

IN THIS ISSUE

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Cover

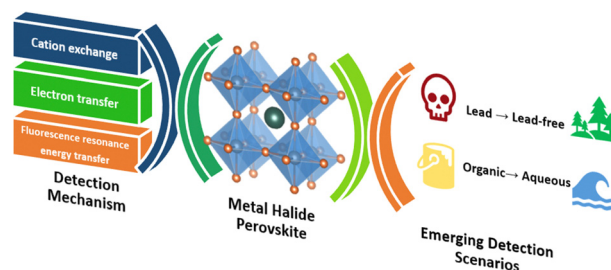
See Hisanori Nambu, Takayuki Yakura *et al.*, pp. 4537–4540. Image reproduced by permission of Hisanori Nambu from *Chem. Commun.*, 2024, 60, 4537.

HIGHLIGHT

4511

Exploiting halide perovskites for heavy metal ion detection

Ke Tang, Yuetian Chen* and Yixin Zhao*

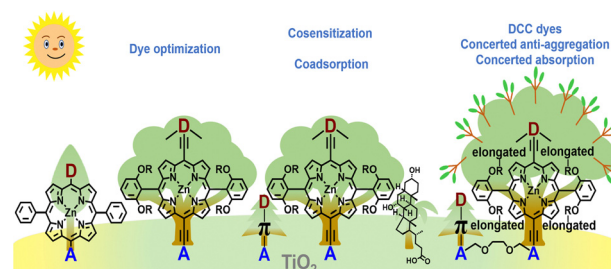


FEATURE ARTICLE

4521

Recent advances in the approaches for improving the photovoltaic performance of porphyrin-based DSSCs

Shucheng Huang, Qizhao Li, Shijun Li, Chengjie Li,* Haijun Tan* and Yongshu Xie*



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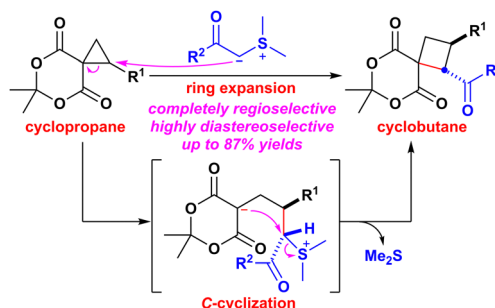
Fundamental questions
Elemental answers

COMMUNICATIONS

4537

Ring expansion of spirocyclopropanes with stabilized sulfonium ylides: highly diastereoselective synthesis of cyclobutanes

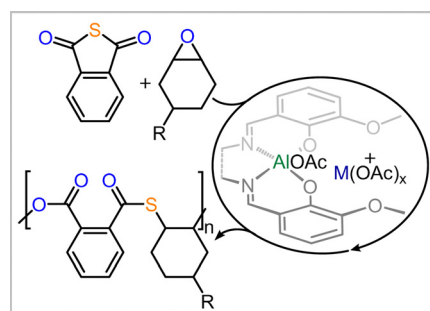
Hisanori Nambu,* Yuta Onuki, Kana Aso, Momoka Kanamori, Keisuke Tomohara, Kiyoshi Tsuge and Takayuki Yakura*



4541

Improved access to polythioesters by heterobimetallic aluminium catalysis

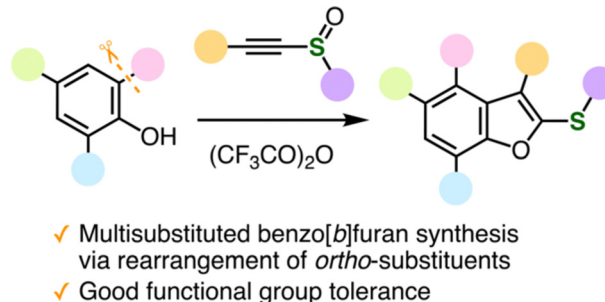
Bhargav R. Manjunatha, Merlin R. Stühler, Luise Quick and Alex J. Plajer*



4545

Highly substituted benzo[*b*]furan synthesis through substituent migration

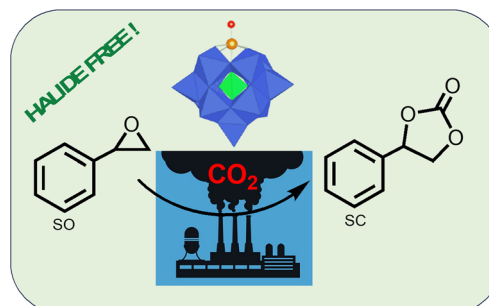
Akihiro Kobayashi, Shinya Tabata and Suguru Yoshida*



4549

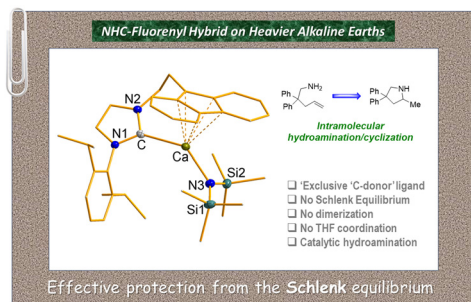
Halide-free CO₂ cycloaddition onto styrene oxide catalysed by first row transition-metal derivatives of polyoxotungstates

Jingjing Ren, Anna Proust, Franck Launay and Richard Villanneau*



COMMUNICATIONS

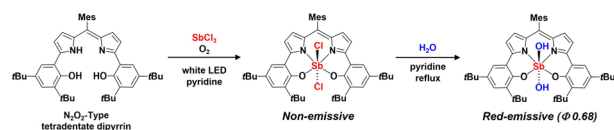
4553



Fluorenyl-tethered N-heterocyclic carbene (NHC): an exclusive C-donor ligand for heteroleptic calcium and strontium chemistry

Sumana Mondal, Subham Sarkar, Chhotan Mandal, Dibyendu Mallick* and Debabrata Mukherjee*

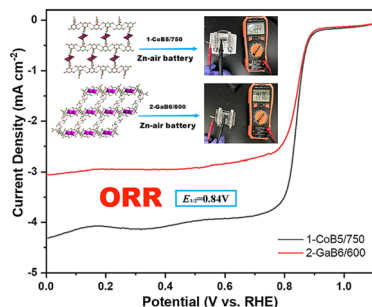
4557



Synthesis and optical properties of antimony(v) complexes of a trianionic N₂O₂-type tetradentate dipyrin ligand

Tomohiro Agou,* Shunsuke Kuroiwa, Hiroki Fukumoto* and Tatsuya Nabeshima*

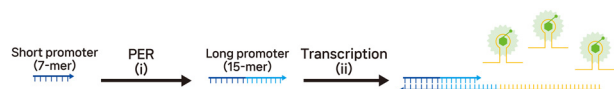
4561



Novel application of imidazole-based ligand-templated borates in a zinc–air battery

Yan-Ling Deng, An-Na Chen, Shu-Sheng Xin and Chun-Yang Pan*

4565



Primer exchange reaction-coupled transcription isothermal amplification as a sensitive biomolecular assay

Jinseo Son, Seok Hyeon Kim, Byung Seok Cha, Eun Sung Lee, Seokjoon Kim and Ki Soo Park*

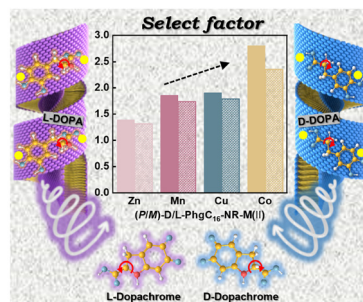


COMMUNICATIONS

4569

Phenylglycine amphiphile-metal ion chiral supramolecular nanozymes for enantioselective catalysis

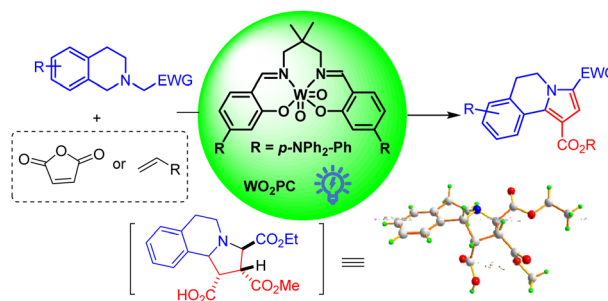
Dongying Li, Cong Gao, Cici Zhao, Qingqing Sun,*
Zheng Xi,* Jie Han* and Rong Guo



4573

Photo-induced tungsten-catalyzed cascade synthesis of pyrrolo[2,1-a]isoquinoline-1,3-dicarboxylate and its reaction mechanism

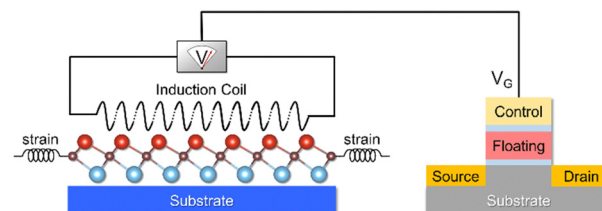
Yongshun Wen, Hong-Xian Jin, Yan-Hua Qiu,
Yingtong Zong, Wenjun Luo, Zhengwang Chen and
Daohong Yu*



4577

Janus MXene nanosheets with a strain-induced reversible magnetic state transition for storing information without electricity

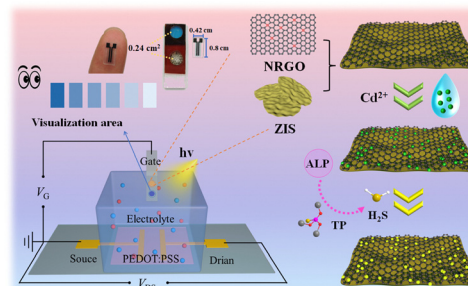
Hengyue Zhang, Guoqing Wang,* Bayu Admasu Beshiwork,
Birkneh Sirak Teketel, Baihai Li and Bin Lin*



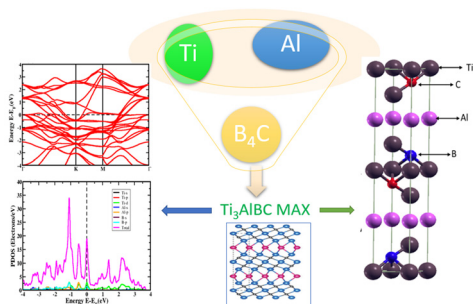
4581

A bioetching-induced visualized-organic photoelectrochemical transistor dual-signal mode sensor for alkaline phosphatase detection

Cunhao Fan, Jingjie Lai, Xilong Zhou, Yuanhao Liu,
Zhiying Shao, Kezuo Di, Fuheng You, Lijun Ding and
Kun Wang*



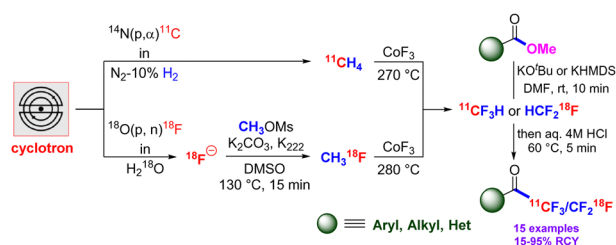
4585



Creation of a boron carbide-based Ti_3AlBC (312) MAX phase: a route to novel MXenes for energy storage

Md. Shahinoor Alam,* Mohammad Asaduzzaman Chowdhury, Md. Rasidul Islam, Md. Saiful Islam, Md. Moynul Islam and Razu Ahmed

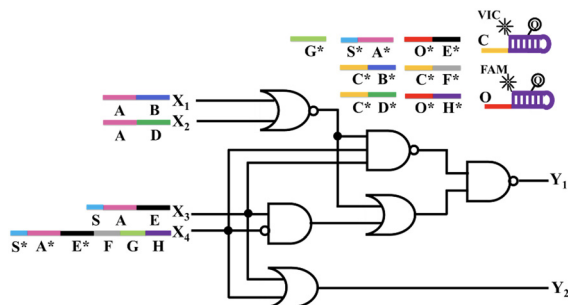
4589



Copper(I)-free syntheses of $[\text{^{11}C}/\text{^{18}F}]$ trifluoromethyl ketones from alkyl or aryl esters and $[\text{^{11}C}/\text{^{18}F}]$ fluoroform

Susovan Jana, Sanjay Telu,* Jimmy E. Jakobsson, Bo Yeun Yang and Victor W. Pike*

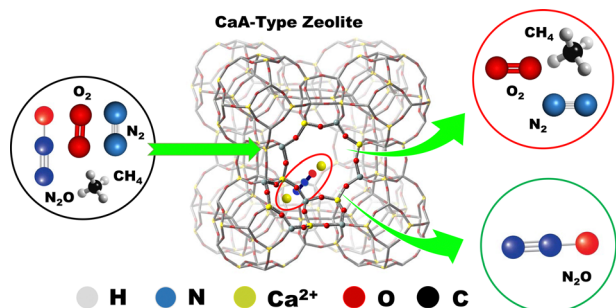
4593



FEN1-assisted DNA logic amplifier circuit for fast and compact DNA computing

Zheng Xiang, Jia-Yi Zheng, Xueping Ma, Yanan Chu, Qinxin Song, Guohua Zhou, Bingjie Zou,* Haiping Wu* and Chen Wang*

4597



Excellent capture of N_2O functioning at RT and lower pressure by utilizing an NaCaA-85 zeolite

Suguru Hiraki, Haruka Baba, Ikuka Kobayashi, Akira Oda, Takahiro Ohkubo, Yuka Ikemoto, Taro Moriwaki and Yasushige Kuroda*

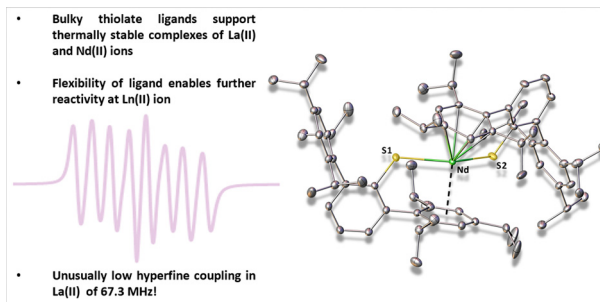


COMMUNICATIONS

4601

Exploring sulfur donor atom coordination chemistry with La(III), Nd(III), and Tm(III) using a terphenylthiolate ligand

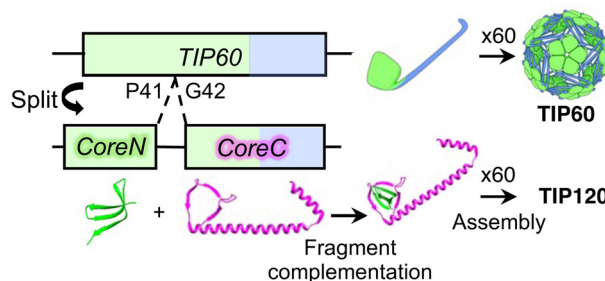
Kito Gilbert-Bass, Cary R. Stennett, Robin Grotjahn, Joseph W. Ziller, Filipp Furche* and William J. Evans*



4605

Fusion then fission: splitting and reassembly of an artificial fusion-protein nanocage

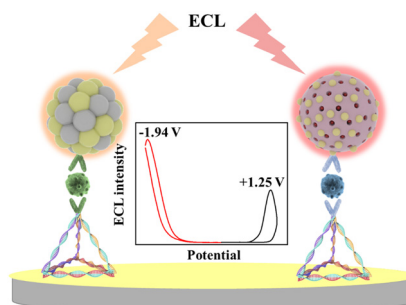
Naoya Ohara, Norifumi Kawakami,* Ryoichi Arai, Naruhiko Adachi, Akihito Ikeda, Toshiya Senda and Kenji Miyamoto*



4609

Potential-resolved electrochemiluminescence for simultaneous determination of multiplex bladder cancer markers

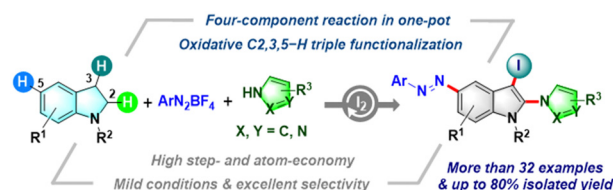
Junke Wang, Fenglian Guo, Jingjing Zhang* and Jie Chao*



4613

Iodine-mediated oxidative triple functionalization of indolines with azoles and diazonium salts

Yifeng Liu, Xiaoting Gu, Xiaoxiang Zhang, Meilan Xu, Zhuan Zhang and Taoyuan Liang*



CORRECTIONS

4617

Correction: Modified minimal-size fragments of heparan sulfate as inhibitors of endosulfatase-2 (Sulf-2)

Alice Kennett, Sven Epple, Gabriella van der Valk, Irene Georgiou, Evelyne Gout, Romain R. Vivès and Angela J. Russell*

4618

Correction: Time-, space- and energy-resolved *in situ* characterization of catalysts by X-ray absorption spectroscopy

Stefan Peters, Benny Kunkel, Cafer Tufan Cakir, Anke Kabelitz, Steffen Witte, Thomas Bernstein, Stephan Bartling, Martin Radtke, Franziska Emmerling, Ali Mohamed Abdel-Mageed, Sebastian Wohlrab* and Ana Guilherme Buzanich*

