

### IN THIS ISSUE

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#### Cover

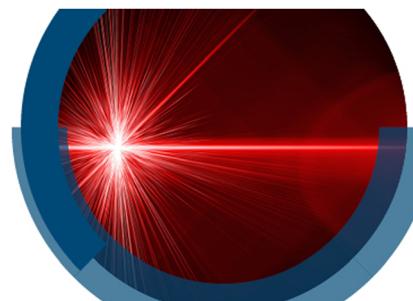
See Shuntaro Takahashi,  
Yuichi Negishi *et al.*,  
pp. 4000–4003.  
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*Chem. Commun.*,  
2023, 59, 4000.

### CONFERENCE REPORT

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#### Highlights from *Faraday Discussion*: From optical to THz control of materials, London, UK, May 2022

Aswathy V. Girija,\* Martina Basini and Habib Rostami

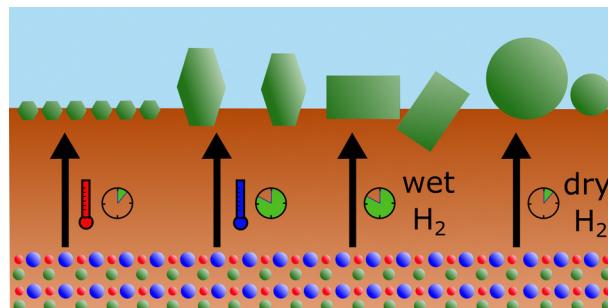


### HIGHLIGHT

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#### Exsolution on perovskite oxides: morphology and anchorage of nanoparticles

Thomas Ruh, Dominic Berkovec, Florian Schrenk and Christoph Rameshan\*



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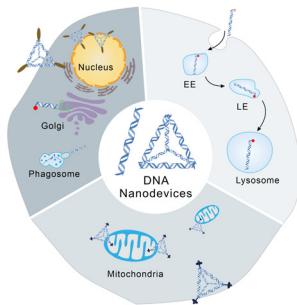


## FEATURE ARTICLES

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**Subcellular localization of DNA nanodevices and their applications**

Xia Liu, Shuting Cao, Yue Gao, Shihua Luo, Ying Zhu and Lihua Wang\*



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**Recent advances in the synthesis and electrocatalytic application of MXene materials**

Ting-Yu Shuai, Qi-Ni Zhan, Hui-Min Xu, Chen-Jin Huang, Zhi-Jie Zhang and Gao-Ren Li\*

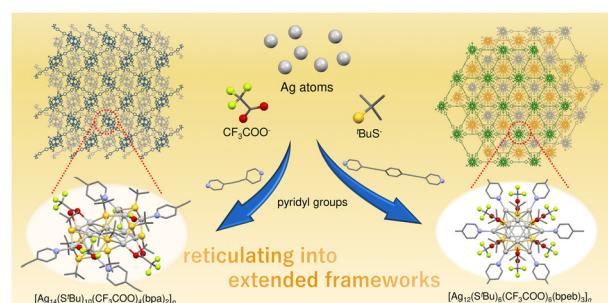


## COMMUNICATIONS

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**Silver cluster-assembled materials for label-free DNA detection**

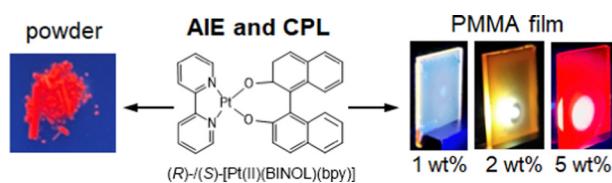
Saikat Das, Taishu Sekine, Haruna Mabuchi, Sakiat Hossain, Subhabrata Das, Shun Aoki, Shuntaro Takahashi\* and Yuichi Negishi\*



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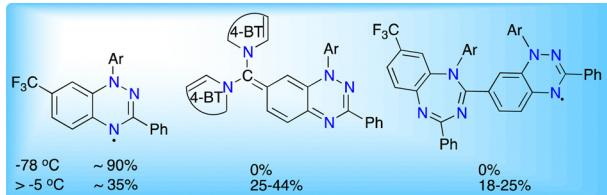
**Aggregation-induced circularly polarized phosphorescence of Pt(II) complexes with an axially chiral BINOL ligand**

Daiki Tauchi, Taiki Koida, Yuki Nojima, Masahi Hasegawa, Yasuhiro Mazaki, Akiko Inagaki, Ken-ichi Sugiura, Yuki Nagaya, Kazunori Tsubaki, Takuya Shiga, Yuuya Nagata and Hiroyuki Nishikawa\*



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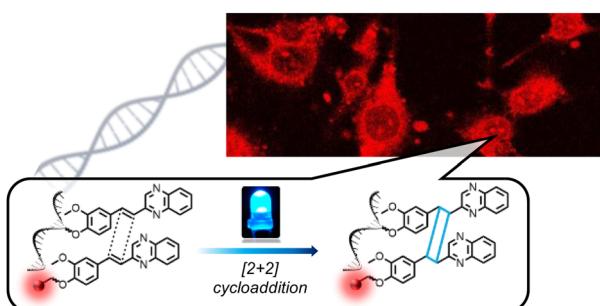
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**"Super stable" Blatter radicals through ArLi addition: surprising chemistry of 7-(trifluoromethyl)benzo[e][1,2,4]triazine**

Emilia Obijalska, Anna Pietrzak, Christos P. Constantinides, Roger D. Sommer and Piotr Kaszyński\*

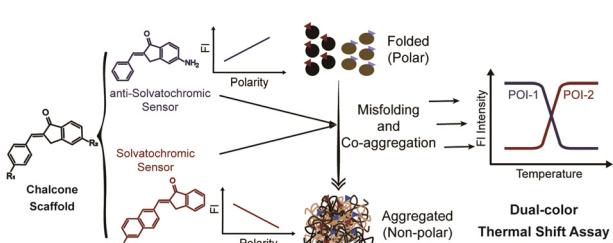
4012



**DNA labelling in live cells *via* visible light-induced [2+2] photocycloaddition**

Rita T. Michenfelder, Laura Delafresnaye, Vinh X. Truong,\* Christopher Barner-Kowollik\* and Hans-Achim Wagenknecht\*

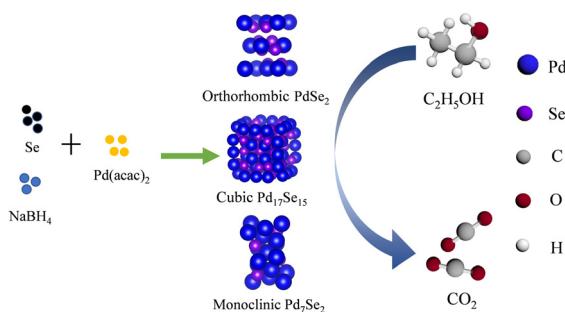
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**Tailoring the positive and negative solvatochromism for chalcone analogues to detect heterozygous protein co-aggregation**

Bai Yulong, Wan Wang, Huang Yanan, Wu Jichun, Liu Lihua, Jing Biao, Chen Junlin, Zhang Xin\* and Liu Yu\*

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**Synthesis of unconventional Pd–Se nanoparticles for phase-dependent ethanol electrooxidation**

Zhenya Hu, Niuwa Yang, Yongjun Feng, Lin Xu, Chaoquan Hu, Hui Liu,\* Shaonan Tian\* and Jun Yang\*

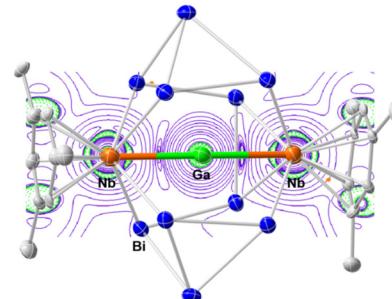


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**[Ga@Bi<sub>10</sub>(NbMes)<sub>2</sub>]<sup>3-</sup>: a linear Nb-Ga<sup>1</sup>-Nb filament coordinated by a bismuth cage**

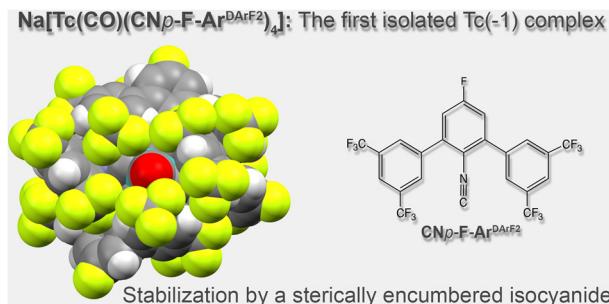
Lei Qiao, Tao Yang,\* Gernot Frenking and Zhong-Ming Sun\*



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**Na[Tc(CO)(CN<sub>p</sub>-F-Ar<sup>DArF2</sup>)<sub>4</sub>]: an isocyanide analogue of the elusive Na[Tc(CO)<sub>5</sub>]**

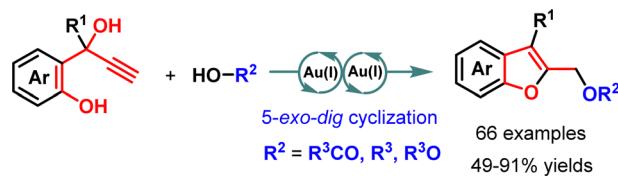
Federico Salsi, Adelheid Hagenbach, Joshua S. Figueroa\* and Ulrich Abram\*



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**Gold self-relay catalysis enabling annulative oxygenation of propargylic alcohols with O-nucleophiles**

Meng-Ying Hao, Yin Zhang, Na Lin, Rong Fu, Xiao-Shuang Ji, Bo Jiang,\* Shu-Jiang Tu\* and Wen-Juan Hao\*



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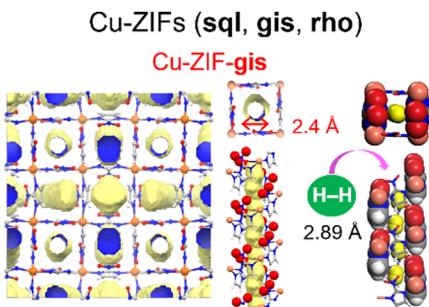
**Three-component synthesis of *N*-naphthyl pyrazoles via Rh(III)-catalyzed cascade pyrazole annulation and Satoh–Miura benzannulation**

Demao Chen, Liyun Zhou, Yunyun Liu\* and Jie-Ping Wan\*



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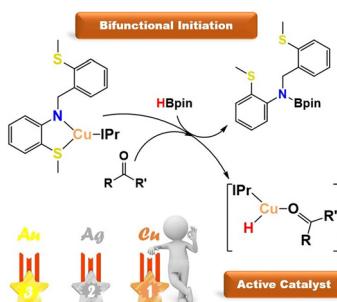
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**Porous zeolitic imidazolate frameworks assembled with highly-flattened tetrahedral copper(II) centres and 2-nitroimidazolates**

Cheolwon Jung, Sang Beom Choi, Jaewoo Park, Minji Jung, Jonghoon Kim, Hyunchul Oh\* and Jaheon Kim\*

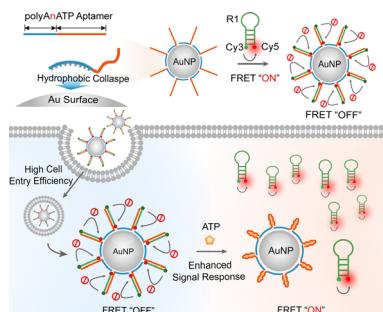
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**Coinage metal amido and thiolate SNS complexes: consequences of catalyst speciation in Cu(I)-catalysed carbonyl hydroboration**

Saeed Ataie, Maxwell Lohar, Loïc P. Mangin and R. Tom Baker\*

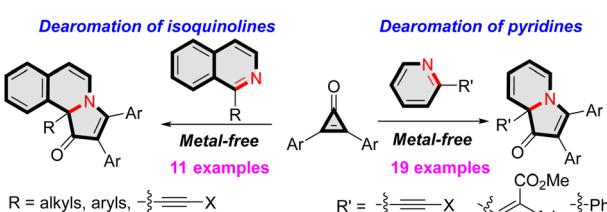
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**Programmably engineered FRET-nanoflare for ratiometric live-cell ATP imaging with anti-interference capability**

Hongyu Wu, Chengwen Zhang, Fulin Zhu, Yu Zhu, Xinhui Lu, Ying Wan, Shao Su, Jie Chao, Lianhui Wang and Dan Zhu\*

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**Dearomative cyclization of pyridines/isoquinolines with cyclopropenones: access to indolizinones and benzo-fused indolizinones**

Xiang Liu, Xiaotian Shi, Jinlei Zhou, Changfeng Huang, Yu Lin, Chen Zhang and Hua Cao\*

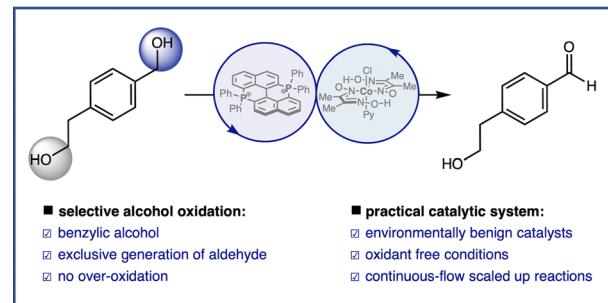


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**Selective oxidation of benzylic alcohols via synergistic bisphosphonium and cobalt catalysis**

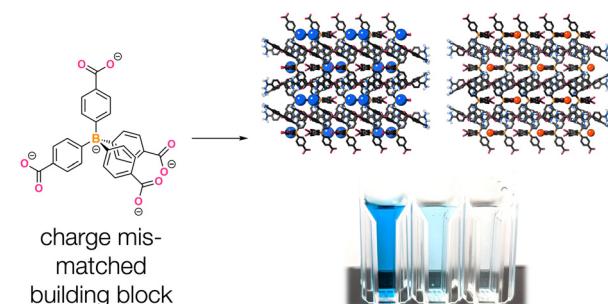
Jia Ding, Shuaishuai Luo, Yuanli Xu, Qing An, Yi Yang\* and Zhiwei Zuo\*



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**Charge "mis-matched" hydrogen bonded frameworks for cation exchange and dye sorption**

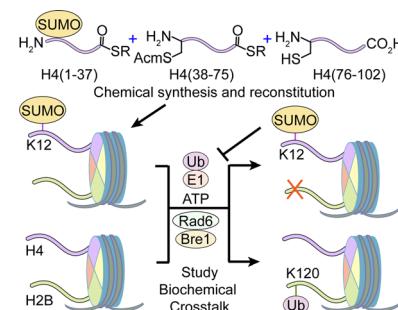
Phonlakrit Muang-Non, Adrian W. Markwell-Heys, Christian J. Doonan and Nicholas G. White\*



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**Total chemical synthesis of sumoylated histone H4 reveals negative biochemical crosstalk with histone ubiquitylation**

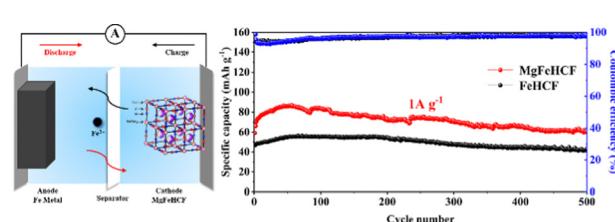
Sumeet K. Singh, Andres Reyna, Xiaowen Xie, Haibin Mao, Meihuan Ji, Ning Zheng, Peter L. Hsu and Champak Chatterjee\*



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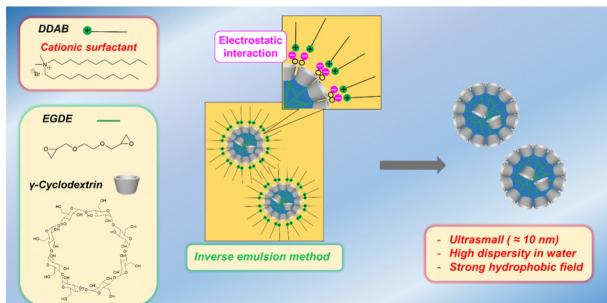
**Mg-substituted Prussian blue as a low-strain cathode material for aqueous Fe-ion batteries**

Ge Huang, Zefeng Lao, Ze He, Fangyu Xiong, Shuangshuang Tan, Meng Huang, Greta Thompson, Qinyou An\* and Liqiang Mai\*



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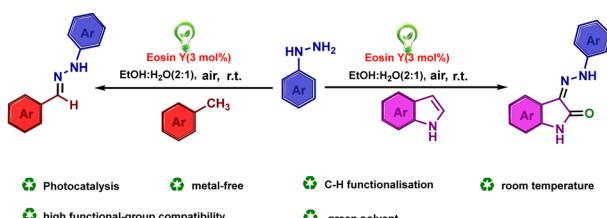
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**Preparation of ultrasmall cyclodextrin nanogels by an inverse emulsion method using a cationic surfactant**

Satomi Takeuchi, Andrea Cesari, Suzuka Soma, Yota Suzuki, Maria Antonietta Casulli, Kai Sato, Fabrizio Mancin, Takeshi Hashimoto and Takashi Hayashita\*

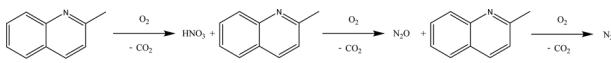
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**Visible-light-absorbing C–N cross-coupling for the synthesis of hydrazones involving C(sp<sup>2</sup>)–H/C(sp<sup>3</sup>)–H functionalization**

Ambuj Kumar Kushwaha, Suresh Kumar Maurya, Arsala Kamal, Himanshu Kumar Singh, Shikha Pandey and Sundaram Singh\*

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**Revealing the nitrogen reaction pathway for the catalytic oxidative denitrification of fuels**

Michael Huber, Maximilian J. Poller, Jens Tochtermann, Wolfgang Korth, Andreas Jess and Jakob Albert\*

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**Exploring F/CF<sub>3</sub> substituted oxocarbenium ions for the diastereoselective assembly of highly substituted tetrahydrofurans**

Anthony J. Fernandes, Bastien Michelet, Armen Panossian, Agnès Martin-Mingot, Frédéric R. Leroux\* and Sébastien Thibaudeau\*

