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See Jose de Jesus Velazquez Garcia et al., pp. 4449–4460.

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Inside cover

See Raghuman Singh Ningthoujam et al., pp. 4461–4473.

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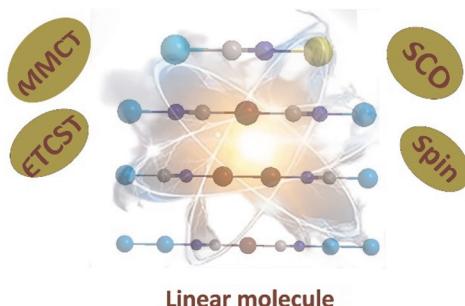
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Recent developments and challenges of molecular design in linear cyanido-bridged multimetallic complexes

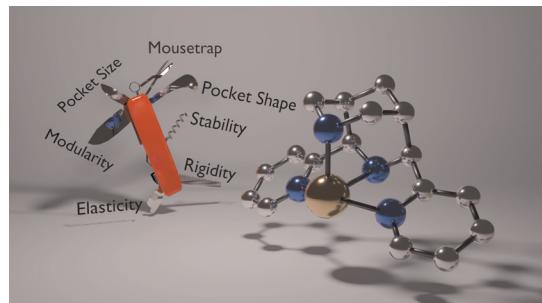
Jin-Hui Fu, Bing-Chang Tan, Ying Song, Zi-Hang Wu, Xin-Tao Wu and Tian-Lu Sheng*



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Bispidine coordination chemistry

Katharina Bleher,* Patrick A. Cieslik* and Peter Comba*



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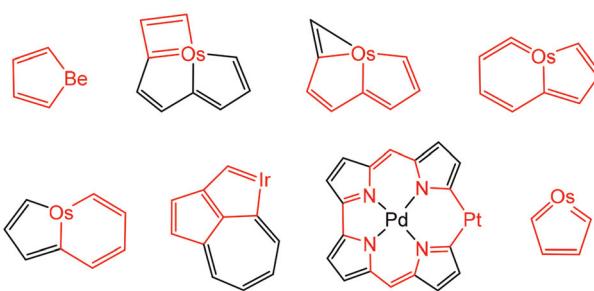
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Recent advances in antiaromatic metallacycles

Lei Li, Yang Li, Wenfeng Jiang and Wei Bai*

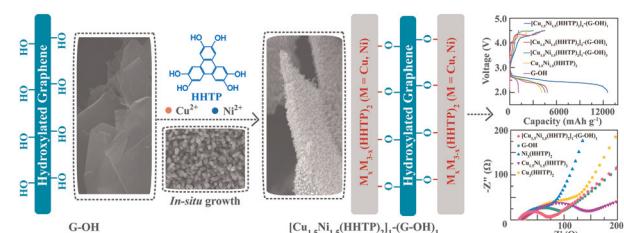


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Enhancing Li–O₂ battery performance with conductive hierarchical metal–organic framework composite cathodes

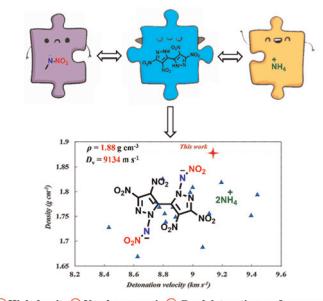
Pingan Pan, Si Miao, Ying Zhang, Shilin Huo, Dufeng Wu* and Sanchuan Yu*



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A high-density energetic ammonium salt via a polynitropyratzolate counteranion

Miao Li, Yubei Zhang, Yaqun Dong, Jing Liu, Yuji Liu, Wei Huang, Chuan Xiao,* Guangbin Cheng and Yongxing Tang*

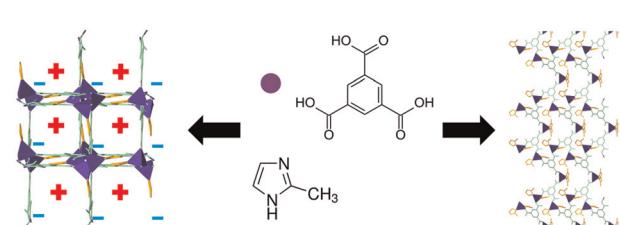


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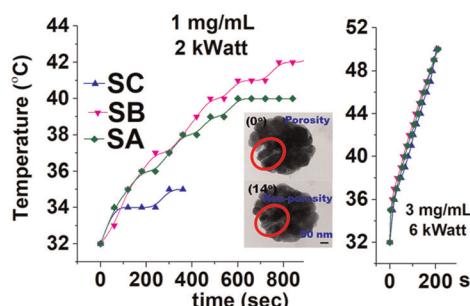
Neutral and ionic Co(II) metal–organic frameworks with 2-methylimidazole and trimesate: design and evaluation for molecule encapsulation and slow release

Jose de Jesus Velazquez Garcia,* Luis de los Santos Valladares, Crispin H. W. Barnes, Sandra König, Michael Fröba, Volodymyr Baran, Bassima Knjo, Faegheh Khademhir, Aliyenur Ekineken, Fabienne Hain, Evke Carstensen, Tom Spillner, Lina Asprilla Herrera, Weronika Łukaszczak and Simone Techert



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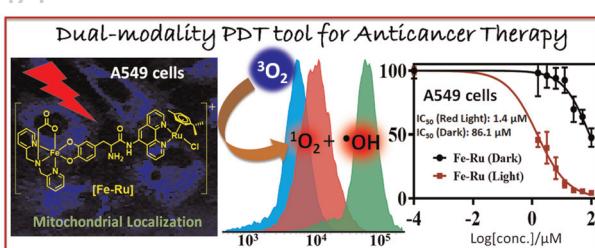
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Heat-generation behavior of Fe_3O_4 particles in AC magnetic fields: analysis of microstructures through tilting

Manas Srivastava, Ruchi Agrawal, Atom Rajiv Singh, Leishangthem Sanatombi Devi, Rashmi Joshi, Bheeshma Pratap Singh,* D. Sarkar, Rakesh Kumar Singhal and Raghuman Singh Ningthoujam*

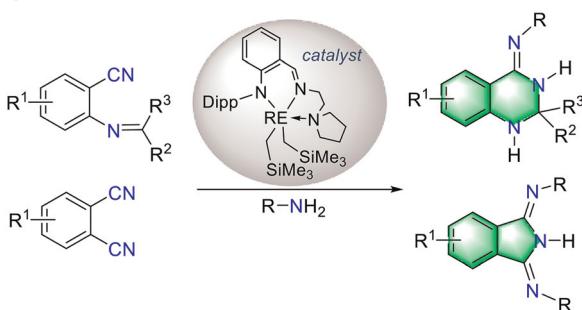
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A red light-activable hetero-bimetallic $[\text{Fe}(\text{III})-\text{Ru}(\text{II})]$ complex as a dual-modality PDT tool for anticancer therapy

Abhishek Panwar, Chandi C. Malakar, Aarti Upadhyay* and Mithun Roy*

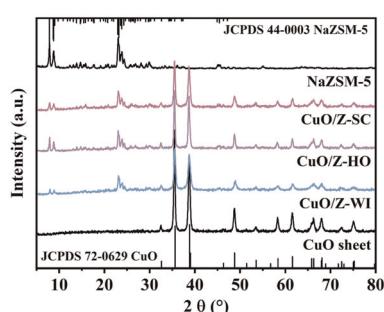
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Synthesis of 2,3-dihydroquinazolinimines and 1,3-diiminoisoindolines catalyzed by rare earth metal alkyl complexes through tandem addition/cyclization of nitriles with amines

Dianjun Guo, Jinqiang He, Qingbing Yuan, Shuangli Zhou and Xiancui Zhu*

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Synthetic structure effect of $\text{CuO}/\text{NaZSM-5}$ on the catalytic oxidation of chlorinated aromatic hydrocarbon

Man Xie, Jiasheng Wang, Hangyu Zhou, Hao Zhang, Pengfei Sun and Xiaoping Dong*

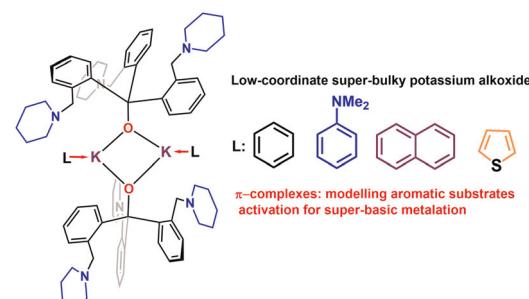


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Low-coordinate potassium alkoxide – an efficient trap for arenes: the role of η^n non-covalent bonding in substrate activation for C–H bond metalation

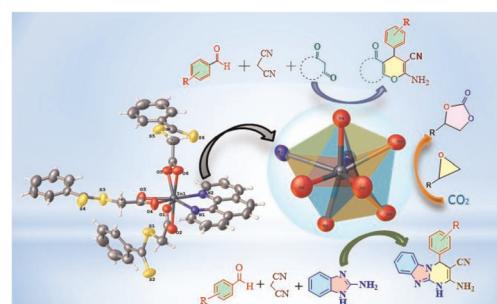
Alexander N. Selikhov, Yulia V. Nelyubina, Rinat R. Aysin and Alexander A. Trifonov*



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Synthesis and characterization of In(III) S-thiobenzoylthioglycolate complexes and their catalytic applications in CO₂ fixation and multicomponent synthetic reactions

Rajesh Pratap, Raj Kumar Sahani, Tarkeshwar Maddeshiya, Himanshu Shekhar Tripathi, Mrituanjay D. Pandey* and Subrato Bhattacharya*

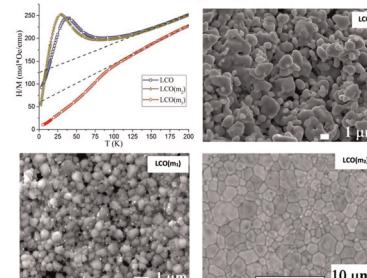


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Ferromagnetism in LaCoO₃: relationship between the crystal structure, morphology and magnetic properties

Yuri S. Orlov,* Vyacheslav A. Dudnikov, Sergey N. Vereshchagin, Yuri N. Ustyuzhanin, Sergey V. Nikolaev,* Sergey M. Zharkov, Mikhail N. Volochaev, Galina M. Zeer, Sergey Yu. Gavrilkin, Alexey Yu. Tsvetkov and Sergey G. Ovchinnikov

Dependence of magnetic properties of LaCoO₃ on the morphology

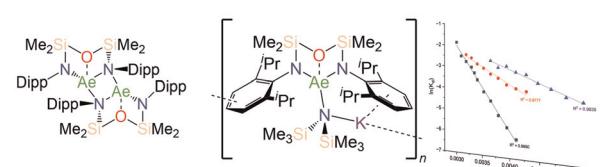


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Heavier alkaline earth and heterobimetallic s-block “ate” complexes of a di(amido)siloxane ligand: solid-state structure and dynamic solution-phase behaviour

Matthew D. Haynes, Andrea O'Reilly, Alice J. M. Poole, Aisling F. Roper, Stefan Thum, Louis J. Morris, Martyn P. Coles,* J. Robin Fulton,* Sjoerd Harder, Zoë R. Turner* and Dermot O'Hare*

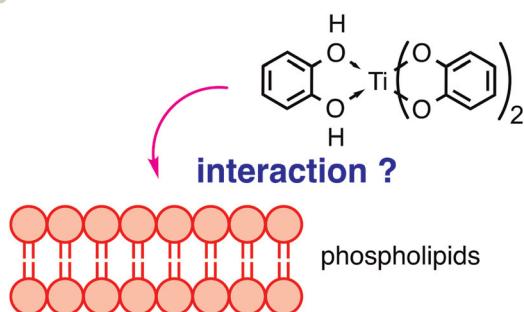
Heavy alkaline earth and heterobimetallic s-block “ate” NON complexes



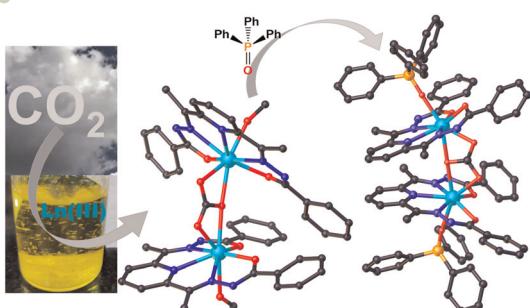
Solid-state and solution phase dynamics

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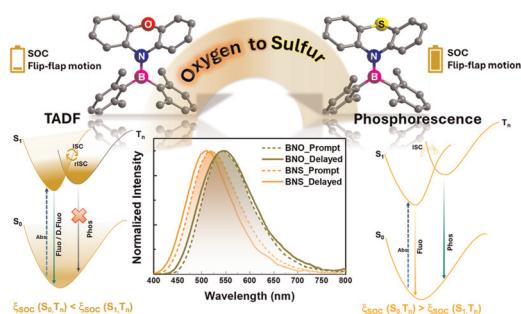
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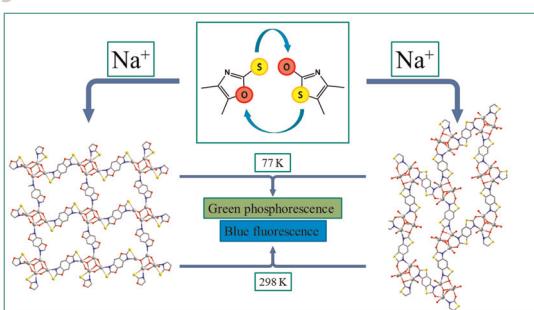
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Spectroscopic evidence of the interaction of titanium(IV) coordination complexes with a phosphate head group in phospholipids

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An insight into the route from CO₂ fixation to CO₃²⁻-bridged dinuclear lanthanide(III) complexes featuring inner coordination post-synthetic modification

Vaibhav Singh, Vajeeha Urunkulavan and Arun Kumar Bar*

Transforming delayed fluorescence into blue-shifted phosphorescence in aminoboranes via oxygen-to-sulfur substitution on the donor amine

Akkarakkaran Thayyil Muhammed Munthasir,* Satyam Jena and Pakkirisamy Thilagar*

Structurally isomeric ditopic 2-mercaptopbenzoxazole and 2-hydroxybenzothiazole as ligands for design of 2D sodium-based luminescent coordination polymers

Anton F. Rogozhin,* Vasily A. Ilichev, Dmitry I. Pavlov and Mikhail N. Bochkarev

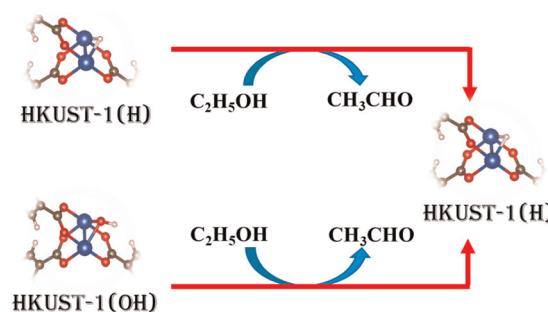


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The role of defect-modulated HKUST-1 MOF nodes in non-oxidative ethanol dehydrogenation: an observed phenomenon of catalyst transfiguration

Anjali Ganai and Pranab Sarkar*

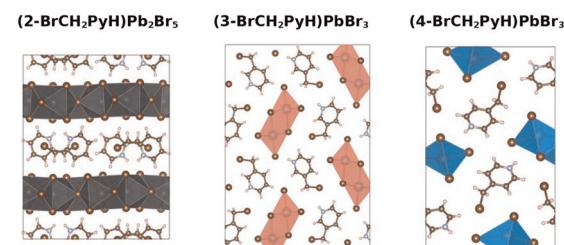


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Effect of ring substituent position on the structural and optoelectronic properties of novel quasi low-dimensional hybrid 2-, 3-, and 4-(bromomethyl)pyridinium lead bromides

D. A. Chaplygina, O. V. Patrusheva, C. Chen, A. V. Shtareva, C. C. Stoumpos, R. Kevorkyants, A. V. Emeline and D. S. Shtarev*

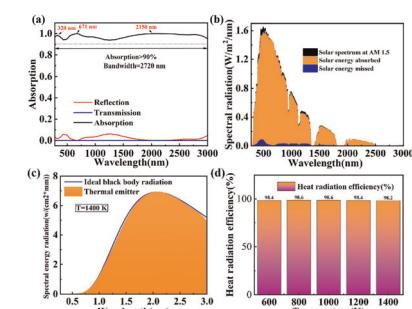
Novel Semiconducting Photoactive Crystalline Phases



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Thermal radiation analysis of a broadband solar energy-capturing absorber using Ti and GaAs

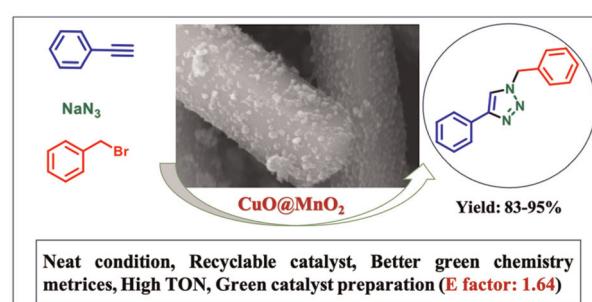
Yifan Xiao, Can Ma, Tangyou Sun,* Qianju Song, Liang Bian, Zao Yi,* Zhiqiang Hao, Chaojun Tang, Pinghui Wu and Qingdong Zeng



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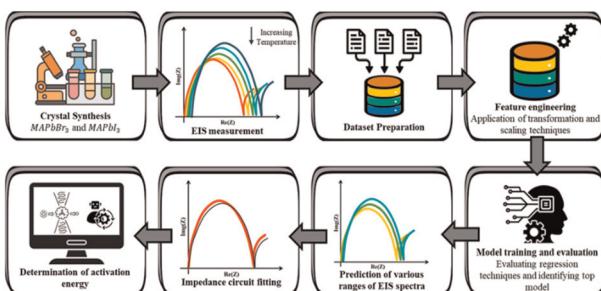
Design and development of a copper–manganese oxide nanocatalyst for the sustainable synthesis of 1,4-disubstituted 1,2,3-triazoles

Manish Rawat,* Nitish Kumar Sinha, Srishti Rawat, Keman Pratap, Vandana Saraswat, Akash Kumar and Sahil Kohli



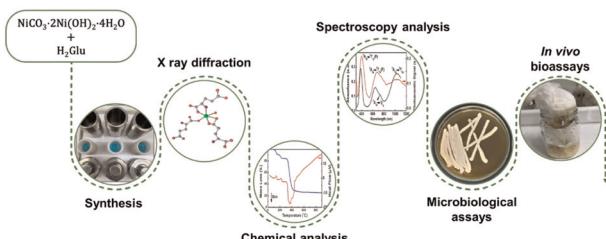
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**Machine learning-driven analysis of activation energy for metal halide perovskites**

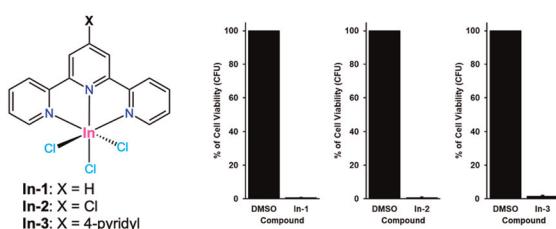
Vimi Patel, Kunjrnani Sorathia, Kushal Unjiya, Raj Dashrath Patel, Siddhi Vinayak Pandey,* Abul Kalam, Daniel Prochowicz, Seckin Akin and Pankaj Yadav*

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**A nickel glutamate metal biomolecule framework**

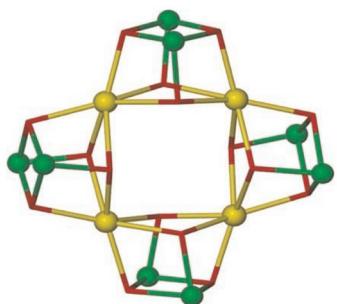
Élvio Antônio de Campos,* Luana Thayline Casagrande Silva, Rodrigo Vieira Rodrigues, Ronan Farias Freire de Souza, Jeane Patrícia Cardozo dos Santos, Conceição de Fátima Alves Olguin, Cleide Viviane Buzanello, Javier Alcides Ellena, Pedro Henrique de Oliveira Santiago and Sílvia Denofre de Campos

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Indium(III)-terpyridine complexes as antifungal and anticancer agents**Indium(III)-terpyridine complexes: synthesis, structures and remarkable antifungal and anticancer activities**

Xiao Chen, Qinguo Zhang, Ashley Kaswer, Hyunjeong Kim, Maisha Ahmed, Michelle C. Neary, Shu-Yuan Cheng, Guoqi Zhang* and Jason M. Rauco*

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**Dodecanuclear $[Ni_8^{II}Ln_4]$ clusters and rings of corner-sharing $\{Ni_2^{II}Ln_2\}$ cubanes ($Ln = Dy, Gd, Y$); magnetic and magnetothermal properties**

Thomais G. Tziotzi, Eleftheria Agapaki, Emmanouil K. Charkiolakis, David Gracia, Marc Ubach I. Cervera, Scott J. Dalgarno, Marco Evangelisti,* Euan K. Brechin* and Constantinos J. Milios*

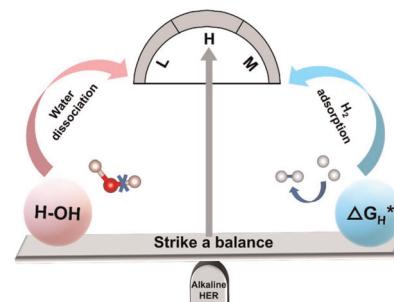


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Achieving the optimal Ni(OH)_2 : Pt ratio for enhancing electrocatalytic water-dissociation and H_2 delivery in proton-deficient environments

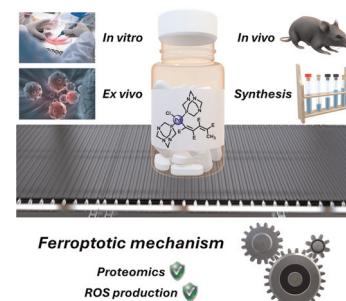
Roshini Arulraj, Tumpa Sadhukhan* and Anantharaj Sengeni*



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Unlocking the potential of organopalladium complexes for high-grade serous ovarian cancer therapy

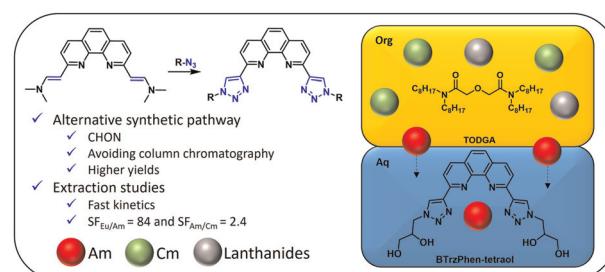
Thomas Scattolin,* Enrico Cavarzerani, Dario Alessi, Matteo Mauceri, Eleonora Botter, Giovanni Tonon, Isabella Caligiuri, Ombretta Repetto, Urska Kamensek, Simona Kranjc Brezar, Maria Dalla Pozza, Stefano Palazzolo, Maja Cemazar, Vincenzo Canzonieri, Nicola Demitri, Steven P. Nolan, Gilles Gasser, Fabiano Visentin* and Flavio Rizzolio*



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New synthetic pathway towards BTrzPhen-tetraol: a hydrophilic 2,9-bis-triazolyl-1,10-phenanthroline ligand for selective americium stripping

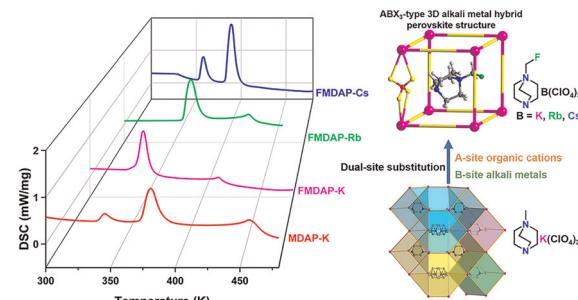
P. Troosters, T. Opsomer,* K. Van Hecke, K. Verguts, F. Reniers, K. Van Hoecke, P. Zsabka, T. Cardinaels and W. Dehaen



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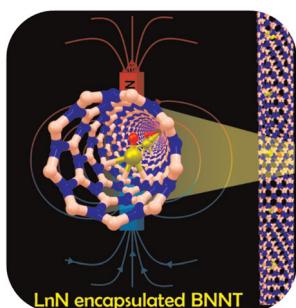
Three-dimensional perchlorate-based alkali metal hybrid perovskite molecular ferroelastic crystals

Yu-Si Liu, Zhe-Kun Xu, Jia-Mei Zhang, Xiao-Gang Chen, Yan Qin and Zhong-Xia Wang*



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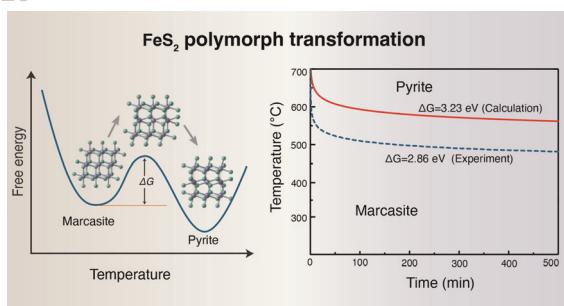
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Single-ion magnet behaviour in highly axial lanthanide mononitrides encapsulated in boron nitride nanotubes: a quantum chemical investigation

Kusum Kumari, Shruti Moorthy and Saurabh Kumar Singh*

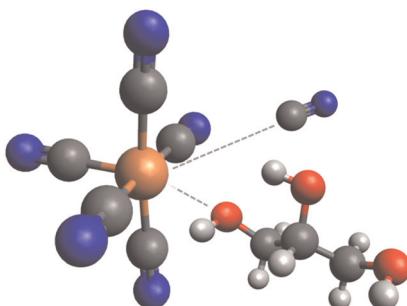
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A combined experimental and theoretical study of the prototypical polymorphic transformation from marcasite to pyrite FeS₂

KeYuan Ma, Ulrich Aschauer and Fabian O. von Rohr*

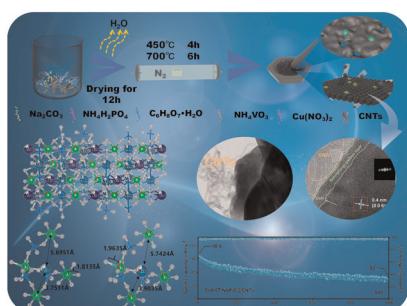
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Blue-light photodegradation of ferricyanide under protein relevant conditions

Patrick D. F. Murton, Christiane R. Timmel, Stuart R. Mackenzie* and Patricia Rodríguez-Maciá*

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Cu²⁺ substitution regulating Na₃V₂(PO₄)₃ with solid SEI membrane for superior electrochemical performance

Zhenbo Peng,* Bifen Chen, Shan Yu, Kaiyu Wu, Farao Zhang and Peng Gao

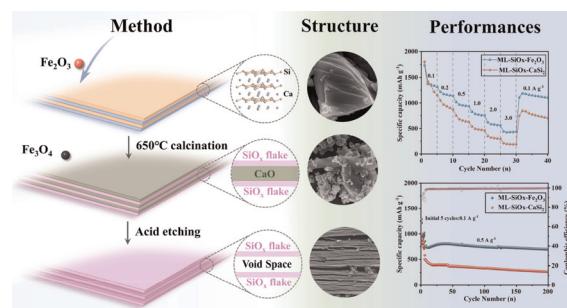


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Multilayer SiO_x derived from Si–Ca alloy via Fe_2O_3 oxidization for Li-ion batteries

Hanjing Dong, Hongwei Xie,* Qiushi Song and Zhiqiang Ning



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Effect of proton sources on the electrocatalytic hydrogen evolution reaction mediated by a copper complex of bistriazolylpyridine

Gui-Shan Chen, Chang Liu, Xing-Jin Yang, Zhi-Hao Zhan, Tian-Shun Wang and Hua-Xin Zhang*

