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See Raoul Naumann d'Alnoncourt *et al.*, pp. 4117–4130.
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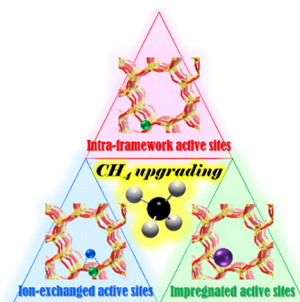
Inside cover
See Masakazu Iwamoto *et al.*, pp. 4131–4140.
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PERSPECTIVE

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Zeolite-based catalysts for oxidative upgrading of methane: design and control of active sites

Mizuho Yabushita,* Ryota Osuga,* Toshiyuki Yokoi and Atsushi Muramatsu*

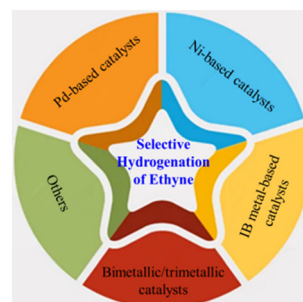


MINI REVIEW

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Recent research advances on catalysts for selective hydrogenation of ethyne

Jiawen Guo, Yiming Lei, Huimin Liu,* Yuqiao Li, Dezheng Li and Dehua He*



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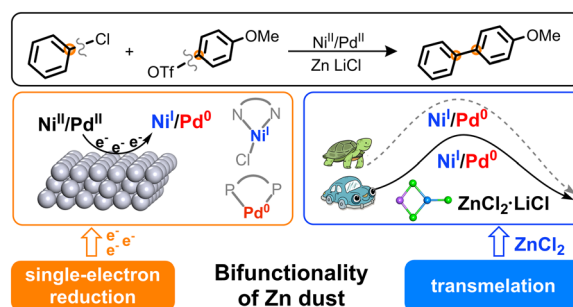


COMMUNICATION

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Bifunctionality of Zn dust in Ullmann C–C cross-coupling by Ni/Pd dual catalysis: theoretical insight

Rong-Wan Gao, Yu-Jiao Dong, Bo Zhu* and Wei Guan*

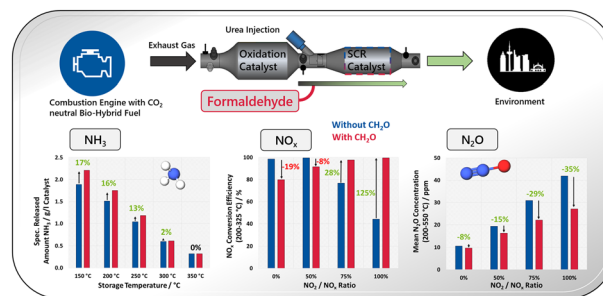


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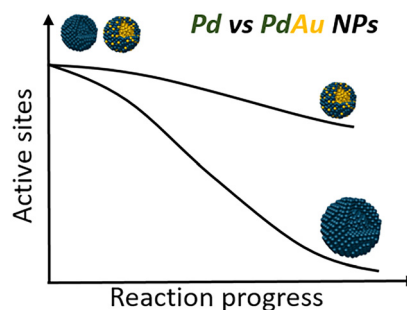
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Unravelling synergistic effects in bi-metallic catalysts: deceleration of palladium–gold nanoparticle coarsening in the hydrogenation of cinnamaldehyde

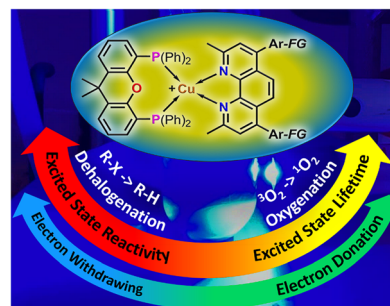
Jose Pinto, Andreas Weilhard,* Luke T. Norman, Rhys W. Lodge, David M. Rogers, Aitor Gual, Israel Cano, Andrei N. Khlobystov, Peter Licence* and Jesum Alves Fernandes*



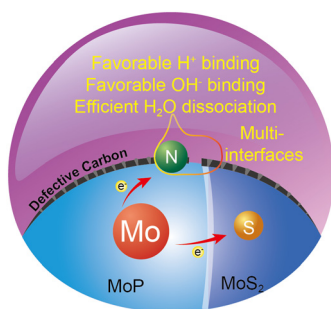
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Rich or poor: the impact of electron donation and withdrawal on the photophysical and photocatalytic properties of copper(I) complexes

Florian Doettinger, Christian Kleeberg, Clémence Queffélec, Stefanie Tschierlei, Yann Pellegrin* and Michael Karnahl*



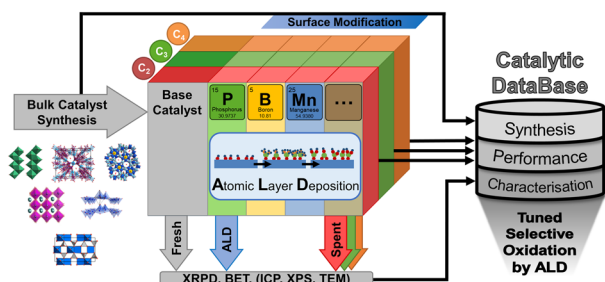
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Multi-interfacial charge polarization for enhancing the hydrogen evolution reaction

Di Zhao,* Mengyun Hou, Wuyi Feng, Pengyu Song, Kaian Sun, Lirong Zheng, Shoujie Liu, Jiatao Zhang,* Minhua Cao* and Chen Chen*

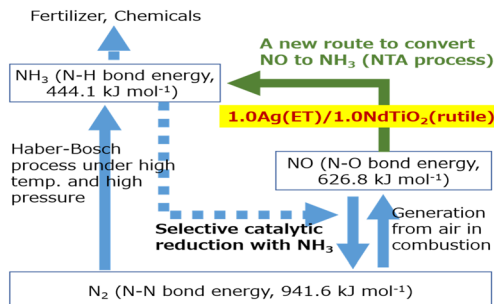
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Tuning catalysis by surface-deposition of elements on oxidation catalysts via atomic layer deposition

Frederik R ther, Robert Baumgarten, Fabian Ebert, Esteban Gioria, Raoul Naumann d'Alnoncourt,* Annette Trunschke and Frank Rosowski

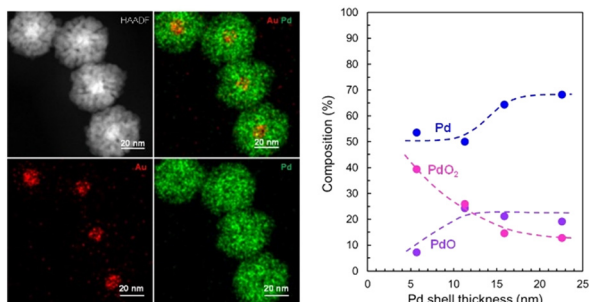
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Catalysts for selective conversion of nitric oxide to ammonia (NTA) with propene in the presence of a large excess of oxygen and water vapor

Bungo Suzumura, Kiyokazu Tanaka, Kasumi Kitazume, Shougo Hioki, Ayaka Kubo and Masakazu Iwamoto*

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Large Au@Pd/PdO_x core-porous shell nanoparticles as efficient ethanol oxidation electrocatalysts

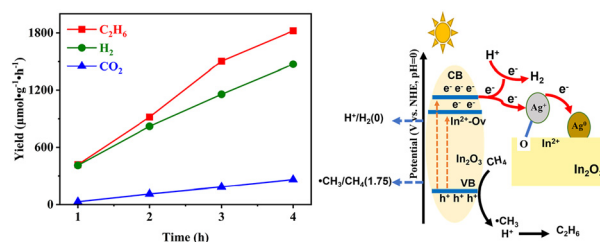
Junfang Hao, Bin Liu, Mari Takahashi, Shinya Maenosono* and Jianhui Yang*



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Oxygen vacancies stabilized Ag⁺ to enhance the performance of an Ag/In₂O₃ photocatalyst for non-oxidative coupling of methane

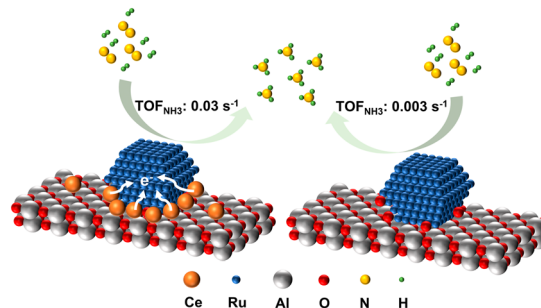
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Decoration of Ru nanoparticles on γ -alumina with sub-nanometer ceria species for efficient catalytic ammonia synthesis

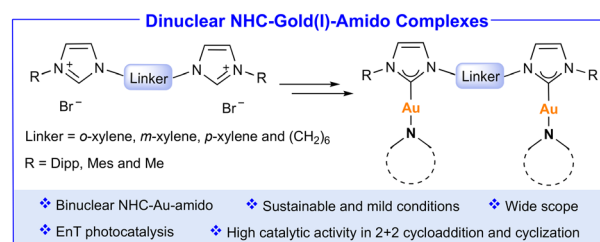
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Novel dinuclear NHC-gold(i)-amido complexes and their application in energy transfer photocatalysis

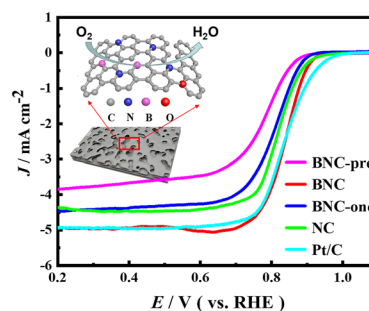
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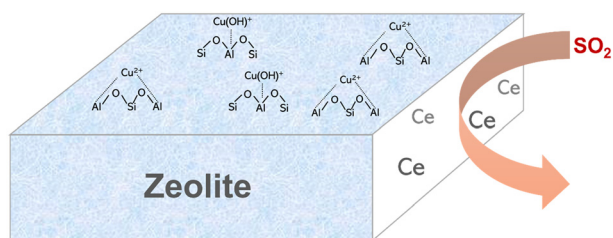
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Effective construction of a B and N co-doped 3D porous carbon metal-free oxygen reduction reaction catalyst by a secondary pyrolysis strategy

Guang-Lan Li,* Xin Wang, Fei Deng, Zhong-Fa Lu, Ce Hao, Suli Wang* and Gongquan Sun



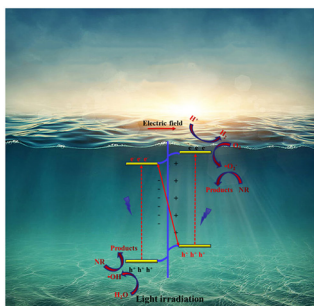
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NO_x reduction against sulfur poisoning by using Ce-modified Cu-SAPO-34 catalysts

Liumei Ge, Aiyong Wang, Xiaonan Hu, Jin Zhang, Jiebing He, Penglu Wang, Lupeng Han and Dongsong Zhang*

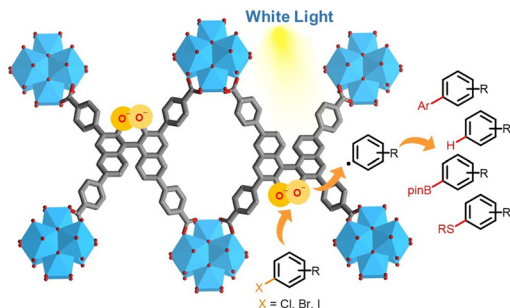
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In situ construction of S-scheme heterojunction-conjugated polymer/g-C₃N₄ photocatalysts for enhanced H₂ production and organic pollutant degradation

Na Mao

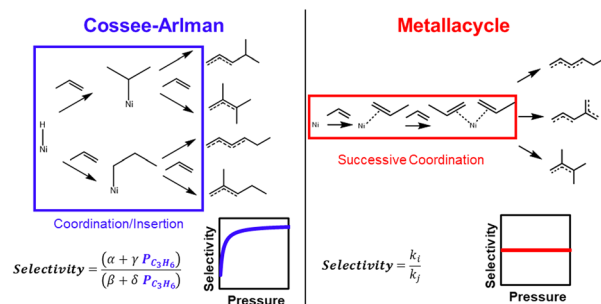
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Binaphthol derivatives as catalysts for visible light induced aryl halide derivatizations

Zhenghua Zhao, Mingjie Liu, Kai Zhou, Yajing Shen, Longcheng Hong, Zongbi Bao, Qiwei Yang, Qilong Ren and Zhiguo Zhang*

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Validation of the Cossee–Arlman mechanism for propylene oligomerization on Ni/Uio-66

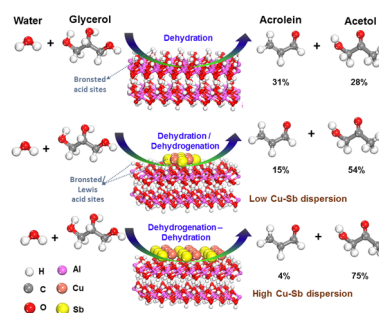
Benjamin Yeh, Saamil Chheda, Jian Zheng, Julian Schmid, Laura Löbber, Ricardo Bermejo-Deval, Oliver Y. Gutiérrez, Johannes A. Lercher, Laura Gagliardi and Aditya Bhan*



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Effect of Cu and Sb active sites on the acid–base properties and reactivity of hydrated alumina for glycerol conversion by dehydrogenation and dehydration reactions

Regina Claudia Rodrigues dos Santos,*
Moacir José da Silva Júnior, Gabriel Lima Nunes
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Bandgap matching-triggered self-sustaining photocatalytic oxidation

Weiwei Cheng, Zhiqin Yuan,* Yanjun Lin and Chao Lu*

