

Catalysis Science & Technology

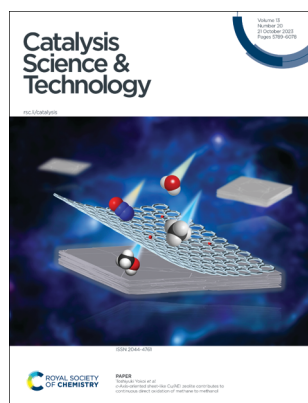
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See Toshiyuki Yokoi *et al.*, pp. 5831–5841.
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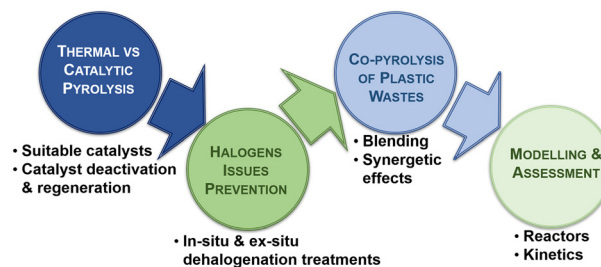
See Takashi Hihara *et al.*, pp. 5842–5847.
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MINI REVIEW

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Critical issues for the deployment of plastic waste pyrolysis

Emanuele Giglio, Alessia Marino, Patricia Pizarro, José M. Escola, Massimo Migliori, Girolamo Giordano and David P. Serrano*

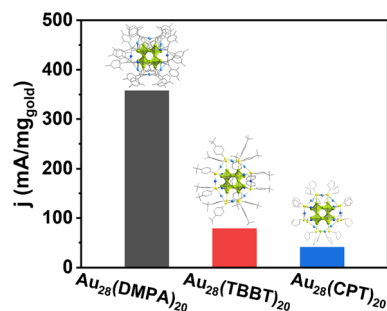


COMMUNICATIONS

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Aromatic alkyne-protected Au₂₈ nanoclusters for electrocatalytic ethanol oxidation

Shisi Tang, Haoqi Liu, Tongxin Song, Xiao Cai, Xu Liu, Weiping Ding and Yan Zhu*



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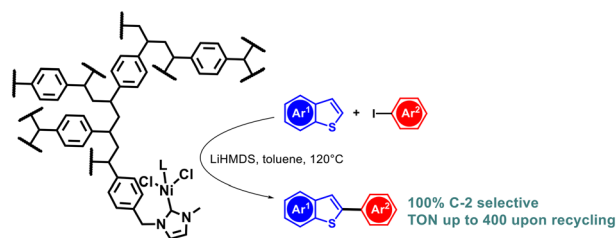


COMMUNICATIONS

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N-Heterocyclic carbene-based porous polymer macroligand for the Ni-catalyzed C–H arylation of benzothiophenes

Partha Samanta,* Remi Beucher, Riddhi Kumari Riddhi, Alisa Ranscht, Florian M. Wissner, Elsie Alessandra Quadrelli and Jerome Canivet*

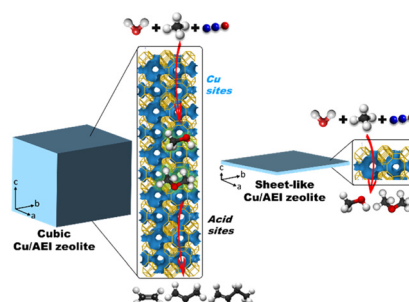


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c-Axis-oriented sheet-like Cu/AEI zeolite contributes to continuous direct oxidation of methane to methanol

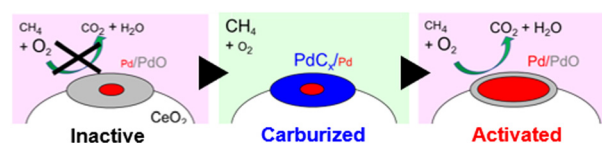
Peipei Xiao, Yong Wang, Kengo Nakamura, Yao Lu, Junko N. Kondo, Hermann Gies and Toshiyuki Yokoi*



5842

Carbon doping of ceria-supported palladium for the low-temperature oxidation of methane

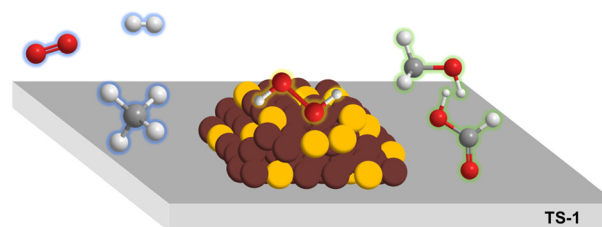
Takashi Hihara,* Yasuyuki Banno, Makoto Nagata, Takeshi Fujita and Hideki Abe



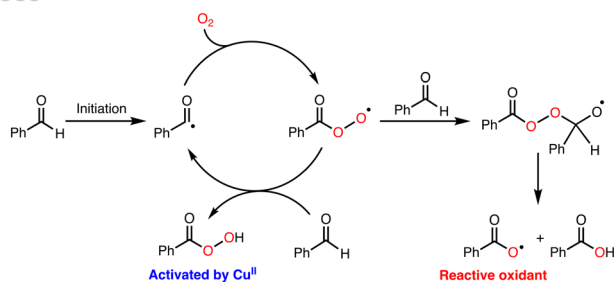
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The selective oxidation of methane to methanol using *in situ* generated H₂O₂ over palladium-based bimetallic catalysts

James H. Carter,* Richard J. Lewis,* Nikolas Demetriou, Christopher Williams, Thomas E. Davies, Tian Qin, Nicholas F. Dummer, David J. Morgan, David J. Willock, Xi Liu, Stuart H. Taylor and Graham J. Hutchings*



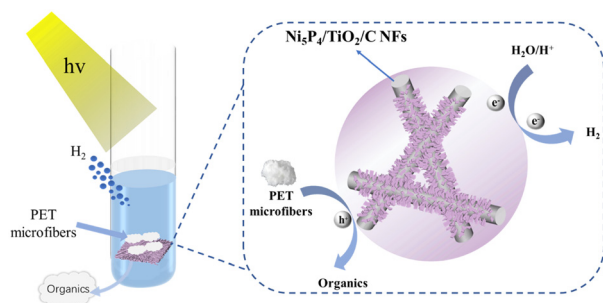
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Mechanistic studies on catalytic alkane oxidation by Murahashi's O_2 /copper(II)/aldehyde system

Kohei Yamaguchi, Yuya Uemura, Hideki Sugimoto, Rin Ito, Yuma Morimoto and Shinobu Itoh*

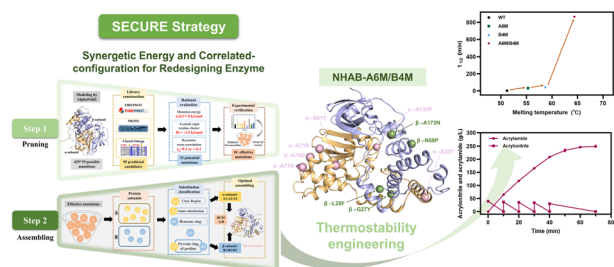
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Photocatalytic degradation of PET microfibers and hydrogen evolution by $\text{Ni}_5\text{P}_4/\text{TiO}_2/\text{C NFs}$

Guixiang Peng, Xueyang Qi, Wenbin Qu, Xiaoli Shao, Lixin Song,* Pingfan Du and Jie Xiong

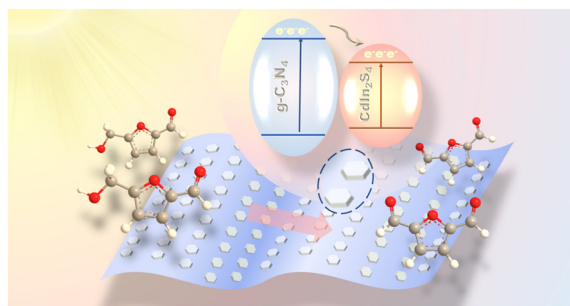
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Computational thermostability engineering of a nitrile hydratase using synergetic energy and correlated configuration for redesigning enzymes (SECURE) strategy

Jinling Xu, Haisheng Zhou, Jiaqi Xu,* Ziyuan Wang, Zhonglang Yu, Zhe Wang, Hongyu Zhang, Haoran Yu, Jianping Wu and Lirong Yang*

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Photocatalytic selective oxidation of biomass-derived 5-hydroxymethylfurfural to 2,5-diformylfuran under ambient conditions over $\text{CdIn}_2\text{S}_4/\text{g-C}_3\text{N}_4$ heterojunctions

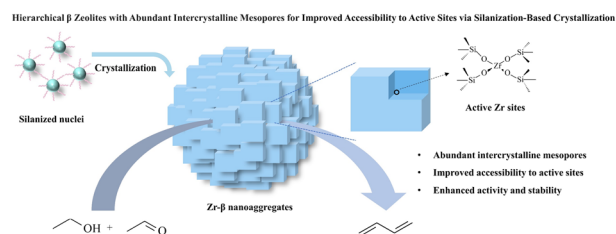
Jifang Cui, Zhihao Yu,* Linhao Sun, Ming Zhang, Mengyan Guo, Jian Xiong, Yina Qiao, Rui Zhang and Xuebin Lu*



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High accessibility to active sites of hierarchical nanocrystalline Zr- β zeolite in ethanol-acetaldehyde conversion to 1,3-butadiene

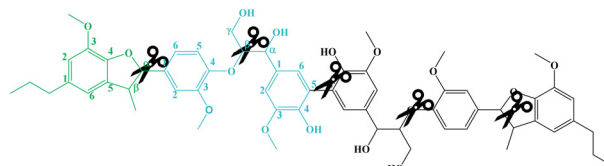
Haoxi Jiang, Liping Yi, Guochao Yang and Lingtao Wang*



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Ruthenium ion catalysed C–C bond activation in lignin model compounds – towards lignin depolymerisation

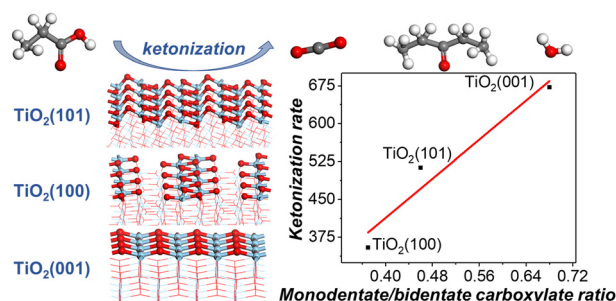
Susana Guadix-Montero, Mala A. Sainna, Jiangpeiyun Jin, Jack Reynolds, W. Graham Forsythe, Gary N. Sheldrake, David Willock and Meenakshisundaram Sankar*



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Crystal facet dependence of the ketonization of propionic acid on anatase TiO₂

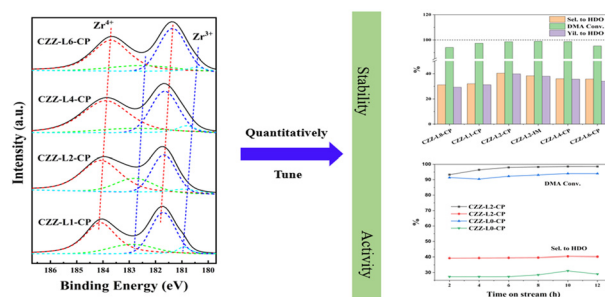
Jiao Huang, Liwen Li, Xiaoxia Wu, Yonghua Guo, Zijun Yang, Hua Wang, Qingfeng Ge and Xinli Zhu*



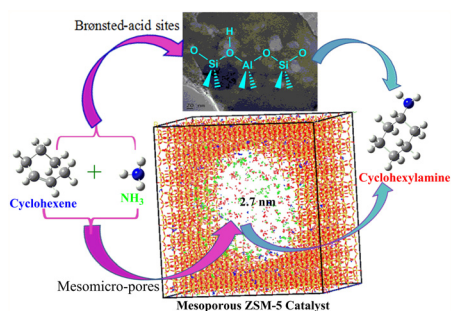
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Modification of Cu–ZnO–ZrO₂ catalysts with La₂O₃ to quantitatively tune Cu⁺–Cu⁰ dual sites for hydrogenation of dimethyl adipate to produce 1,6-hexanediol

Xianlong Gao, Guoqing Zhao, Lei Miao, Lei Li and Zhirong Zhu*



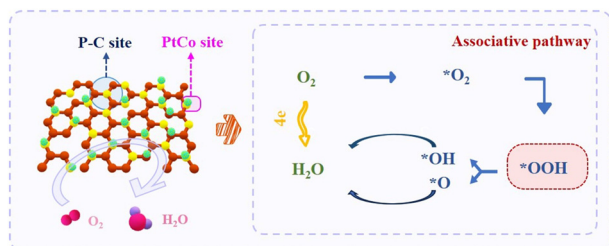
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Insights into structure–function relationships of mesoporous H-ZSM-5 zeolite catalysts for direct amination of cyclohexene with NH_3

Haoyu Peng, Chao Luo, Jincheng Leng, Zhenjie Zhang, Wenzhou Zhong,* Liqiu Mao,* Gouqiang Zou and Dulin Yin

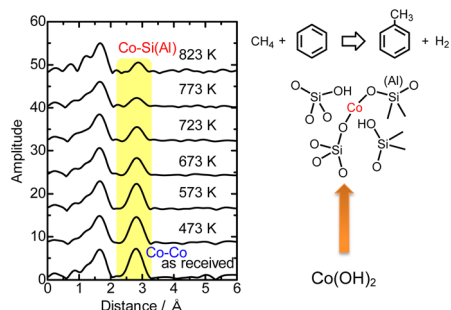
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Insights into the synergistic catalytic mechanism on the customized dual sites of an efficient ORR catalyst

Jinyu Zhao, Xu Chen, Jie Lian, Yu Gao, Yixing Zhang and Xiaomin Wang*

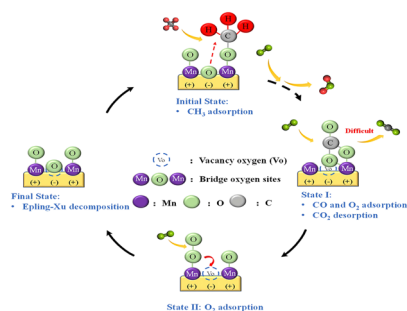
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Direct methylation of benzene with methane over Co/MFI catalysts generated by self-dispersion of $\text{Co}(\text{OH})_2$

Kazu Okumura,* Kai Tanaka, Akimichi Ohtsuki, Hikaru Iiyoshi and Naonobu Katada

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Bridge-type Mn–O–Mn sites promoting catalytic methane oxidation and carbonate desorption over Mn-based oxides

Jiacheng Xu, Tiantian Zhang, Yan Sun, Shiyu Fang, Zuliang Wu, Erhao Gao, Jiali Zhu, Wei Wang, Lianxin Dai, Weihua Liu, Buhe Zhang, Junwei Zhang, Shuiliang Yao* and Jing Li*

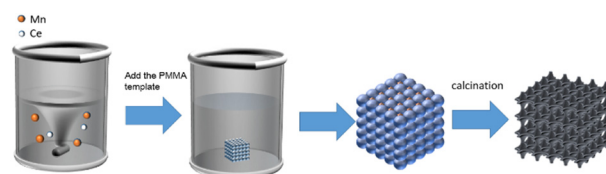


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Three-dimensional ordered macroporous cerium–manganese composite oxide for NO oxidation

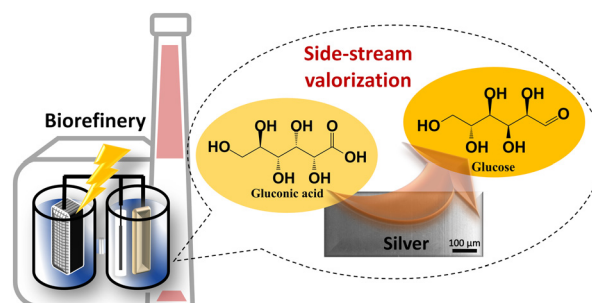
Canyang Qu, Ping Wang, Miao He, Cheng Yang, Jing Xiong, Xiaohua Sun,* Yuechang Wei* and Zhenxing Li*



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Potential dependence of gluconic acid to glucose electroreduction on silver

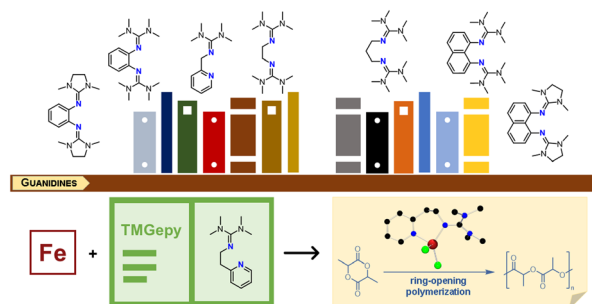
Maria Wolfgruber, Prathamesh Patil, Christian M. Pichler, Robert H. Bischof, Serhiy Budnyk, Christian Paulik, Bruno V. M. Rodrigues* and Adam Slabon*



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Understanding structure–activity relationships: iron(II) complexes of “Legacy Guanidines” as catalysts for the synthesis of polylactide

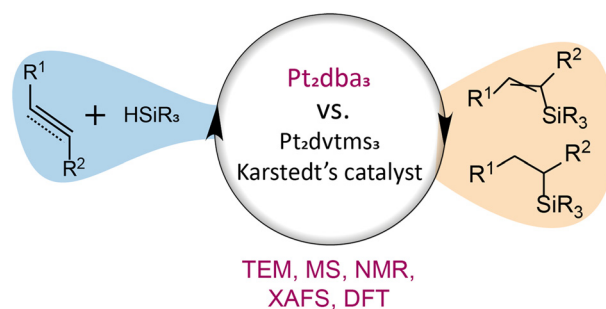
Christian Conrads, Lisa Burkart, Sven Soerensen, Sandra Noichl, Yasemin Kara, Joshua Heck, Alexander Hoffmann and Sonja Herres-Pawlis*



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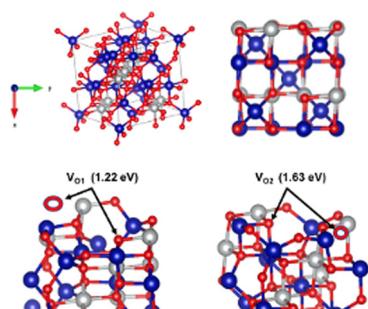
Examination of Pt_2dba_3 as a “cocktail”-type catalytic system for alkene and alkyne hydrosilylation reactions

Evgeniia E. Ondar, Alexander Yu. Kostyukovich, Julia V. Burykina, Alexey S. Galushko and Valentine P. Ananikov*



PAPERS

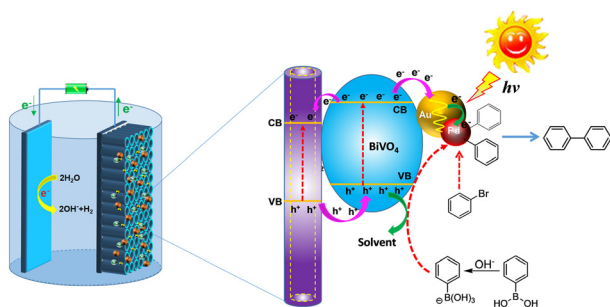
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Investigation of the effect of thermal annealing of Ni-cobaltite nanoparticles on their structure, electronic properties and performance as catalysts for the total oxidation of dimethyl ether

Daniel Onana Mevoa, Stephane Kenmoe,*
Muhammad Waqas, Dick Hartmann Douma,
Daniel Manhouli Daawe, Katia Nchimi Nono,
Ralph Gebauer and Patrick Mountapmbeme Kouotou*

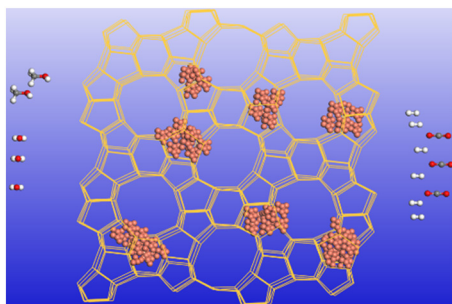
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Pd/Au bimetallic nanoparticle-anchored BiVO₄/TiO₂ nanotube arrays toward efficient photoelectrocatalytic Suzuki–Miyaura reactions

Wenjun Yan, Na Li,* Zhiyu Yan, Yu Niu, Yuan Deng
and Zhongde Wang*

6068



Cu nanoparticles confined in siliceous MFI zeolite for methanol steam reforming

Yang Hong, Yijun Zheng, Nana Yan, Xiaona Liu,
Peng Guo* and Zhongmin Liu

CORRECTION

6075

Correction: A two-dimensional MXene-supported CuRu catalyst for efficient electrochemical nitrate reduction to ammonia

Fang Zhao, Guangxin Li, Qianqian Hua, Jianghui Cao, Jiliang Song, Liguo Gao, Tingli Ma, Xuefeng Ren*
and Anmin Liu*

