

# Catalysis Science & Technology

A multidisciplinary journal focussing on all fundamental science and technological aspects of catalysis

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## IN THIS ISSUE

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### Cover

See Hajime Kawanami et al., pp. 52–61.  
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### Inside cover

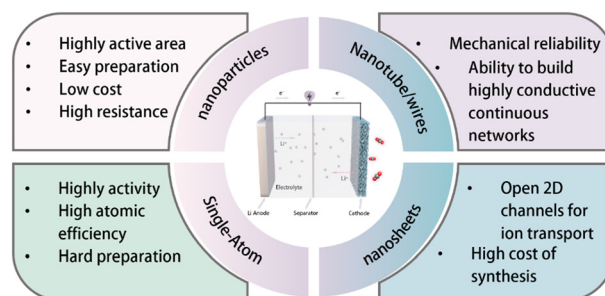
See Andrew C. Chien and Corinna C. Chi, pp. 62–70.  
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## REVIEW

11

### Scale and morphology design of metal-based catalysts for enhanced Li–CO<sub>2</sub> battery performance

Jingzhao Wang, Xiangming Cui, Mi Zhou, Xin Chen, Shiyi Sun, Kai Yang, Jianan Wang\* and Wei Yan

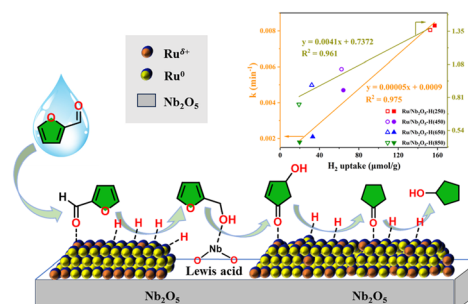


## COMMUNICATIONS

33

### Correlation of the catalytic performance with Ru<sup>δ+</sup> species on Ru/Nb<sub>2</sub>O<sub>5</sub> in furfural aqueous reductive conversion

Yulong Deng, Binyu Zhang, Huiru Wu, Zhuo He, Xiaorui Du, Jiayi Ou, Tianyu Ren, Haiyong Wang, Yuhe Liao, Qiying Liu,\* Chenguang Wang\* and Yanbin Cui\*





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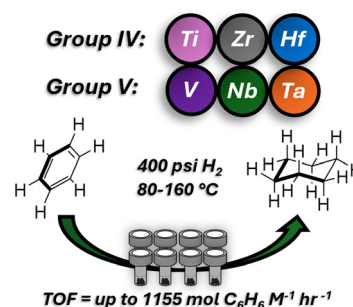


## COMMUNICATIONS

41

**Benzene hydrogenation utilizing organometallic early transition metal precursors**

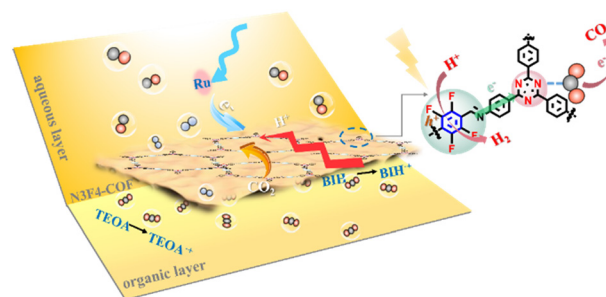
Reece Johnson, Peijie Hu, James Pugh, Rahul Kootanil Haridasan and Keith Searles\*



46

**Fluorinated covalent organic frameworks for visible-light driven  $CO_2$  reduction**

Wei-Jia Wang,\* Bin Li, Jing Gao and Kaihong Chen\*



## PAPERS

52

**Iridium complexes supported on cross-linked polyacrylic acid as release-and-catch catalysts for continuous formic acid dehydrogenation**

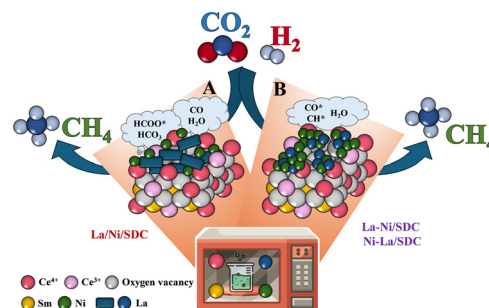
Keito Sawahara, Shinji Tanaka, Ryota Gemma, Ryoichi Kanega and Hajime Kawanami\*



62

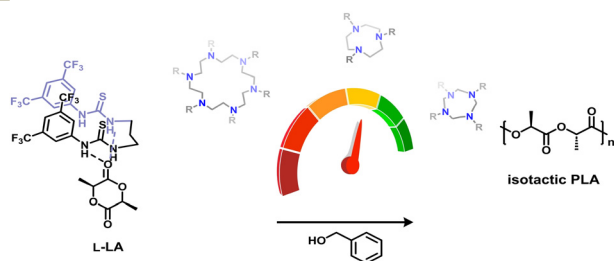
**Effect of metal loading sequences in  $CO_2$  methanation activity on samarium-doped ceria supported bimetallic catalysts**

Andrew C. Chien\* and Corinna C. Chi





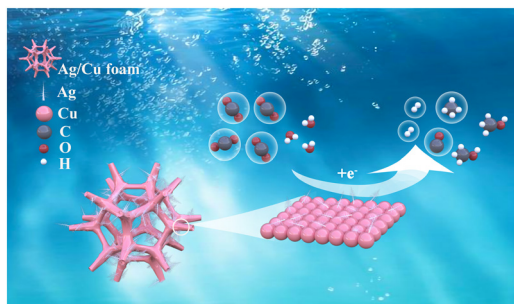
71



### Bis-thiourea and macrocyclic polyamines as binary organocatalysts for the ROP of lactide

Assunta D'Amato, Maria Voccia, Filippo Bruno, Sara D'Aniello, Lucia Caporaso,\* Francesco De Riccardis, Irene Izzo, Giorgio Della Sala\* and Mina Mazzeo\*

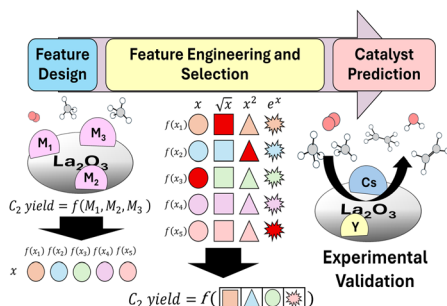
81



### Ag/Cu foam catalyst for selective reduction of CO<sub>2</sub> to CH<sub>3</sub>OH at low potential

Ruitao Nie, Xiaolong Deng, Haoyu Yang, Hongwei Chen, Jie Yang, Meiyi Lu, Keqi Peng, Xiaoyu Zhou, Chen Yang, Juan Xie\* and Hu Wang\*

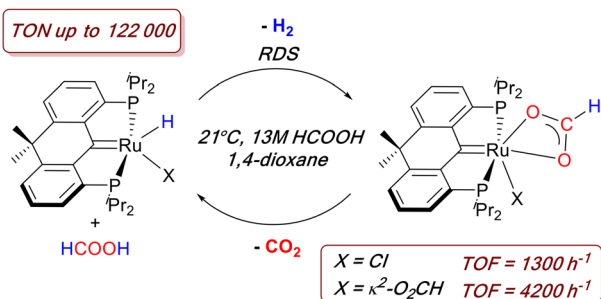
92



### Design of low temperature La<sub>2</sub>O<sub>3</sub> oxidative coupling of methane catalysts using feature engineering and automated sampling

Fernando Garcia-Escobar,\* Lauren Takahashi, Ali Shaaban, Shun Nishimura and Keisuke Takahashi\*

100



### Rapid and selective formic acid dehydrogenation catalysis by molecular ruthenium hydrides supported by rigid PC<sub>carbene</sub>P pincer ligands

Laurie J. Donnelly, Benjamin S. Gelfand and Warren E. Piers\*

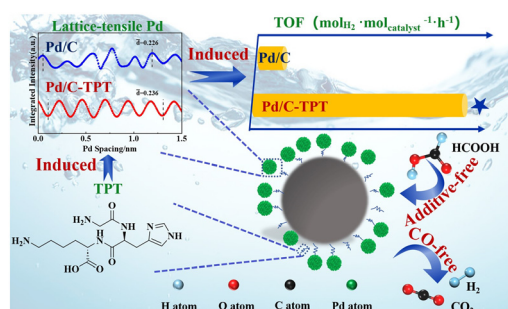


## PAPERS

107

## Exploiting tripeptide in Pd/C for boosting hydrogen production from formic acid dehydrogenation

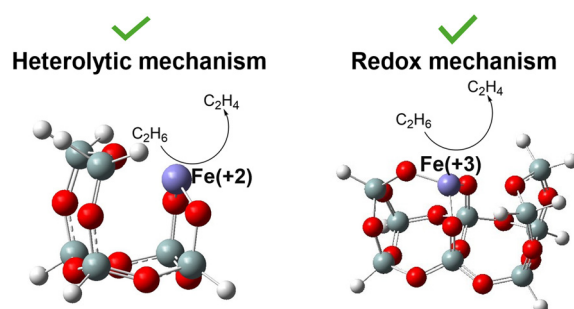
Yan Gu, Hongli Wang,\* Yaohao Zhang, Lu Yang, Xiaoshan Liu and Xuesong Li\*



114

## On the mechanisms of ethane dehydrogenation on silica-supported mononuclear Fe

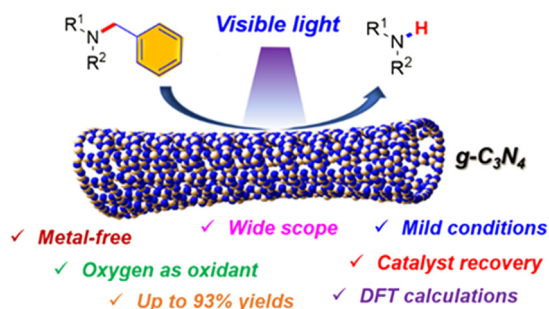
Sakshi Satyanand, Sanjana Srinivas, Dionisios G. Vlachos\* and Stavros Caratzoulas



123

Green photocatalytic *N*-debenzylations with molecular oxygen catalyzed by recyclable metal-free tubular carbon nitride

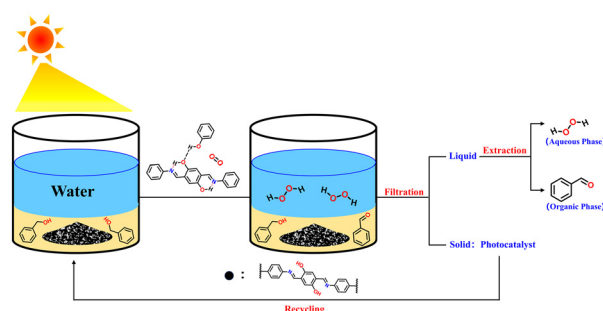
Yufeng Wu,\* Jiajie Kang, Jianing Li, Mingshu Bi and Qingwei Meng



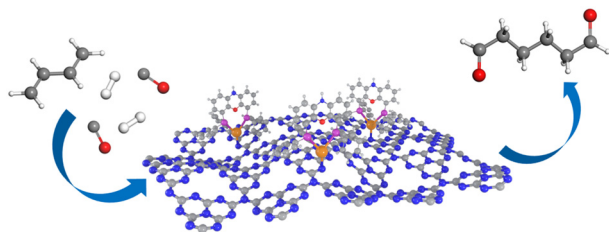
135

Phenol hydroxyl-modified imine-based covalent organic frameworks for enhanced solar-driven generation of H<sub>2</sub>O<sub>2</sub> via hydrogen bonds

Lang Chen, Song Qin, Jiahui Hang, Bo Chen, Jinyang Kang, Yang Zhao, Shanyong Chen, Yongdong Jin, Hongjian Yan, Yuanhua Wang\* and Chuanqin Xia\*



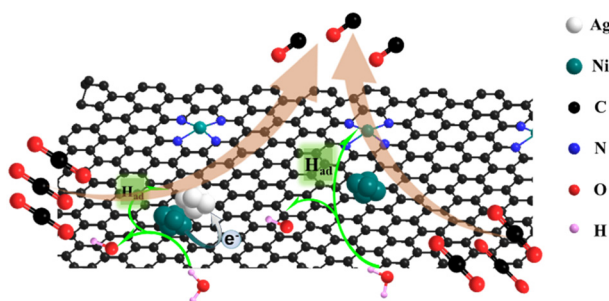
145



### Investigation on heterogeneous Rh catalysts for the hydroformylation of 1,3-butadiene to adipic aldehyde

Lijin Gan, Zekun Liu, Lei Feng, Yi Duan, Guangyuan Xu, Si Chen and Huan Yan\*

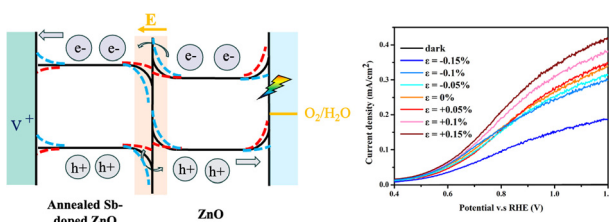
154



### Alignment of active sites on Ag–Ni catalysts for highly selective CO<sub>2</sub> reduction to CO

Huangdong Wang, Zhihua Guo, Heng Zhang, Lin Jia, Min Sun, Lifeng Han, Haorun Li, Yan Guo\* and Shanghong Zeng\*

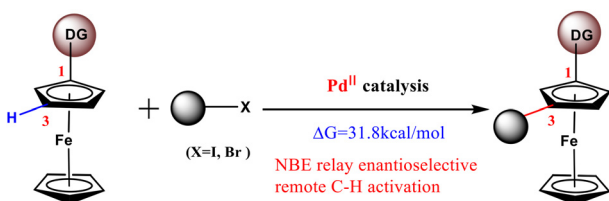
165



### Enhancing the photoelectrochemical water splitting efficiency of ZnO P–N homojunction nanorod arrays under the piezocatalyst effect

Yi-Miao Lin, Yu-Liang Hsiao, Chia-Shing Wu, Ying-Chih Pu and Chuan-Pu Liu\*

173



### Mechanistic insights into an enantioselective synthetic strategy for 1,3-disubstituted planar chiral ferrocenes

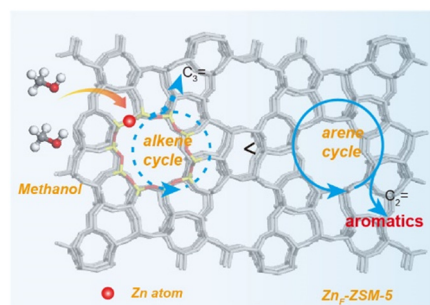
Feiyun Jia,\* Chenghua Zhang, Yongsheng Yang, Xueting Zheng and Mingsong Shi\*



185

### The catalytic relevance of hydrothermally substituted Zn on the zeolite ZSM-5 during the methanol-to-aromatics process

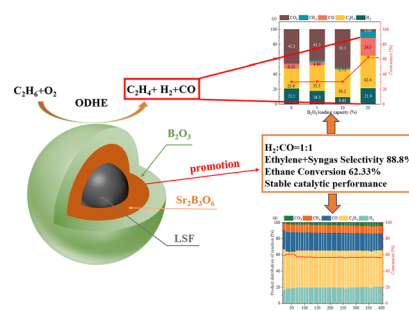
Xin Zhang, Xinyu You, Yunfan Wang, Hexun Zhou, Xue Zhou and Abhishek Dutta Chowdhury\*



193

### B<sub>2</sub>O<sub>3</sub> supported La<sub>0.8</sub>Sr<sub>0.2</sub>FeO<sub>3</sub> for direct ethane oxidation into ethylene and syngas for hydroformylation synthesis

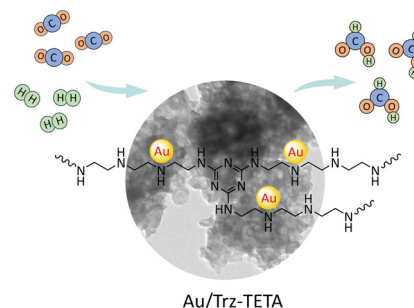
Shan Hu, Yunfei Gao,\* Lu Ding, Xueli Chen, Weitong Pan and Fuchen Wang



203

### Modulating the electronic interaction between Au and nitrogen-rich porous organic polymers for enhanced CO<sub>2</sub> hydrogenation to formic acid

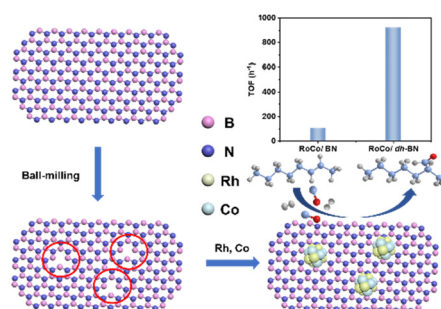
Huixin Yan, Xingyan Wang, Xiaoyu Liang, Xinxin Zhang, Longfei Liu, Min Ji, Min Wang\* and Xinkui Wang\*



211

### Heterogeneous hydroformylation of internal alkenes over a defect-laden hexagonal BN supported RhCo alloy: reaction performance modulated by N vacancies

Bowen Qiu, Shujuan Liu, Shimin Liu, Xinjiang Cui, Dongcheng He, Kang Zhao, Bin Wang and Feng Shi\*



## CORRECTION

219

**Correction: Integrated adsorption and photocatalytic degradation of VOCs using a TiO<sub>2</sub>/diatomite composite: effects of relative humidity and reaction atmosphere**

Guangxin Zhang,\* Arman Peyravi, Zaher Hashisho,\* Zhiming Sun,\* Yangyu Liu, Shuilin Zheng and Lexuan Zhong

