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See Xiaolong Guo, Yuxin Zhang, Peng Yu *et al.*, pp. 4315–4322.

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See Fumio Sanda *et al.*, pp. 4323–4328.

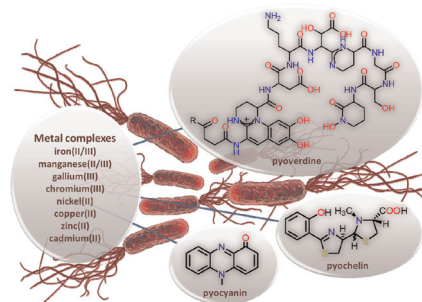
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PERSPECTIVE

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Metal complexes with valuable biomolecules produced by *Pseudomonas aeruginosa*: a review of the coordination properties of pyocyanin, pyochelin and pyoverdines

Tina P. Andrejević, Darko P. Ašanin, Bojana V. Pantović, Nevena Lj. Stevanović, Violeta R. Marković, Miloš I. Djuran and Biljana Đ. Glišić*

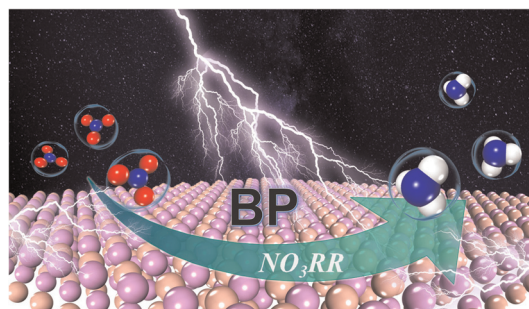


COMMUNICATIONS

4290

Boron phosphide as an efficient metal-free catalyst for nitrate electroreduction to ammonia

Nana Zhang, Guike Zhang, Ye Tian, Yali Guo and Ke Chu*



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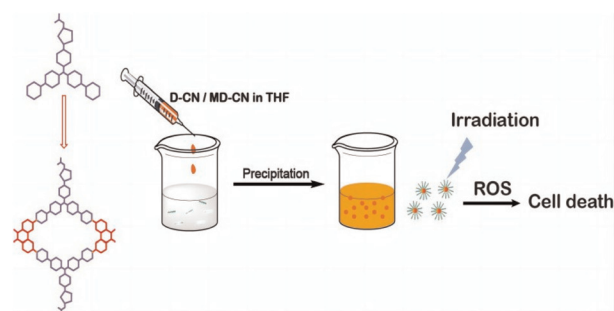


COMMUNICATIONS

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Supramolecular coordination complexes (SCCs) with aggregation-induced emission for *in vitro* photodynamic therapy

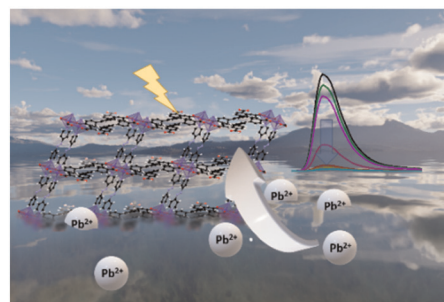
Haiqi Jia, Tingyu Shi, Tian He, Yang Li* and Shouchun Yin*



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Mechanistic insight into Pb^{2+} and Hg^{2+} ion sensing using cobalt-based coordination polymer in aqueous phase

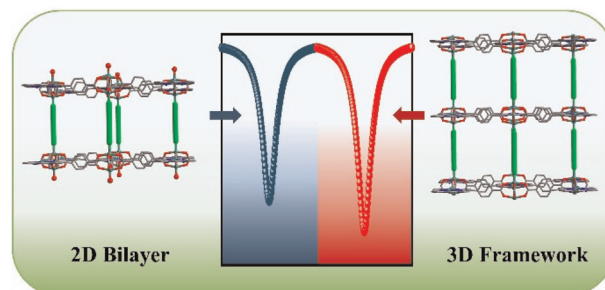
Akashdeep Nath, Diti Vikram Gaikwad and Sukhendu Mandal*



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Porphyrin metal–organic frameworks with bilayer and pillar-layered frameworks and third-order nonlinear optical properties

Ziyi Zhu, Zirui Wang, Qiao-Hong Li, Zhizhou Ma, Fei Wang* and Jian Zhang*

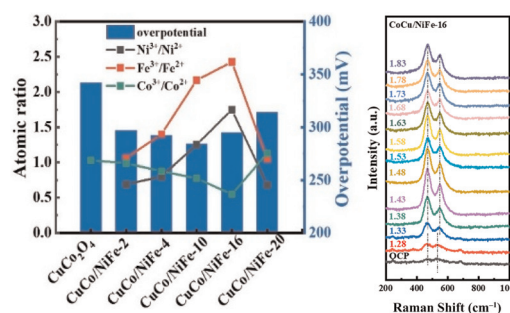


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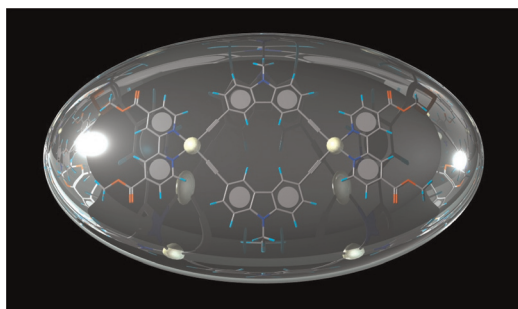
Electronic tuning of Ni–Fe–Co oxide/hydroxide as highly active electrocatalyst for rechargeable Zn–air batteries

Xiaolong Guo,* Xinyu Zhang, Yong Wu, Yuci Xin, Dongmei Li, Yuxin Zhang* and Peng Yu*



PAPERS

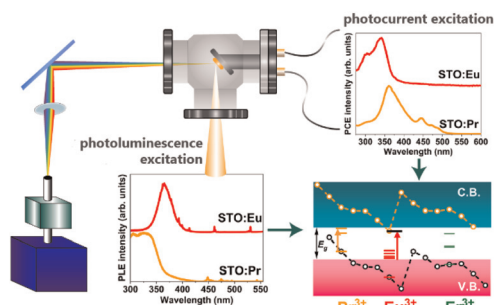
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Synthesis of a platinumacycle: determination of the structure and examination of the photophysical properties based on DFT calculations

Ken Motohara, Kazuhiro Kado, Taichi Sotani, Dayang Zhou, Takeyuki Suzuki, Hiromitsu Sogawa and Fumio Sanda*

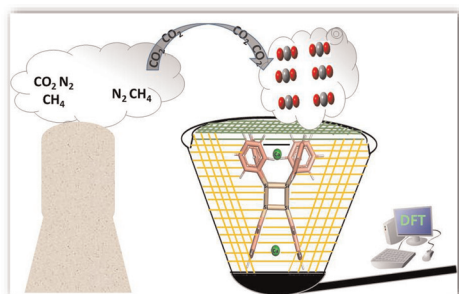
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Lanthanide ions (Eu^{3+} , Er^{3+} , Pr^{3+}) as luminescence and charge carrier centers in Sr_2TiO_4

K. Szczodrowski,* M. Behrendt, J. Barzowska, N. Górecka, N. Majewska, T. Leśniewski, M. Łapiński and S. Mahlik

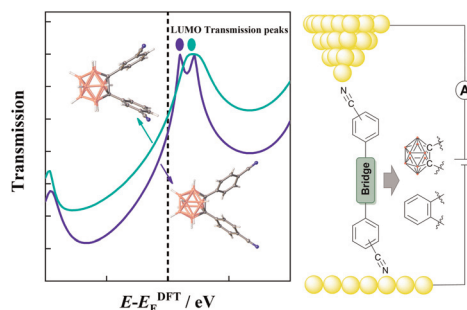
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Metal ion-decorated hexasilaprismane and its derivative as a molecular container for the separation of CO_2 from flue gas molecules: a computational study

Padmaja D. Wakchaure and Bishwajit Ganguly*

4349



Conductance of o-carborane-based wires with different substitution patterns

Shi-Nuo Xu, Yan Zheng, Jing-Yao Ye, Zhong-Yang Chen, Jian-Feng Yan,* Yan-Hou Geng,* Wenjing Hong* and Yao-Feng Yuan*



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The perfluoroadamantoxo aluminate as an ideal weakly coordinating anion? – synthesis and first applications

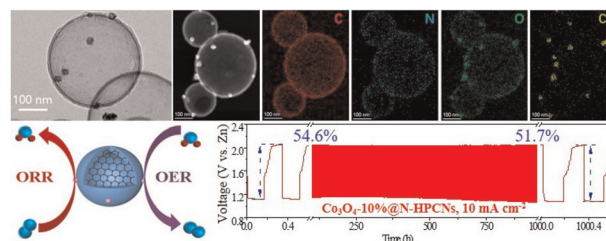
Andreas Billion, Marcel Schorpp, Rebecca Feser, Manuel Schmitt, Lea Eisele, Harald Scherer, Takaaki Sonoda, Hajimu Kawa, Burkhard Butschke and Ingo Krossing*



4371

In situ space-confined growth of Co₃O₄ nanoparticles inside N-doped hollow porous carbon nanospheres as bifunctional oxygen electrocatalysts for high-performance rechargeable zinc–air batteries

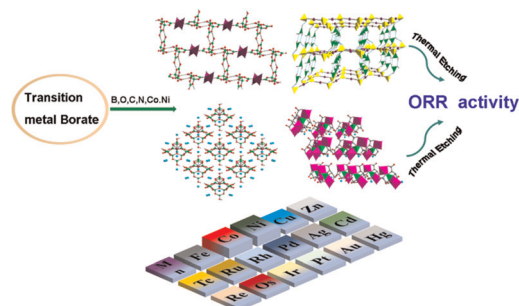
Jingbiao Kuang, Nengfei Yu,* Zhongtang Yang, Yi Zhang, Lifei Ji, Jilei Ye,* Wen Huang, Qinghong Huang, Na Tian, Yuping Wu and Shigang Sun



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Exploration of the oxygen reduction reaction activity of four transition metal borates: synthesis, structure and characterization

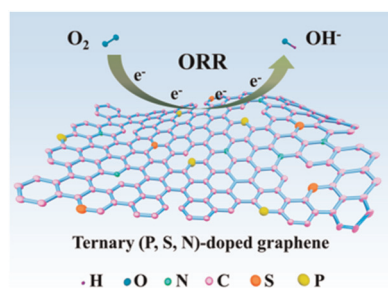
Yan-Ling Deng, An-Na Chen, Wei Li, Shu-Sheng Xin and Chun-Yang Pan*



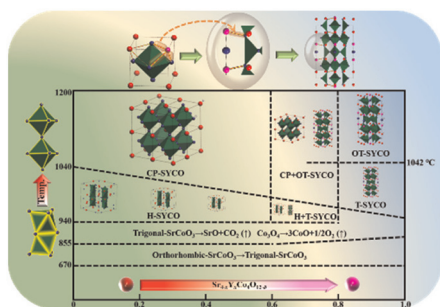
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One-step pyrolysis synthesis of ternary (P,S,N)-doped graphene as an efficient metal-free electrocatalyst for the oxygen reduction reaction

Yujun Wu, Wei Shuang, Lin Yang and Chuanbao Cao*



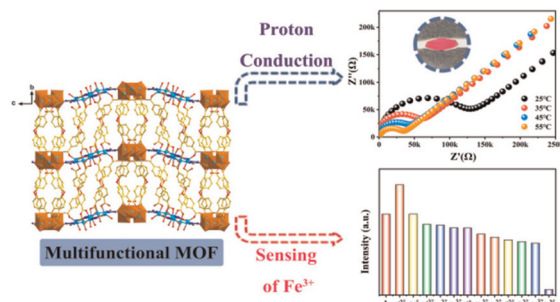
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Multiple-phase evolution and electrical transport of $\text{Sr}_{4-x}\text{Y}_x\text{Co}_4\text{O}_{12-\delta}$ ($x = 0-1.0$): an ordered phase transition process

Hongyuan Song, Bin Liu, Jinhua Zeng, Guangpeng Huo, Liangwei Chen, Jianlu Wang and Lan Yu*

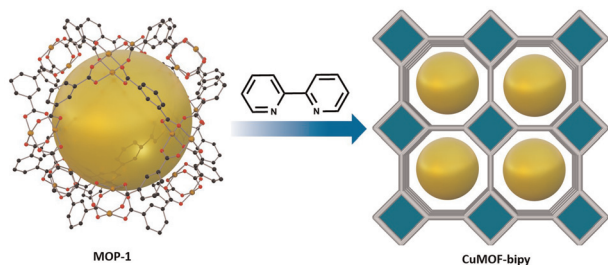
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A multifunctional cobalt-organic framework for proton conduction and selective sensing of Fe^{3+} ions

Wen-Sha Zhang, Guang-Qing Wang, Yu-Xin Wang, Yan-Li Yang, Xue Bai, Hong Cui, Ying Lu* and Shu-Xia Liu*

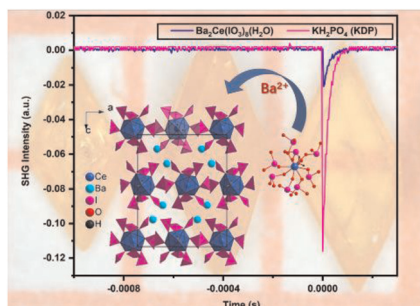
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Transformation of a copper-based metal-organic polyhedron into a mixed linker MOF for CO_2 capture

Muhammad Abbas, Amanda M. Maceda, Zhifeng Xiao, Hong-Cai Zhou and Kenneth J. Balkus, Jr.*

4423



A new polar alkaline earth-rare earth iodate: $\text{Ba}_2\text{Ce}(\text{IO}_3)_8(\text{H}_2\text{O})$

Xue-Ying Zhang, Xiao-Han Zhang, Bing-Ping Yang* and Jiang-Gao Mao*

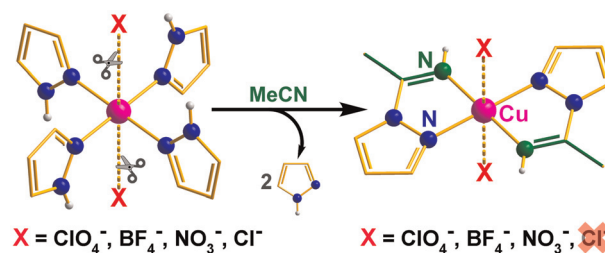


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The effect of anions in the synthesis and structure of pyrazolylamidino copper(II) complexes

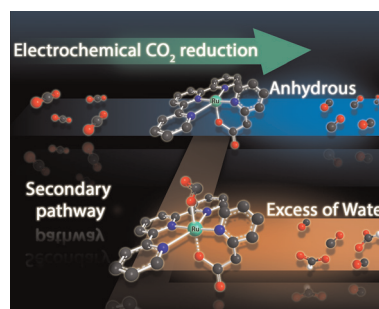
Chang-Chih Hsieh, Po-Kuang Liao, Chia-Wei Chen, Ming-Hsi Chiang and Yih-Chern Horng*



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Electrocatalytic properties of a novel ruthenium(II) terpyridine-based complex towards CO_2 reduction

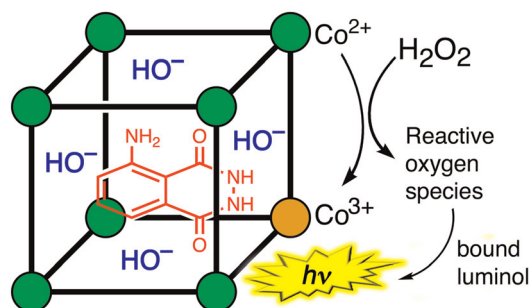
Leandro A. Faustino, Antonio E. H. Machado, Pedro I. S. Maia, Javier J. Concepcion and Antonio Otavio T. Patrocínio*



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A chemiluminescent lantern: a coordination cage catalysed oxidation of luminol followed by chemiluminescence resonance energy-transfer

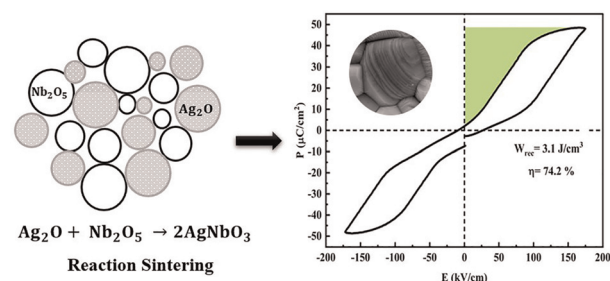
Atena B. Solea and Michael D. Ward*



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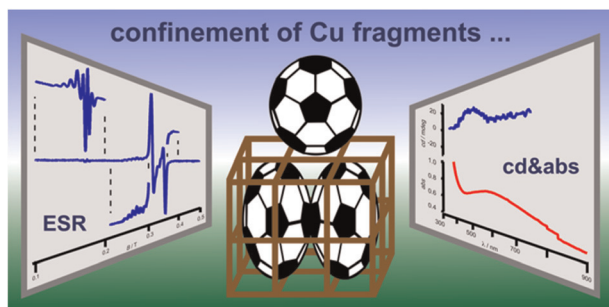
Enhanced energy storage performance in reaction-sintered AgNbO_3 antiferroelectric ceramics

Parastoo Moradi, Ehsan Taheri-Nassaj*, Amin Yourdkhani, Vasyi Mykhailovych, Andrei Diaconu and Aurelian Rotaru



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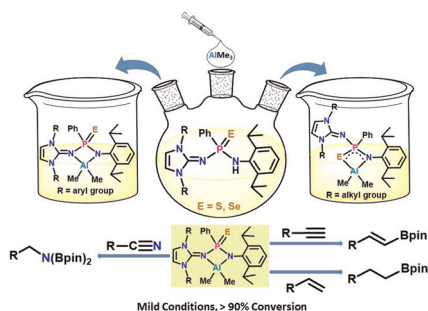
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The structure and modified properties of a self-dimerised Cu(II) inclusion complex in γ -cyclodextrins

Tomohiko Hamaguchi,* Ryuta Ishikawa, Akio Mishima, Shinya Hayami, Masaaki Ohba, Minoru Satoh and Satoshi Kawata

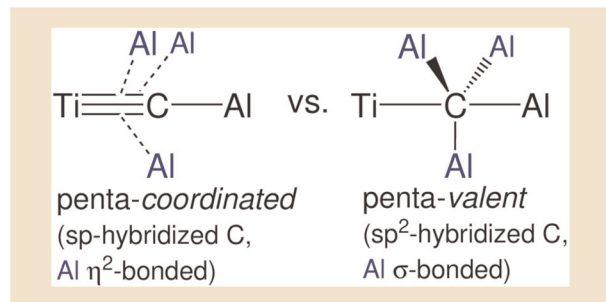
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N⁺N vs. N⁺E (E = S or Se) coordination behavior of imino-phosphanamidinate chalcogenide ligands towards aluminum alkyls: efficient hydroboration catalysis of nitriles, alkynes, and alkenes

Himadri Karmakar, Ravi Kumar, Jyoti Sharma, Jayanta Bag, Kuntal Pal, Tarun K. Panda* and Vadapalli Chandrasekhar*

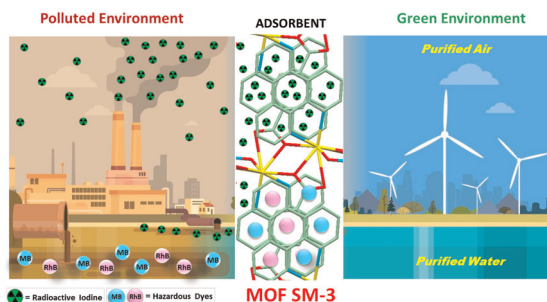
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Penta-coordinated or -valent: the nature of the chemical bond of some Ti–C–Al compounds

J. Saßmannshausen

4501



A bifunctionalised Pb-based MOF for iodine capture and dye removal

Samrah Kamal, Mohd Khalid,* M. Shahnawaz Khan, M. Shahid and Musheer Ahmad

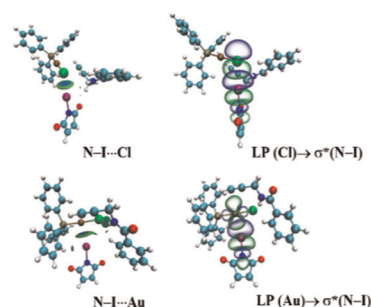


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Activation of metal-involved halogen bonds and classical halogen bonds in gold(i) catalysis

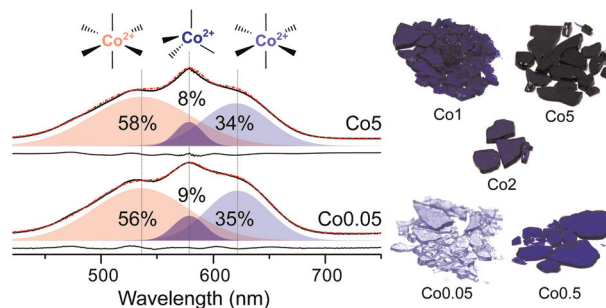
Ying Li, Yuanyuan Sun, Chang Zhao and Yanli Zeng*



4526

The structural role and coordination environment of cobalt in $45\text{P}_2\text{O}_5\text{--CaO--Na}_2\text{O}$ phosphate glasses: thermal properties and Raman, UV-vis-NIR, and EPR spectroscopy

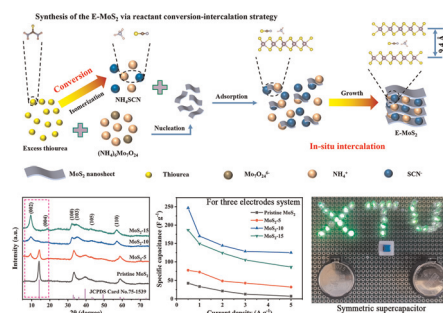
Dahiana A. Avila Salazar,* Matvey Fedin, Wolfram Hartrampf and Delia S. Brauer*



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Reactant conversion–intercalation strategy toward interlayer-expanded MoS_2 microflowers with superior supercapacitor performance

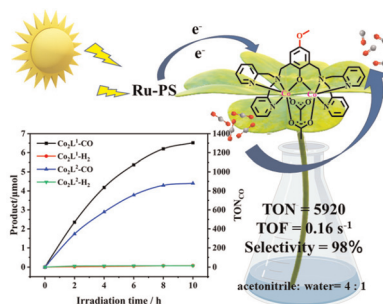
Jingwei Wang, Xuejun Zheng,* Yaoyong Dong, Longyuan Chen, Lijuan Chen and Wenyan He*



4548

Electronic effects promoted the catalytic activities of binuclear Co(II) complexes for visible-light-driven CO_2 reduction in a water-containing system

Chao Su, Zilu Chen,* Qin Feng, Fangsha Wei, Anna Mo, Hai-Hua Huang, Huancheng Hu,* Huahong Zou, Fupei Liang and Dongcheng Liu*



Tong Li, Cong Liu, Ruyi Li, Xiaohua Huang, Xiaofei Qi,
Xiaohan Mi, Tianyu Bai* and Shanghua Xing*

Tong Li, Cong Liu, Ruyi Li, Xiaohua Huang, Xiaofei Qi,
Xiaohan Mi, Tianyu Bai* and Shanghua Xing*

Energy band diagram of the photocatalytic mechanism of CeO_2 . The diagram shows the conduction band (CB) and valence band (VB) of CeO_2 . Under UV light, electrons (e^-) are excited from the VB to the CB. The excited electrons (e^-) reduce H_2 to H_2O , while the holes (h^+) in the VB oxidize OH^- to OH . The resulting H_2O_2 and OH are then degraded by TC/DCP into degradation products. The redox potentials are indicated: $E^0 (\text{O}_2^-/\text{O}_2) = -0.33 \text{ eV}$, $E^0 (\text{OH}^-/\text{OH}) = +2.47 \text{ eV}$, and the band gap of CeO_2 is 3.2 eV.

Heling Zhang, Yuqi Wan, Simin Shang,
Qingrong Cheng* and Zhiquan Pan

Heling Zhang, Yuqi Wan, Simin Shang,
Qingrong Cheng* and Zhiquan Pan

Figure 1 illustrates the molecular structure and frontier orbitals of the Au-phenanthrene-Au complex. The top part shows the chemical structure of the complex, consisting of a phenanthrene core (three fused benzene rings) sandwiched between two gold (Au) atoms, which are further coordinated to phosphine (PR₃) groups. The bottom part shows the HOMO (Highest Occupied Molecular Orbital) and LUMO (Lowest Unoccupied Molecular Orbital) orbitals. The HOMO is localized on the phenanthrene core, while the LUMO is localized on the gold atoms and the phosphine groups.

Benjamin J. Frogley and Anthony F. Hill*

Benjamin J. Frogley and Anthony F. Hill*

The reaction scheme shows the conversion of an alpha-halo ketone (R-C(=O)-CH2-X) to an alpha-fluoro ketone (R-C(=O)-CH2-F). The reaction is catalyzed by a cobalt complex (Co) and silver fluoride (AgF) in organic carbonates. The cobalt complex is a cobalt atom coordinated by a bipyridine ligand, a phenyl group (Ph), and a fluorine atom (F). The silver fluoride (AgF) is shown as a separate species. The reaction is labeled 'In organic carbonates'.

Susana García-Abellán, Daniel Barrena-Espés,
Julen Munarriz, Vincenzo Passarelli and
Manuel Iglesias*

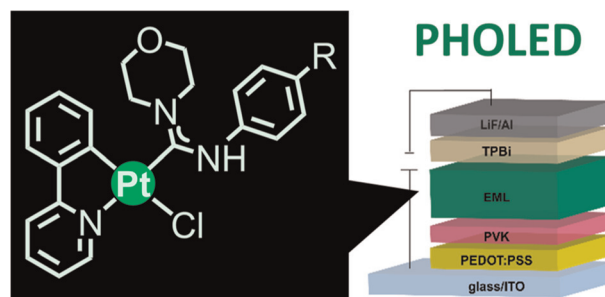
Susana García-Abellán, Daniel Barrena-Espés,
Julen Munarriz, Vincenzo Passarelli and
Manuel Iglesias*

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Cyclometalated platinum(II) complexes with acyclic diaminocarbene ligands for OLED application

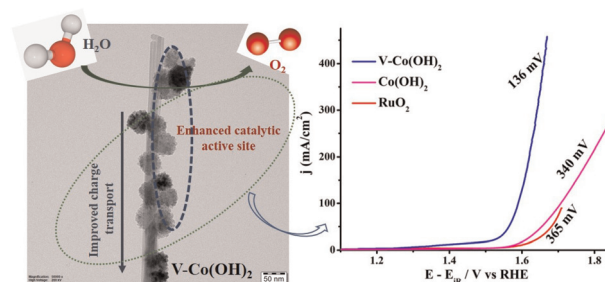
Svetlana A. Katkova, Daria O. Kozina, Kristina S. Kisel, Maria A. Sandzhieva, Dmitriy A. Tarvanen, Sergey V. Makarov, Vitaly V. Porsev, Sergey P. Tunik* and Mikhail A. Kinzhalov*



4606

F and rare V⁴⁺ doped cobalt hydroxide hybrid nanostructures: excellent OER activity with ultralow overpotential

Pandi Muthukumar, Periyappan Nantheeswaran, Mariappan Mariappan, Mehboobali Pannipara, Abdullah G. Al-Sehemi and Savarimuthu Philip Anthony*



CORRECTION

4616

Correction: Aromatic amine electrochemical sensors based on a Co-MOF: a hydrogen bond-induced specific response

Xiao-qin Wu, Ze-yu Yang, Xiao-jie Sang, Xin-xin Tian* and Xuehong Wei*

