

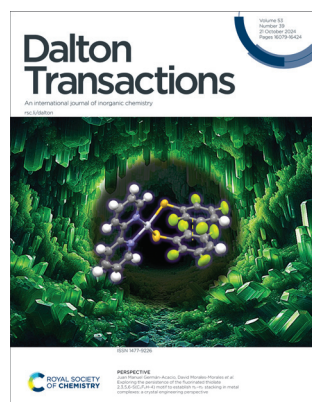
Dalton Transactions

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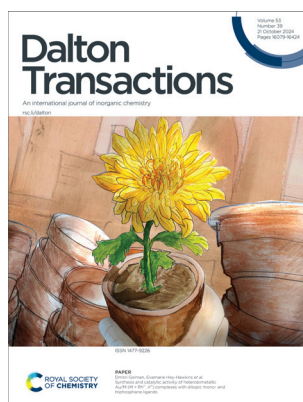
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Cover

See Juan Manuel Germán-Acacio, David Morales-Morales *et al.*, pp. 16090–16127.

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Inside cover

See Dmitri Gelman, Evamarie Hey-Hawkins *et al.*, pp. 16159–16169.

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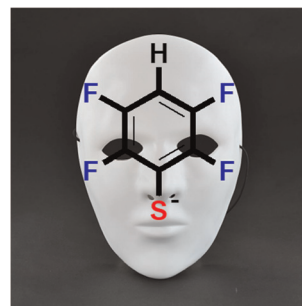
Acknowledgement: Artwork by Christoph Selg

PERSPECTIVE

16090

Exploring the persistence of the fluorinated thiolate 2,3,5,6-S(C₆F₄H-4) motif to establish $\pi_F-\pi_F$ stacking in metal complexes: a crystal engineering perspective

Everardo Jaime-Adán, Juan Manuel Germán-Acacio,* José Carlos Páez-Franco, Victor H. Lara, Viviana Reyes-Marquez and David Morales-Morales*

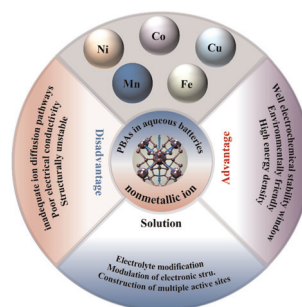


FRONTIERS

16128

Unlocking the structure and cation synergistic modulation of Prussian blue analogues with double redox mechanism for improved aqueous nonmetallic ion storage

Hao Fu, Lingqian Ye and Jun Yang*



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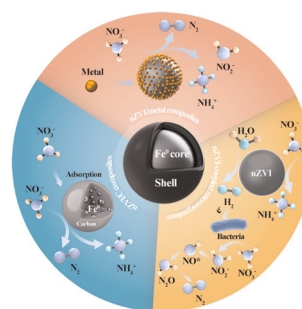
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A critical review of nitrate reduction by nano zero-valent iron-based composites for enhancing N₂ selectivity

Yanyan Pei, Junlan Chen, Wei Cheng,
Wenzhong Huang, Renyu Liu and Zhuwu Jiang*

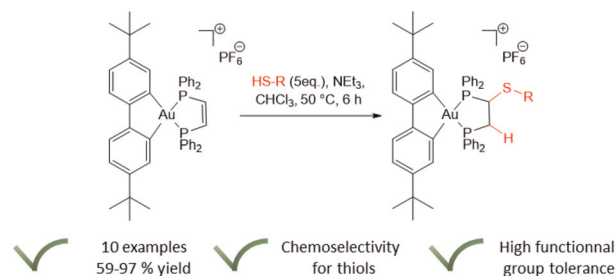


COMMUNICATIONS

16144

Post-metallation functionalization of the [(C[∧]C)Au(P[∧]P)]⁺ scaffold through a hydrothiolation reaction

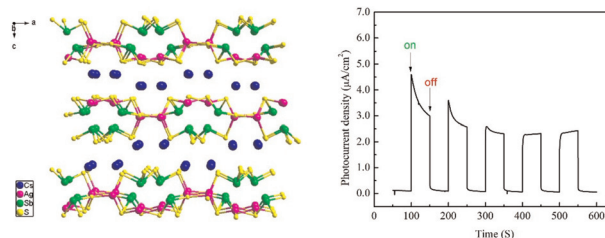
Jeannine Yang, Clément Soep, Jérémy Forté,
Héloïse Dossmann and Benoît Bertrand*



16149

Syntheses, crystal structures and photocurrent responses of Cs₂Ag₂Sb₂S₅ and CsAgSb₄S₇ with thiourea as a mineralizer

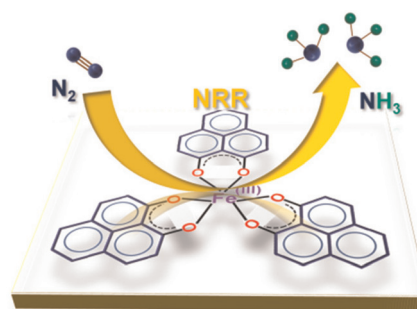
Yan Liu,* Changyan Yu, Zhihe Xie, Ming Cao,
Dongyuan Miao, Zhiwei Xue* and Yanhua Li*



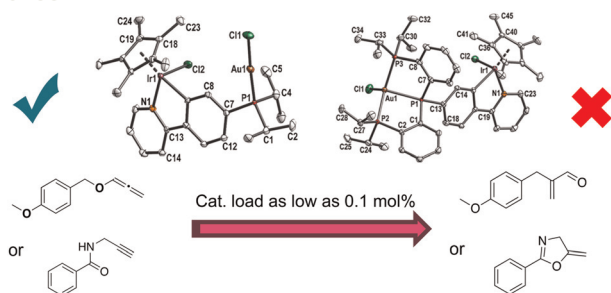
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Electrocatalytic nitrogen reduction to ammonia at low potential using a phenalenyl-based iron(III) complex

Santosh R. Waghela, Ashadul Adalder,
Jayeeta Bhattacharjee, Nilmadhab Mukherjee,
Sourav Paul and Uttam Kumar Ghorai*



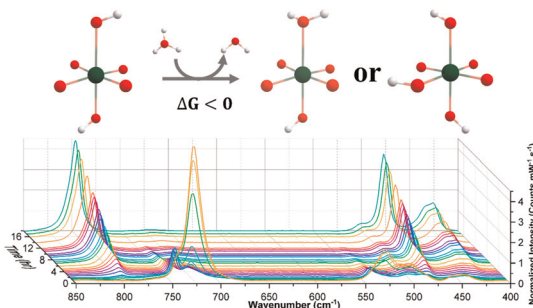
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Synthesis and catalytic activity of heterobimetallic Au/M (M = Rh^{III}, Ir^{III}) complexes with ditopic mono- and triphosphane ligands

Ivana Predarska, Wieland Körber, Peter Lönnecke, Dmitri Gelman* and Evamarie Hey-Hawkins*

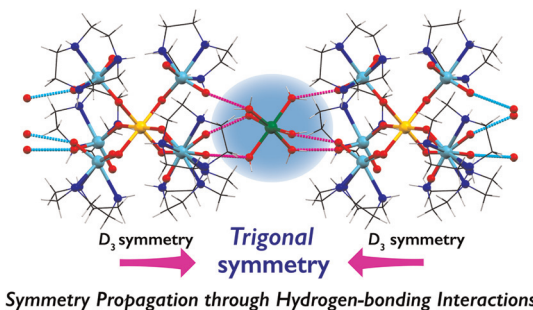
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Probing the protonation and reduction of heptavalent neptunium with computational guidance

Grant C. Benthin, Harindu Rajapaksha, Emma L. Markun, Sara E. Mason* and Tori Z. Forbes*

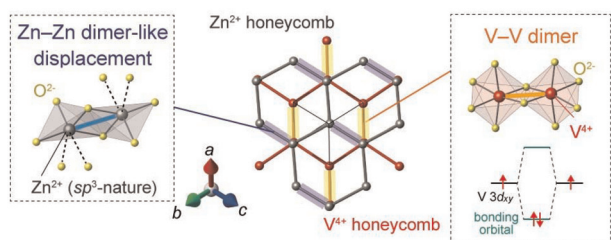
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Controlling the symmetry of hexamondentate 3d-transition metal complexes through symmetry propagation from high-symmetry Ti–Mo and Zr–Mo clusters via hydrogen-bonding interactions

Ryoji Mitsuhashi,* Yuya Imai, Sugiarto, Hiroshi Sakiyama, Yuji Kikukawa and Yoshihito Hayashi*

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ZnVO₃: an ilmenite-type vanadium oxide hosting robust V–V dimers

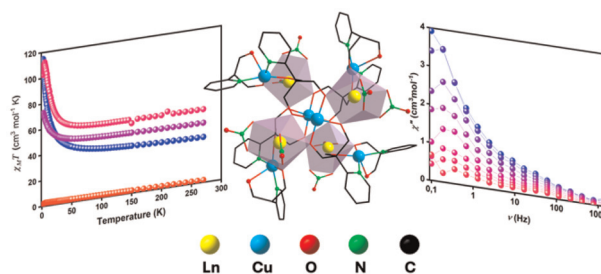
Hajime Yamamoto,* Takumi Nishikubo, Shintaro Kobayashi, Kazuki Takahashi, Masaki Azuma, Shogo Kawaguchi and Tadashi Abukawa



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A new family of heterometallic $[\text{Cu}_6\text{M}_4]$ ($\text{M} = \text{Gd}$, Tb , Dy and Y) clusters derived from the combined use of selected pyridyl poly-alcohol ligands

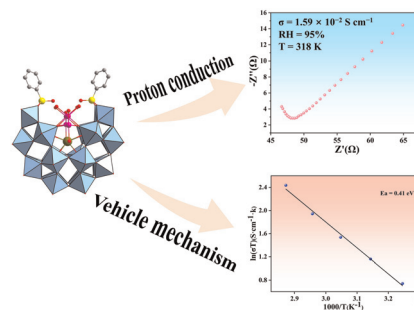
Antonis Anastassiades, Dimitris I. Alexandropoulos, Christian D. Buch, Stergios Piligkos* and Anastasios J. Tasiopoulos*



16212

A Dawson-type $\{\text{P}_4\text{W}_{24}\}$ modified using phenylphosphonic acid with excellent proton conductivity

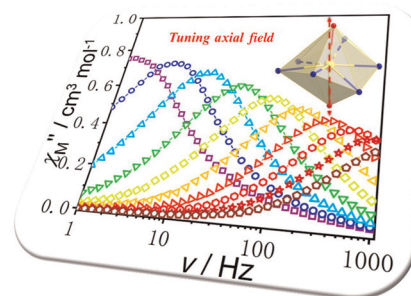
Jiayu Liu, Wenjing Lei, Shihao Zhang, Huafeng Li, Siyu Liu, Pengtao Ma, Jingping Wang* and Jingyang Niu*



16219

Modulation of the magnetic properties of mononuclear $\text{Dy}(\text{III})$ complexes by tuning the coordination geometry and local symmetry

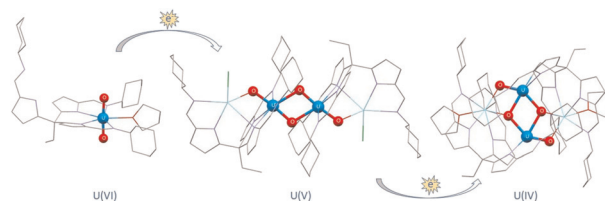
Xuejuan Zhou, Huiliang Qin, Zhaopeng Zeng, Shuchang Luo,* Tao Yang, Peipei Cen* and Xiangyu Liu*



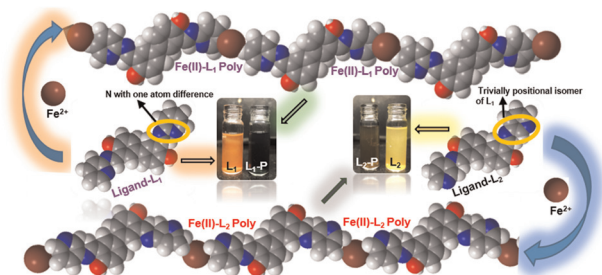
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Controlled and sequential single-electron reduction of the uranyl dication

Tom J. N. Obey, Gary S. Nichol and Jason B. Love*



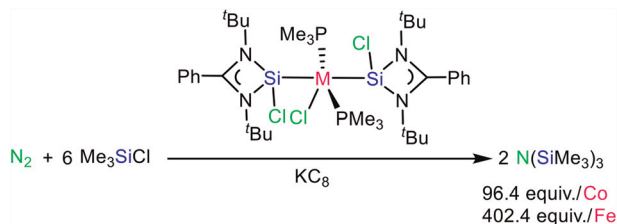
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Trivial positional isomerism in ligands triggering different properties in Fe(II)-metallopolymers; design, synthesis, and characterization

Shubham Bawa, Anil Kumar, Gaurav Kumar Nim, Jayanta Bera, Samaresh Ghosh, Satyajit Sahu, Prasenjit Kar and Anasuya Bandyopadhyay*

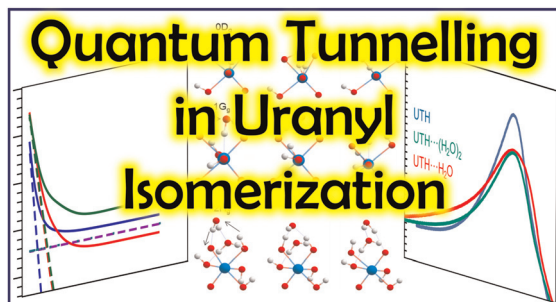
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Dinitrogen silylation catalyzed by silylene cobalt(I) and silylene iron(I) chlorides

Qingqing Fan, Qingshuang Li, Hongjian Sun and Xiaoyan Li*

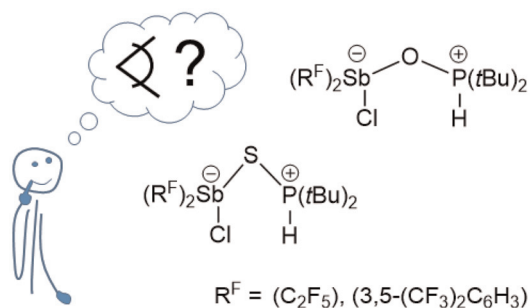
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Quantum tunnelling effect in the *cis-trans* isomerization of uranyl tetrahydroxide

Yeshayahu Ben-Eliyahu* and Sebastian Kozuch*

16280



Adducts of Lewis acidic stibanes with phosphane chalcogenides

Jonas Krief, Hannah Koch, Beate Neumann, Hans-Georg Stammer, Jan-Hendrik Lamm, Andreas Mix and Norbert W. Mitzel*

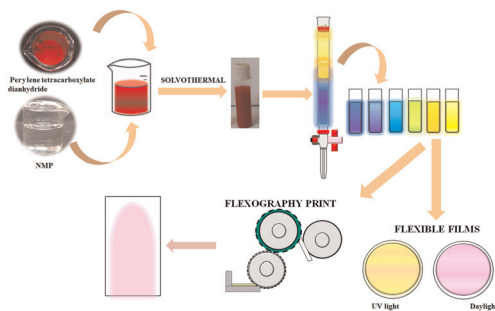


PAPERS

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Yellow emissive and high fluorescence quantum yield carbon dots from perylene-3,4,9,10-tetracarboxylic dianhydride for anticounterfeiting applications

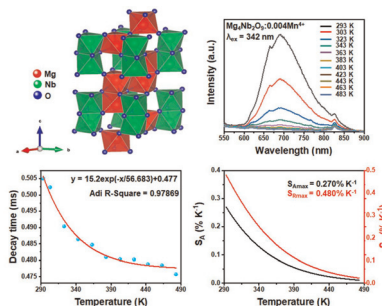
Namratha Ullal, Bibekananda Sahoo, Dhanya Sunil,*
Suresh D. Kulkarni, Udaya Bhat K. and Anand P. J.



16303

Mn⁴⁺-doped rare-earth-free Mg₄Nb₂O₉ phosphors for optical temperature sensing

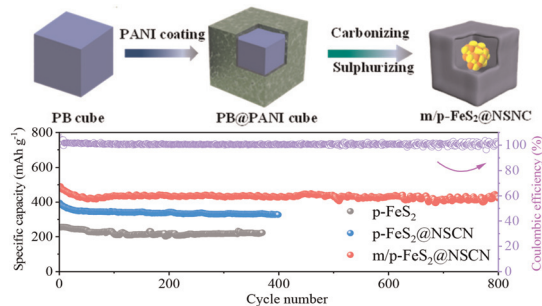
Weiwei Xiang and Jae Su Yu*



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Marcasite/pyrite nanocomposites confined in N,S-doped carbon nanoboxes for boosted alkali metal ion storage

Jie Wang, Jinwen Qin,* Minxia Jiang, Yixin Wang,
Baifeng Yang* and Minhua Cao*



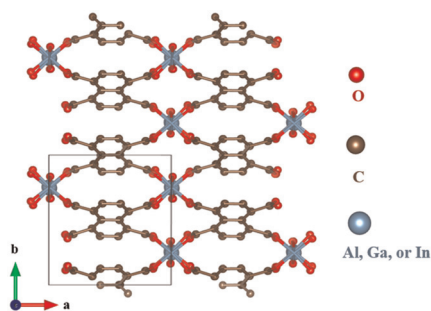
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Platinum(II) bis(arylacetyl) complexes bearing diarylamino-substituted bipyridine ligands for solution-processable phosphorescent OLED applications

Wai-Yeung Wong,* Zheng Xie, Qiwei Wang, Lu Jiang,
Junlong Li, Baohua Zhang, Xiuyu Yi, Zhiyuan Xie* and
Jianzhang Zhao



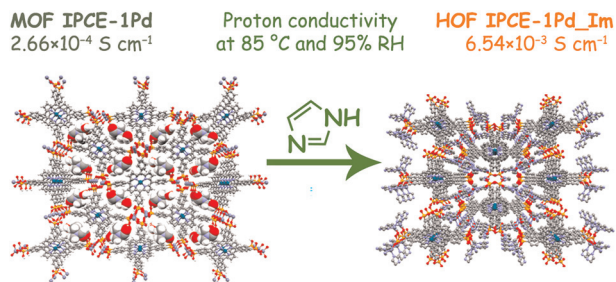
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Compositional dependence of uniaxial zero thermal expansion and zero linear compressibility in metal–organic framework MIL-122 (Al, Ga, In)

Lei Wang,* Ying Chen and Cong Wang

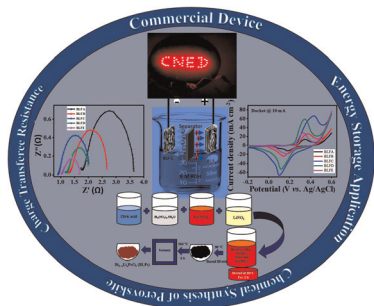
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An unexpected imidazole-induced porphyrinylphosphonate-based MOF-to-HOF structural transformation leading to the enhancement of proton conductivity

Ekaterina A. Zhigileva, Yulia Yu. Enakieva,* Vladimir V. Chernyshev,* Ivan N. Senchikhin, Liudmila I. Demina, Alexander G. Martynov, Irina A. Stenina, Andrey B. Yaroslavtsev, Yulia G. Gorbunova and Aslan Yu. Tsvadze

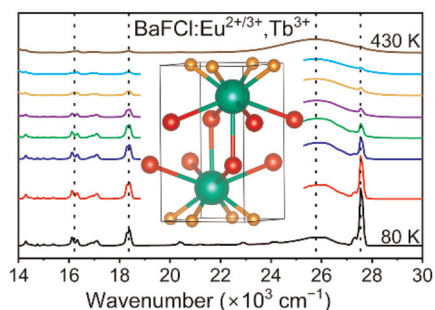
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A simple but efficient Li-doping approach for enhancing supercapacitor performance of the BiFeO₃ perovskite nanostructures

Yaser A. Al-Hasani, Tariq M. Al-Hejri, Vijaykumar V. Jadhav* and Rajaram S. Mane*

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Luminescence of nanocrystalline BaFCl codoped with Eu^{2+/3+} and Tb³⁺

Nishani T. Manamperi, Sachini W. Sivirathne, Alyssa M. Erlenbeck, S. Sameera Perera and Federico A. Rabuffetti*

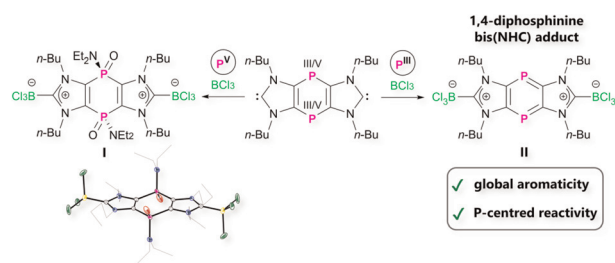


PAPERS

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Synthesis of P-bridged, planar bis(NHC) BCl₃ adducts

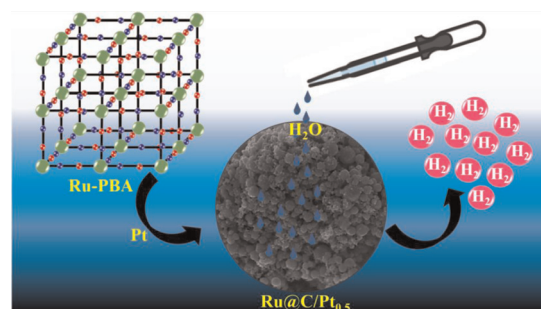
Tatjana Terschüren, Gregor Schnakenburg and Rainer Streubel*



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Ru Prussian blue analogue-derived Ru nanoparticles composited with a trace amount of Pt as an efficacious electrocatalyst for the hydrogen evolution reaction

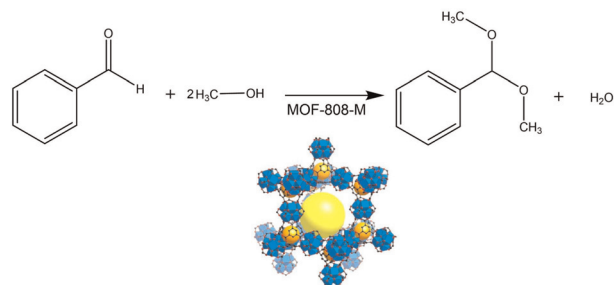
Manisha Sadangi, Chandrima Chakravarty, Joydeep Bhattacharjee* and J. N. Behera*



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Catalytic evaluation of MOF-808 with metallic centers of Zr(IV), Hf(IV) and Ce(IV) in the acetalization of benzaldehyde with methanol

Yazmín Arellano, César Pazo, Vanesa Roa, Yoan Hidalgo-Rosa, Ximena Zarate, Jaime Llanos, Nestor Escalona and Eduardo Schott*



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Sonohydrothermal synthesis of zeolite A and its phase transformation into sodalite

William's Nzodom Djozing, Sabine Valange, Sergey I. Nikitenko and Tony Chave*

