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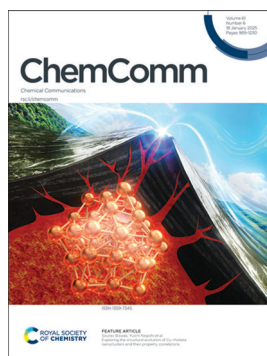
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ISSN 1359-7345 CODEN CHCOFS 61(6) 989-1230 (2025)



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See Kazumitsu Onizuka, Jiro Kondo, Fumi Nagatsugi *et al.*, pp. 1120–1123. Image reproduced by permission of Kazumitsu Onizuka from *Chem. Commun.*, 2025, **61**, 1120.



Inside cover

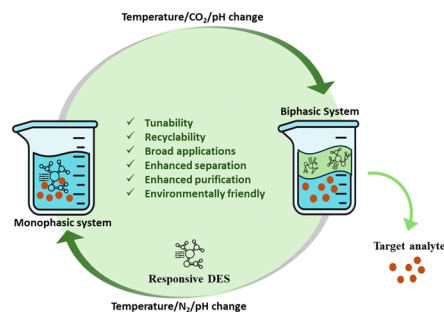
See Sourav Biswas, Yuichi Negishi *et al.*, pp. 1048–1062. Image reproduced by permission of Yuichi Negishi from *Chem. Commun.*, 2025, **61**, 1048.

HIGHLIGHTS

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Responsive deep eutectic solvents: mechanisms, applications and their role in sustainable chemistry

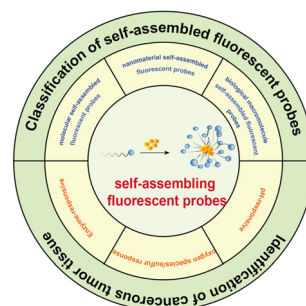
Filipa A. Vicente,* Nuša Tkalec and Blaž Likozar



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Classification of self-assembled fluorescent probes and their application in cancer diagnosis

Wenjiao Wu, Fangjun Huo* and Caixia Yin*



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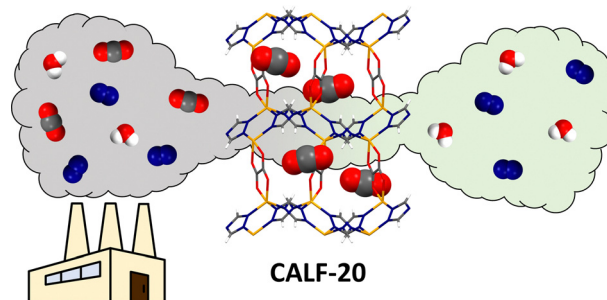
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HIGHLIGHTS

1032

Advances in chemistry of CALF-20, a metal–organic framework for industrial gas applications

Joanna Drwęska, Kornel Roztocki* and Agnieszka M. Janiak*

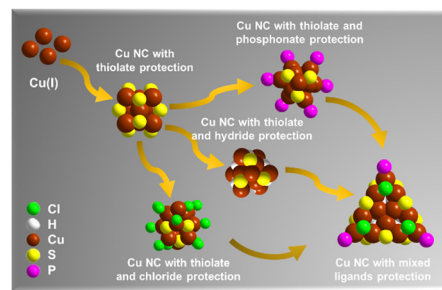


FEATURE ARTICLES

1048

Exploring the structural evolution of Cu–thiolate nanoclusters and their property correlations

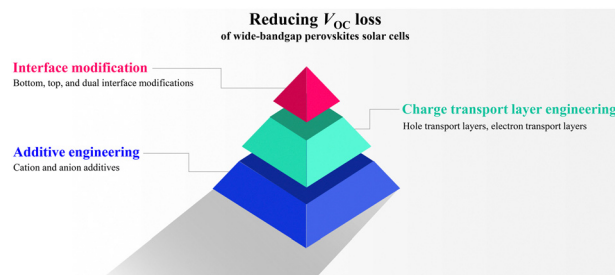
Maho Kamiyama, Yamato Shingyouchi, Rupa Sarma, Mandira Ghosh, Tokuhisa Kawawaki, Sourav Biswas* and Yuichi Negishi*



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A review: strategies for reducing the open-circuit voltage loss of wide-bandgap perovskite solar cells

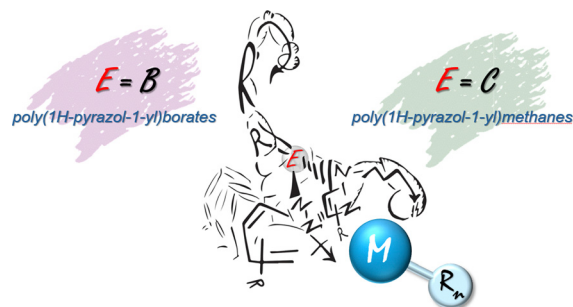
Lu-Yao Chen, Qi Sun, Yue-Min Xie* and Man-Keung Fung*



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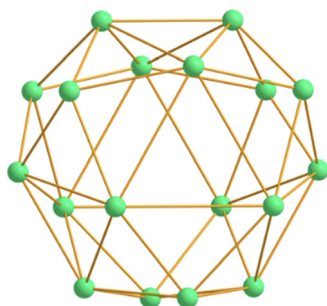
Main advances in the application of scorpionate-based catalytic systems for the preparation of sustainable polymers

Luis F. Sánchez-Barba,* Andrés Garcés,* Agustín Lara-Sánchez,* Marta Navarro and David González-Lizana



FEATURE ARTICLES

1104

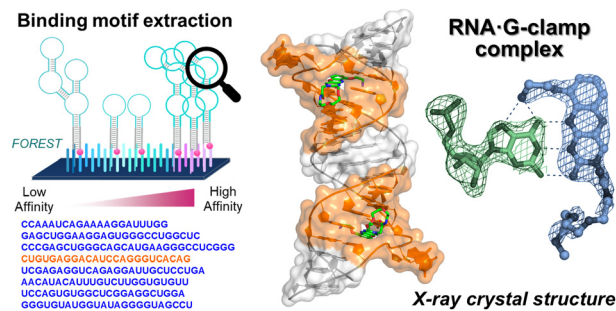


The coordination chemistry of *p*-tert-butylcalix[8]arene with transition and lanthanide metal ions

Abhijan Chakraborty, Lucinda R. B. Wilson, Scott J. Dalgarno* and Euan K. Brechin*

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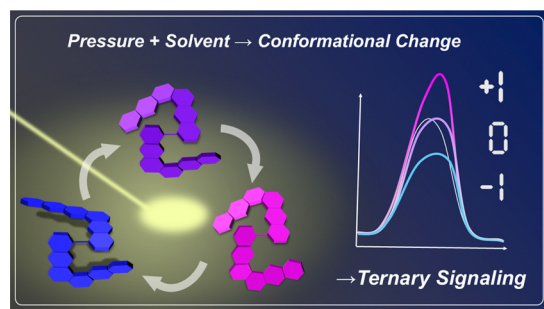
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Crystallographic analysis of G-clamp–RNA complex assisted by large scale RNA-binding profile

Ryosuke Nagasawa, Kazumitsu Onizuka,* Karen Kawamura, Kosuke Tsuzuki, Hiroataka Murase, Kaoru R. Komatsu, Emi Miyashita, Hirohide Saito, Jiro Kondo* and Fumi Nagatsugi*

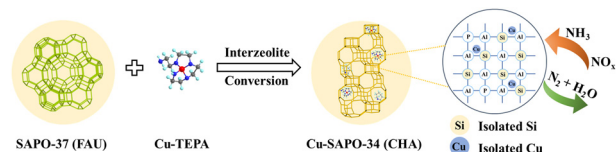
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Pseudohelicene chemosensor displaying ternary signaling stimulated by hydrostatic pressure and solvent

Tomokazu Kinoshita, Kota Watanabe, Eiji Tsurumaki, Shinji Toyota* and Gaku Fukuhara*

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Enhanced NH_3 -SCR activity of Cu–SAPO-34 by regulating Si distribution via an interzeolite conversion strategy

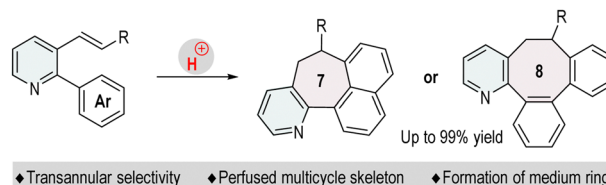
Yuxuan Xiao, Bohui Cai, Huifang Wu, Hui Wang, Jiachen Wang, Junyan Liu, Runyu Ma, Tianming Lv, Lei Miao, Jiaxu Liu, Chengyang Yin,* Changgong Meng* and Limin Ren*



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Pyridine-oriented transannular C–H functionalization of arenes

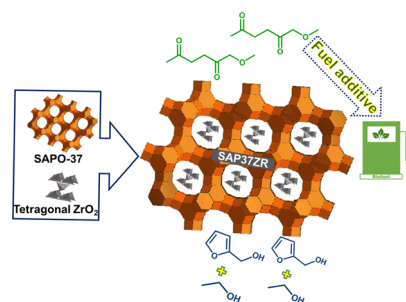
Yanchun Hou, Jianwei Liu, Yi Tian, Guangshen Wang, Xingcan Zhang, Jingpeng Han* and Baosheng Li*



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Synergistically stabilized SAPO-37-tetragonal zirconia composites: a promising catalyst for ethyl levulinate synthesis

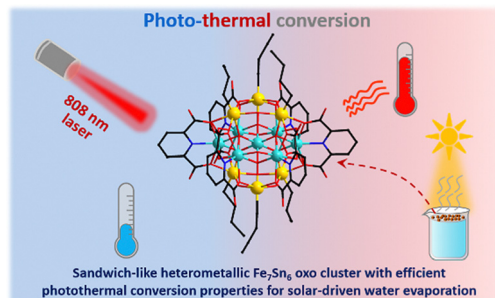
K. Khadheejath Shabana, Soumya B. Narendranath, N. P. Nimisha and A. Sakthivel*



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A sandwich-like heterometallic Fe₇Sn₆ oxo cluster constructed by tessellation of an Anderson-like {Fe₇} wheel for near-infrared photothermal conversion

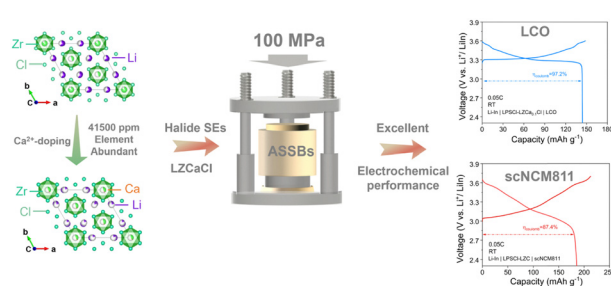
Xiu-Juan Tian, Qian Lu, Shi-Li Li* and Xian-Ming Zhang*



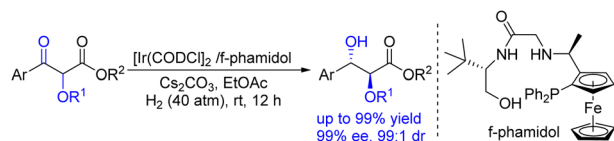
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A cost-effective Ca-doped Li₂ZrCl₆ halide solid electrolyte for all-solid-state lithium batteries

Xingkun Liu, Fanghui Mi and Chunwen Sun*



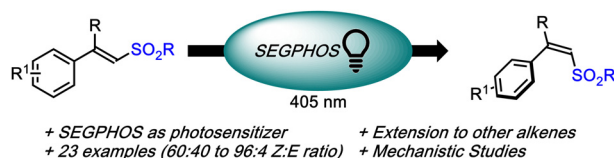
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Facile access to chiral *anti*-1,2-diol derivatives via Ir-catalyzed asymmetric hydrogenation of α -alkoxy- β -ketoesters

Yuan-Zheng Wang, Bin Lu, Gen-Qiang Chen* and Xumu Zhang*

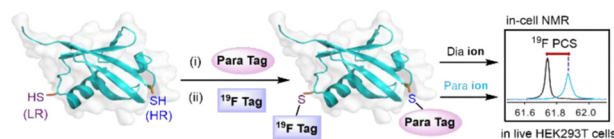
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$E \rightarrow Z$ contra-Thermodynamic isomerization of alkenes with SEGPHOS

Margaux Riomet, Philippe Jubault and Thomas Poisson*

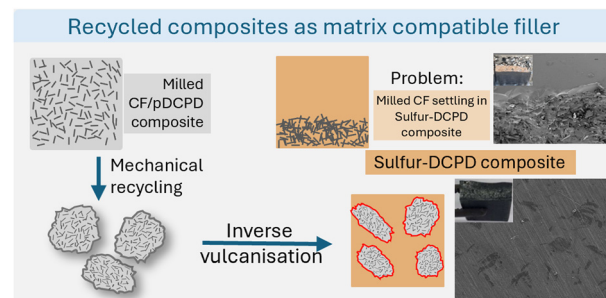
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^{19}F -PCS measurements on proteins in live mammalian cells

Shu-Li Guo, Bin-Bin Pan, Xia-Yan Li, Yu-Hao Xiao and Xun-Cheng Su*

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Utilizing composite recyclate as reinforcement in inverse-vulcanised polymers

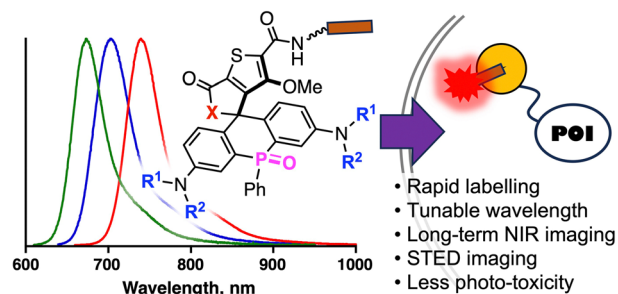
Y. Athulya Wickramasingha, Margaux Rodriguez, David J. Hayne, Zan Simon, Bhagya Dharmasiri, Sameh Dabees, Justin M. Chalker and Luke C. Henderson*



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Near-infrared fluorescent HaloTag ligands for efficient organelle labelling in live cells

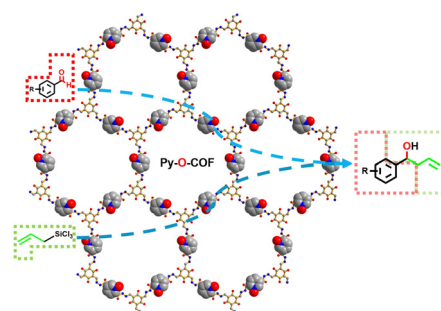
Yoshiki Tanaka, Masayasu Taki* and Shigehiro Yamaguchi*



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Pyridine oxide-decorated covalent organic framework for catalytic allylation of aromatic aldehydes with allyl(trichloro)silane

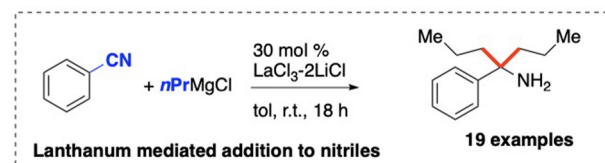
Jian-Cheng Wang,* Ru Pan, Wen-Ting Yang, Zhi Chen, Jia-Qi Du, Jing-Lan Kan and Yu-Bin Dong*



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Convenient lanthanum-mediated synthesis of bulky tert-alkyl amines from nitriles

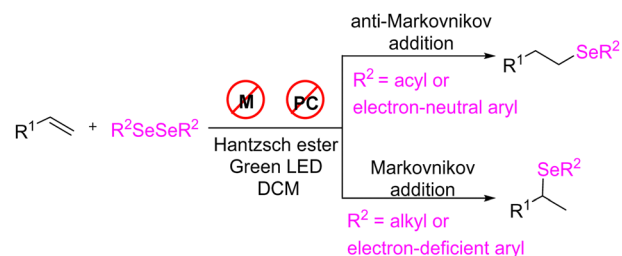
Emily K. Burke, Katherine N. Robertson and Alexander W. H. Speed*



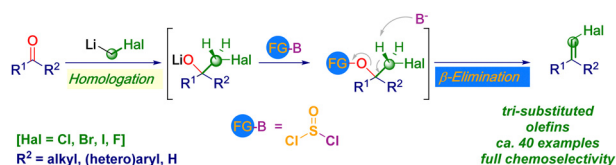
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Green-light-induced selective hydroselenation of olefins with diselenides

Fan Li, Hao-Cheng Zhao, Hua-Yue Wu, Miao-Chang Liu* and Yun-Bing Zhou*



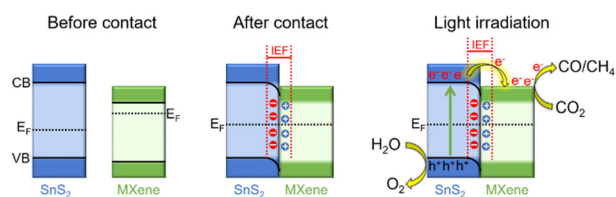
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Chemoselective homologative preparation of trisubstituted alkenyl halides from carbonyls and carbenoids

Margherita Miele,* Davide Castiglione, Wolfgang Holzer, Laura Castoldi* and Vittorio Pace*

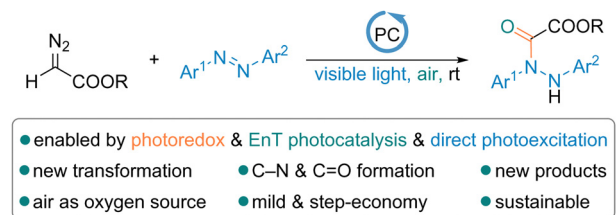
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Tuning interfacial charge transport via Ti–O–Sn bonds for efficient CO₂ conversion

Shikang Yin, Fan Zhou, Yiying Zhou, Yuming Sun, Binrong Li,* Yingying Qin,* Yan Yan* and Pengwei Huo*

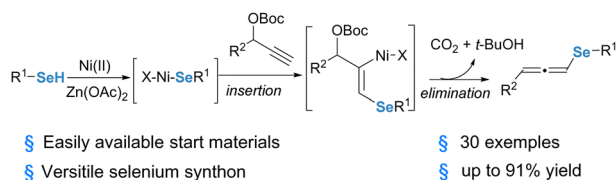
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Synergistic photocatalysis enables aerobic oxo-hydrazination of α -diazoacetates with azobenzenes

Jingya Yang,* Shengyu Wang, Yating Han, Qi Dong, Wantong Ma and Hongyan Zhou*

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Ni(II)-catalyzed nucleophilic substitution for the synthesis of allenylselenide

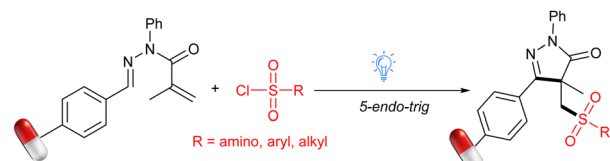
Ling-Hong Zeng, Ranran Cui, Zhuo Huang and Qing-Wei Zhang*



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Access to 1-aryl-pyrazolin-5-ones via photoinduced chemoselective cyclization of *N*-methacrylo aldehyde hydrazones

Sheng Yu, Yangjian Cheng, Changduo Pan* and Jin-Tao Yu*

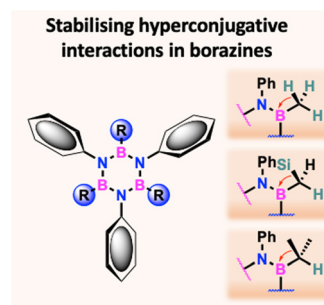


- *N*-methacrylo aldehyde hydrazones were used for pyrazolin-5-ones
- modification of drug molecules ● good chemoselectivity ● 46 examples, up to 89% yield

1200

Expression of hyperconjugative stereoelectronic interactions in borazines

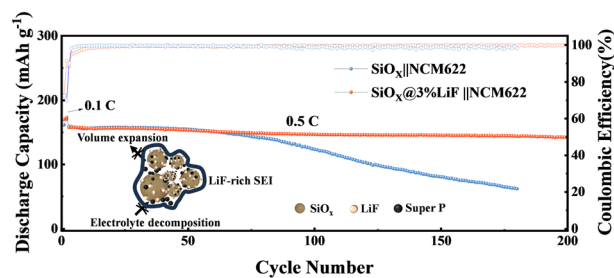
Vivek Chandrakant Wakchaure, Jacopo Dosso, Martina Crosta, Hanspeter Kählig, Benjamin D. Ward and Davide Bonifazi*



1204

Accurate prelithiation of lithium ion battery SiO_x anodes towards improved initial coulombic efficiency

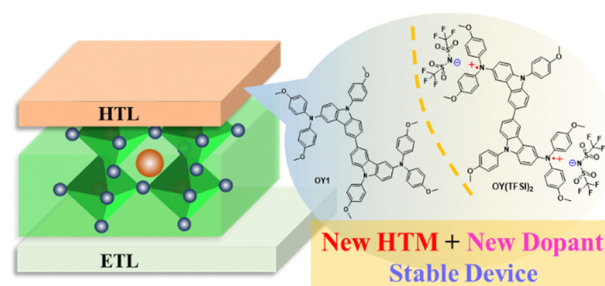
Cuicui Hu, Minghao Zhang, Wenbo Zhou, Chenyu Liu* and Zhan Lin



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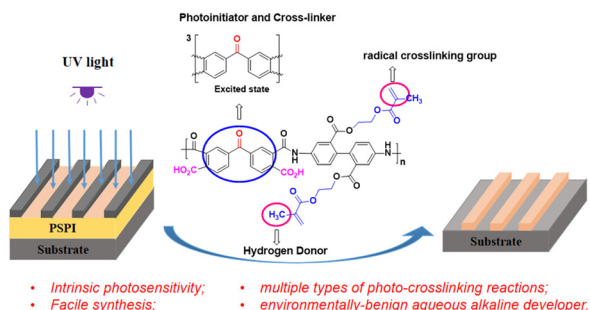
Li-TFSI free carbazole-based hole transport materials enable highly stable perovskite solar cells

Liangding Zheng, Yangmei Ou, Shihuai Wang,* Lin Xie* and Yong Hua*



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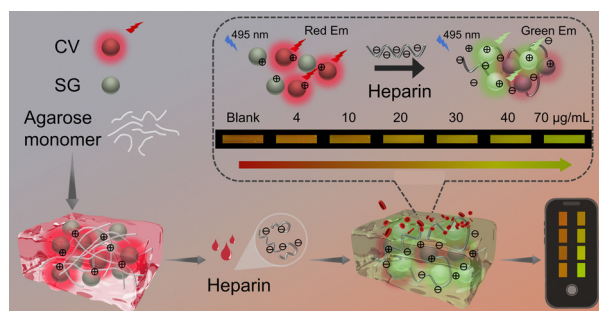
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Intrinsically photosensitive polyimide photoresist and its double crosslinking mechanism

Peng Yang,* Haiping Yu, Yuting Zhu, Xiaonuo Liu, Pin Liu, Xu Wang* and Bo Tang*

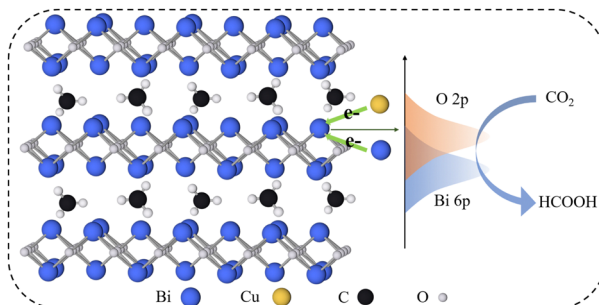
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A label-free fluorescent-hydrogel sensor for heparin detection in diluted whole blood

Yingnan Wei, Jie Tang, Jinyi Zhang, Yao Lin* and Chengbin Zheng*

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Synergy of Cu-doping and *in situ* reconstruction on Bi₂O₂CO₃ for promoting CO₂ electroreduction over a wide pH range

Shengnan Zhang, Xiaoyan Zhang,* Jiatai Yang, Kang Liu, Jingwen Zhao, Shaojun Guo* and Lixue Zhang*

1223



Continuous activation of phenoxide and CF₃I for multiple trifluoromethylations

Yusei Nakashima, Shinjiro Kusano, Tsukasa Inishi, Yasuyuki Nitta and Takashi Nishikata*



CORRECTION

1227

Correction: (Thio)chromenone derivatives exhibit anti-metastatic effects through selective inhibition of uPAR in cancer cell lines: discovery of an uPAR-targeting fluorescent probe

So-Young Chun, Chanhee Park, Jiwon Oh, Hye-Jin Yoon, Tae-il Kim, Youngmi Kim, Seung Wook Ham, Hye Ran Koh, Hyung Ho Lee, Hun Young Kim* and Kyungsoo Oh*

