

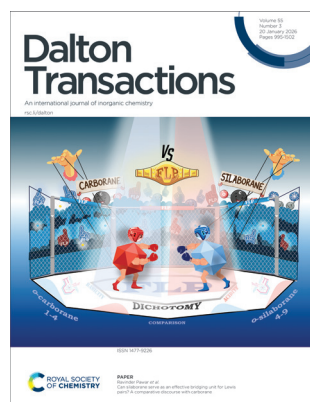
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IN THIS ISSUE

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Cover
See Ravinder Pawar et al.,
pp. 1125–1139.

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Inside cover
See Fathima Thanha
Thazhe Namboorikandy and
Pattiyil Parameswaran,
pp. 1140–1148.

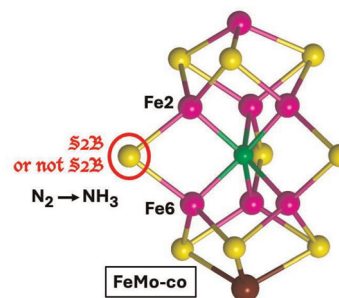
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PERSPECTIVES

1008

S 2B or not 2B?

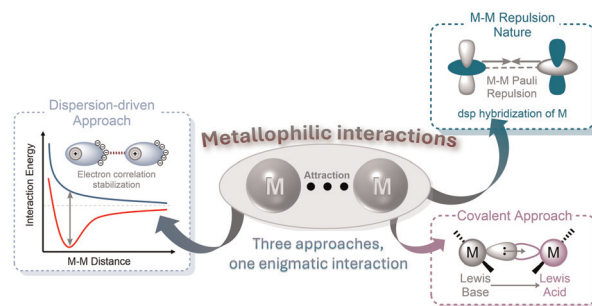
Ian Dance



1024

A journey through metallophilic interactions: computational approaches and insights

Félix Reboiro, M. Elena Olmos,
José M. López-de-Luzuriaga* and Miguel Monge*



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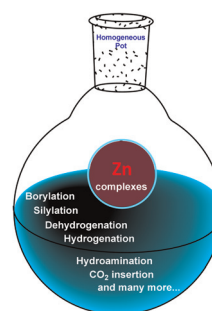
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PERSPECTIVES

1037

Well-defined Zn-complexes in homogeneous catalysis: recent advances and future scope

Subhasree Pal, Amit Kumar Guin and Nanda D. Paul*

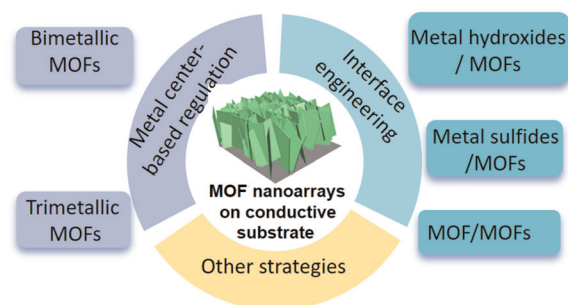


FRONTIER

1100

Strategies for improving oxygen evolution performance of MOF nanoarrays

Shuangyan Lin and Zhikun Xu*

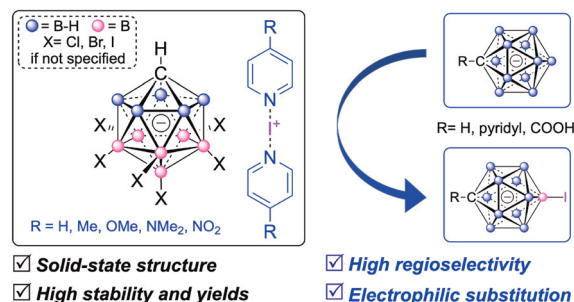


COMMUNICATIONS

1109

Monocarborane-stabilized iodonium salts enable regioselective B12-iodination of $[CB_{11}H_{12}]^-$

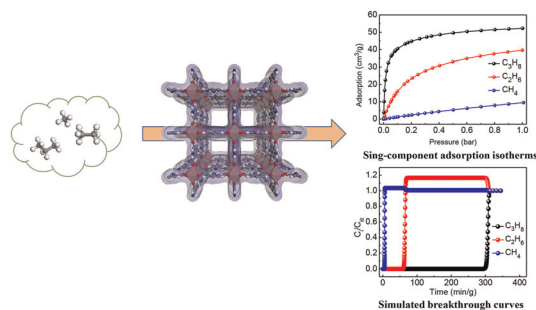
Chennuo Jiang, Lianyu Chen, Yujie Jin, Jiyong Liu, Kang Zhang* and Simon Duttwyler*



1114

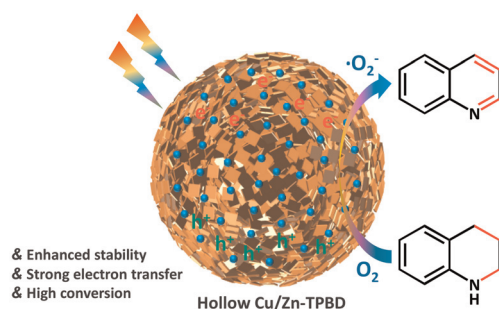
Efficient separation of $CH_4/C_2H_6/C_3H_8$ enabled by an indium-tetracarboxylate MOF with cross-channel and amino sites

Chaohui He,* Jinglin Guo, Rajamani Krishna, Zhenzhen Jia, Yujuan Zhang, Xiao-Qing Wang* and Tuoping Hu*



COMMUNICATIONS

1119

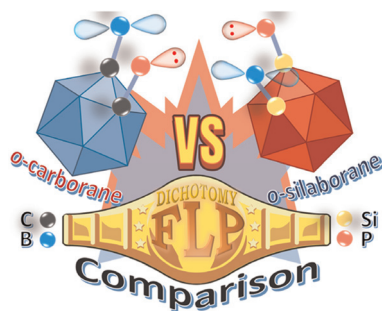


Ostwald ripening-induced hollow photoactive Zn-MOF-confined electron-deficient Cu NPs for enhanced photocatalytic oxidative dehydrogenation to quinoline

Leixin Hou,* Yanli Chen, Ziyang Li, Congfa Bian, Youyi Li, Mi Zhang, Guilin Wen, Daofu Liu and Huilin Huang*

PAPERS

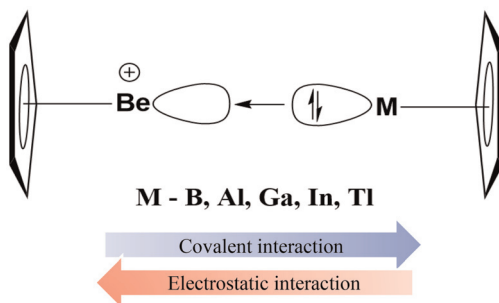
1125



Can silaborane serve as an effective bridging unit for Lewis pairs? A comparative discourse with carborane

Mohammad Faizan, Zaid Malik, Madem Sandhya and Ravinder Pawar*

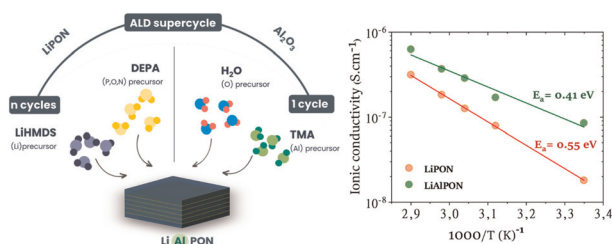
1140



Cationic beryllium–group 13 heterobimetallic dimetalocenes with a donor–acceptor bond

Fathima Thanha Thazhe Namboorikandy and Pattiyil Parameswaran*

1149



Unveiling the structural and electrochemical effects of Al₂O₃ incorporation within LiPON electrolyte thin films by atomic layer deposition

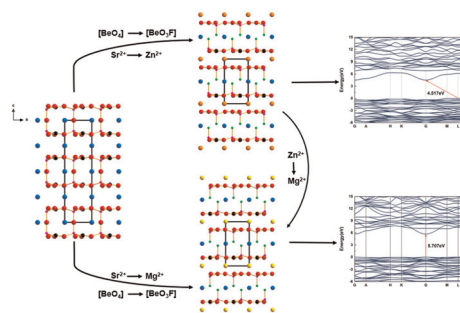
Ilyass Ghandari,* Nicolas Gauthier, Névine Rochat, Sylvain Poulet, Lara Casiez, Manon Letiche, Violaine Salvador, Hélène Coudert-Alteirac, Nicolas Vaxelaire, Mikhael Bechelany and Messaoud Bedjaoui*



1164

SrMBe₂(BO₃)₂F₂ (M = Zn, Mg): two SBBO-like compounds obtained by cation regulation

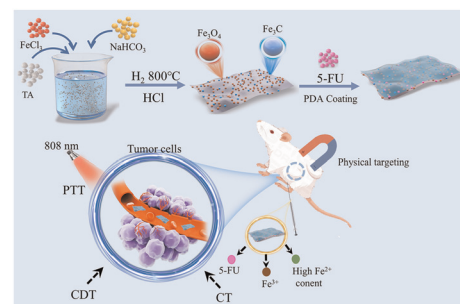
Tong Wu, Lei Kang, Fan Liu, Ruixin Guo, Shu Guo, Tianhong Huang, Shuangyue Shang, Lijuan Liu and Xiaoyang Wang*



1169

Engineering Fe₃O₄–Fe₃C/C heterojunction nanosheets with multimodal therapy for tumor microenvironment-programmed drug delivery and enhanced chemodynamic therapy

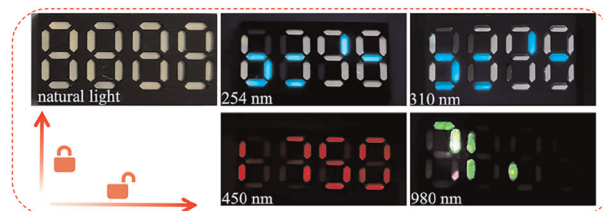
Desheng Wang, Changjin Xu,* Shikui Wu, Gang Li, Huiwen Zhang, Herima Qi, Riqing Cheng, Liang Bao, Huiqing Guo* and Jianping Chen*



1184

Multicolor luminescence of Cs₂KLuCl₆ for anti-counterfeiting and information encryption applications

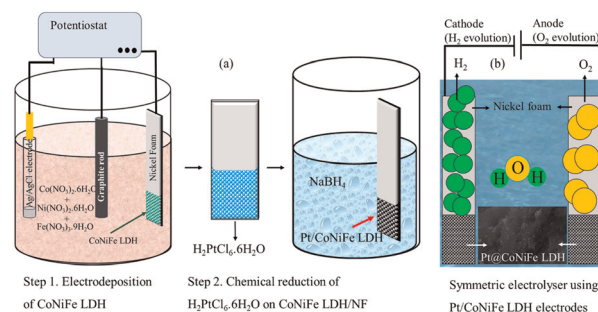
Yanyang Li, Lu Lei, Sirui Shu, Jian Zou, Shanshan Hu and Jun Yang*



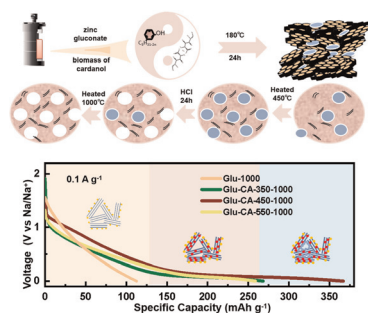
1192

Triggering the intrinsic catalytic activity of electrodeposited CoNiFe LDH via Pt decoration for an efficient hydrogen evolution reaction

S. Vijaya and L. John Kennedy*



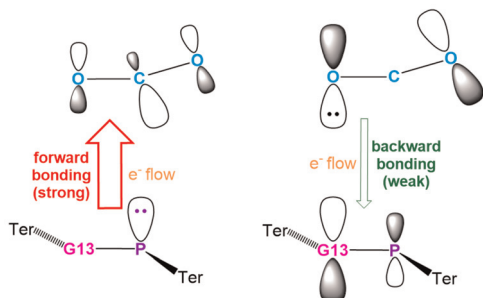
1207



Cardanol biomass-derived hard carbon: a promising anode material for sodium-ion batteries

Weichen Li, Xiang Zheng, Luchao Yue, Zhi Wang, Chaohong Shi and Jing Tang*

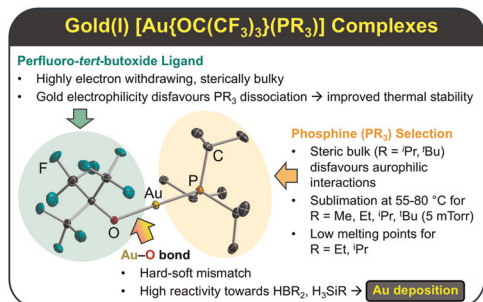
1217



CO₂ activation without metals enabled by Lewis acid/base-free G13=P double bonds

Zheng-Feng Zhang and Ming-Der Su*

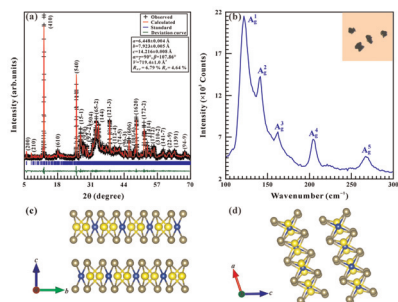
1234



Gold(I) alkoxide and thiolate complexes as potential atomic layer deposition precursors

Nicholas A. Hoffman and David J. H. Emslie*

1248



Pressure-induced metallization and electronic transition in a two-dimensional ferroelastic semiconductor of Nb₂SiTe₄ in different hydrostatic environments

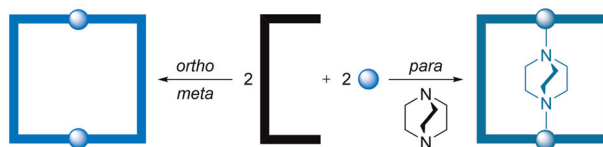
Xinyu Zhang, Lidong Dai,* Haiying Hu, Meiling Hong, Bing Lv, Xuefei Liu, Juxiang Shao, Ming Yang, Shiwei Xie, Hongchun Luo, Yu Gao, Tao Wang, Miao Ren and Haonan Cheng



1259

Discrete and polymeric supramolecular complexes assembled from Cu^{2+} and isomeric xylylenebis(pyridyltriazoles)

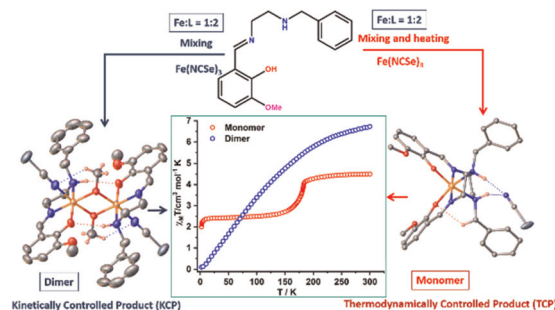
Uttam R. Pokharel,* Frank R. Fronczek and Andrew W. Maverick*



1274

Thermal monomerization unlocks $3/2 \leftrightarrow 5/2$ spin crossover in a kinetically trapped high-spin Fe(III) dimer

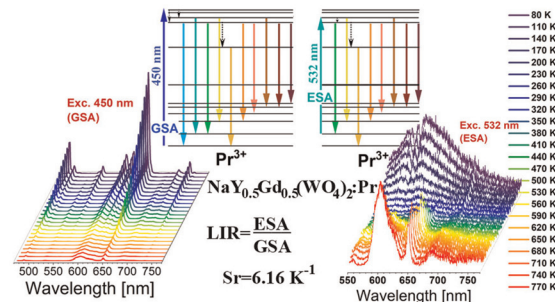
Bijoy Dey, Jān Titiš, Sakshi Mehta, Abhishake Mondal* and Vadapalli Chandrasekhar*



1284

Emission and ESA/GSA thermographic properties of Pr-doped tungstate phosphors under vacuum ultraviolet and visible excitation

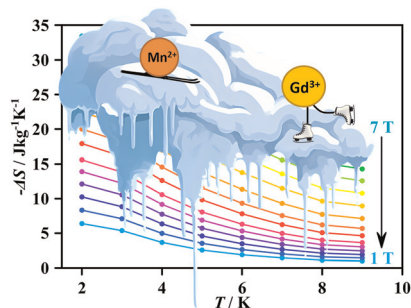
Radostaw Lisiecki,* Nadiia Rebrova and Przemysław J. Dereń



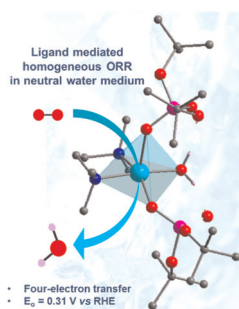
1298

Dodecanuclear $\text{Mn}^{\text{II}}-\text{Gd}^{\text{III}}$ metallomacrocycles: magnetic and refrigerant responses

Ernesto Costa-Villén, Cristina Puigjaner, Júlia Mayans and Albert Escuer*



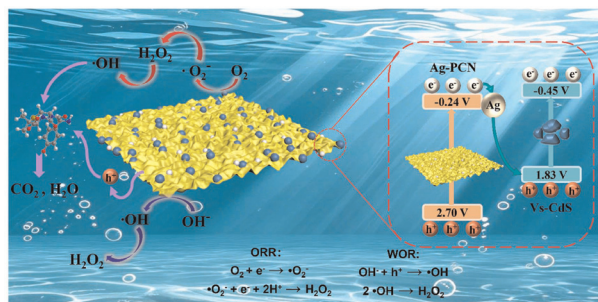
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Ligand-mediated modulation in copper(II) complexes for four-electron oxygen reduction in neutral medium

Savi Chaudhary and Ramaswamy Murugavel*

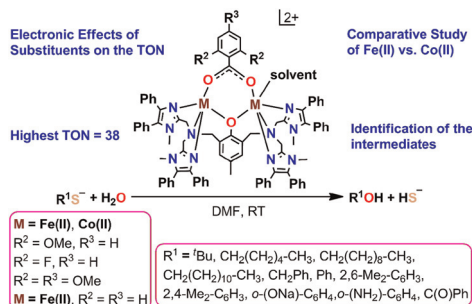
1318



A defect engineered Z-scheme polymeric C_3N_4/CdS heterojunction mediated by Ag boosts dual-channel H_2O_2 production with synergistic antibiotic degradation

Yongjian Sun, Xiangdong Wang, Hui Liu, Xintao Feng, Andre Lennox Olayemi Macauley, Wenli Zhang, Yinhua Jiang,* Yan Liu, Jianming Zhang and Haiqing Xu*

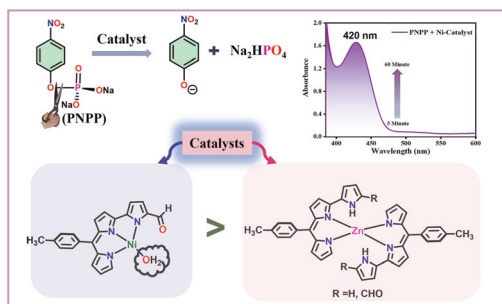
1335



Electronic effects of substituents on the catalytic conversion of thiolates to alcohols by carboxylate bridged nonheme binuclear Fe(II) and Co(II) complexes

Anuj Baran Chakraborty, Rajib Hazra, Srimayee Mukherjee and Amit Majumdar*

1349



Synthesis of Ni(II) and Zn(II) complexes of pyrrolyl dipyrins and their biomimetic role in catalyzing the hydrolysis of the phospho-ester bond

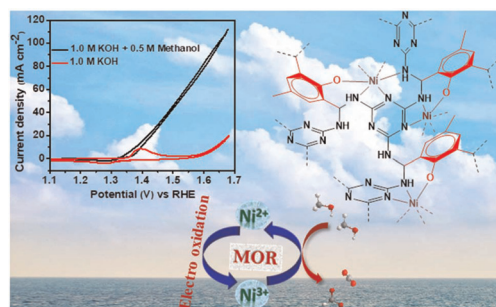
Pinky Chauhan, Abani Sarkar and Mangalampalli Ravikanth*



1360

A nickel incorporated triazine-based porous organic polymer for the electrocatalytic methanol oxidation reaction

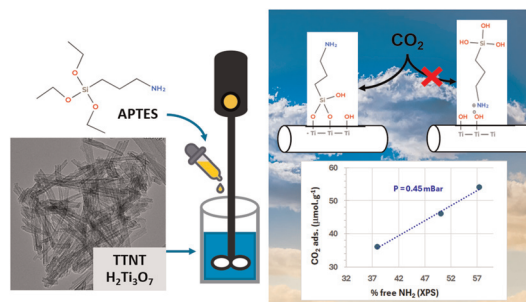
Indrani Pramanick, Samarpita Das, Bhabani Malakar, Sanjana Banerjee, Asim Bhaumik* and Papu Biswas*



1372

Grafting titanate nanotubes with 3-aminopropyltriethoxysilane for enhanced CO₂ adsorption

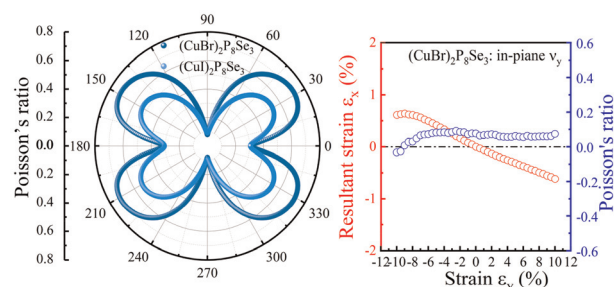
Cynthia Barreto, Edisson Morgado, Jr., Khrissy Medeiros, Marianne Diniz, Marcelo Maia, Aryandson da Silva, Sibebe B. C. Pergher, Deane Mesquita Roehl and Bojan A. Marinkovic*



1392

Strain-invariant near-zero Poisson's ratio emerging in 2D (CuX)₂P₈Se₃ (X = Br, I) hybrid structures

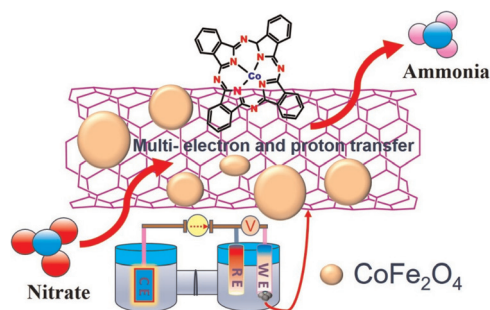
Xingxu Meng, Minglei Jia, Huimin Shen and Huabing Yin*



1400

A synergistic CoFe₂O₄ spinel–cobalt phthalocyanine–carbon nanotube hybrid catalyst for highly selective electrochemical nitrate-to-ammonia conversion

Ningma Dorzi Sherpa, Hiren Jungi, Shakil Ahammad Chowdhury, Hiranmay Barma and Nitish Roy*

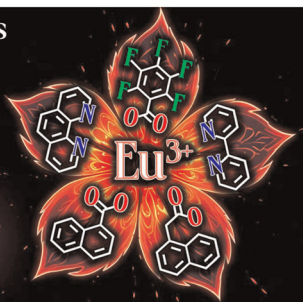


1417

Mixed-anion complexes of lanthanides

Non-covalent interactions

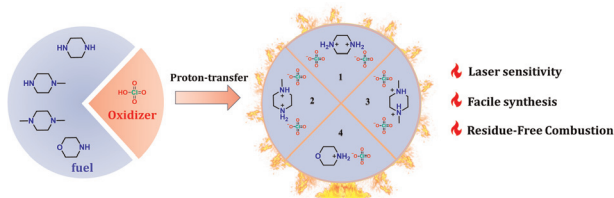
&
Photoluminescent properties



Effect of combining 1-naphthoate and pentafluorobenzoate anions in Eu(III) compounds on their structure and photoluminescent properties

Anastasia A. Levina, Maxim A. Shmelev,* Andrey V. Lalov, Aleksandr S. Chistyakov, Julia K. Voronina, Evgeniya A. Varaksina, Ilya V. Taydakov, Alexey A. Sidorov and Igor L. Eremenko

1436

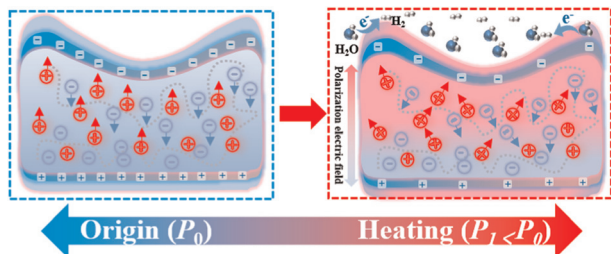


Facile and low-cost construction of laser-ignitable energetic materials

Zeyu Xu, Xiu'e Jiang, Ruihui Wang, Mingren Fan, Yi Wang* and Qinghua Zhang*

- 🔥 Laser sensitivity
- 🔥 Facile synthesis
- 🔥 Residue-Free Combustion

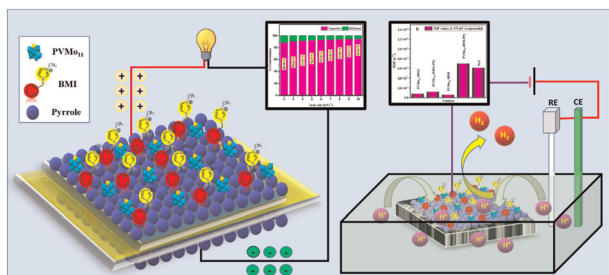
1445



Oxygen vacancy-induced dipole moment enhancement in BiVO₄ for efficient pyro-catalytic hydrogen evolution

Jie Zhang, Qifeng Jia* and Meng Li*

1455



Dual-functional phosphomolybdic acid-polypyrrole-ionic liquid nanocomposites for energy storage and hydrogen evolution: experimental and theoretical studies

Muhammed P. K. Anees, Selvaraj Iniyan, Chandrodai Pratap Singh, Murugavel Kathiresan,* Sailaja Krishnamurthy and Sib Sankar Mal*

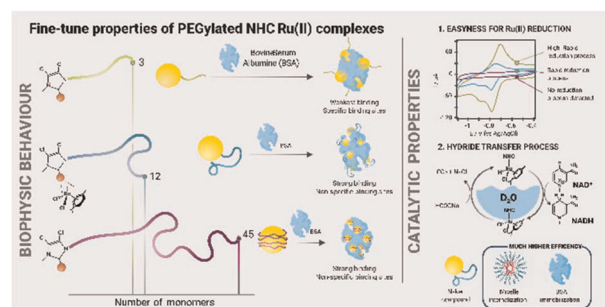


PAPERS

1473

Tuning chemical properties on ruthenium(II) complexes through PEGylation of N-heterocyclic carbene ligands

Oscar Barrios, Tamara Rodriguez-Prieto, Alicia Bort, Elżbieta Okła, Marek Maly, Miriam Chavez, Alberto Escarpa, Maksim Ionov, Maria Bryszewska, Jesús Cano, Inés Díaz-Laviada* and Rafael Gómez*



1490

Symmetry and substituent electronics dictate electronic structure of low spin, mixed-ring rhenocene complexes

Eyram Asempa, Gregory M. Curtin, Ann Marie May, Jillian L. Dempsey* and Elena Jakubikova*



CORRECTIONS

1498

Correction: Tricarbonyl ^{99m}Tc(i) and Re(i)-thiosemicarbazone complexes: synthesis, characterization and biological evaluation for targeting bacterial infection

Dipak Kumar Nayak, Rinku Baishya, Ramalingam Natarajan, Tuhinadri Sen and Mita Chatterjee Debnath*

1499

Correction: Exploring the effect of substituent in the hydrazone ligand of a family of μ-oxidodivanadium(v) hydrazone complexes on structure, DNA binding and anticancer activity

Debashis Patra, Subhabrata Paul, Indira Majumder, Nayim Sepay, Sachinath Bera, Rita Kundu, Michael G. B. Drew and Tapas Ghosh*

