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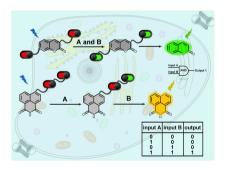
See Yasushi Sekine et al., pp. 11061-11064. Image reproduced by permission of Yasushi Sekine from Chem. Commun., 2023, 59, 11061.

HIGHLIGHT

11017

Recent progress in the development of small-molecule double-locked logic gate fluorescence probes

Xiaoting Zhang, Tiancong Xiu, Hui Wang,* Hongtong Wang, Ping Li* and Bo Tang*



FEATURE ARTICLES

11028

Thiol-epoxy 'click' chemistry: a focus on molecular attributes in the context of polymer chemistry

Anzar Khan*

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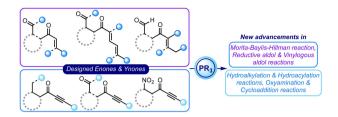


FEATURE ARTICLES

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Conceptual advances in nucleophilic organophosphine-promoted transformations

Lona Dutta, Atanu Mondal, Jay Prakash Maurya, Dipto Mukhopadhyay and S. S. V. Ramasastry*

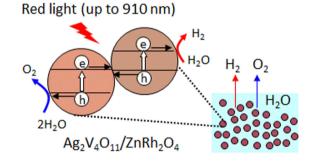


COMMUNICATIONS

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Near-infrared light-inducible Z-scheme overall water-splitting photocatalyst without an electron mediator

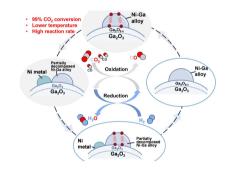
Hiroshi Irie,* Masaomi Yoda, Hiroshi Miyashita, Ryo Hanada, Toshihiro Takashima and Haruna Kuroiwa



11061

Equilibrium unconstrained low-temperature CO₂ conversion on doped gallium oxides by chemical looping

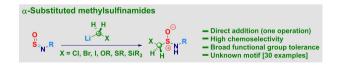
Keke Kang, Sota Kakihara, Takuma Higo, Hiroshi Sampei, Koki Saegusa and Yasushi Sekine*



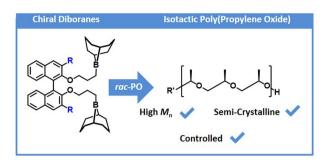
11065

Highly chemoselective homologative assembly of the α-substituted methylsulfinamide motif from N-sulfinylamines

Monika Malik, Raffaele Senatore, Davide Castiglione, Alexander Roller-Prado and Vittorio Pace*



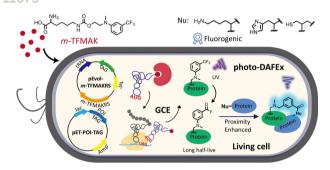
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Sterically demanding binaphthol-based chiral diboranes for metal-free and isotactic poly(propylene oxide)

Ayla Sirin-Sariaslan and Stefan Naumann*

11073



A genetically encodable and fluorogenic photo-crosslinker via photo-induced defluorination acyl fluoride exchange

Jielin Fu, Sitong Li, Lijun Deng, Xiaohu Zhao and Zhipeng Yu*

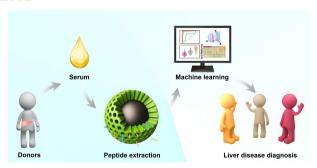
11077



Base-promoted one-pot three-component desulphurization cross-coupling access to 4-cyanoimidazole

Jiangwei Wen,* Ting Zeng, Kelu Yan, Lulu Zhao, Shuyun Zhu and Jianjing Yang*

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Zwitterionic mesoporous engineering aids peptide-dependent pattern profiling for identification of different liver diseases

Zixing Xu, Wantong Zhang, Chunhui Deng* and Nianrong Sun*

11085

Fused metallacyclopropenes from alkynylphenols

Bingjie Fu, Wei Bai,* Yue Zhao, Yang Li and Wenfeng Jiang*

$$OsCl_{2}(PPh_{3})_{3}$$

$$+$$

$$[Os] = OsCl_{2}(PPh_{3})_{2}$$

$$R = alkyl$$

$$R = alkyl$$

$$R = alkyl$$

$$R = alkyl$$

11089

Aerobic oxidative C-H phosphorylation of quinoxalines under catalyst-free conditions

Qiaoyu Gan, Haibo Liu, Zeqi Jiang, Junmei Xia, Zhenhua Gao,* Yongbiao Guo* and Hongliang Wen*

11093

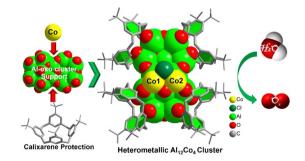
Gallium reactivates first and second generation quinolone antibiotics towards drug-resistant Klebsiella pneumoniae

Tania Sultana, Rebekah N. Duffin, Victoria L. Blair and Philip C. Andrews*

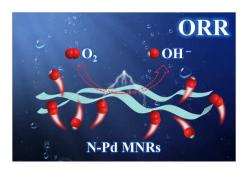
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Al₁₂Co₄: a pioneering heterometallic aluminum oxo cluster with surface-exposed Co sites for the oxygen evolution reaction

Er-Meng Han, Ru-Xin Meng, Yi-Qi Tian, Jun Yan, Kai-Yu Liu* and Chao Liu*



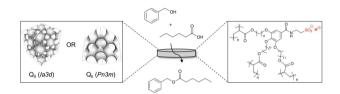
11101



Nitrogen-intercalated Pd metallene nanoribbons with optimized electronic structure for oxygen reduction catalysis

Hongjing Wang, Yunju Li, Songliang Liu,* Hongjie Yu, Kai Deng, Ziqiang Wang, You Xu and Liang Wang*

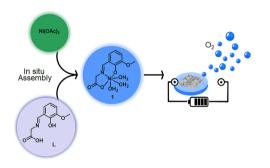
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Sulfonic-acid-based lyotropic bicontinuous cubic polymer network for molecular-size-selective heterogeneous catalysis

Keira E. Culley, Christopher Johnson and Douglas L. Gin*

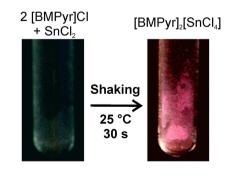
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In situ assembly of nickel-based ultrathin catalyst film for water oxidation

Xiang-Zhu Wei, Fang-Jie Liao, Xin Xu, Chen Ye, Chen-Ho Tung and Li-Zhu Wu*

11113



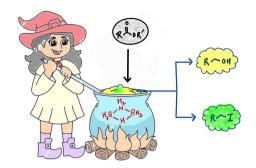
Solvent-free room-temperature synthesis of brightly luminescent [BMPyr]₂[SnCl₄]

Silke Wolf and Claus Feldmann*

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Reduction of esters to alcohols and iodides using aminodiborane (μ-NH₂B₂H₅): scope and mechanistic investigations

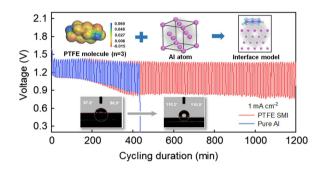
Abhishek Nair, Vikas Tiwari, Sambhav Rath, Parul Saini, Ashutosh Verma and Anil J. Elias*



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A fluoropolymer bifunctional solid membrane interface for improving the discharge duration in aqueous Al-air batteries

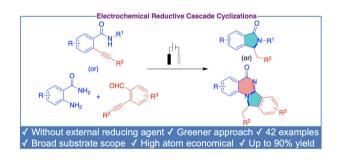
Manhui Wei, Keliang Wang,* Thi Ha My Pham, Meixia Zhang, Daiyuan Zhong, Hengwei Wang, Liping Zhong, Dongxin Liu, Pucheng Pei and Andreas Züttel



11125

Electrochemical reductive cascade cyclization of o-alkynylated derivatives for saturated amides/amines

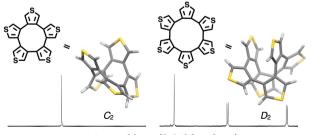
Mandapati Bhargava Reddy, Sakthivel Prabhu and Ramasamy Anandhan*



11129

Synthesis of penta- and hexa(3,4-thienylene): size-dependent structural properties of cyclic oligothiophenes

Mai Nagase, Sachiko Nakano and Yasutomo Segawa*



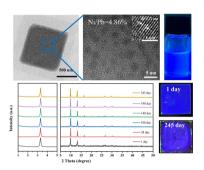
penta- and hexa(3,4-thienylene)

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X=other than OH 12 examples Х=ОН 6 examples ● Organocatalysis ● (3+3)-Cycloaddition ● 1,3-Aryl shift ● New asymmetric approach Organocatalytic (3+3)-cycloaddition of ortho-substituted phenyl nitrones with aryl cyclopropane carbaldehydes: a facile access to enantioenriched 1,2-oxazinanes

Arijit Hazra, Asit Ghosh, Neeraj Yadav and Prabal Baneriee*

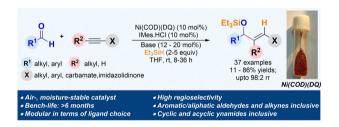
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Stable deep-blue FAPbBr₃ quantum dots facilitated by amorphous metal halide matrices

Wei Shen,* Yue Qiu, Jiayu Jiang, Zhihua Chen, Yanxing He, Hao Cui, Lihui Liu, Gang Cheng, Andrey N. Aleshin and Shufen Chen*

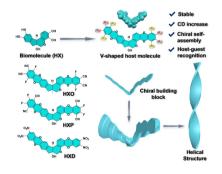
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Benchtop nickel-catalyzed reductive coupling of aldehydes with alkynes and ynamides

Aankhi Khamrai and Venkataraman Ganesh*

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V-shaped chiral hosts based on π -extended hematoxylin

Mingfang Ma, Liuyang Dong, Bo Luo,* Aiyou Hao and Pengyao Xing*