

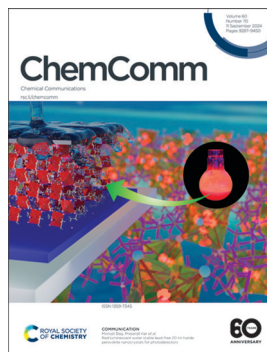
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ISSN 1359-7345 CODEN CHCOFS 60(70) 9287-9450 (2024)



Cover

See Kyosuke Isoda *et al.*, pp. 9352–9355.
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Inside cover

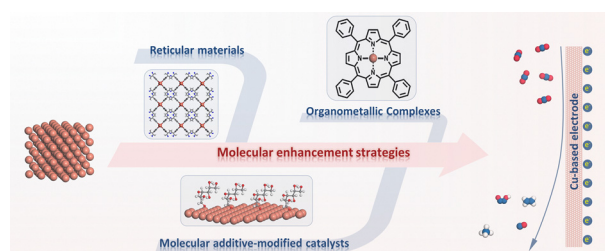
See Monojit Bag, Prasenjit Kar *et al.*, pp. 9356–9359.
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HIGHLIGHTS

9298

Molecular enhancement of Cu-based catalysts for CO₂ electroreduction

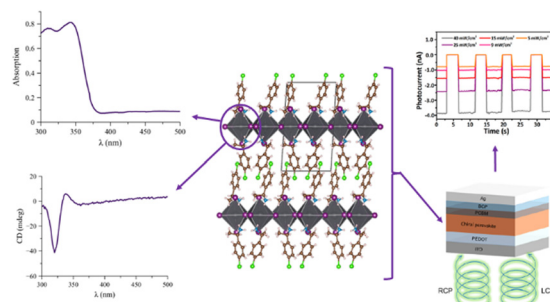
Haiqiang Luo, Bo Li,* Jian-Gong Ma and Peng Cheng*



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Chiral 2D and quasi-2D hybrid organic inorganic perovskites: from fundamentals to applications

Marco Moroni,* Clarissa Coccia and Lorenzo Malavasi*



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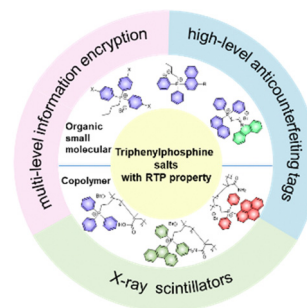


FEATURE ARTICLES

9328

Unveiling the potential of triphenylphosphine salts in tuning organic room temperature phosphorescence

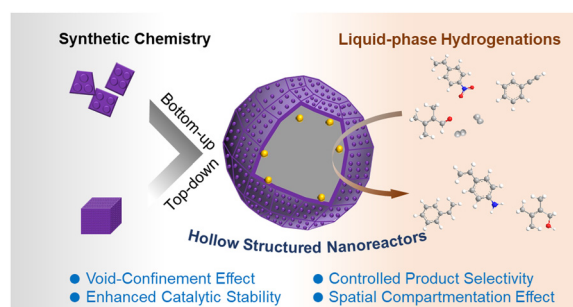
Yuxia Zhang, Xiaomei Wu, Shujuan Liu, Yun Ma* and Qiang Zhao*



9340

Design of hollow structured nanoreactors for liquid-phase hydrogenations

Yutong Pi, Haitao Li and Jian Liu*

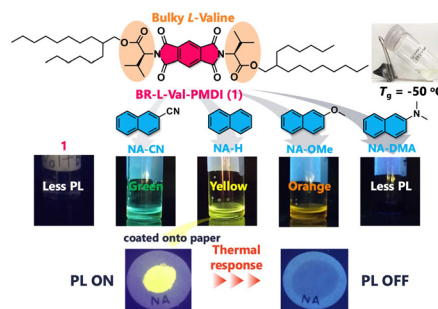


COMMUNICATIONS

9352

Amino acid-appended pyromellitic diimide liquid materials, their photoluminescence, and the thermal response that turns the photoluminescence off

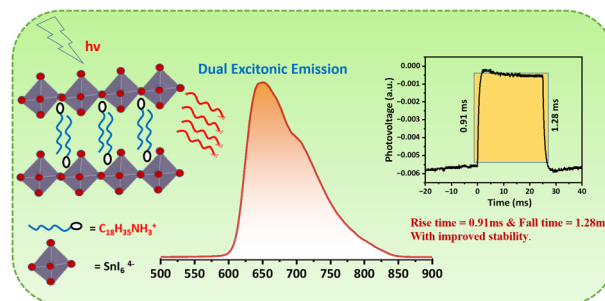
Takumi Omura, Shogo Morisako and Kyosuke Isoda*



9356

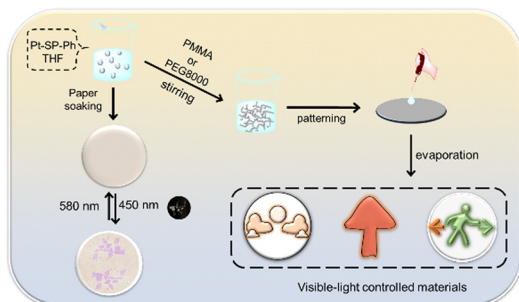
Red luminescent water stable lead-free 2D tin halide perovskite nanocrystals for photodetectors

Bharat Lal, Praveen Kumar, Sumit Kumar, Ankush Saini, Monojit Bag* and Prasenjit Kar*



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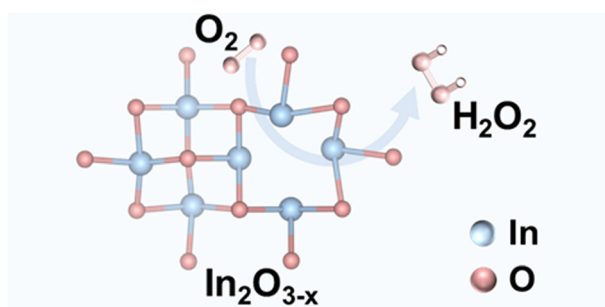
9360



A visible-light regulated luminescent switch based on a spiropyran-derived Pt(II) complex for advanced anti-counterfeiting materials

Xin Lei, Ying Jiang, Qingguo Zeng, Yuncan Dou, Haokun Zhang, Jiatao Ni, Yinuo Zhuo, Wei Wang, Yeye Ai* and Yongguang Li*

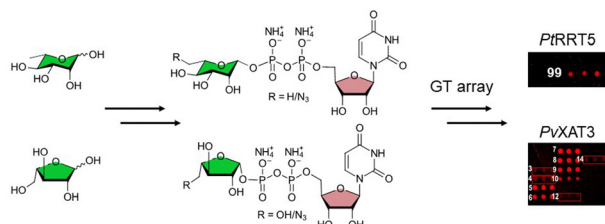
9364



Indium oxide with oxygen vacancies boosts O₂ adsorption and activation for electrocatalytic H₂O₂ production

Danni Deng, Yuchao Wang, Jiabi Jiang, Yu Bai, Yingbi Chen, Haitao Zheng, Houzheng Ou and Yongpeng Lei*

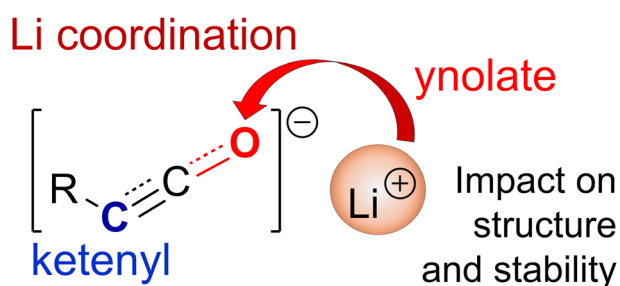
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Chemical synthesis of natural and azido-modified UDP-rhamnose and -arabinofuranose for glycan array-based characterization of plant glycosyltransferases

Irene Pasini, Colin Ruprecht, Uwe Osswald, Andreas Bittmann, Lina Maltovsky, Cecilia Romanò, Mads H. Clausen and Fabian Pfengle*

9372



The lithium effect in ketenyl anion chemistry

Prakash Duari, Sunita Mondal, Mike Jörges and Viktoria H. Gessner*

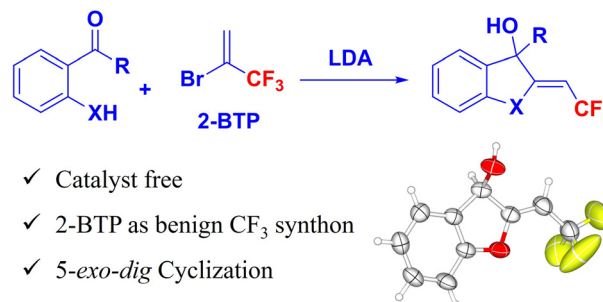


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A quick access to CF₃-containing functionalized benzofuranyl, benzothiophene and indolyl heterocycles under catalyst-free conditions

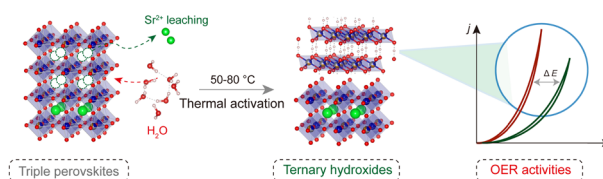
Ayazoddin Aunoddin Kazi, Nadimpalli Manjuladevi, Salla Suresh Kumar, Anamika Sharma* and L Ravithey Singh*



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Thermally activated growth of ternary oxyhydroxides on perovskites for efficient water oxidation

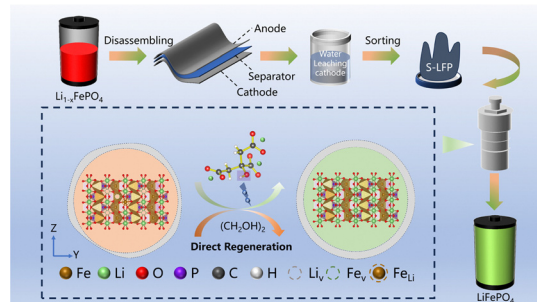
Chao Wu, Zhanhong Xiao, Ying Tang, Junhua Li, Anqi Zou, Jiliang Zhu, Xiaopeng Wang* and Jiagang Wu*



9384

Direct regeneration of spent LiFePO₄ cathode materials assisted with a bifunctional organic lithium salt

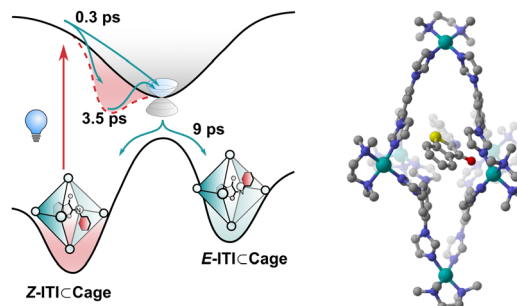
Lu Yang, Baichao Zhang, Shuo Chen, Qing Pan, Wenyuan Li, Chaolun Gan, Wentao Deng, Guoqiang Zou, Hongshuai Hou, Li Yang* and Xiaobo Ji*



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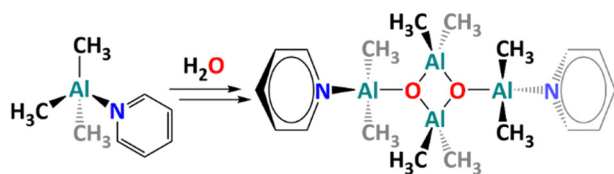
Modulation of the isomerization of iminothioindoxyl switches by supramolecular confinement

Daniel Doellerer, Ann-Kathrin Rückert, Sandra Doria, Michiel Hilbers, Nadja A. Simeth, Wybren Jan Buma, Mariangela Di Donato,* Ben L. Feringa,* Wiktor Szymanski* and Stefano Crespi*



COMMUNICATIONS

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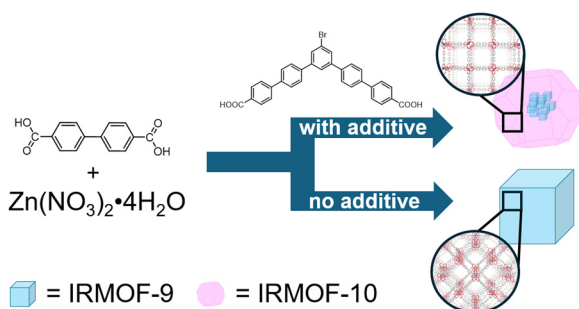


- stoichiometric hydrolysis of AlMe_3 to alumoxane
- mechanistic studies by NMR and high-level calculations

Controlled hydrolysis of AlMe_3 to tetramethylalumoxane and a new look at incipient adducts with water

Krzysztof Korona, Iwona Justyniak,* James Pogrebetsky, Marta Lemieszka, Piotr Bernatowicz, Antoni Pietrzykowski, Adam Kubas* and Janusz Lewiński*

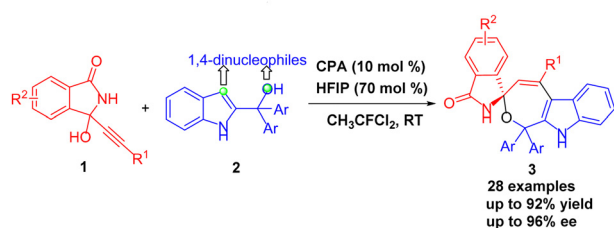
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Designed additive suppresses interpenetration in IRMOF-10

Cassidy A. Carey, Leila M. Foroughi and Adam J. Matzger*

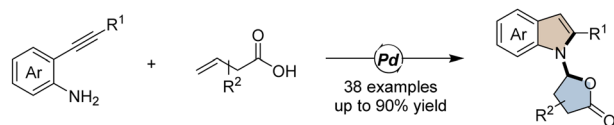
9400



Organocatalytic enantioselective (4+3) cyclization for the synthesis of spiro-fused heterocyclic compounds containing isoindolinone, oxepine and indole moieties

Kanghua Rui, Shaoying Huang, Yinong Wu, Hanxiao Shen and Xufeng Lin*

9404



- incorporation of two heteroatom motifs with 1,1-selectivity
- without exogenous directed groups
- high step and atom economy
- mild reaction conditions

Palladium-catalyzed 1,1-aminoxylation of 3-butenic acid with 2-alkynylanilines

Jinhui Zhang, Lihua Mao, Chao Liu, Xiangwen Tan, Jiahao Wu, Xuefeng Wei, Wanqing Wu and Huanfeng Jiang*

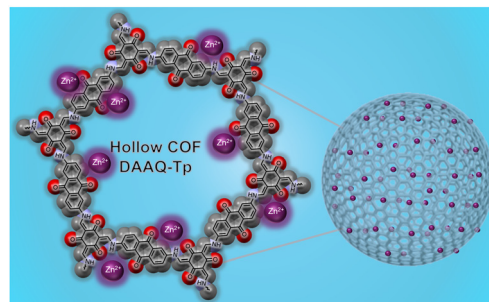


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Template-assisted synthesis of hollow anthraquinone-based covalent organic frameworks for aqueous zinc-ion hybrid supercapacitors

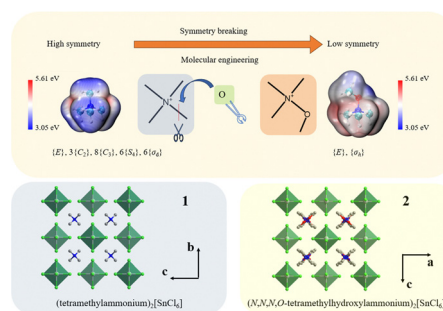
Verónica Montes-García, Cataldo Valentini, Denys Klymowych, Wojciech Kukućka, Linghao Shi, Violetta Patroniak, Paolo Samori* and Artur Ciesielski*



9412

Symmetry breaking through molecular engineering to achieve “on–off–on” nonlinear optical switch in a $[\text{SnCl}_6]^{2-}$ framework

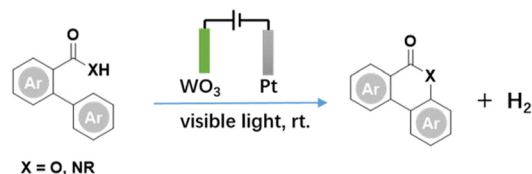
Zhuoer Cai, Zhang Yinan, Jian Chen, Xiaofan He, Ziyue Zhang, Xiu-Ni Hua* and Baiwang Sun*



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Dehydrogenative cyclization of 2-arylbenzoic acid and 2-arylbenzamide with hydrogen evolution in a photoelectrochemical cell

Haoran Li, Kaikai Qiao, Wenfeng Jiang, Fei Li* and Lei Shi*

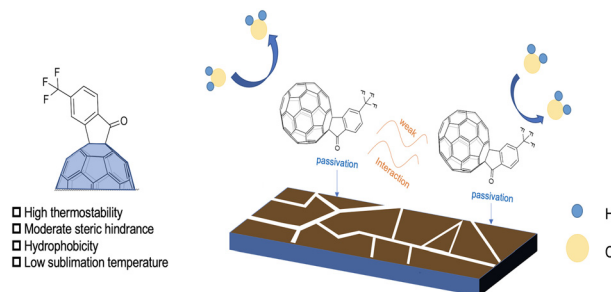


- ✓ high atom economy
- ✓ external oxidant-free, catalyst-free
- ✓ mild reaction condition
- ✓ broad substrate scope

9420

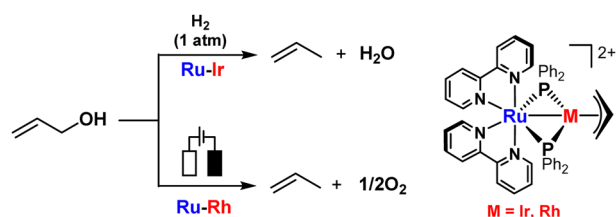
Hydrophobic evaporable fullerene indanone ketone with low sublimation temperature and amorphous morphology for inverted perovskite solar cells

Yong-Chang Zhai, Koki Yamanaka, Chu-Yang Yu, Jun-Zhuo Wang, Xue-Lin Zheng, Miftakhul Huda, Naoyuki Imai, Takeshi Igarashi, Shinobu Aoyagi* and Yutaka Matsuo*



COMMUNICATIONS

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**Bimetallic Ru–Ir/Rh complexes for catalytic allyl alcohol reduction to propene**

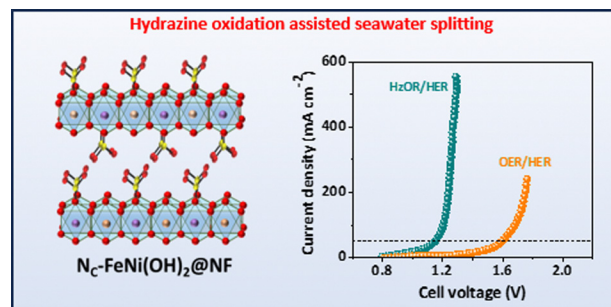
Kanade Kawaji, Mina Tsujiwaki, Ayaka Kiso, Yukina Kitajo, Manami Kitamura, Minako Nishimura, Junya Horikawa, Haruto Ikushima, Shin Takemoto* and Hiroyuki Matsuzaka

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**A serendipitous one-pot synthesis of the octahydro-2H-pyrazino[1,2-a]pyrazine core**

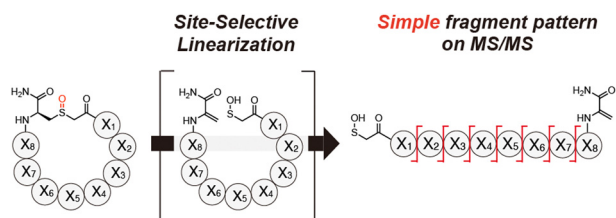
Claudio Maestri, Paolo Minazzi, Toni Grell, Valentina Colombo, Luciano Lattuada, Giovanni B. Giovenzana and Fabio Travaglin*

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**Nitrate-coordinated FeNi(OH)_2 for hydrazine oxidation assisted seawater splitting at the industrial-level current density**

Baghendra Singh, Rakesh Kumar, Toufik Ansari, Arindam Indra* and Apparao Draksharapu*

9436

**Oxidation-guided and collision-induced linearization assists *de novo* sequencing of thioether macrocyclic peptides**

Ayaka Hayashi, Yuki Goto,* Yutaro Saito, Hiroaki Suga, Jumpei Morimoto* and Shinsuke Sando*

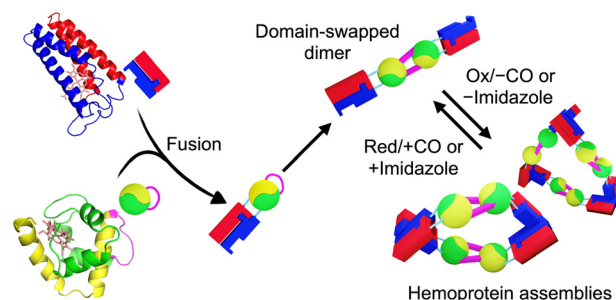


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Construction of ligand-binding controlled hemoprotein assemblies utilizing 3D domain swapping

Tsuyoshi Mashima,* Masaru Yamanaka, Atsuki Yoshida, Naoya Kobayashi, Yui Kanaoka, Takayuki Uchihashi and Shun Hirota*



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Electronic redistribution induced by interaction between ruthenium nanoparticles and Ni–N(O)–C sites boosts alkaline water electrolysis

Jiacheng Wang,* Wangtao He, Yuyang Zong, Yanfeng Tang, Jin Wang and Ruguang Ma*

