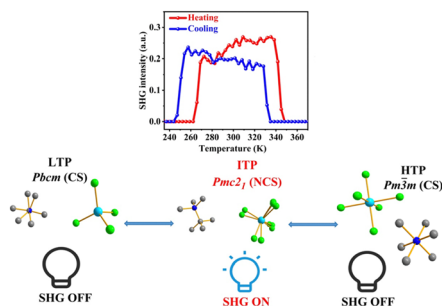
11984



11988



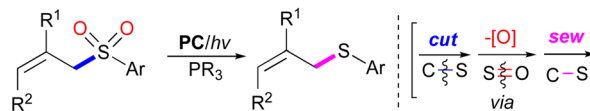
11992



11996

Deoxygenation of allyl arylsulfones to allyl arylthioethers via a "cut-sew" strategy: phosphines as bifunctional reagents

Liuxin Dong, Tao Shu, Di Yang and Min Chen*

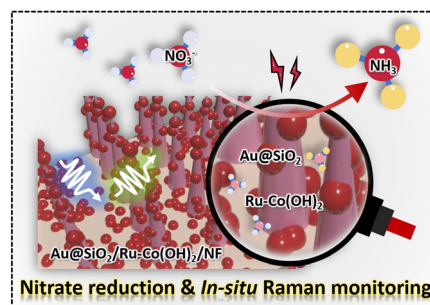


- Deoxygenation of allyl sulfones
- Phosphines as bifunctional reagents
- Mild conditions
- Enabling intermolecular reactions

12000

Accelerated ammonia electrosynthesis of cobalt hydroxide through electronic modulation with ultralow noble metal doping

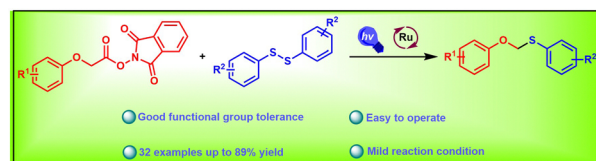
Fengcai Lei,* Ruixue Huai, Menghan Zhang, Ying Wang, Jing Yu, Yuhan Hou, Junfeng Xie, Pin Hao and Bo Tang*



12004

Visible-light induced decarboxylative coupling of phenoxyacetic acid with disulfides: synthesis of α -arylthioanisole derivatives

Ning Li, Zhao-Nian Peng, Run Xiong, Ao-Cheng Wang and Zhi-Bing Dong*

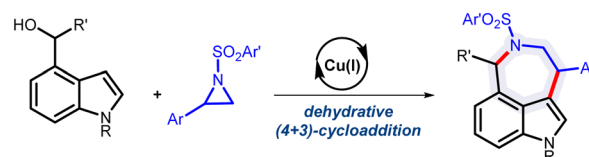


- Good functional group tolerance
- Easy to operate
- 32 examples up to 88% yield
- Mild reaction condition

12008

Copper-catalyzed (4+3)-cycloaddition of 4-indolylcarbinols with aziridines: stereoselective synthesis of azepinoindoles

Subhradeep Kar, Prabhat Kumar Maharana, Swagata Maity, Vishal Trivedi and Tharmalingam Punniyamurthy*



-key highlights

- * dehydrative sequence
- * stereoselective
- * substrate scope
- * scalable

synthesis of chiral azepino[c,d]indoles 32 examples, 3 examples up to >96% ee

