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IN THIS ISSUE

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See Mauro Perfetti *et al.*,
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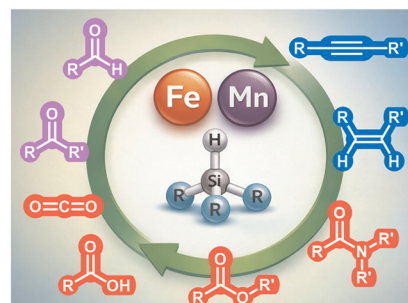
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PERSPECTIVE

8054

Recent development in iron- and manganese-catalysed hydrosilylation: unravelling diverse structures of complexes and mechanisms

Muhammad Younus and Kouki Matsubara*

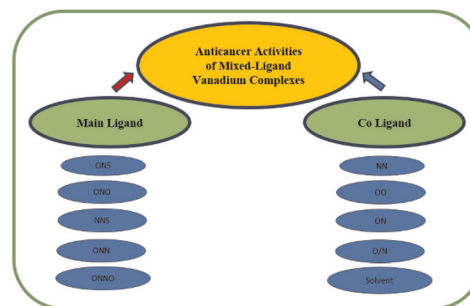


FRONTIER

8087

Mixed-ligand oxidovanadium complexes with anticancer potential

Sanchita Das, Pratikshya Das Pattanayak,
Deepika Mohapatra and Rupam Dinda*



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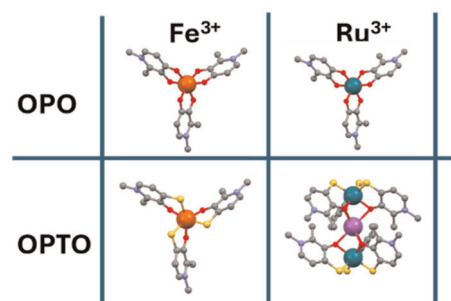
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8119

Synthesis, structure, and magnetic properties of Fe^{3+} and Ru^{3+} metal chalcogenide (O,S) complexes with bidentate ligands

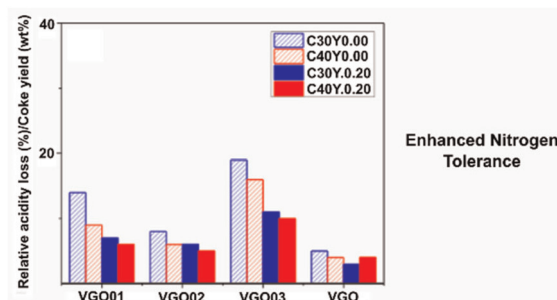
Arsen Raza, José Severiano Carneiro Neto, Arianna Lanza, Jesper Bendix, Matteo Briganti, Lorenzo Sorace and Mauro Perfetti*



8128

Resistance to nitrogen-induced catalytic deactivation in VGO cracking: synergistic effect of hierarchical structuring and zeolite Y content in FCC catalysts

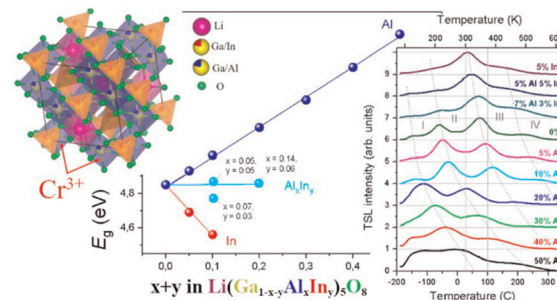
Jayson Fals,* María L. Ospina-Castro, Clara Barragán-Avilez, Roger Valle-Molinares, Dary Mendoza, Jhonnys D. Guerrero, Sonia Bocanegra and Fabián Espitia-Almeida*



8143

Tuning the crystal structure, optical band gap and persistent luminescence performance of a Cr^{3+} -doped LiGa_5O_8 spinel by adding aluminium and indium

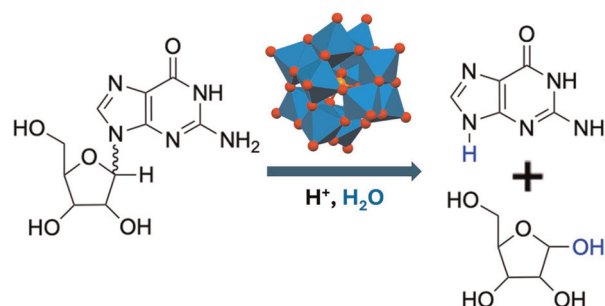
Anastasiia Karabut, Halyna Zhydachevska, Łukasz Wachnicki, Vasyl Hreb, Leonid Vasylechko,* Yuriy Hizhnyi, Tetiana Shevtsova, Andriy Luchechko, Agnieszka Pieniżek, Marek Berkowski and Yaroslav Zhydachevskyy*



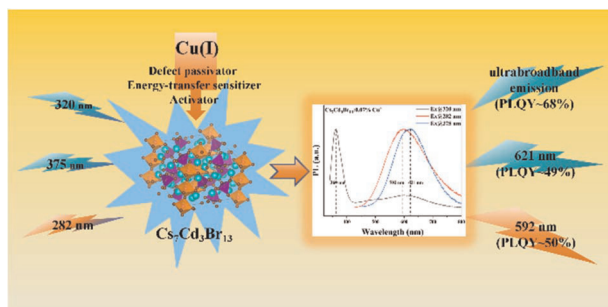
8161

Molecular mechanisms behind the potential genotoxicity of metal oxide nanoparticles: nucleoside deglycosylation pathway

Fredric G. Svensson, Björn H. Greijer, Timothe Guerin, Tatiana Agback, Peter Agback and Vadim G. Kessler*



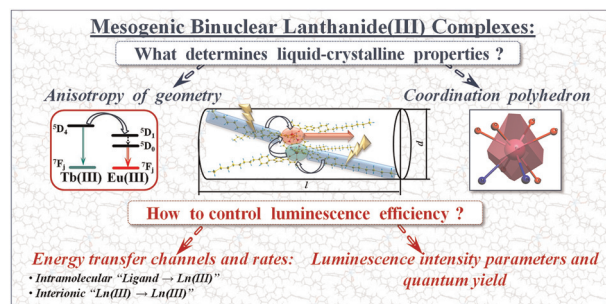
8173



Boosting multi-center luminescence in $\text{Cs}_7\text{Cd}_3\text{Br}_{13}$ via synergistic defect passivation and sensitization of Cu(I)

Jianjie Zhang, XinPeng Dai, Baocheng Luo, Qin Yan, Xing Fan and Liumei Su*

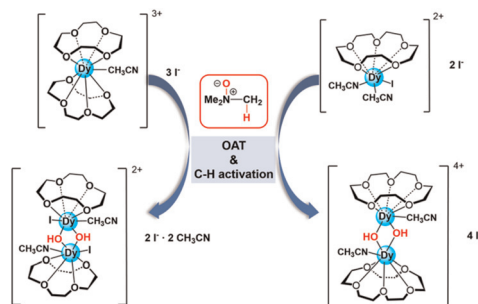
8184



Predictive simulation of efficiently emitting mesogenic binuclear lanthanide(III) complexes by DFT, molecular dynamics, and the Judd–Ofelt theory

Ksenia A. Romanova,* Nikolay M. Chtchelkatchev and Yuriy G. Galyametdinov

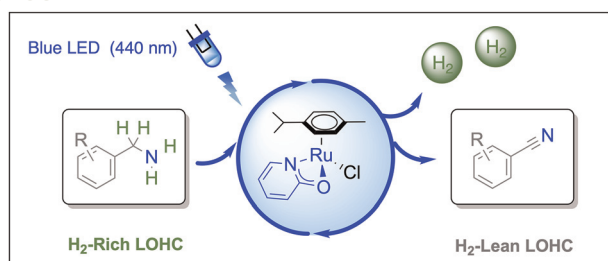
8201



Synthesis of hydroxo-bridged Dy(III) dimers supported by crown ethers through C–H activation and oxygen-atom transfer of Me_3NO

Ziyi Gu, Jun Li, Xuan Zhang, Yangjuan Li* and Yu Gong

8208



Visible-light assisted dehydrogenation of benzylamines catalysed by a standalone ruthenium complex

Laura Ibáñez-Ibáñez, Mario del Pico-Carranza, Gregorio Guisado-Barrios* and José A. Mata*

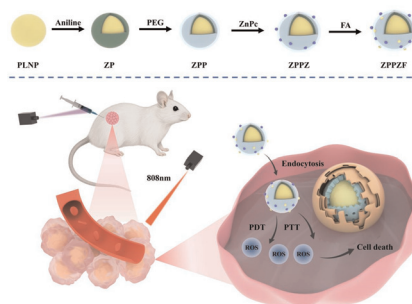


PAPERS

8216

Near-infrared long afterglow nanoparticles with photothermal and photodynamic synergistic therapeutic capabilities for tumor therapy

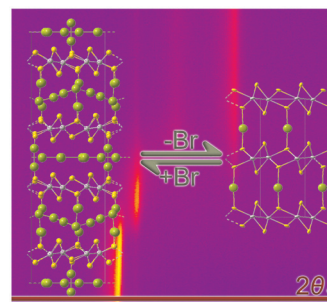
Lei Zhou, Yunjian Wang, Du Ran, Hongbi Zhang, Weisheng Liu* and Lu Yang*



8228

Structural evolution during reversible halogen intercalation into WTe_2 : commensurate–incommensurate WTe_2I and multistage WTe_2Br_x ($x = 0.5, 1.0$ and 1.25)

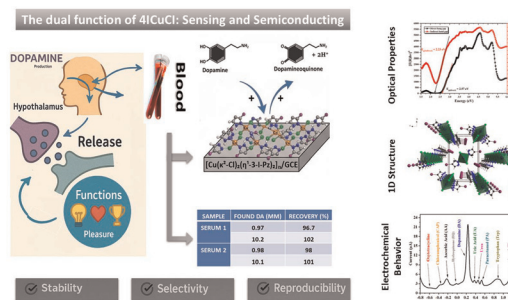
Patrick Schmidt, Carl P. Romao and Hans-Jürgen Meyer*



8243

Structural, optical, and electrochemical properties of a new 1D copper(II) halometalate for highly sensitive dopamine detection

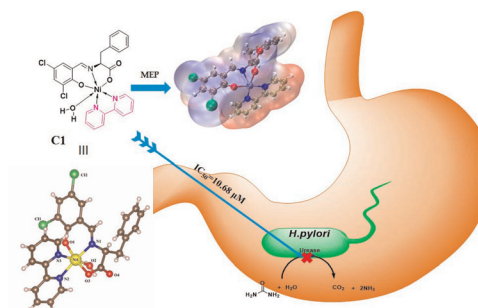
Houyem Khelifi, Jassem Wannassi, Noureddine Mhadhbi, Hajir Wahbi, Jeanneau Erwann, Naoufel Ben Hamadi,* Ahlem Guesmi, Lotfi Khezami, Houcine Barhoumi and Houcine Naili*



8258

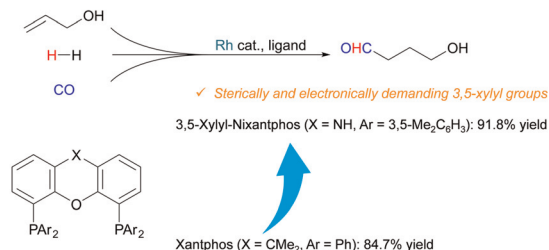
Synthesis, crystal structures and urease inhibition of Ni(II) complexes constructed from Schiff bases with 2,2'-bipyridine as co-ligands

Wen-yang Liu, Hong-lei Li, Jiang-song Jia, Wen-ming Zhao and Jun Sun*



8272

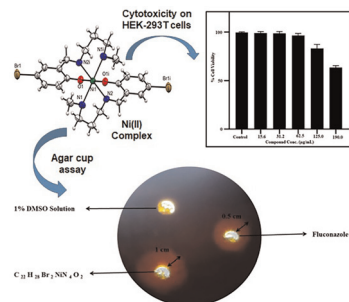
Linear-selective hydroformylation enabled by Rh/Xantphos-type ligands



Optimization of Xantphos-type ligands for highly linear-selective hydroformylation of allyl alcohol and alkenes

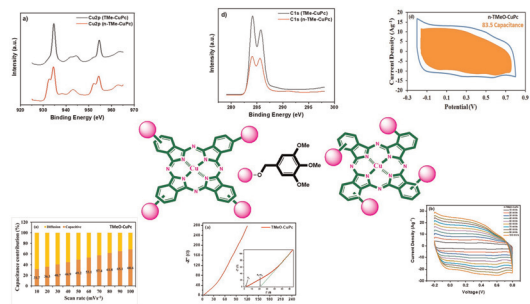
Hiroto Sakomizu, Jooyoung Shim, Shohei Nishizawa, Shinya Tsukamoto, Yoshishige Okuno, Akina Yoshizawa, Eiji Yamamoto, Akihiro Nakayama and Makoto Tokunaga*

8278

Structurally characterized Ni(II) complex exhibiting potent anti-*Candida* activity: biomolecular interaction mechanism and *in silico* ADMET insights

Alipe Saha, Ribhu Maity, Gurupada Dhara, Paula Brandao, Satyajit Pattanayak, Tithi Maity, Keka Sarkar* and Bidhan Chandra Samanta*

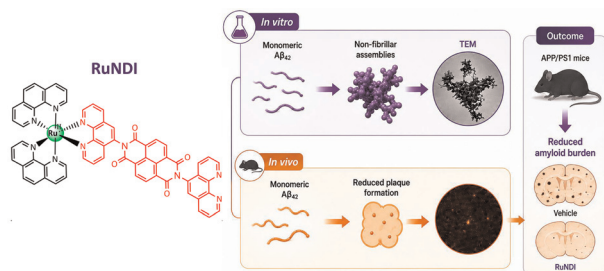
8292



Structure–performance relationship in copper phthalocyanine-based supercapacitor electrodes: influence of substituent geometry from molecular design to electrochemical function

Şirin Siyahjani-Gültekin,* Berivan Arin Öztürmen, Damla Şahin, Gülşah Yılmaz, Bahar Tosun Ercan, Burak Gültekin and Zekeriya Biyiklioglu*

8304

*In vitro* and *in vivo* inhibition of amyloid β aggregation by a Ru(II)–naphthalene diimide complex

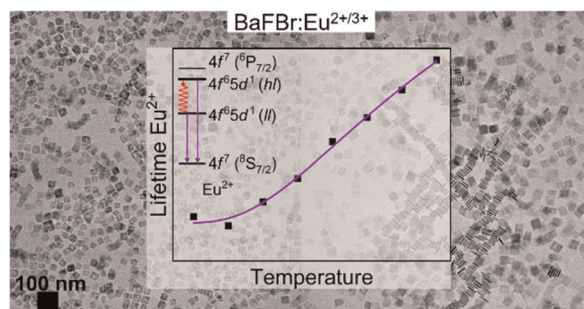
Marco A. Tiburcio,* Mariana P. Cali, Lorena M. B. Pereira, Angelica E. Graminha, Isabel Atienza-Navarro, Michele Vendruscolo, Monica Garcia-Alloza and Rose M. Carlos*



8314

Luminescence of BaFBr nanoplates codoped with Eu^{2+/3+}

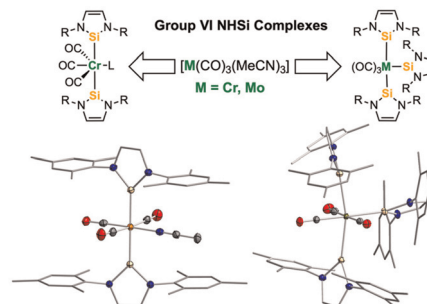
Nishani T. Manamperi, S. Sameera Perera and Federico A. Rabuffetti*



8323

N-heterocyclic silylene complexes of group VI transition metal carbonyls

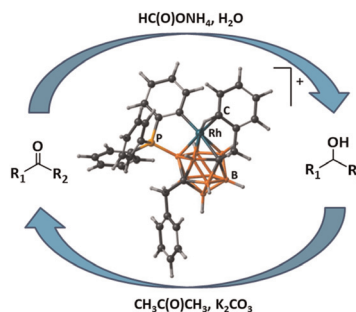
Eduard Glok, Moritz Schanbacher, Christian Luz and Udo Radius*



8332

Rhodacarborane complexes with a triphenylphosphonium substituent as efficient catalysts for on-water transfer hydrogenation of carbonyl compounds

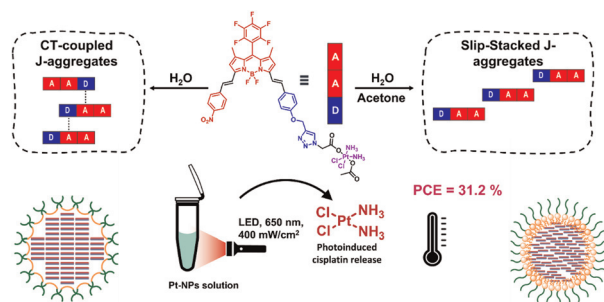
Mikhail M. Vinogradov,* Yulia V. Nelyubina, Ivan A. Godovikov, Maria I. Godovikova, Vladimir B. Kharitonov, Evgeniya S. Podyacheva and Alexey N. Rodionov



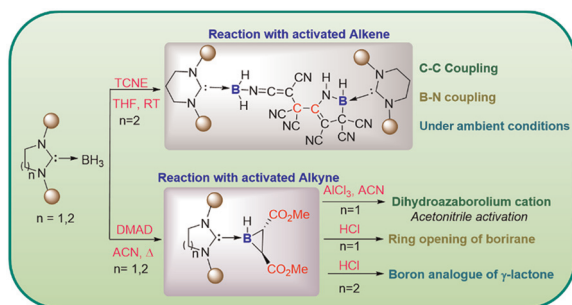
8343

Aggregation polymorphism of photoactivatable Pt(IV) prodrugs as a strategy for the design of theranostic nanomaterials

V. Bykusov, I. Kuzmichev, M. Stepanov, D. Bunin, Y. Luponosov, Y. Isaeva, A. Trul, R. Akasov, T. Egorova, A. Erofeev, R. Kuanaeva, Y. Maksimova, M. Abakumov, A. Nikitin, V. Kuzmin, A. Egorov, I. Burtsev, I. A. Rodin, M. F. Vokuev, E. Beloglazkina and O. Krasnovskaya*



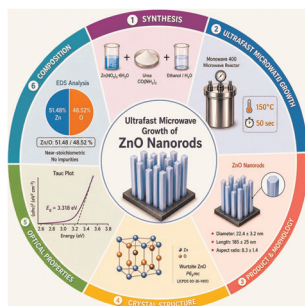
8356



Reactions of saturated NHC-boranes with electron-deficient alkynes and alkenes. Borirane formation, their reactivities, and coupling of tetracyanoethylene

P. R. Amrutha, Gargi Kundu, Vemuri Lakshmi Ganesh, Rajesh G. Gonnade,* Gopinadhanpillai Gopakumar* and Sakya S. Sen*

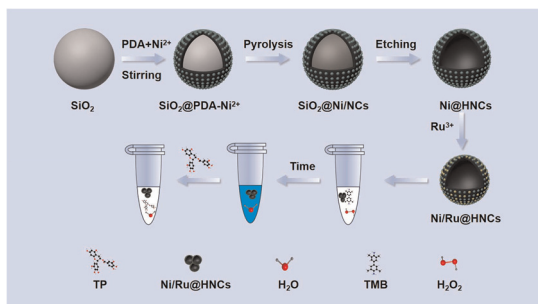
8366



An approach for ultrafast growth of zinc oxide nanorods via microwave irradiation

Salahuddin Sourav,* Azlan Abdul Aziz* and Mohammed Ali Dheyab

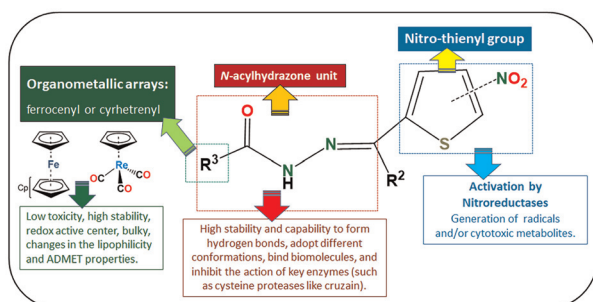
8383



Hollow N-doped carbon nanocages anchoring Ni–Ru bimetallic nanoparticles for enhanced peroxidase-like activity

Yuyao Li, Yan Chen, Suping Han,* Jingli Xu, Xue-Bo Yin and Min Zhang*

8393



Rational design of novel organometallic N-acylhydrazones with potent antiparasitic activity on *Trypanosomacruzi* and *brucei*

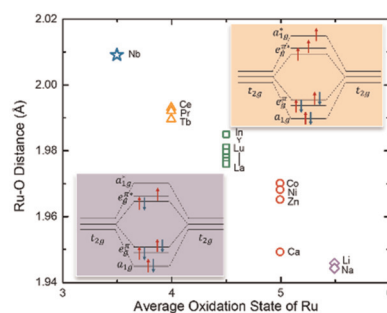
Patricia M. Toro-Sánchez,* Andrea Lucero, David Villaman, Mauricio Moncada-Basualto, Rodrigo Arancibia, Shane R. Wilkinson, Pedro Levin, Jonathan Cisterna, Iván Brito and Concepción López*



8413

Beyond layer stacking: molecular Ru_2O_9 dimer correlations in pressure-synthesized $\text{Ba}_3\text{NbRu}_2\text{O}_9$

Cheng Peng, Mingyu Xu, Jie Li and Weiwei Xie*



8421

Photochromic $\text{Bi}_2\text{WO}_6/\text{BiOBr}$ ultrathin nanosheet heterojunctions for the efficient photocatalytic synthesis of imine *via* toluene and aniline coupling

Jiazhen Han, Guanfeng Ji, Yao Dou, Yongli Qin, Xin Liu, Yun Zhang* and Wenshou Wang*

