

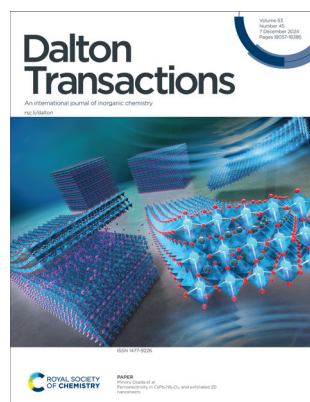
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Cover
See Minoru Osada *et al.*,
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Inside cover
See Cristina Tubaro,
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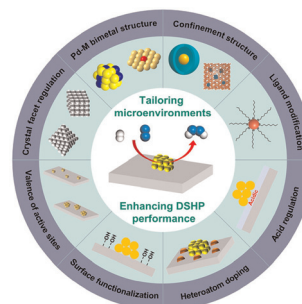
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Recent advances in tailoring the microenvironment of Pd-based catalysts for enhancing the performance in the direct synthesis of hydrogen peroxide

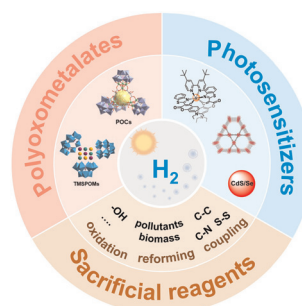
Ying Zhang, Xilun Wang, Ziyue Wang, Liyang Liu, Xiaohui He* and Hongbing Ji*



18083

Recent advances in polyoxometalate-based catalysts for light-driven hydrogen evolution

Mengyun Zhao, Qingqing Liu, Yejin Feng and Hongjin Lv*



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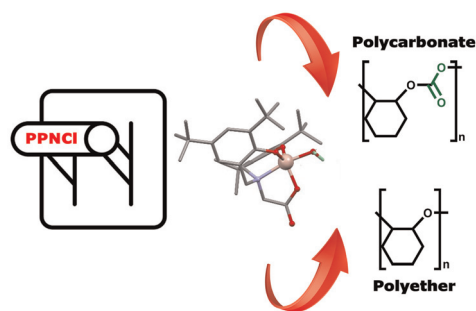
Fundamental questions
Elemental answers

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Switchable, chiral aluminium catalysts for ring opening polymerisations

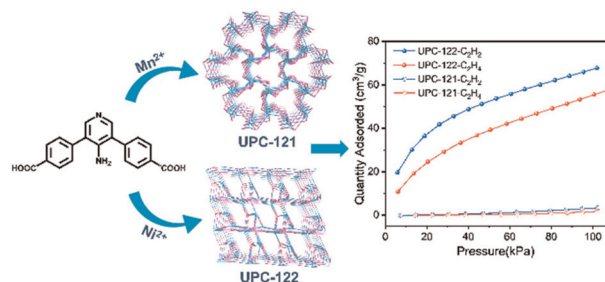
David T. Jenkins, Elizabeth C. Trodden,
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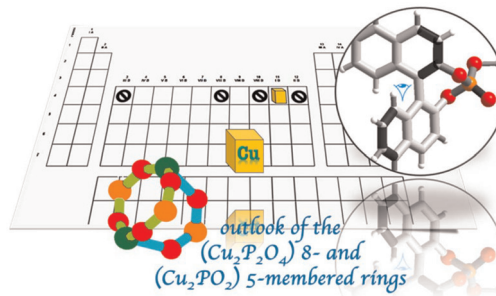
Yue Li, Mingming Xu, Hongyan Liu, Xiaokang Wang,*
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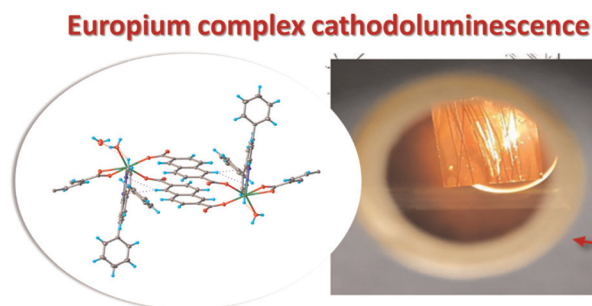
Humberto A. Rodríguez, Daniel A. Cruz, Víctor Lavín,
Juan I. Padrón and Pablo Lorenzo-Luis*



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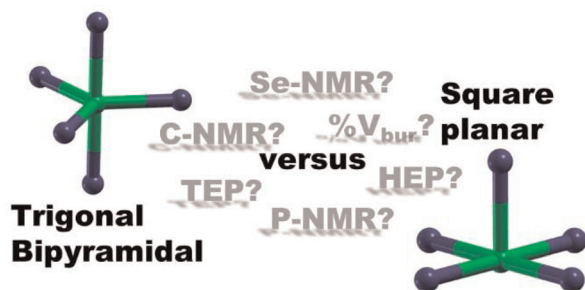
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Rongdeng Lu, Tinghui Huang, Alexander Goloveshkin,
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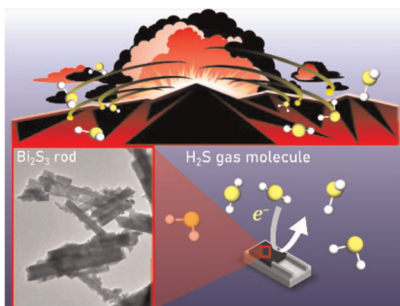
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Katherine Merkel, Alyssa V. B. Santos and Scott Simpson*

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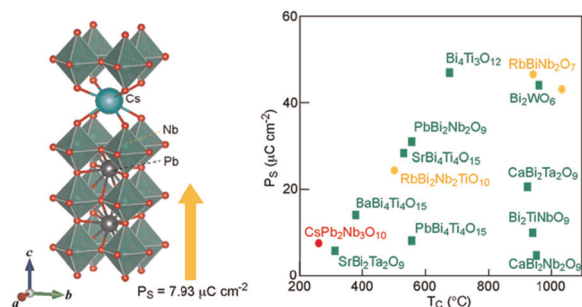


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Reiko Furukawa, Takuya Hasegawa,* Ayahisa Okawa and Shu Yin

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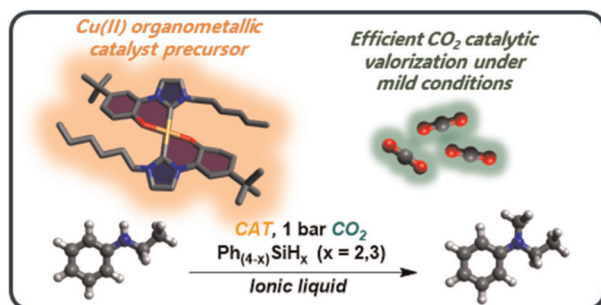
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Ferroelectricity in CsPb₂Nb₃O₁₀ and exfoliated 2D nanosheets

Yan Li, Masanari Shimada, Makoto Kobayashi, Eisuke Yamamoto, Ruben Canton-Vitoria, Xiaoyan Liu and Minoru Osada*

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Exploring the reductive CO₂ fixation with amines and hydrosilanes using readily available Cu(II) NHC-phenolate catalyst precursors

Giammarco Meloni, Luca Morgan, David Cappelletti, Matteo Bevilacqua, Claudia Graiff, Piermaria Pinter, Andrea Biffis, Cristina Tubaro* and Marco Baron*

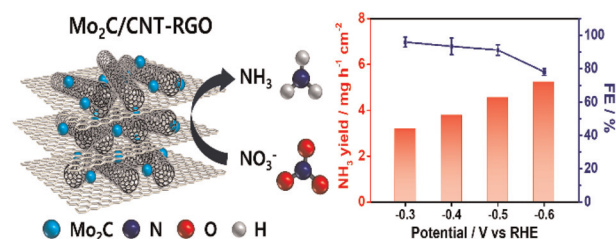


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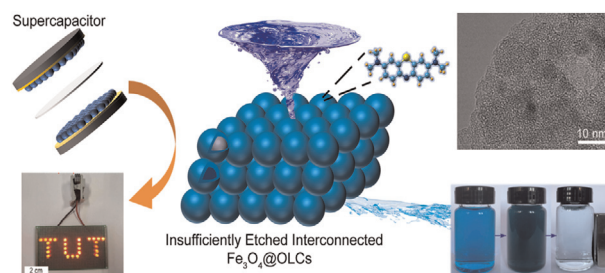
So Eun Jang, Jae Young Kim* and Duck Hyun Youn*



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Cascaded utilization of magnetite nanoparticles@onion-like carbons from wastewater purification to supercapacitive energy storage

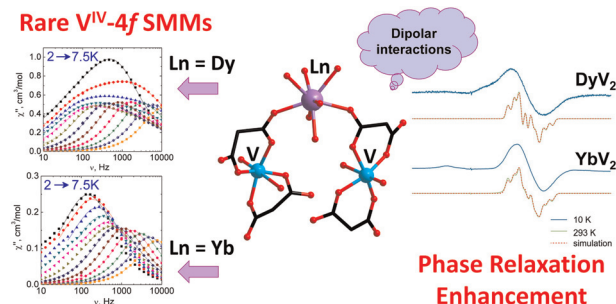
Xin Jiao, Min Xiao, Fengshi Cai, Yingchun Fan, Shuaipeng Meng, Xiude Guan, Huiquan Wang and Chenguang Zhang*



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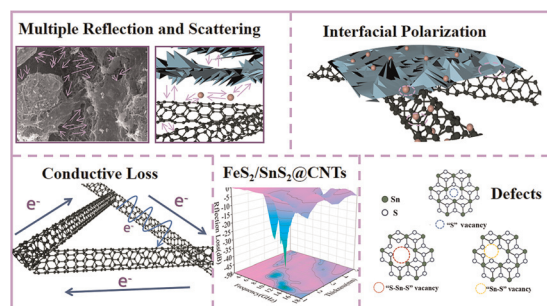
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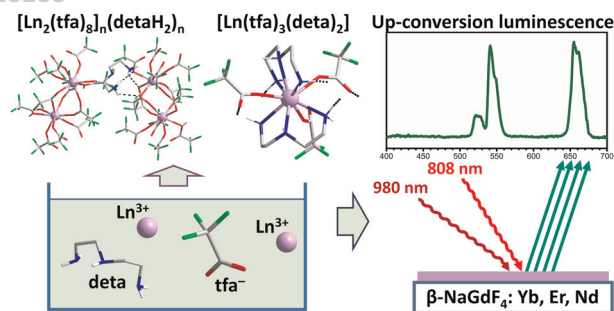
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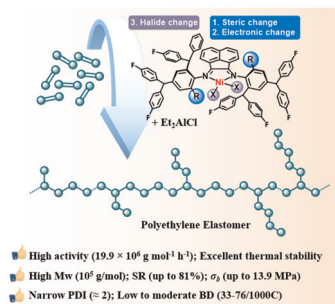
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The first example of polymeric lanthanide *tetrakis-trifluoroacetates* in chemical solution deposition of up-converting $\text{NaGdF}_4:\text{Yb,Er,Nd}$ thin films

Maria Burlakova, Daria Blinnikova, Gleb Volkonovskiy, Haoyang Chai, Dmitry Grebenyuk and Dmitry Tsybarenko*

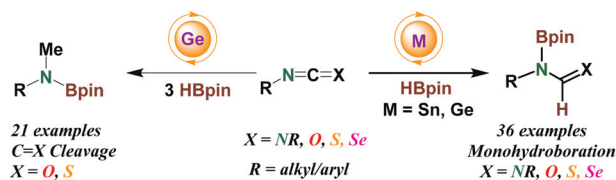
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Thermally stable C_2 -symmetric α -diimine nickel pre-catalysts for ethylene polymerization: semicrystalline to amorphous PE with high tensile and elastic properties

Xiaoxu Li, Zexu Hu, Qaiser Mahmood,* Yizhou Wang, Sunny Sohail, Song Zou, Tongling Liang and Wen-Hua Sun*

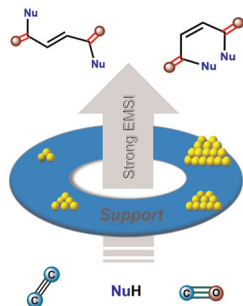
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Low-valent germanium and tin hydrides as catalysts for hydroboration, hydrodeoxygenation (HDO), and hydrodesulfurization (HDS) of heterocumulenes

Sayantana Mukhopadhyay, Rajata Kumar Sahoo, A. Ganesh Patro, Anwesh Prasad Khuntia and Sharanappa Nembenna*

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Wei Xuemei, Wang Kai, Wu Guofeng, Yu Guoqi, Shen Hualiang, Cai Tao, Luo Yanjuan, Shang Tianbo, Chen Xinzhi,* Shen Runpu* and Hu Bin*

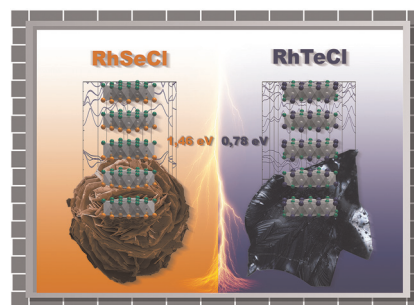


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Exploring the heteroanionic 2D materials RhSeCl and RhTeCl as promising semiconductor materials

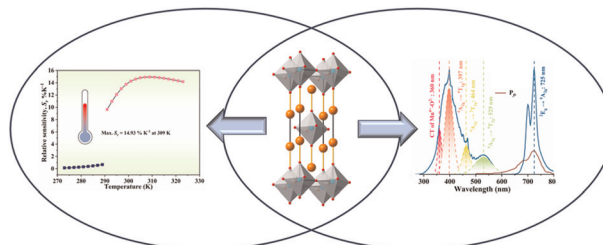
Domenic Nowak,* Erik K ppler, Martin Knupfer, Subakti Subakti, Axel Lubk, Dmitriy Efremov, Bastian Rubrecht, Alexey Popov, Andreas Koitzsch, Udo Steiner, Bernd B chner, Martin Valldor, Nico Gr bner* and Silke Hampel*



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A new red phosphor for high time-resolved thermal sensitivity and plant growth

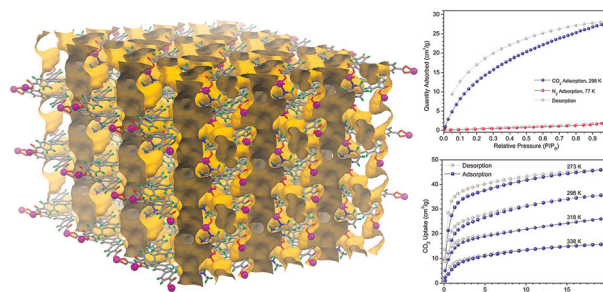
Yu-Xi Bi, Dan Zhao,* Rui-Juan Zhang and Qing-Xia Yao*



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Construction of 2D zinc(II) MOFs with tricarboxylate and N-donor mixed ligands for multiresponsive luminescence sensors and CO₂ adsorption

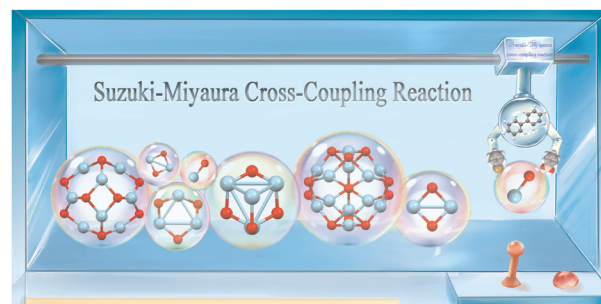
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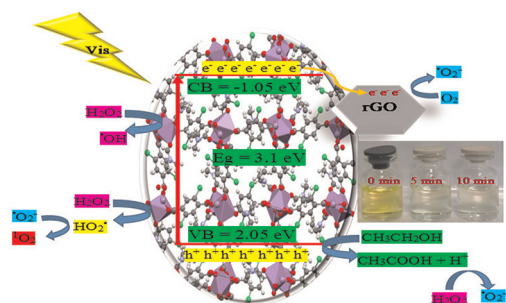
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The catalytic performance of (ZrO)_n (n = 1–4, 12) clusters for Suzuki–Miyaura cross-coupling: a DFT study

Zhi-Chao Zhang, Wen-Lu Wang, Hai-Yan Zhong, Bin Liu, Xin-Yu Shi, Dan Yu and Wei-Ming Sun*



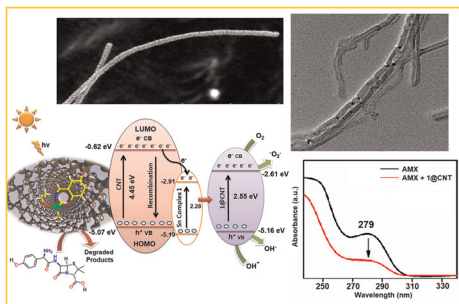
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rGO/MUT-15 nanocomposite as a Fenton-like photocatalyst for the degradation of Acid Yellow 73 under visible light

Roghayyeh Ghasemzadeh, Kamran Akhbari* and Satoshi Kawata

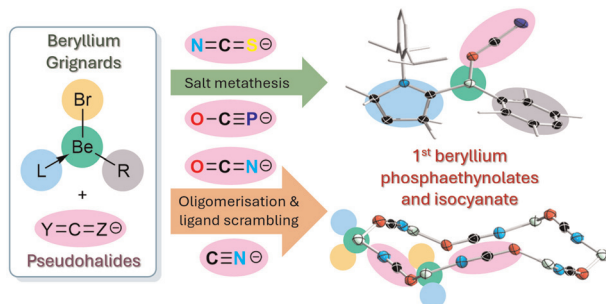
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Photosensitizing CNTs by organotin(IV) compounds: generation of reactive oxygen species and degradation of amoxicillin

Sahil Thakur, Jyoti Rohilla, Sahil Sharma, Raghubir Singh, Raman Kamboj and Varinder Kaur*

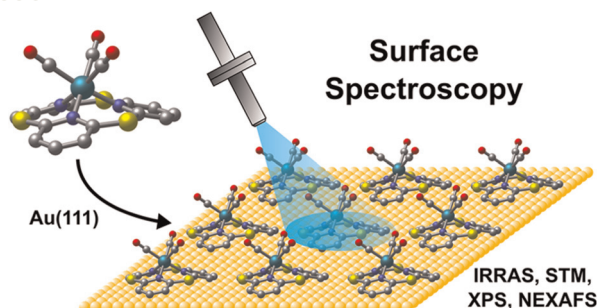
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Synthesis and structures of molecular beryllium Grignard analogues featuring terminal and bridging pseudohalides

Corinna Czernetzki, Merle Arrowsmith, Malte Jürgensen, Stephan Hagspiel and Holger Braunschweig*

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Monolayers of a thiacalix[3]pyridine-supported molybdenum(0) tricarbonyl complex on Au(111): characterisation with surface spectroscopy and scanning tunneling microscopy

Kai Uwe Clausen, Xiangzhi Meng, Katrin Reisig, Christian Näther, Thomas Strunskus, Richard Berndt and Felix Tuczek*

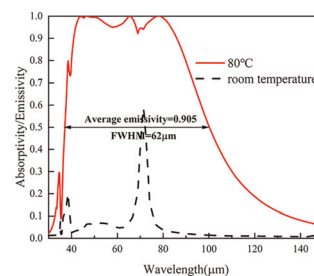
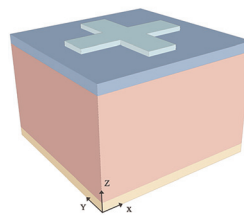


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Theoretical research on a broadband terahertz absorber for thermally controlled radiation emission based on the epsilon-near-zero mode

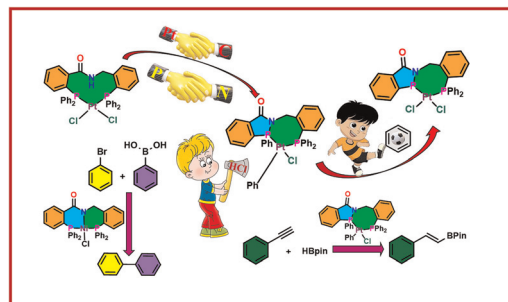
Fei Liu, Haochong Xu, Honggang Pan,* Zhanyun Lai, Yuanyuan Zhang and Ailing Zhang



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Ni^{II}, Pd^{II} and Pt^{II} pincer complexes of 2-(diphenylphosphanyl)-N-(2-(diphenylphosphanyl)benzyl)benzamide: synthesis, reactivity and catalytic studies

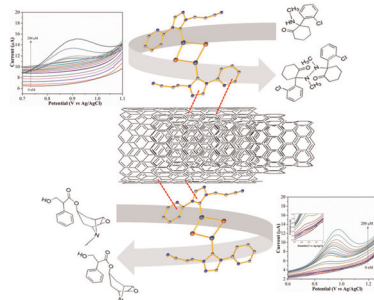
Khilesh C. Dwivedi, Gazal Sabharwal, Basvaraj S. Kote and Maravanji S. Balakrishna*



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Ruthenium(II) N-heterocyclic carbene polymer based sensors for detection of predatory drugs like ketamine and scopolamine

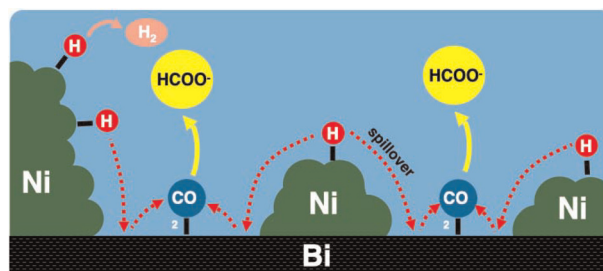
Nupoor Gopal Neole, Zhoveta Yhobu, Jan Grzegorz Matecki, Doddahalli H. Nagaraju and Srinivasa Budagumpi*



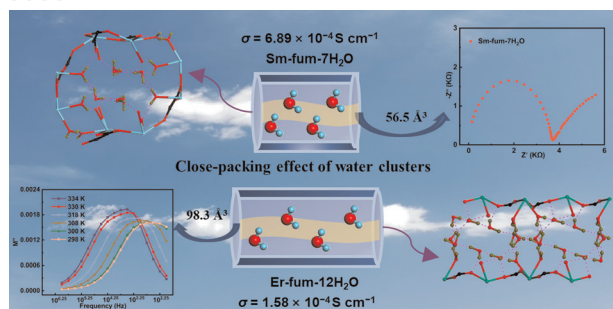
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CO₂ reduction efficiency through electrolyte immersion in hierarchical bismuth–nickel catalysts

Yongsu An, Yongju Lee, Yujing Ji, Young Dok Kim, Hyun Ook Seo and Duk-Young Jung*



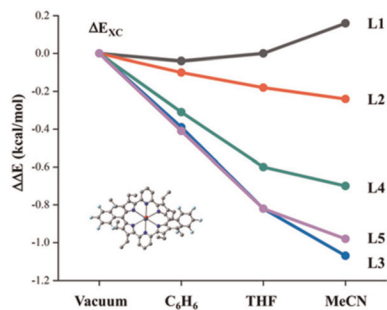
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Close-packing effect of water clusters within metal–organic framework pores on proton conductivity: a dielectric relaxation phenomenon in loose space and colossal dielectric permittivity

Bingtang Chen, Fengxia Xie,* Xiaoqiang Liang,* Chengan Wan, Feng Zhang, Lei Feng, Qianmeng Lai, Ziyang Wang and Chen Wen*

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Understanding solvent polarity effects on the separation of uranyl porphyrin-derivative complexes

Shu-Xian Hu,* Lu Zhang, Ke Zhou* and Ping Zhang

