

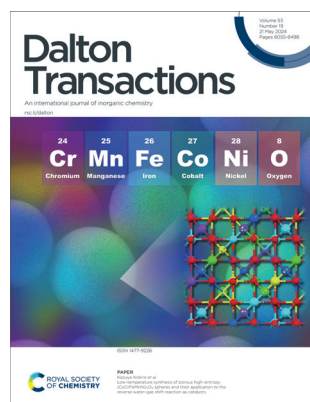
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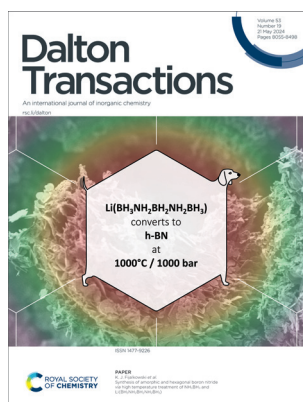
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ISSN 1477-9226 CODEN DTARAF 53(19) 8055–8498 (2024)



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See Kazuya Kobi et al.,
pp. 8124–8134.

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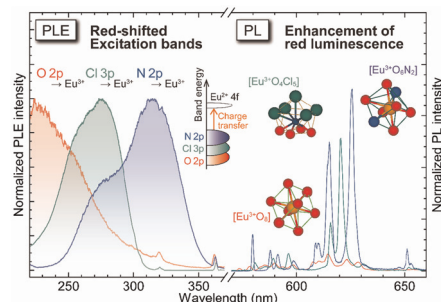
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PERSPECTIVE

8069

A brief review of characteristic luminescence properties of Eu^{3+} in mixed-anion compounds

Yuuki Kitagawa,* Jumpei Ueda and Setsuhisa Tanabe

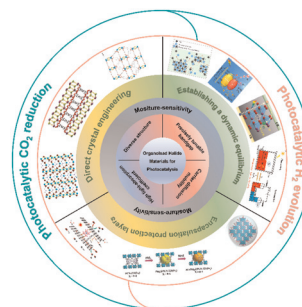


FRONTIER

8093

Recent advances in organolead halide crystalline materials for photocatalytic H_2 evolution and CO_2 reduction applications

Xueling Song, Xiaoman Li, Yuxuan Song, Jingyi Bi, Lei Wang, Jigao Wang, Junjie Liu, Yanyan Li and Hui Wang*



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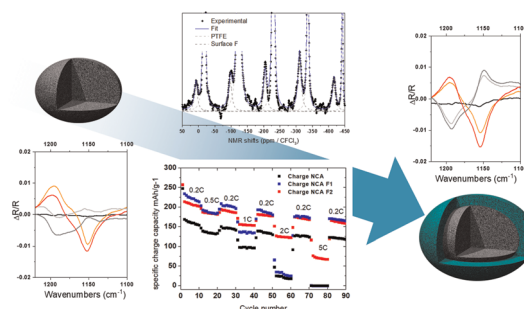
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COMMUNICATIONS

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Insights into a surface-modified $\text{Li}(\text{Ni}_{0.80}\text{Co}_{0.15}\text{Al}_{0.05})\text{O}_2$ cathode by atomic layer fluorination for improved cycling behaviour

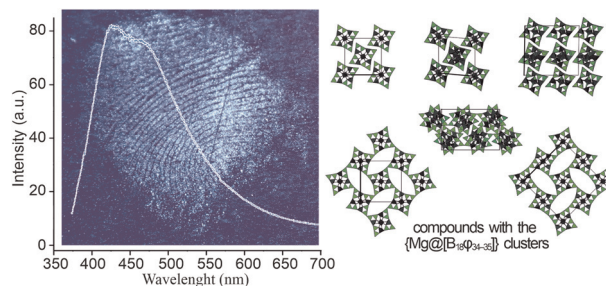
Youn Charles-Blin, Oumaima Hatim, Mélissa Clarac, Anne-Marie Perbost, Solveine Liminana, Laura Lopez, Olinda Gimello, Katia Guérin, Marc Dubois, Michael Deschamps, Delphine Flahaut, Hervé Martinez, Laure Monconduit and Nicolas Louvain*



8112

Magnesium cations as templates for the self-assembly of supramolecular luminescent $\{\text{Mg}@\text{B}_{18}\Phi_{34-35}\}$ -clusters

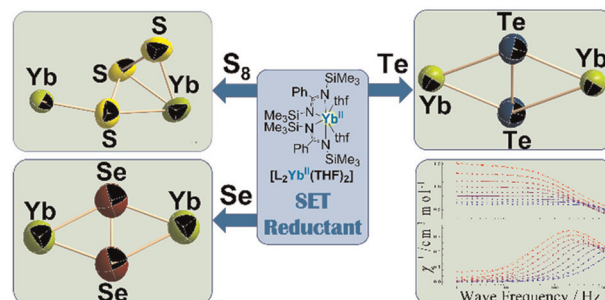
Sergey Volkov,* Valentina Yukhno, Alexander Banaru, Dina Deyneko, Sergey Aksenov, Dmitri Charkin, Alexey Povolotskiy, Yevgeny Savchenko, Andrey Antonov, Maria Krzhizhanovskaya, Valery Ugolkov, Vera Firsova, Yulia Vaitieva, Kirill Boldyrev and Rimma Bubnova



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Dinuclear ytterbium(III) benzamidinate complexes with bridging S_3^{2-} , Se_2^{2-} and Te_2^{2-} ligands: synthesis, structure and magnetic properties

Ying-Zhao Ma,* Lian Yu, Qi Zhou and Wensheng Fu*

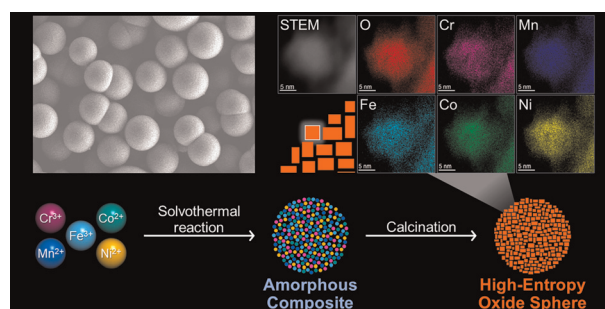


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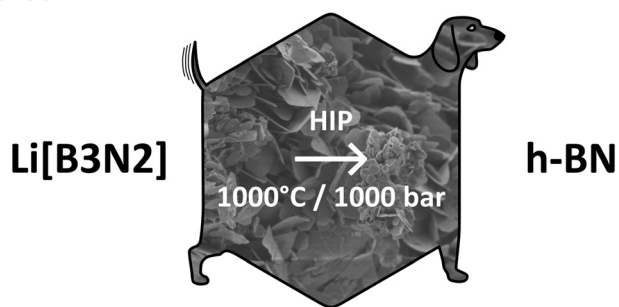
Low-temperature synthesis of porous high-entropy $(\text{CoCrFeMnNi})_3\text{O}_4$ spheres and their application to the reverse water–gas shift reaction as catalysts

Ayano Taniguchi, Takeshi Fujita and Kazuya Kobiro*



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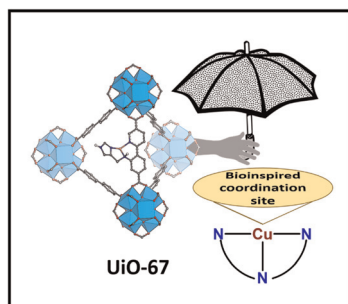
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Synthesis of amorphous and hexagonal boron nitride via high temperature treatment of NH₃BH₃ and Li(BH₃NH₂BH₂NH₂BH₃)

A. Prus, R. Owarzany, D. Jezierski, K. Perkowski and K. J. Fijalkowski*

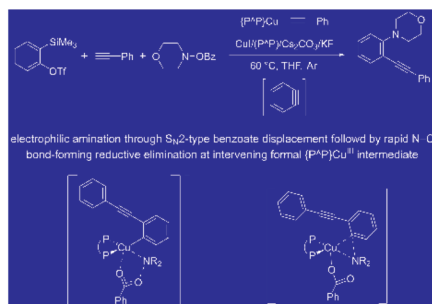
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Enabling a bioinspired *N,N,N*-copper coordination motif through spatial control in UiO-67: synthesis and reactivity

Isabelle Gerz, Erlend S. Aunan, Valeria Finelli, Mouhammad Abu Rasheed, Gabriele Deplano, Rafael Cortez S. P., Inga L. Schmidtke, David S. Wragg, Matteo Signorile, Knut T. Hylland, Elisa Borfecchia, Karl Petter Lillerud, Silvia Bordiga,* Unni Olsbye* and Mohamed Amedjkouh*

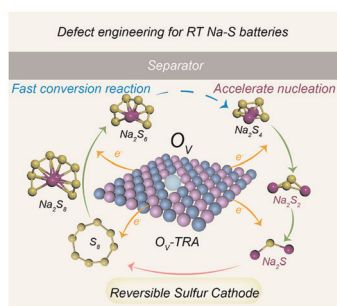
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Copper-catalysed electrophilic carboamination of terminal alkynes with benzyne looked at through the computational lens

Sven Tobisch

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Defect engineering of a TiO₂ anatase/rutile homojunction accelerating sulfur redox kinetics for high-performance Na-S batteries

Yue Xiao, Yelei Zheng, Ge Yao,* Yuhang Zhang, Zhiqiang Li, Shoujie Liu* and Fangcai Zheng*

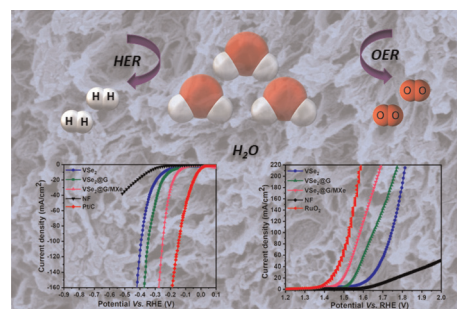


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Three-dimensional bimodal pore-rich G/MXene sponge amalgamated with vanadium diselenide nanosheets as a high-performance electrode for electrochemical water-oxidation/reduction reactions

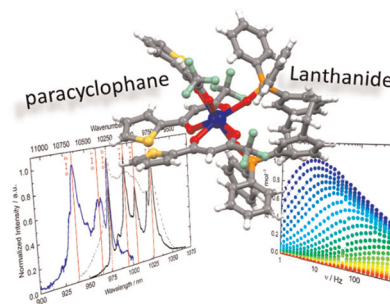
Khadija Chaudhary, Sonia Zulfiqar, Zeid A. ALOthman, Imran Shakir, Muhammad Farooq Warsi* and Eric W. Cochran*



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Magneto-structural correlation in lanthanide luminescent [2.2]paracyclophane-based single-molecule magnets

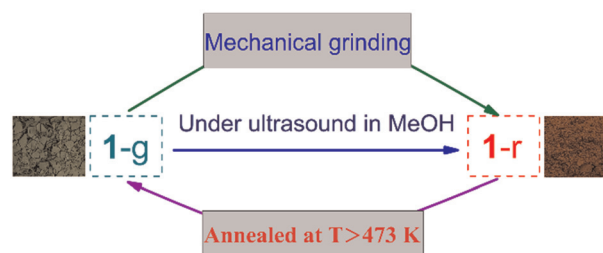
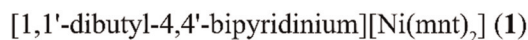
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Polymorph transformation in a mixed-stacking nickel-dithiolene complex with the derivative of 4,4'-bipyridinium

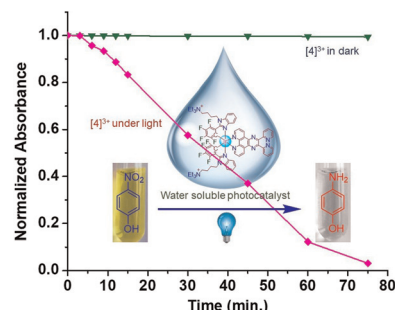
Yan Gao, Lei Xu, Zi-Heng Feng, Yin Qian,* Zheng-Fang Tian and Xiao-Ming Ren*



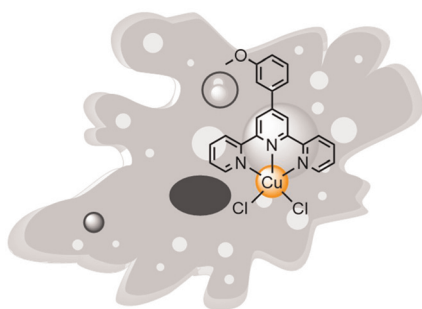
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Aqueous emissive cyclometalated iridium photoreductants: synthesis, computational analysis and the photocatalytic reduction of 4-nitrophenol

Saumyanarjan Mishra and Srikanta Patra*



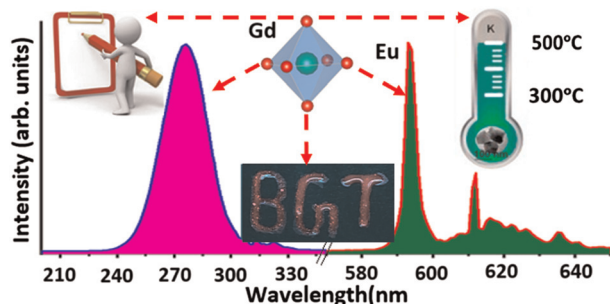
8223



Highly cytotoxic Cu(II) terpyridine complexes as chemotherapeutic agents

Kaixin Ni, Nicolás Montesdeoca and Johannes Karges*

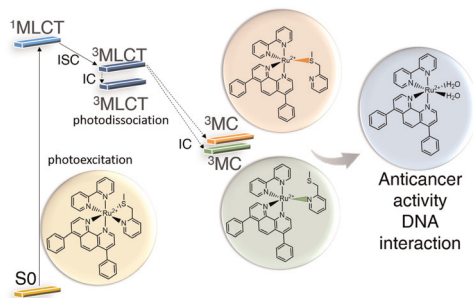
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Comprehension of the photoinduced charge transfer assisted energy transfer in Gd^{3+} -based host sensitized tellurate phosphors for thermal sensing and anticounterfeiting labels

Bhagyalekshmi G.L. and Subodh Ganesanpotti*

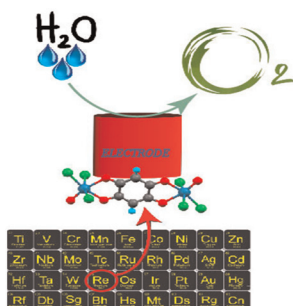
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A detailed density functional theory exploration of the photodissociation mechanism of ruthenium complexes for photoactivated chemotherapy

Daniele Belletto, Fortuna Ponte,* Gloria Mazzone and Emilia Sicilia*

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Electrochemical water oxidation reaction by dinuclear Re(V) oxo complexes with a 1,4-benzoquinone core via the redox induced electron transfer (RIET) process

Uday Shee, Debopam Sinha, Sandip Mondal* and Kajal Krishna Rajak*

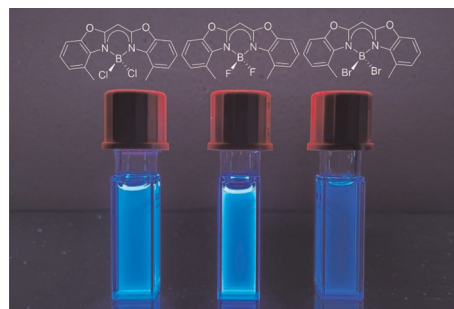


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Boron bis-(4-methylbenzoxazol-2-yl)-methanide complexes

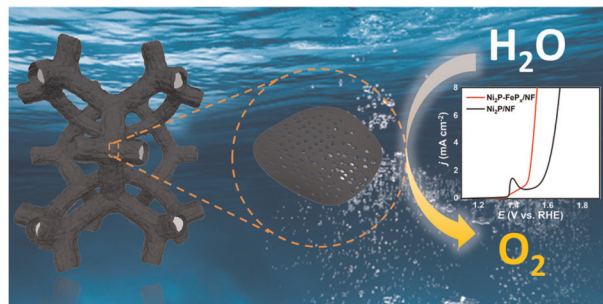
Xiaobai Wang, Franziska Rüttger, Johannes Kretsch, Anne Kreyenschmidt, Regine Herbst-Irmer and Dietmar Stalke*



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Interfacial charge transfer in sheet $\text{Ni}_2\text{P}-\text{FeP}_x$ heterojunction to promote the study of electrocatalytic oxygen evolution

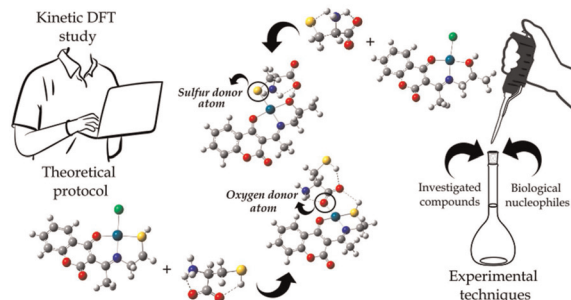
Qiangqiang Wang, Xuejing Liu, Xiang Ren, Xu Sun, Xuan Kuang, Dan Wu* and Qin Wei*



8275

Influence of acid–base equilibrium on interactions of some monofunctional coumarin $\text{Pd}(\text{II})$ complexes with biologically relevant nucleophiles—comprehensive kinetic study

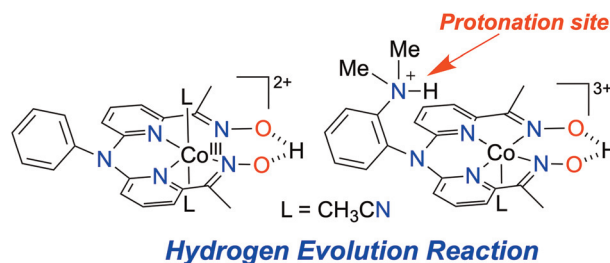
Žiko Milanović,* Zoran Marković, Ana Kesić, Snežana Jovanović Stević, Biljana Petrović and Edina Avdović



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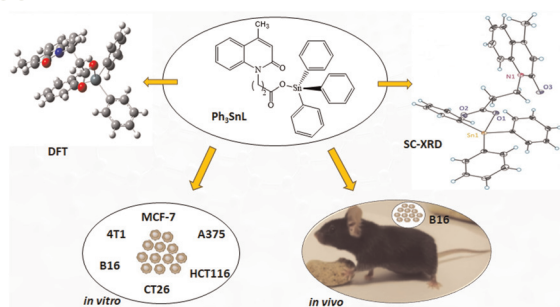
Exploring the effect of a pendent amine group poised over the secondary coordination sphere of a cobalt complex on the electrocatalytic hydrogen evolution reaction

Afsar Ali, Rajaneesh Kumar Verma, Avijit Das and Sayantan Paria*



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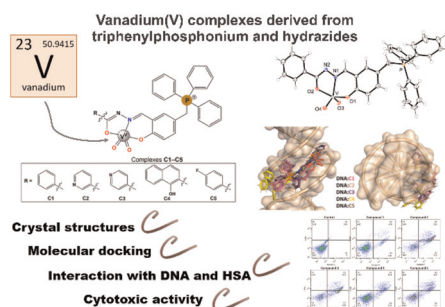
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Novel triphenyltin(IV) compounds with carboxylato *N*-functionalized 2-quinolones as promising potential anticancer drug candidates: *in vitro* and *in vivo* evaluation

Marijana P. Kasalović, Sanja Jelača, Žiko Milanović, Danijela Maksimović-Ivanić, Sanja Mijatović, Jelena Lađarević, Bojan Božić, Zoran Marković, Duško Dunđerović, Tobias Rüffer, Robert Kretschmer, Goran N. Kaluđerović* and Nebojša Đ. Pantelić*

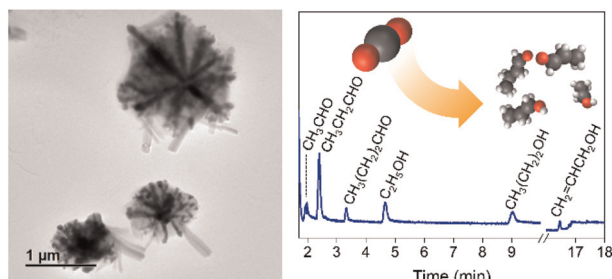
8315



Vanadium(v) complexes derived from triphenylphosphonium and hydrazides: cytotoxicity evaluation and interaction with biomolecules

Francisco Mainardi Martins, Bernardo Almeida Iglesias, Otávio Augusto Chaves, Jean Lucas Gutknecht da Silva, Daniela Bitencourt Rosa Leal and Davi Fernando Back*

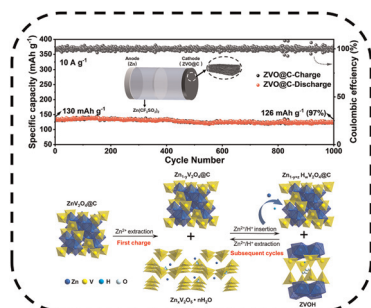
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Snowflake relocated Cu₂O electrocatalyst on an Ag backbone template for the production of liquid C₂₊ chemicals from CO₂

Youjin Lee, Minjun Choi, Soan Bae, Akhil Tayal, Okkyun Seo, Hojoon Lim, Kug-Seung Lee, Jae Hyuck Jang, Beomgyun Jeong* and Jaeyoung Lee*

8335



Porous layered ZnV₂O₄@C synthesized based on a bimetallic MOF as a stable cathode material for aqueous zinc ion batteries

Bingbing Dai, Xixun Shen,* Tiantian Chen, Jian Li and Qunjie Xu*

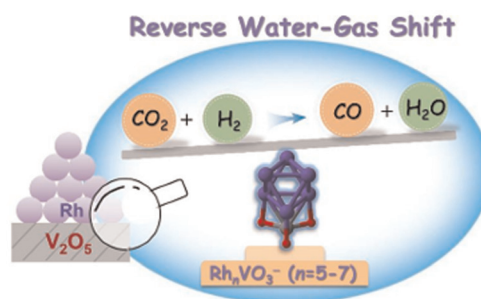


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Reverse water–gas shift catalyzed by $\text{Rh}_n\text{VO}_{3,4}^-$ ($n = 3-7$) cluster anions under variable temperatures

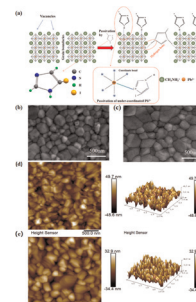
An Zhao, Qing-Yu Liu, Zi-Yu Li, Xiao-Na Li* and Sheng-Gui He*



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Multifunctional chemical anchors achieve a boosted fill factor and mitigate ion migration of high-stability perovskite solar cells

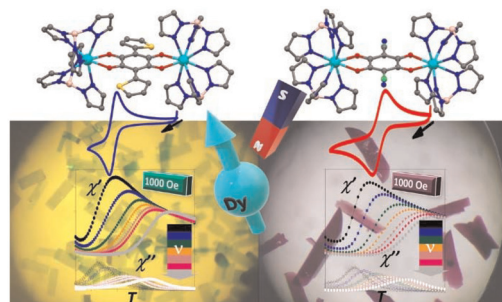
Jun Han, Dandan Luo, Wei Huang, Fei Wang,* Chong Jia, Xinhua Li and Yiqing Chen*



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Tuning the slow magnetic relaxation with the substituents in anilate bridged bis(dysprosium) complexes

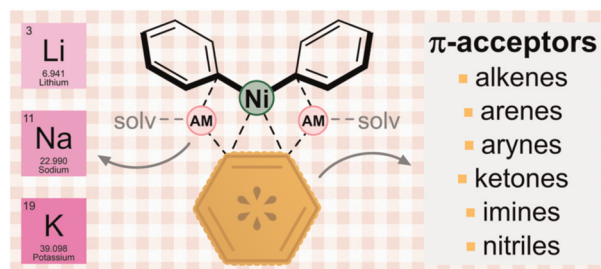
Fabio Manna, Mariangela Oggianu, José Ramón Galán-Mascarós, Flavia Pop, Boris Le Guennic, Maria Laura Mercuri* and Narcis Avarvari*



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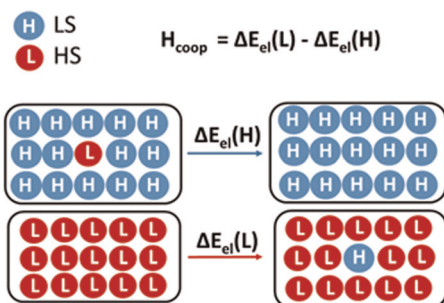
The coordination of alkali–metal nickelates to organic π -systems: synthetic, structural and spectroscopic insights

Andrzej M. Borys,* Luca Vedani and Eva Hevia*



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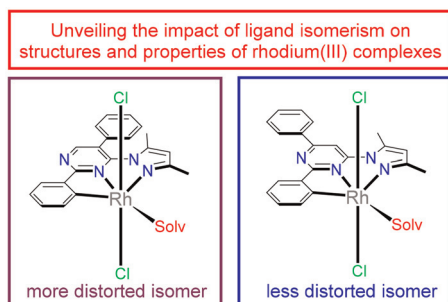
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Quantification of the thermodynamic effects of the low-spin – high-spin interaction in molecular crystals of a mononuclear iron(II) spin crossover complex

Juliusz A. Wolny,* Konstantin Gröpl, Jonathan Kiehl, Eva Rentschler and Volker Schünemann

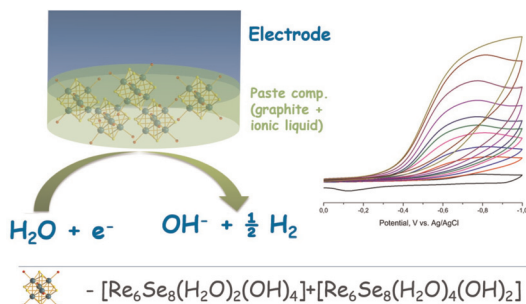
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N^{^N}C-Cyclometalated rhodium(III) complexes with isomeric pyrimidine-based ligands: unveiling the impact of isomerism on structural motifs, luminescence and cytotoxicity

Sofia N. Vorobyeva,* Sof'ya A. Bautina, Nikita A. Shekhovtsov,* Elena B. Nikolaenkova, Taisiya S. Sukhikh, Yuliya A. Golubeva, Lyubov S. Klyushova, Viktor P. Krivopalov, Marianna I. Rakhmanova, Christophe Gourlaouen and Mark B. Bushuev*

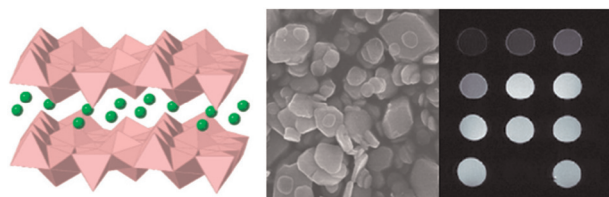
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Can Re cluster complexes be an efficient catalyst for hydrogen evolution reaction? Insights from experiments and computations

Mikhail Khrizanforov, Bulat Akhmadeev,* Polina Milyukova, Asiya Mustafina, Almaz Zinnatullin, Arthur Khannanov, Renat Nazmutdinov, Konstantin Brylev, Qi Shao and Rustem Zairov*

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Layered rare-earth hydroxides as multi-modal medical imaging probes: particle size optimisation and compositional exploration

Margarita Strimaite, Connor J. R. Wells, Timothy J. Prior, Daniel J. Stuckey, Jack A. Wells, Gemma-Louise Davies* and Gareth R. Williams*

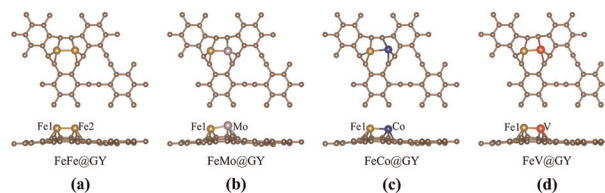


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Theoretical exploration of the nitrogen fixation mechanism of two-dimensional dual-metal FeTM@GY (TM = Fe, Mo, Co, and V) electrocatalysts

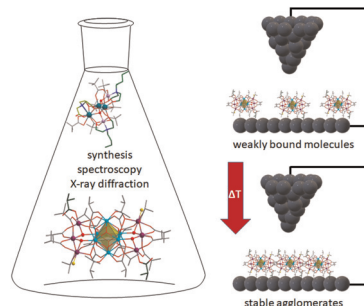
Lin Yuan, Qinglong Fang* and Baiyu Zhang



8454

Synthesis and structures of cobalt-expanded zirconium- and cerium-oxo clusters as precursors for mixed-metal oxide thin films

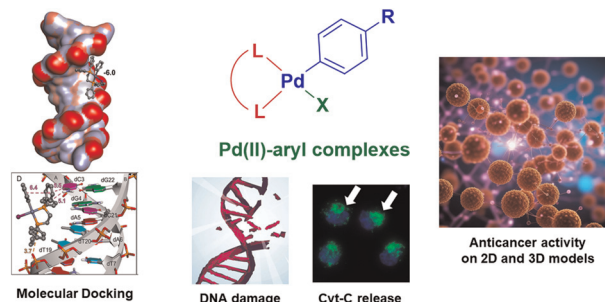
Maximilian Seiß, Jonas Lorenz, Sebastian Schmitz, Marco Moors, Martin Börner and Kirill Yu. Monakhov*



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Unveiling the promising anticancer activity of palladium(II)–aryl complexes bearing diphosphine ligands: a structure–activity relationship analysis

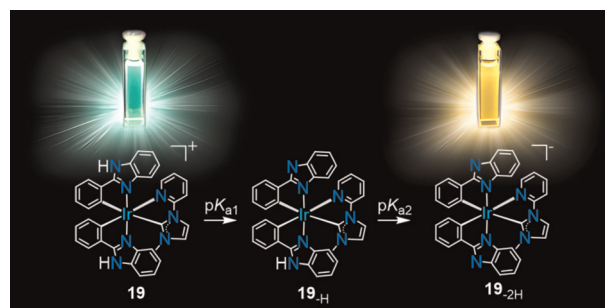
Giovanni Tonon, Matteo Mauceri, Enrico Cavarzerani, Rachele Piccolo, Claudio Santo, Nicola Demitri, Laura Orian, Pablo A. Nogara, João Batista T. Rocha, Vincenzo Canzonieri, Flavio Rizzolio,* Fabiano Visentin* and Thomas Scattolin*



8478

Experimental and theoretical studies of pH-responsive iridium(III) complexes of azole and N-heterocyclic carbene ligands

Tahmineh Hashemzadeh, Andrew J. Christofferson, Keith F. White and Peter J. Barnard*



CORRECTION

8494

Correction: Synthetic routes to carbon substituted cobalt bis(dicarbollide) alkyl halides and aromatic amines along with closely related irregular pathways

Jan Nekvinda,* Dmytro Bovol, Miroslava Litecká, Ece Zeynep Tüzün, Michal Dušek and Bohumír Grüner

