

# Catalysis Science & Technology

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

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### Inside cover

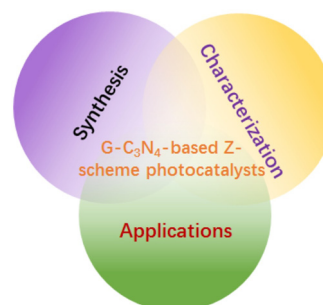
See Peter Deglmann, Alex J. Plajer *et al.*, pp. 2937–2945.  
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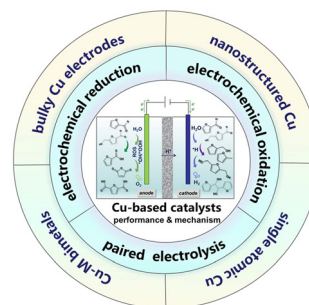
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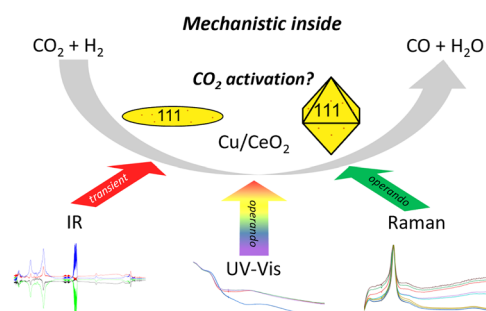


## COMMUNICATION

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# Unravelling the mechanism of CO<sub>2</sub> activation over low-loaded Cu/CeO<sub>2</sub>(111) catalysts using *operando* and transient spectroscopies

Marc Ziemba and Christian Hess\*

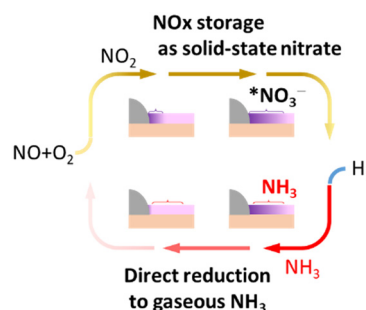


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# Catalytic conversion to ammonia through solid-state nitrate as a proposal for the emerging usage of nitrogen oxides

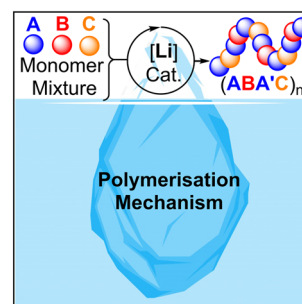
Atsuko Tomita, Ryutaro Wakabayashi and Tatsuo Kimura\*



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# Lithium catalysed sequence selective ring opening terpolymerisation: a mechanistic study

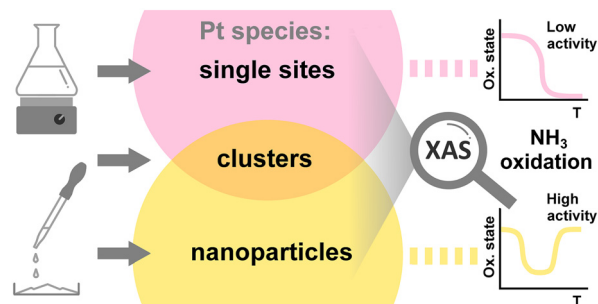
Peter Deglmann,\* Sara Machleit, Cesare Gallizioli, Susanne M. Rupf and Alex J. Plajer\*



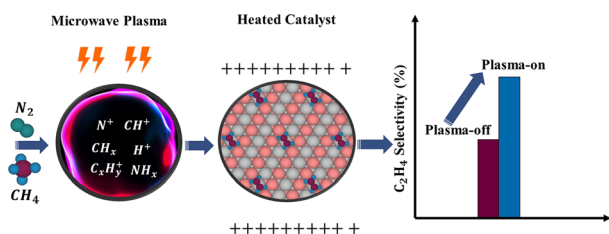
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# Structure sensitivity of alumina- and zeolite-supported platinum ammonia slip catalysts

Vasyl Marchuk, Xiaohui Huang, Jan-Dierk Grunwaldt and Dmitry E. Doronkin\*



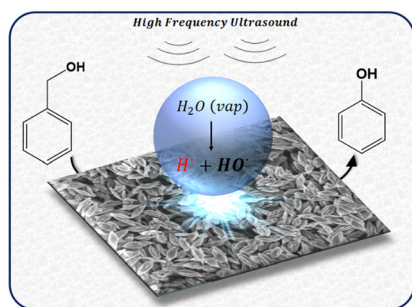
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### Post-plasma catalysis: charge effect on product selectivity in conversion of methane and nitrogen plasma to ethylene and ammonia

Sarojini Tiwari, Saleh Ahmat Ibrahim, Brandon Robinson, Siobhan Brown, Qiang Wang, Fanglin Che\* and Jianli Hu\*

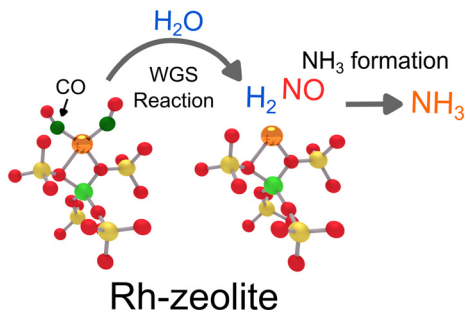
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### Water-assisted sonochemically-induced demethylenation of benzyl alcohol to phenol over a structurally stable cupric oxide catalyst

Teseer Bahry, Shang Jiang, Umesh Jonnalagadda, Wen Liu, Benoit Teychene, Francois Jerome, Samir H. Mushrif\* and Prince N. Amaniampong\*

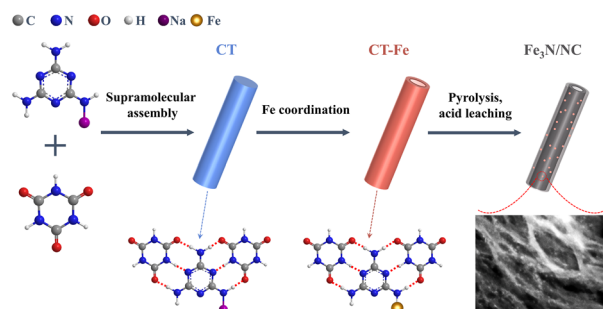
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### Multi-functionality of rhodium-loaded MOR zeolite: production of H<sub>2</sub> via the water gas shift reaction and its use in the formation of NH<sub>3</sub>

Shunsaku Yasumura, Ken Nagai, Yucheng Qian, Takashi Toyao, Zen Maeno and Ken-ichi Shimizu\*

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### Supramolecular confinement synthesis of ultrafine iron nitride nanocrystals for the oxygen reduction reaction in Zn–air batteries

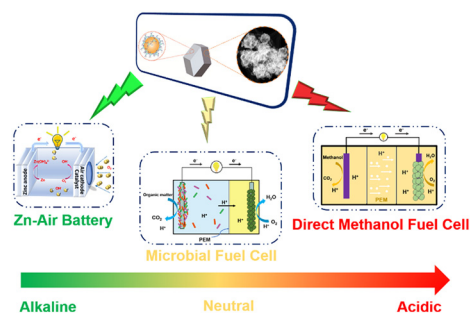
Fanglei Yao, Jiabao Bi, Lei Yu, Liming Dai, Wenkang Xue, Jingyao Deng, Zhihui Yao, Yunyan Wu, Jingwen Sun\* and Junwu Zhu



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### Metal–organic framework-loaded carbon-encapsulated nano-catalyst as a pH-universal oxygen reduction reaction electrocatalyst for various fuel cell devices

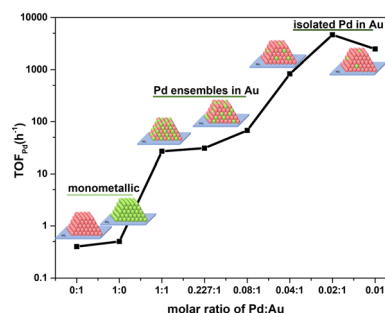
Xintao Zhou, Mingyang Wu, Kai Chen, Suqin Ci\* and Zhenhai Wen\*



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### The preparation of silica supported, dilute limit PdAu alloys via simultaneous strong electrostatic adsorption

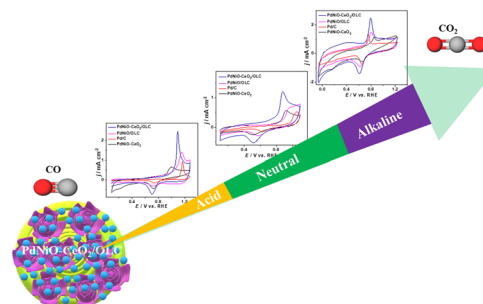
Anhua Dong, Abolfazl Shakouri, Stavros Karakalos, Doug Blom, Christopher T. Williams and John R. Regalbuto\*



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### Ternary PdNiO nanocrystals-ornamented porous CeO<sub>2</sub>/onion-like carbon for electrooxidation of carbon monoxide: unveiling the effect of supports and electrolytes

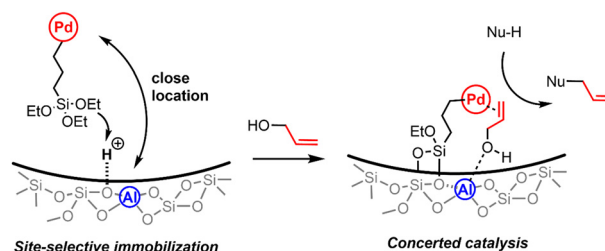
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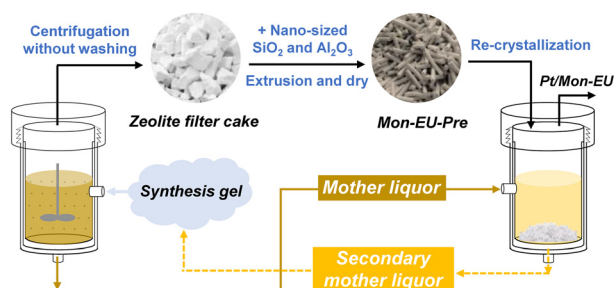
### A heterogeneous Pd complex catalyst for allylation with allylic alcohols enhanced by an aluminum-doped mesoporous silica support

Siming Ding, Yuichi Manaka, Masayuki Nambo, Wang-Jae Chun, Ikuyoshi Tomita and Ken Motokura\*





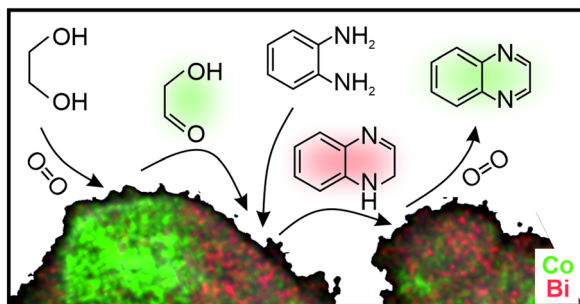
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### Full-crystalline monolithic EU-1 zeolite: sustainable synthesis and its applications in the hydroisomerization of ethylbenzene with *meta*-xylene

Guanghua Liang, Jianyi Chen,\* Tao Dou, Zhijie Wu, Xiaofeng Li and Yuanshuai Liu\*

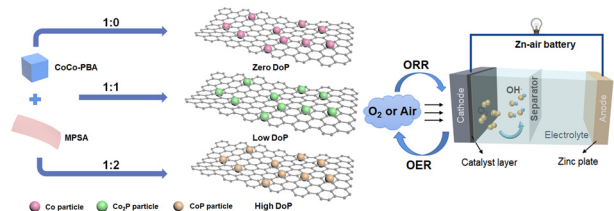
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Marianna Kocsis, Kornélia Baán, Sándor B. Ötvös, Ákos Kukovecz, Zoltán Kónya, Pál Sipos, István Pálinkó and Gábor Varga\*

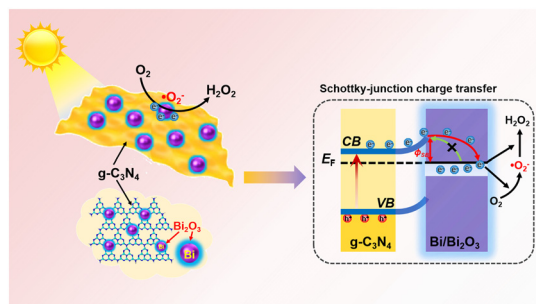
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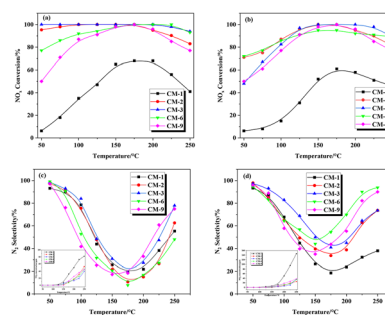
Xinyue Yan, Guiyang Yu,\* Chuanwang Xing, Yujia Hu, Heyuan Liu and Xiyou Li\*



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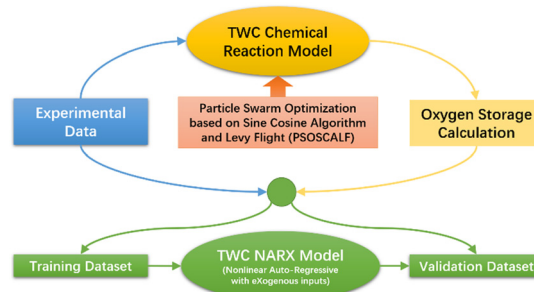
Chengbo Xuan, Shiwang Han, Luyuan Wang,\*  
Xingyu Zhang,\* Rongfeng Sun, Xingxing Cheng,  
Zhiqiang Wang, Chunyuan Ma, Tiantian Zhao  
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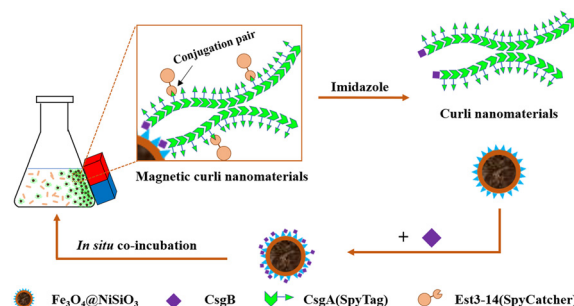
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Ran Xia, Le Li and Tao Song



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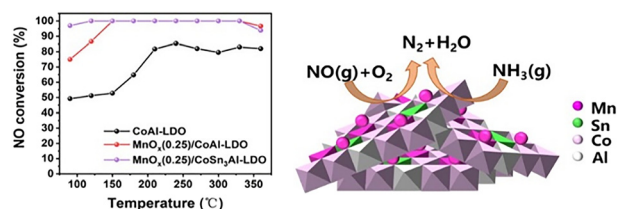
Hao Dong, Wenxue Zhang, Chao Chen\* and Ping Wang\*



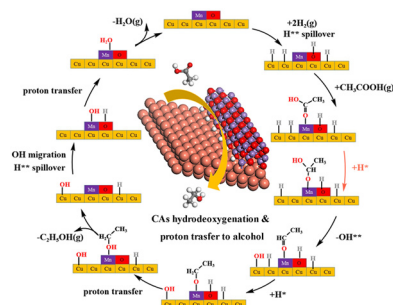
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Hange Wang, Wen Chen, Wei Jin and Yueli Liu\*



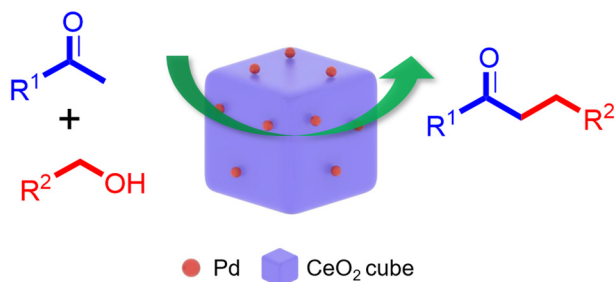
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### Insights into the mechanism of carboxylic acid hydrogenation into alcohols at the MnO/Cu (111) interface: a combined DFT and kinetic study

Jingbo Du, Yifei Chen, Lingtao Wang and Minhua Zhang\*

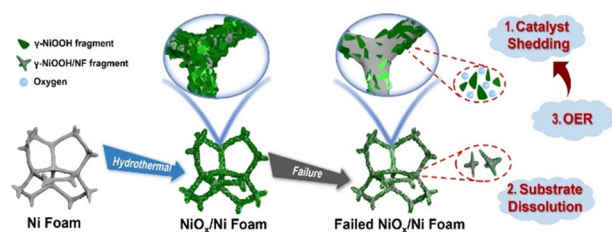
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Dongyuan Yang, Hongli Wang,\* Ce Liu and Chun-Ran Chang\*

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Fangbing Liu, Nan Lin,\* Deyuan Xin, Xinxin Li, Linchuan Cong, Fuyu Han and Haibo Lin

