# **Catalysis Science & Technology**

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

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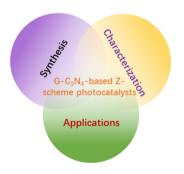
Inside cover See Peter Deglmann, Alex J. Plajer et al., pp. 2937-2945. Image reproduced by permission of Alex J. Plajer from Catal. Sci. Technol., 2023, 13, 2937.

# MINI REVIEWS

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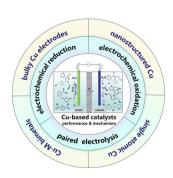
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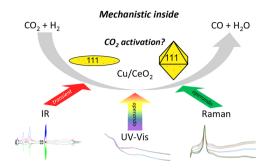


# COMMUNICATION

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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\*

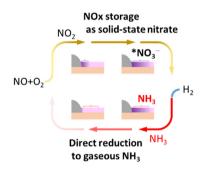


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Catalytic conversion to ammonia through solidstate nitrate as a proposal for the emerging usage of nitrogen oxides

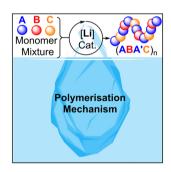
Atsuko Tomita, Ryutaro Wakabayashi and Tatsuo Kimura\*



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Lithium catalysed sequence selective ring opening terpolymerisation: a mechanistic study

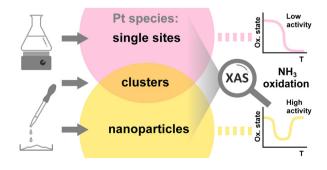
Peter Deglmann,\* Sara Machleit, Cesare Gallizioli, Susanne M. Rupf and Alex J. Plajer\*



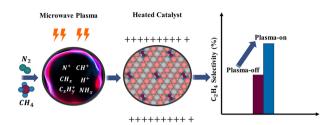
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Structure sensitivity of alumina- and zeolitesupported platinum ammonia slip catalysts

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



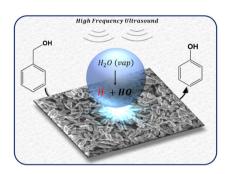
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# Post-plasma catalysis: charge effect on product selectivity in conversion of methane and nitrogen plasma to ethylene and ammonia

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

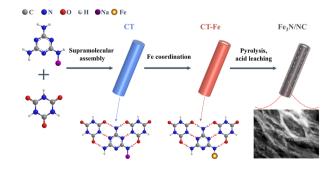
Teseer Bahry, Shang Jiang, Umesh Jonnalagadda, Wen Liu, Benoit Teychene, Francois Jerome, Samir H. Mushrif\* and Prince N. Amaniampong\*



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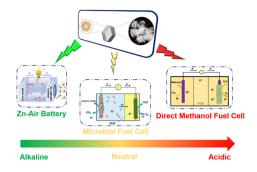
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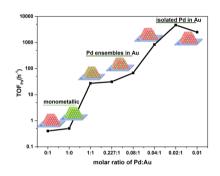
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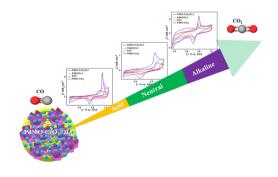
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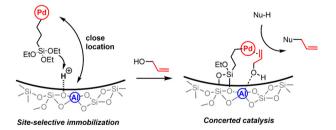
Ternary PdNiO nanocrystals-ornamented porous CeO<sub>2</sub>/onion-like carbon for electrooxidation of carbon monoxide: unveiling the effect of supports and electrolytes

Adewale K. Ipadeola, Aderemi B. Haruna, Aboubakr M. Abdullah,\* Rashid S. Al-Hajri, Roman Viter, Kenneth I. Ozoemena\* and Kamel Eid\*



A heterogeneous Pd complex catalyst for allylation with allylic alcohols enhanced by an aluminumdoped mesoporous silica support

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



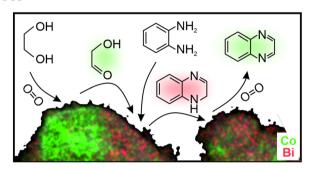
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# Full-crystalline monolithic EU-1 zeolite: sustainable synthesis and its applications in the hydroisomerization of ethylbenzene with meta-xylene

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

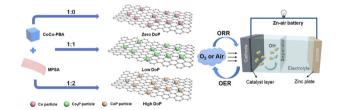
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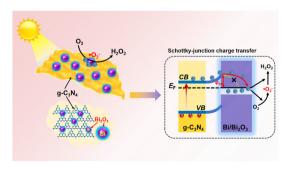
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Tunable phosphorization degree of Co<sub>x</sub>P<sub>v</sub>@N,Pdoped carbon as a highly-active bifunctional electrocatalyst for rechargeable zinc-air batteries

Yang Liu, Chen Li, Min Yuan, Xinghao Zhang, Haikuo Lan, Yuting Chen, Minge Tian, Kang Liu\* and Lei Wang\*

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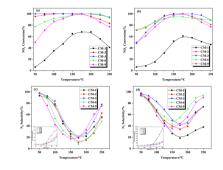
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Xinyue Yan, Guiyang Yu,\* Chuanwang Xing, Yujia Hu, Heyuan Liu and Xiyou Li\*

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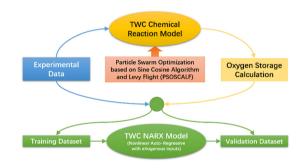
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Zhuoxiao Yao, Tao Chen,\* Weipeng Lin, Yifang Feng, Ran Xia, Le Li and Tao Song



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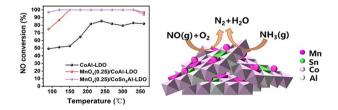
Hao Dong, Wenxue Zhang, Chao Chen\* and Ping Wang\*



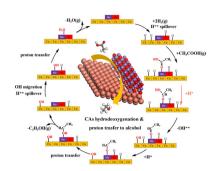
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Hange Wang, Wen Chen, Wei Jin and Yueli Liu\*

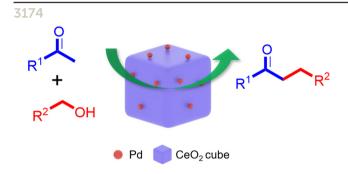


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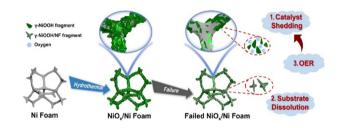
Jingbo Du, Yifei Chen, Lingtao Wang and Minhua Zhang\*



Palladium single-atom catalyst supported on ceria for  $\alpha$ -alkylation of ketones with primary alcohols

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

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