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See Hongwei Ma, Hui Li et al.,
pp. 9145–9159.

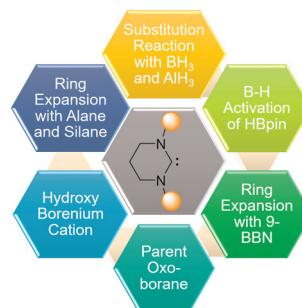
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2025, **54**, 9145.

PERSPECTIVE

9113

Development of six-membered saturated cyclic diaminocarbenes in main-group chemistry

Gargi Kundu and Sakya S. Sen*



FRONTIER

9125

Chemistry of silylated rare earths and heavier f-elements: ready to enter the next stage

Christoph Marschner

21 Sc ✓	58 Ce ✓	59 Pr ✓	60 Nd ✓	61 Pm ✓	62 Sm ✓	63 Eu ✓	64 Gd ✓	65 Tb ✓	66 Dy ✓	67 Ho ✓	68 Er ✓	69 Tm ✓	70 Yb ✓	71 Lu ✓	
30 Y ✓	89 Ac ✓	90 Th ✓	91 Pa ✓	92 U ✓	93 Np ✓	94 Pu ✓	95 Am ✓	96 Cm ✓	97 Bk ✓	98 Cf ✓	99 Es ✓	100 Fm ✓	101 Md ✓	102 No ✓	103 Lr ✓

Substantial progress has been accomplished in the field of silylated rare earths (RE) and f-element complexes in the last few years. Apart from radioactive Pm, examples of silylated complexes are known for all RE elements. For a number of f-elements silylene and silole complexes have been prepared.

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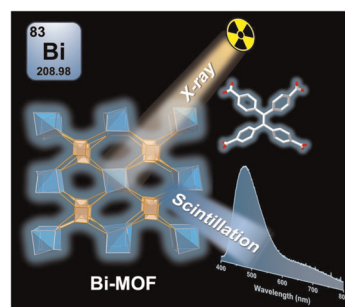
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COMMUNICATIONS

9130

Emergence of a bismuth-based metal–organic framework as an X-ray scintillator

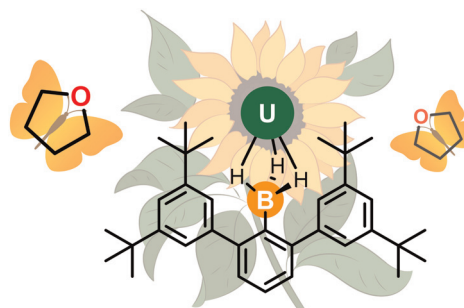
Peng Lin, Junpu Yang, Weinan Sun, Xiaoyuan Zhou, Fangbo Zhao* and Jian Lin*



9135

Synthesis of bulky hydride ligands: *m*-terphenylborohydride complexes with trivalent uranium and neodymium

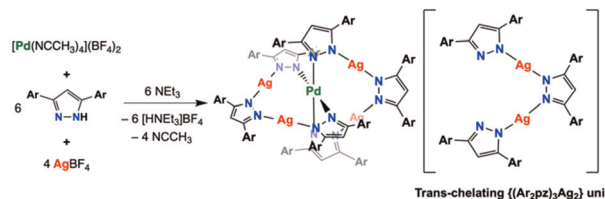
Peter A. Zacher III, Daniel K. Unruh and Scott R. Daly*



9140

Heteropolynuclear PdAg₄ complexes with self-assembled *trans*-chelating {(Ar₂pz)₃Ag₂} units

Kana Kinoshita, Yiming Yang, Shiho Nagano, Shinnosuke Horiuchi,* Yoshihide Nakao, Kenichiro Omoto, Eri Sakuda, Yasuhiro Arikawa and Keisuke Umakoshi*

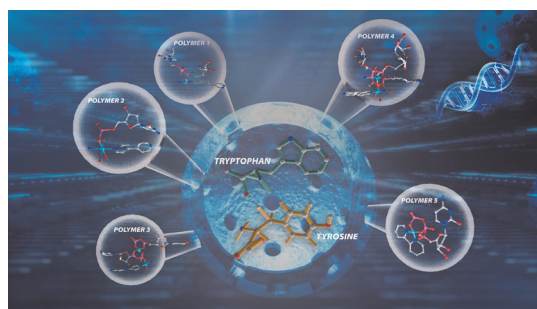


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9145

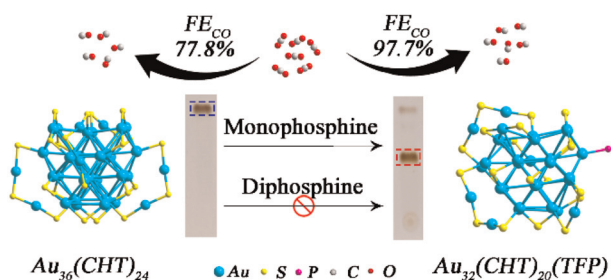
Structural diversity of nucleotide coordination polymers of cytidine mono-, di-, and tri-phosphates and their selective recognition of tryptophan and tyrosine

Yaqoot Khan, Yunyun Du, Li Yan, Niu Zhang, Menglei Zhang, Hongwei Ma* and Hui Li*



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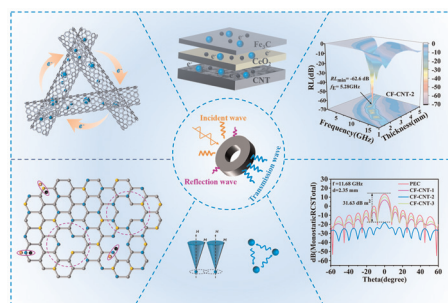
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Phosphine-induced conversion from Au_{36} to Au_{32} for constructing a high-performance CO_2RR catalyst

Jiansheng Ye, Yali Dai, Wenjun Liu, Jingrou Xu, Jialing Li, Meng Chen, Sha Yang, Qinzhen Li,* Yuanxin Du,* Jinsong Chai* and Manzhou Zhu

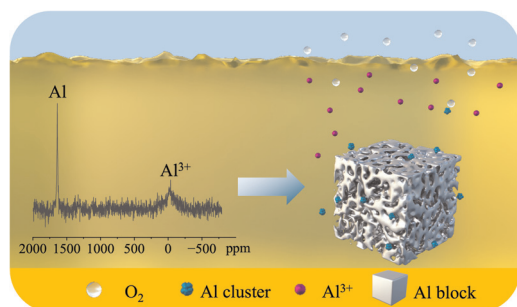
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Toward enhancing the electromagnetic wave absorption performance of CeFe-PBA derived composites: morphology control

Xuan Zhang, Xueling Wang, Hongbo Ta and Zhiliang Liu*

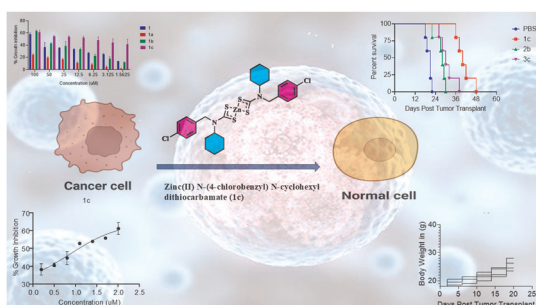
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Dissolution of zero-valent Al and its structural transformation in chloride molten salts

Junheng Yingsu, Yiyang Liu, Jianchao Sun, Hailong Huang, Ling Han, Min Ge, Xiaobin Fu,* Yuan Qian* and Hongtao Liu*

9187



Structural insights and *in vitro* and *in vivo* anticancer evaluation of dithiocarbamate-based metal complexes against murine lymphoma

Anupam Singh, Riya Patel, Samrat Daripa, M. K. Bharty, R. J. Butcher, Sumit Kumar Hira* and Lal Bahadur Prasad*

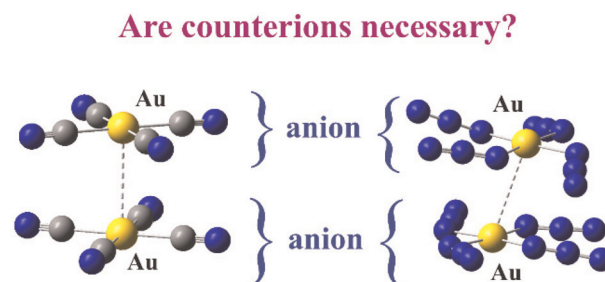


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Unusually short Au(III)⋯Au(III) aurophilic contacts between anions. Necessity of counterions

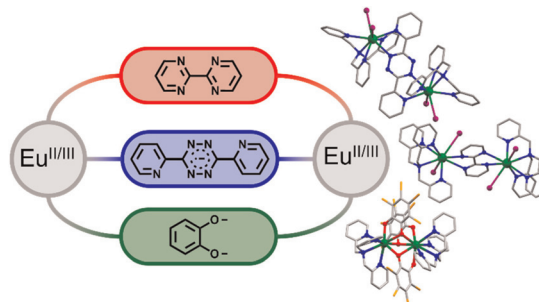
Steve Scheiner,* Mariusz Michalczyk and Wiktor Zierkiewicz*



9208

Enhancing redox functionality in dinuclear europium complexes

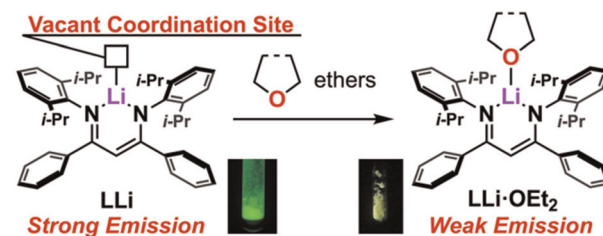
Nithin Suryadevara, Stanley Bagio, Moya A. Hay, Robert W. Gable and Colette Boskovic*



9219

Impact of ether coordination on the solid-state luminescence of a lithium β-diketiminato complex

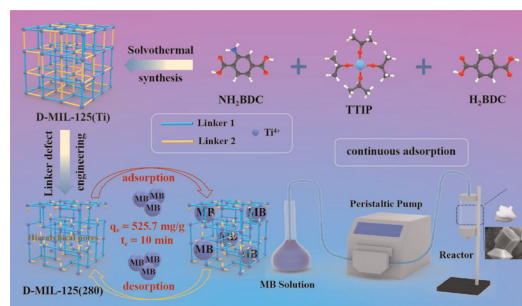
Shunichiro Ito, Kazuo Tanaka* and Yoshiki Chujo



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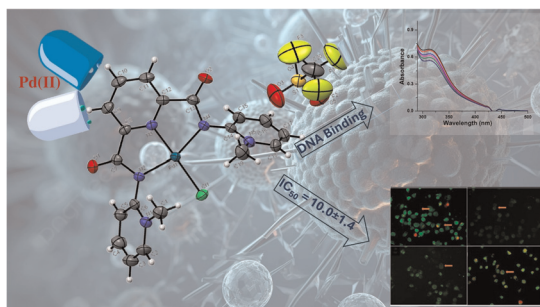
A hierarchical titanium(IV)-based metal–organic framework with oxygen vacancies for enhanced methylene blue adsorption in a wide pH range

Zhongmin Liu, Wencheng Wang, Xiaolei Zhang, Yongzheng Zhang, Xiaoli Wang, Zhen Li, Yumei Li,* Jiahui Zhang, Jinyong Fan and Longlong Geng*



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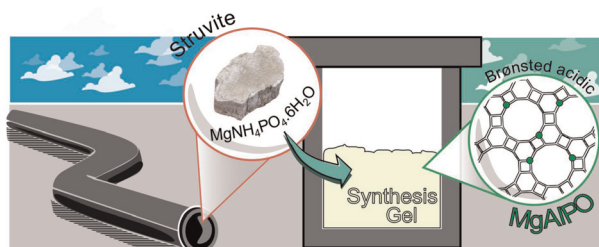
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Water soluble palladium complexes bearing NNN-pincer ligands: synthesis, DFT modeling, cT-DNA interactions and *in vitro* cytotoxicity studies against breast cancer cell lines

Hafiz Muhammad Rizwan Sarwar, Muhammad Jamshaid, Sara Masood, Gul-e-Saba Chaudhry,* Sameen Fatima, Itrat Zahra, Arusa Akhtar, Muhammad Nawaz Tahir, Ehsan Ullah Mughal and M. Naveed Zafar*

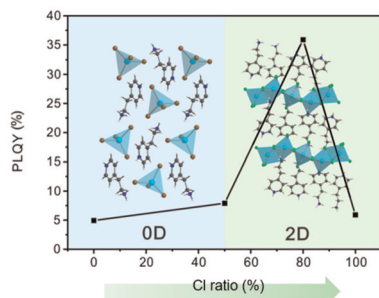
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A “waste” of time?: the synthesis of a magnesium-substituted aluminophosphate from an unconventional source of magnesium

Catherine H. Crockett, Jessica R. Bedward, Phoebe K. Clayton, John S. O. Evans, H. Christopher Greenwell and Russell A. Taylor*

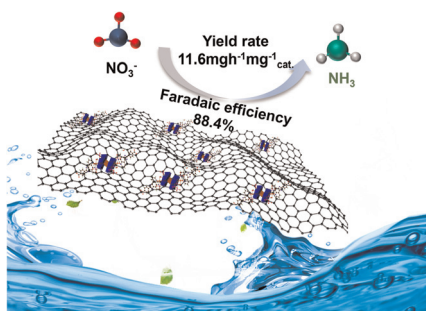
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Dimensionality-driven photoluminescence enhancement in Cl/Br mixed-halide organic–inorganic hybrid cadmium halides

Boyoung Kim and Kang Min Ok*

9270



Polyoxometalate-based complex@graphene composite electrodes for efficient nitrate reduction to ammonia

Nan Zhao, Xinming Wang,* Shuang Rong, Qiushuang Jiang, Haoyun Li, Haijun Pang* and Huiyuan Ma

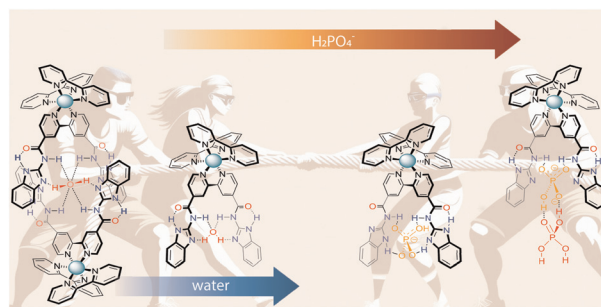


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Interpreting solvent effects on complex dihydrogenphosphate binding using amidobenzimidazole functionalised emissive ruthenium diimine complexes

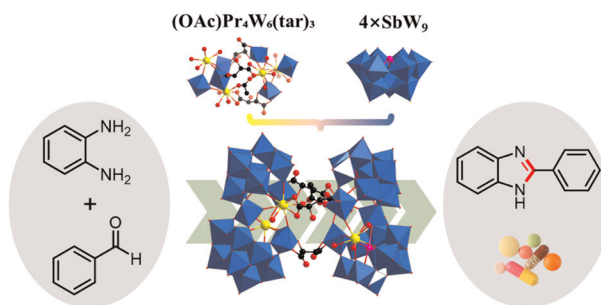
Andrew J. Stocker, Chloe L. Howells and Nicholas C. Fletcher*



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A tetranuclear Pr–W heterometal cluster-embedded antimotungstate for the catalytic synthesis of benzimidazoles

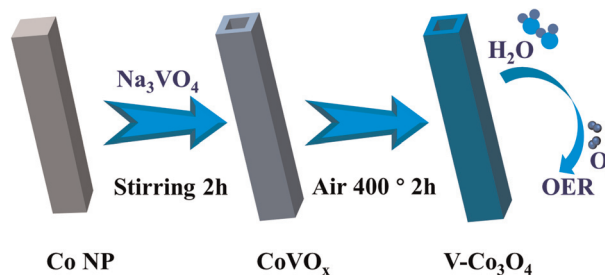
Zhijian Zheng, Song Jiang, Xuejiao Chen, Haoqi Liu, Yufeng Liu, Yayu Dong, Xiaopeng Sun* and Guoping Yang*



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V doped hollow Co₃O₄ nanoprisms with a modulated electronic structure for high-performance oxygen evolution reaction

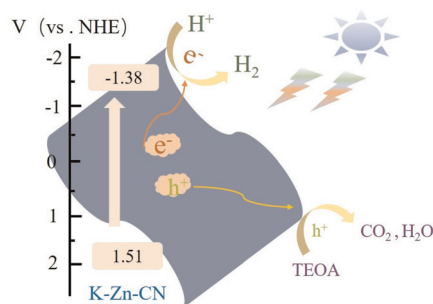
Yanqiang Li, Junyan Chen, Haojie Dong, Zineng Dong, Chenxi Zhang* and Siru Chen*



9303

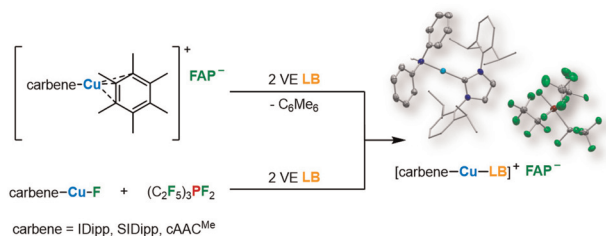
Dual-metal-doped high crystalline carbon nitride with cyano groups for enhanced photocatalytic hydrogen evolution

Lu Chen, Kaijie Zhang, Yuzhou Xia, Guiyang Yan, Feng Chen, Xiyao Liu* and Renkun Huang*



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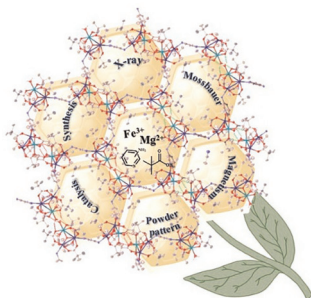
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Tris(pentafluoroethyl)difluorophosphorane for fluoride abstraction and ligand exchange reactions of N-heterocyclic carbene and cyclic alkyl(amino) carbene copper(i) fluorides

Melanie Riethmann, Steffen A. Föhrenbacher, Christian Luz, Nikolai V. Ignat'ev, Maik Finze* and Udo Radius*

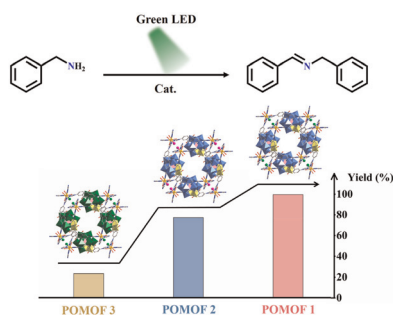
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Trinuclear [Fe₂^{III}–Mg^{II}] compounds with amino-pyridines as precursors for supported C=C bond hydrogenation catalysts at atmospheric pressure in a plug-flow reactor

Kseniya A. Koshenskova, Yana A. Tigai, Denis N. Nebykov,* Anastasia V. Lagutina, Vladimir M. Mokhov, Fedor M. Dolgushin, Lada S. Razvorotneva, Nikolay N. Efimov, Konstantin A. Babeshkin, Natalia V. Gogoleva, Vladimir K. Imshennik, Sergey V. Novichikhin, Igor L. Eremenko and Irina A. Lutsenko*

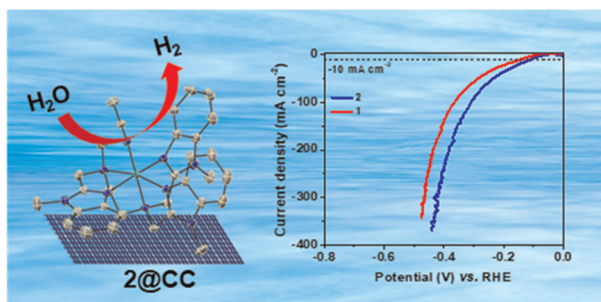
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Dual tuning of nodes and functional guests of polyoxometalate@metal–organic frameworks for enhanced photocatalytic oxidative coupling

Zhiqiang Jiang, Qixin Zhao, Yang Zeng, Tengfei Gong, Zhenxuan Huang, Zeyu Chen, Jiefeng Shen* and Weimin Xuan*

9346



Molecular Ru(II) complexes with universal pH hydrogen evolution performance

Rakesh Kumar, Baghendra Singh and Apparao Draksharapu*

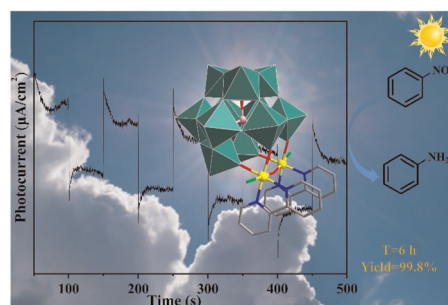


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Facile synthesis of a Ru-based polyoxometalate for efficient reduction of nitrobenzene

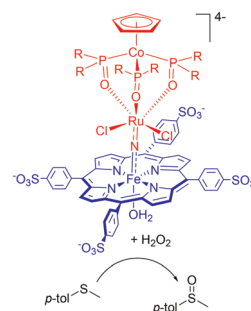
Shihao Zhang, Yahao Sun, Wenjing Chen, Huafeng Li, Kunhong Li, Pengtao Ma, Jingping Wang* and Jingyang Niu*



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A water-soluble heterometallic iron(IV)–ruthenium(IV) μ -nitrido porphyrin complex: synthesis, structure and catalytic activity

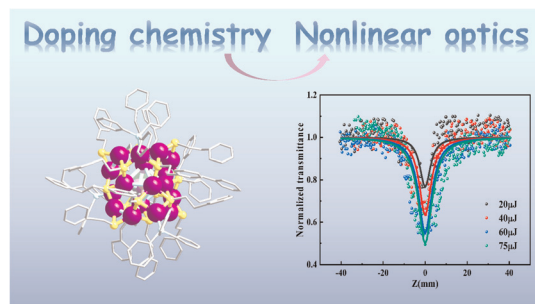
Rain Ng, Wai-Man Cheung, Cheuk-Pui Leung, Chun Kit Au, Yat-Ming So, Herman H.-Y. Sung, Wan Chan,* Ian D. Williams* and Wa-Hung Leung*



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A chloride-doped Cu_{18} nanocluster: synthesis, bonding and nonlinear optical properties

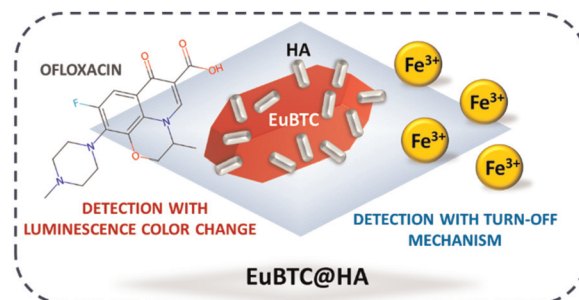
Xuekun Gong, Chan Zheng, Dongjie Zuo, Simin Li,* Wei-Hui Fang* and Hui Shen*



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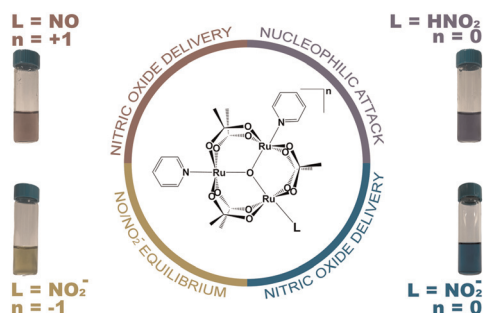
A novel luminescent EuBTC@HA composite with dual sensing properties

Weronika Bodylska,* Adam W. Augustyniak, Dariusz C. Bieńko and Marzena Fandzloch*



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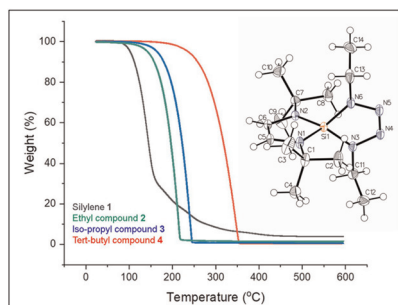
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Reactivity of trinuclear ruthenium acetates with nitrite and nitric oxide ligands in aqueous media

Hugo E. Barbosa, Amanda B. da Silva, Pedro H. O. Nazar, Renan R. Bertoloni, Antonio G. S. de Oliveira-Filho and Sofia Nikolaou*

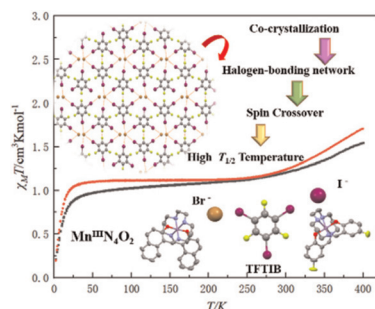
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Synthesis, characterization, and thermal properties of volatile 1,4-dialkyl-5-silatetrazolines: nitrogen-rich silicon heterocycles as possible CVD precursors for silicon nitride

Vincent J. Flores and Gregory S. Girolami*

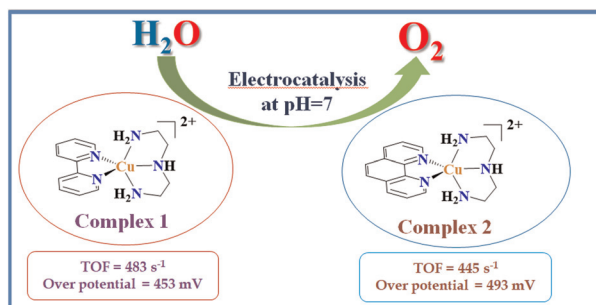
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Halogen bond-enhanced spin dynamics: investigating co-crystallization effects on spin crossover in mononuclear Mn(III) Schiff-base complexes

Sheng-Ze Zhao, Li-Wen Chen, Hai Zhu, Hao-Zhe Zhang, Chang Liu, Chun-Yan Qin, Hai-Ying Wang,* Yong-Hua Li and Shi Wang*

9418



Enhancing electrocatalytic water oxidation: ligand complementarity in ternary Cu(II) complexes

Pranjal Das, Hemrupa Kuilya, Swati Basak, Baisali Hazarika, Joydeep Ray, Debajit Sarma, Diganta Choudhury and Apurba Kalita*

