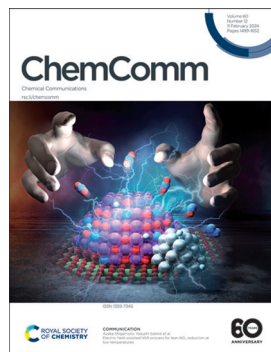


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ISSN 1359-7345 CODEN CHCOFS 60(12) 1499-1652 (2024)



## Cover

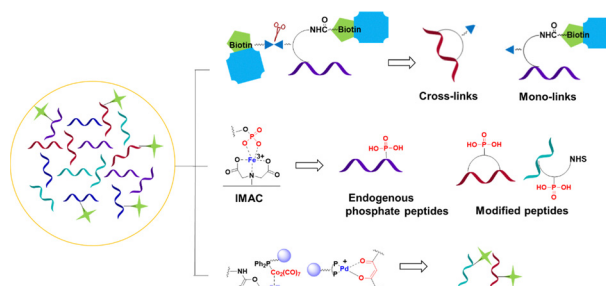
See Ayaka Shigemoto,  
Yasushi Sekine *et al.*,  
pp. 1563–1566.  
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*Chem. Commun.*,  
2024, 60, 1563.

## HIGHLIGHT

1509

## Chemical reagents for the enrichment of modified peptides in MS-based identification

Shangwei Huangfu, Xianqiang Yu, Ziyu Sun, Biao Jiang\*  
and Hongli Chen\*

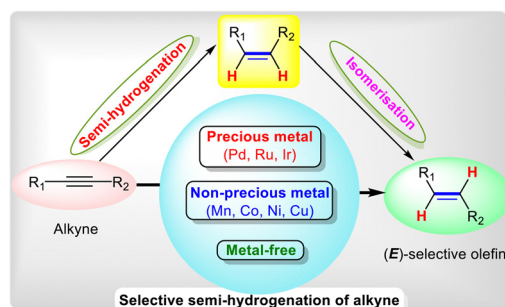


## FEATURE ARTICLES

1517

## Recent advances in the selective semi-hydrogenation of alkyne to (E)-olefins

Motahar Sk, Shuvojit Halder, Sourajit Bera and  
Debasis Banerjee\*



# EES Catalysis

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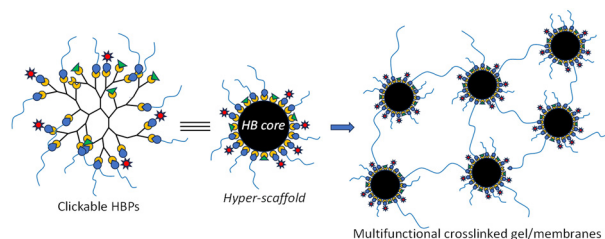
Fundamental questions  
Elemental answers

## FEATURE ARTICLES

1534

**Hyperbranched polymers: growing richer in flavours with time**

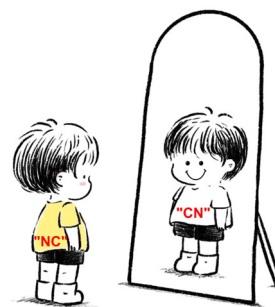
Arun Kumar Gayen, Runa Singla and S. Ramakrishnan\*



1546

**Cyanation with isocyanides: recent advances and perspectives**

Yingying Shan,\* Xiuhua Zhang, Gongle Liu, Jianming Li, Yongwei Liu, Jia Wang and Dianpeng Chen\*

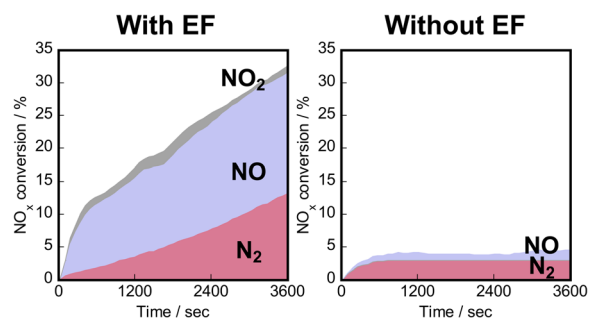


## COMMUNICATIONS

1563

**Electric field-assisted NSR process for lean  $\text{NO}_x$  reduction at low temperatures**

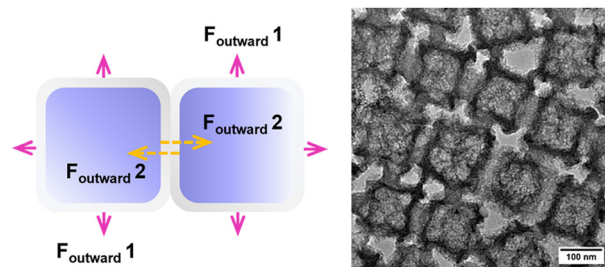
Ayaka Shigemoto,\* Yuki Inoda, Chihiro Ukai, Takuma Higo, Kohei Oka and Yasushi Sekine\*



1567

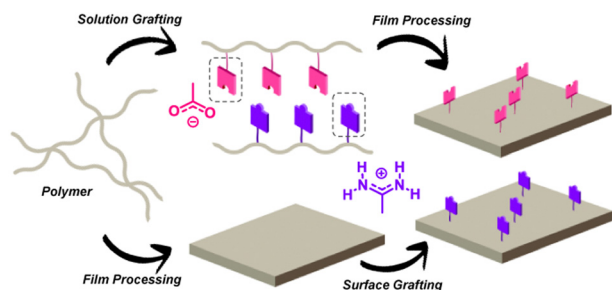
**Dual-outward contraction-induced construction of 2D hollow carbon superstructures**

Yaqi Zhang, Jiali Lou, Jiamin Wei,\* Yajing Zhou, Haifeng Wang, Liangbiao Wang, Qing Wang, Xiaopeng Li\* and Xiaokai Song\*



## COMMUNICATIONS

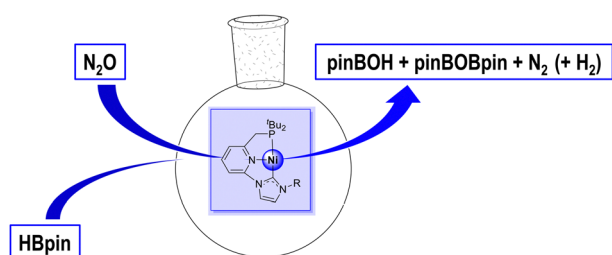
1571



### Highly efficient grafting of hetero-complementary amidinium and carboxylate hydrogen-bonding/ionic pairs onto polymer surfaces

Ana M. Fernandes, Manuel C. Martos-Maldonado, Javier Araujo-Morera, Claudia Solek and David González-Rodríguez\*

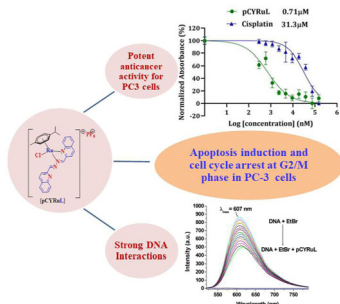
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### Nitrous oxide activation by picoline-derived Ni-CNP hydrides

José Bermejo, Isabel Ortega-Lepe, Laura L. Santos, Nuria Rendón, Joaquín López-Serrano, Eleuterio Álvarez and Andrés Suárez\*

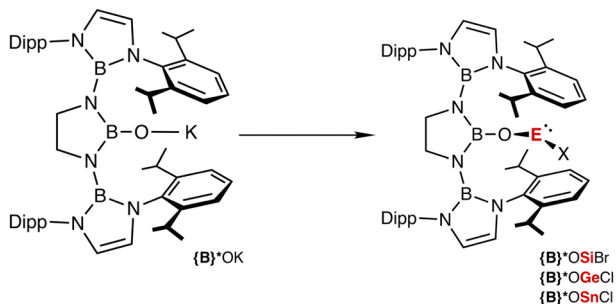
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### A bis-quinoline ruthenium(II) arene complex with submicromolar cytotoxicity in castration-resistant prostate cancer cells

Tanveer A. Khan, Kishalay Bhar, Rohit Samanta, Surabhi Bhatt, Mamta Singh, Reshma Rani, Vinit Kumar\* and Anuj K. Sharma\*

1583



### A bromo(boryloxy) silylene and its heavier analogues

Robin Guthardt\* and Cameron Jones\*



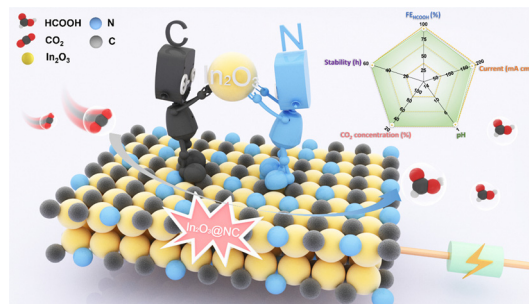


## COMMUNICATIONS

1587

### A N-doped carbon-supported $\text{In}_2\text{O}_3$ catalyst for highly efficient $\text{CO}_2$ electroreduction to $\text{HCOOH}$

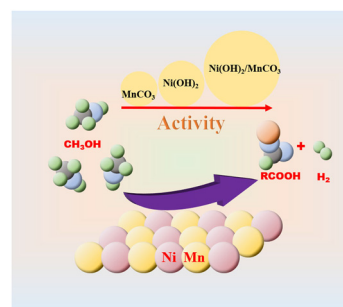
Jie Zhang, Manfen Liang, Haimei Xu, Hong Huang, Jian Meng, Jinglin Mu,\* Zhichao Miao\* and Jin Zhou\*



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### An active $\text{Ni}(\text{OH})_2/\text{MnCO}_3$ catalyst with efficient synergism for alkaline methanol oxidation

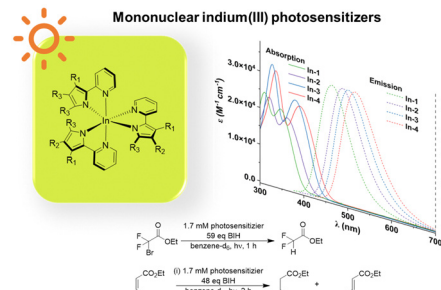
Chunru Liu, Fulin Yang, Yun Yang,\* Shuli Wang and Ligang Feng\*



1595

### Mononuclear indium(III) photosensitizers for photo-dehalogenation and olefin reduction

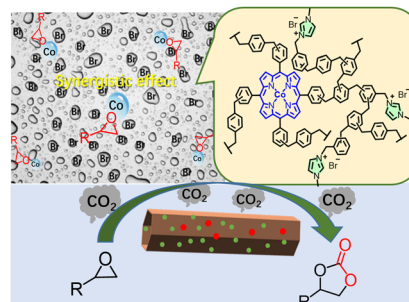
Li-Zhi Fu, Piao He, Jia-Wei Wang, Fan Ma, Chao Liu, Guo Chen and Xiao-Yi Yi\*



1599

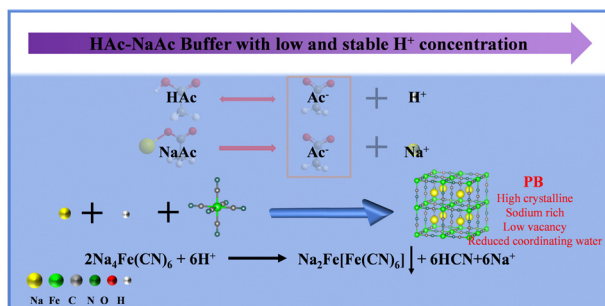
### Cobalt porphyrin-based hypercrosslinked ionic polymers as biomimetic nanoreactors for $\text{CO}_2$ conversion to cyclic carbonates

Wei Xu, Zixuan Zhang, Yuanxiang Wu, Kechi Chen and Rongchang Luo\*



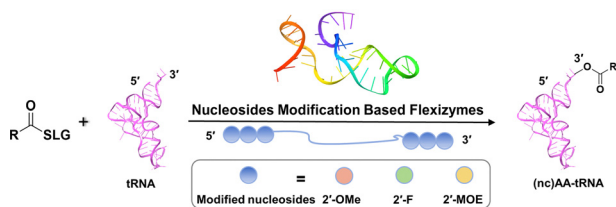
## COMMUNICATIONS

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**Buffer solution induced highly crystalline sodium-rich Prussian blue for sodium storage**

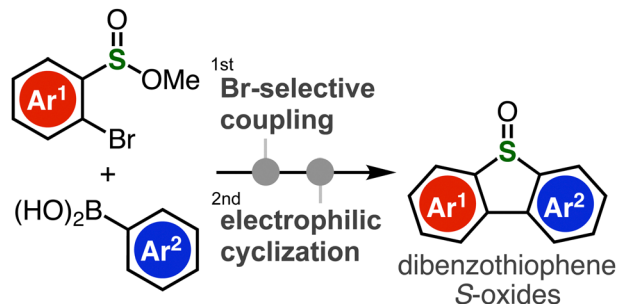
Peiyuan Wang, Denggui Zhu, Yonghao Li, Yinghui Liu, Wenge Zhao, Yonghui Zhang, Shumin Sun\* and Shaoming Fang\*

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**Nucleoside modification-based flexizymes with versatile activity for tRNA aminoacylation**

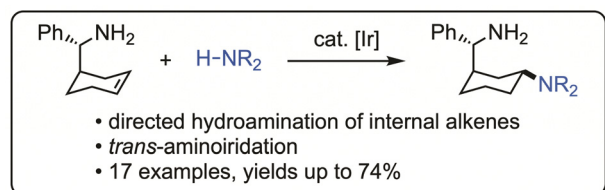
Xin-Dan Zhang, Yi-Shen Wang, Hua Xiang, Li-Wen Bai, Peng Cheng, Kai Li, Rong Huang, Xiaolei Wang and Xinxiang Lei\*

1611

**Facile synthesis of dibenzothiophene S-oxides from sulfinate esters**

Yukiko Kumagai, Akihiro Kobayashi, Keisuke Nakamura and Suguru Yoshida\*

1615

**Iridium-catalysed hydroamination of internal homoallylic amines**

An T. Ho, Evan P. Venable, Chelsea San Miguel and Kami L. Hull\*

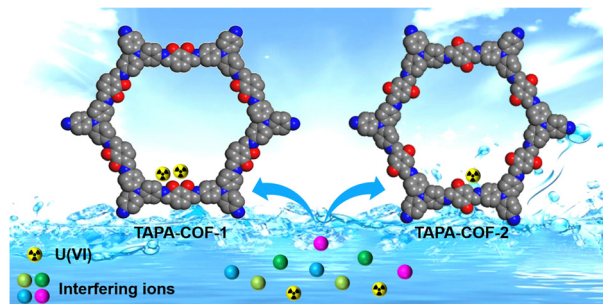


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### Tailoring chelating sites in two-dimensional covalent organic framework nanosheets for enhanced uranium capture

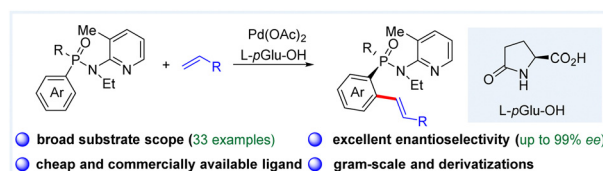
Ying Huang, Jun Liao, Jiahao Li, Changming Cheng, Yong Zhang\* and Yongwu Peng\*



1623

### Pd(II)-Catalyzed enantioselective C–H olefination toward the synthesis of *P*-stereogenic phosphinamides

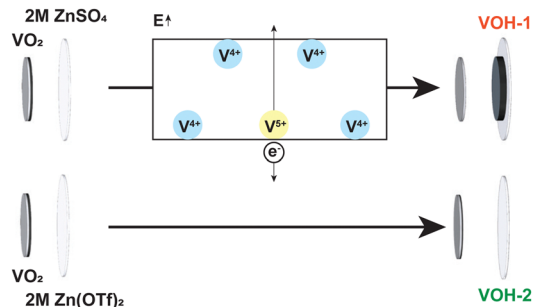
Zi-Jia Chen, Ling-Jie Fan, Pei-Pei Xie, Pu-Fan Qian, Xinquan Hu, Tao Zhou\* and Bing-Feng Shi\*



1627

### The importance of electrolyte environment during *in situ* self-transformation for synthesizing $V_2O_5 \cdot nH_2O$

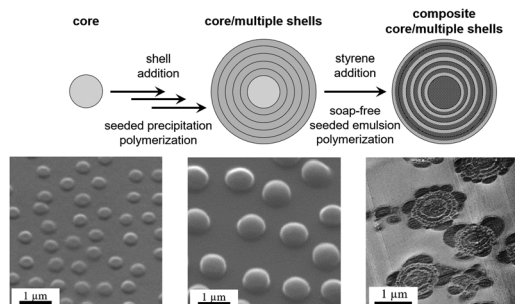
Haijia Quan, Chen Wang, Dongxu Guo, Xiaofeng Wang, Chenglin Sun\* and Shenghan Wang\*



1630

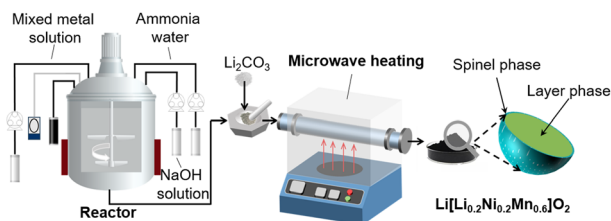
### Multi-layer core/shell microgels with internal complexity and their nanocomposites

Haruka Minato, Satoki Ushida, Kentaro Yokouchi and Daisuke Suzuki\*



## COMMUNICATIONS

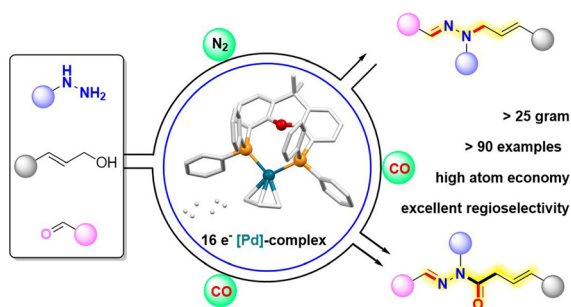
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### Microwave-assisted synthesis of Co-free $\text{Li}[\text{Li}_{0.2}\text{Ni}_{0.2}\text{Mn}_{0.6}]\text{O}_2$ cathodes with a spinel-layered coherent structure for high-power Li-ion batteries

Shenggui Wang,\* Jinniu Chen, Tian Zhao, Xiaoxia Yang, Lang Qiu, Yuankui Wang, Yang Song, Zhonghua Wu, Xiaodong Guo\* and Kun Yu\*

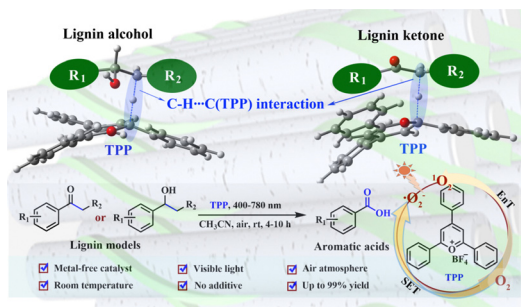
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### Palladium-catalyzed allylation and carbonylation: access to allylhydrazones and allyl acylhydrazones

Qianqian Liang, Yan Cai, Wenjun Jiang, Mengdi Pang, Liming Fan and Guoying Zhang\*

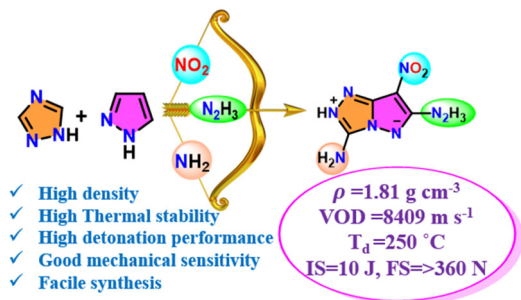
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### Visible-light-mediated metal-free regioselective oxidative C–C bond cleavage of lignin dimers to aromatic acids

Ye Meng, Jie Li, Huan Liu, Hongguo Wu\* and Hu Li\*

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### Zwitterionic fused pyrazolo-triazole based high performing energetic materials

Parasar Kumar, Navaneet Kumar, Vikas D. Ghule and Srinivas Dharavath\*

