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ISSN 2041-6539 CODEN CSHCBM 14(36) 9615–9982 (2023)



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See Michał Magott, Hitoshi Miyasaka, Dawid Pinkowicz *et al.*, pp. 9651–9663. Image reproduced by permission of Michał Magott from *Chem. Sci.*, 2023, 14, 9651.



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See Daniel Mandler *et al.*, pp. 9630–9650. Image reproduced by permission of Daniel Mandler from *Chem. Sci.*, 2023, 14, 9630. Artwork created by Nitzan Shauloff.

EDITORIAL

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Emerging frontiers in aromaticity

Miquel Solà*, Israel Fernández* and Gabriel Merino*

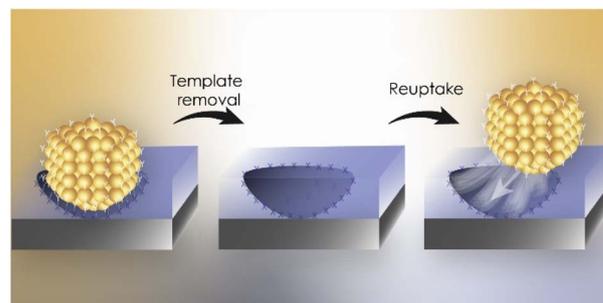


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Imprinting of nanoparticles in thin films: Quo Vadis?

Din Zelikovich, Linoy Dery, Hila Sagi-Cohen and Daniel Mandler*



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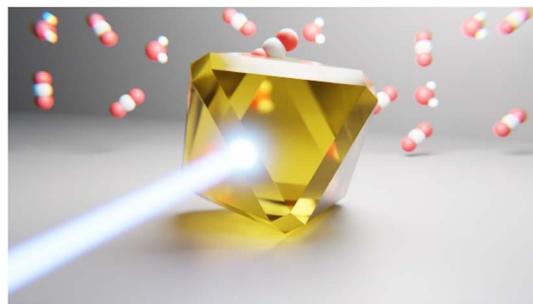
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Guest-induced pore breathing controls the spin state in a cyanido-bridged framework

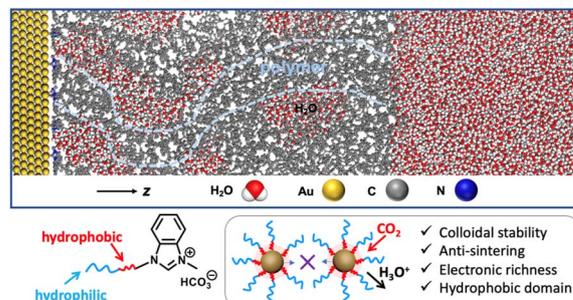
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Why surface hydrophobicity promotes CO₂ electroreduction: a case study of hydrophobic polymer *N*-heterocyclic carbenes

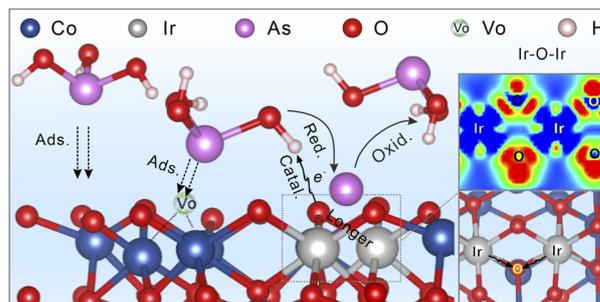
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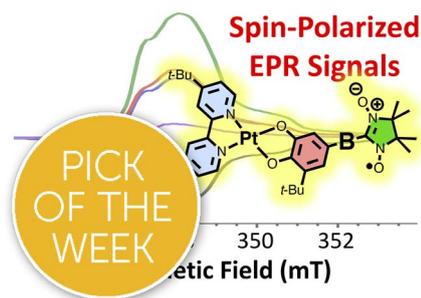
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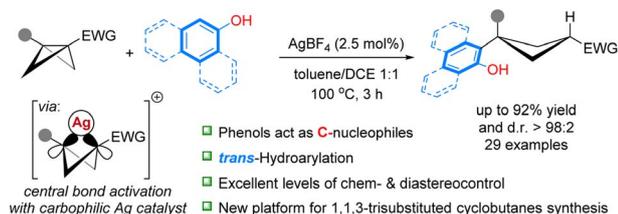
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Competitive reversed quartet mechanisms for photogenerated ground state electron spin polarization

Martin L. Kirk,* David A. Shultz,* Patrick Hewitt, Anil Reddy Marri and Art van der Est*



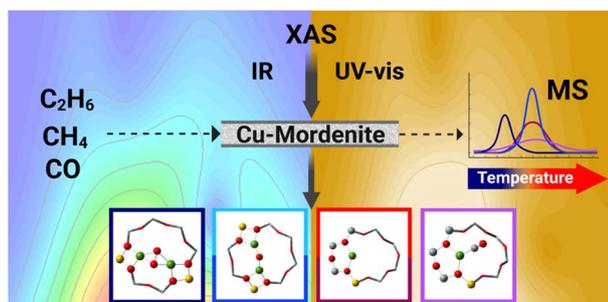
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C(sp²)-H cyclobutylation of hydroxyarenes enabled by silver- π -acid catalysis: diastereocontrolled synthesis of 1,3-difunctionalized cyclobutanes

Lei Tang, Qi-Nan Huang, Feng Wu, Yuanjiu Xiao, Jin-Lan Zhou, Tong-Tong Xu, Wen-Biao Wu,* Shuanglin Qu* and Jian-Jun Feng*

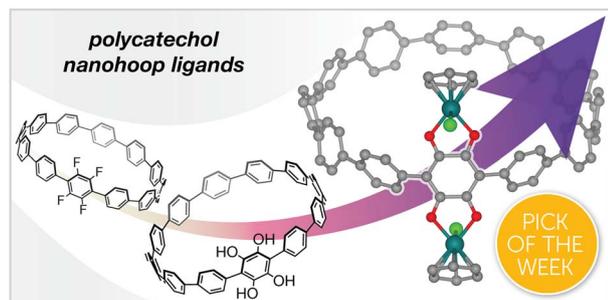
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Understanding C-H activation in light alkanes over Cu-MOR zeolites by coupling advanced spectroscopy and temperature-programmed reduction experiments

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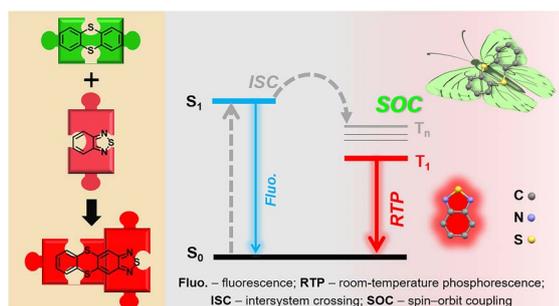
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Synthesis and metalation of polycatechol nano hoops derived from fluorocycloparaphenylenes

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A functional unit combination strategy for enhancing red room-temperature phosphorescence

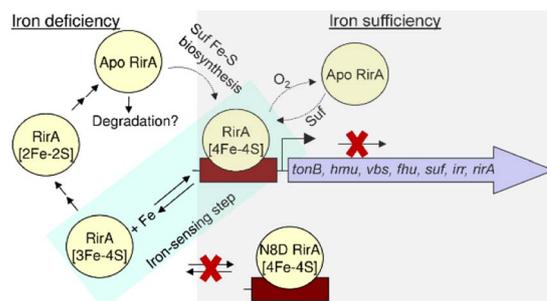
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Stabilisation of the RirA [4Fe–4S] cluster results in loss of iron-sensing function

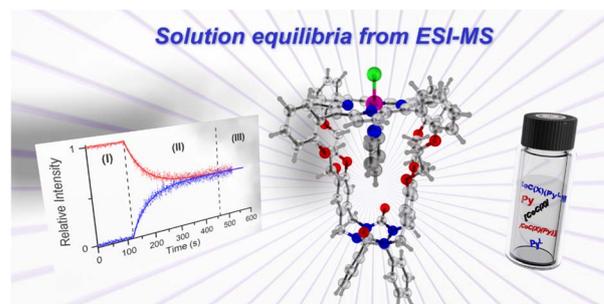
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Kinetics of ligand exchange in solution: a quantitative mass spectrometry approach

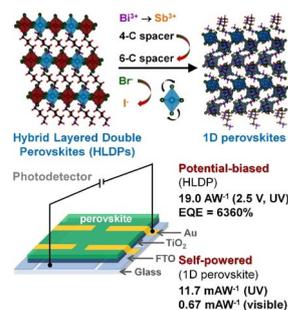
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Transition from Dion–Jacobson hybrid layered double perovskites to 1D perovskites for ultraviolet to visible photodetection

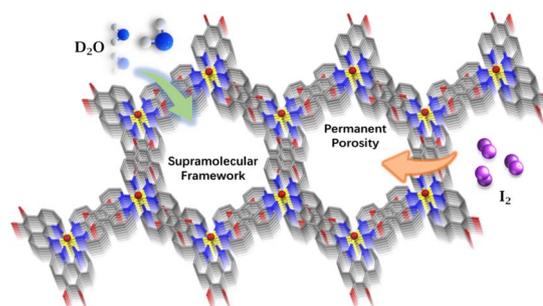
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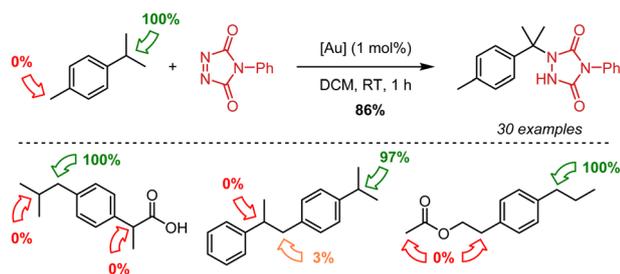
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Modular metallotecton for engineering permanently porous frameworks: supernumerary role of ancillary ion

Deepak Gupta, Géraldine Chanteux, Gulshan Kumar, Koen Robeyns and Alexandru Vlad*



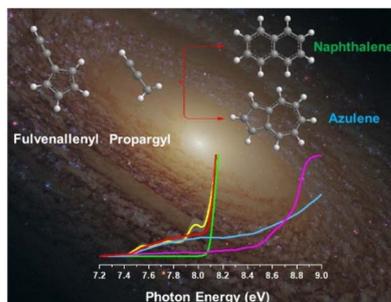
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Site selective gold(I)-catalysed benzylic C–H amination via an intermolecular hydride transfer to triazolinediones

Kevin Bevernaege, Nikolaos V. Tzouras, Albert Poater, Luigi Cavallo, Steven P. Nolan,* Fady Nahra* and Johan M. Winne*

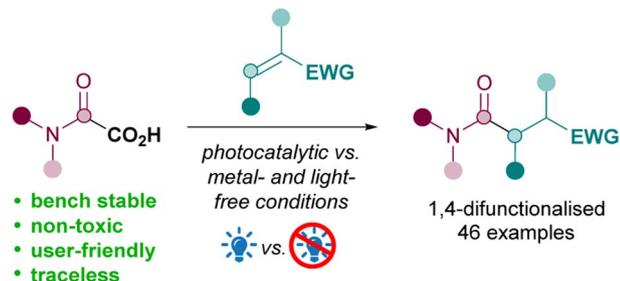
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Gas-phase preparation of azulene ($C_{10}H_8$) and naphthalene ($C_{10}H_8$) via the reaction of the resonantly stabilized fulvenallenyl (C_7H_5) and propargyl (C_3H_3) radicals

Wang Li, Jiuzhong Yang, Long Zhao,* David Couch, Myrsini San Marchi, Nils Hansen,* Alexander N. Morozov, Alexander M. Mebel* and Ralf I. Kaiser*

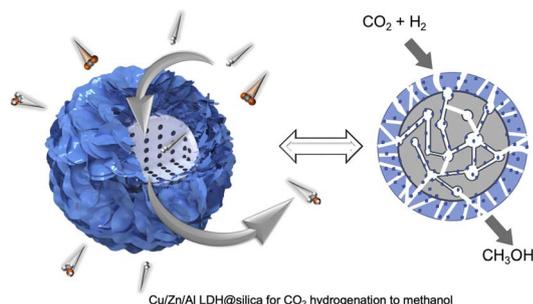
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Direct decarboxylative Giese amidations: photocatalytic vs. metal- and light-free

David M. Kitcatt, Katie A. Scott, Elena Rongione, Simon Nicolle and Ai-Lan Lee*

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Core-shell silica@Cu_xZnAl LDH catalysts for efficient CO₂ hydrogenation to methanol

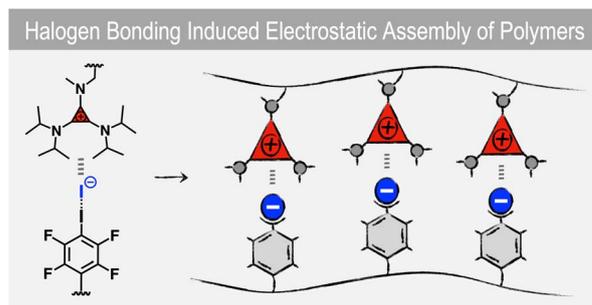
Meng Lyu, Jianwei Zheng, Claire Coulthard, Jing Ren, Yufei Zhao, Shik Chi Edman Tsang, Chunping Chen* and Dermot O'Hare*



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Exploring the supramolecular chemistry of cyclopropeniums: halogen-bonding-induced electrostatic assembly of polymers

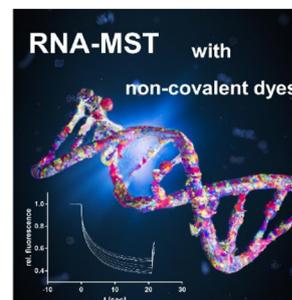
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Non-covalent dyes in microscale thermophoresis for studying RNA ligand interactions and modifications

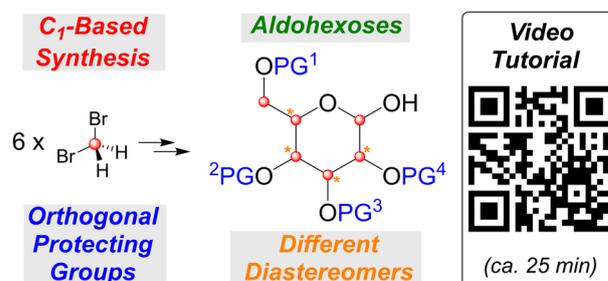
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A unified strategy for the synthesis of aldohexoses by boronate assisted assembly of CH₂X₂ derived C₁-building blocks

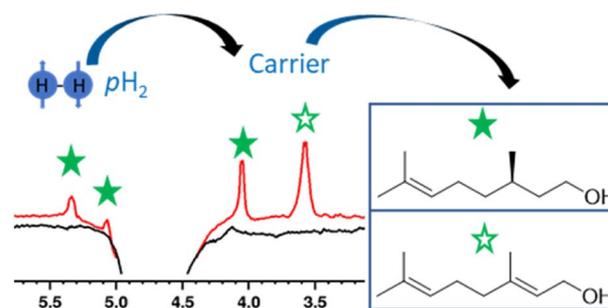
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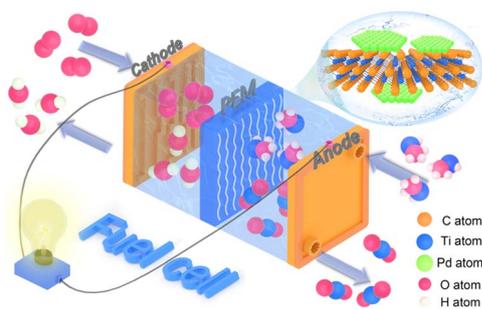
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Enhancing the NMR signals of plant oil components using hyperpolarisation relayed *via* proton exchange

Adel Alshehri, Ben. J. Tickner, Wissam Iali and Simon B. Duckett*



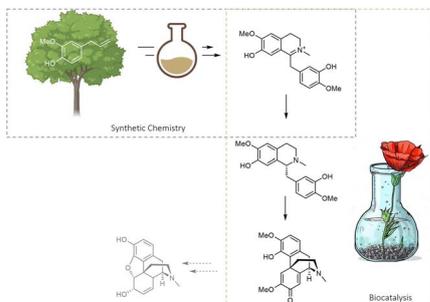
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A 2D/2D heterojunction of ultrathin Pd nanosheet/MXene towards highly efficient methanol oxidation reaction: the significance of 2D material nanoarchitectonics

Huajie Huang, Di Xiao, Zihan Zhu, Chi Zhang, Lu Yang, Haiyan He, Jungmok You, Quanguo Jiang,* Xingtao Xu* and Yusuke Yamauchi*

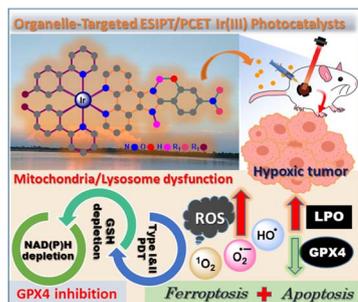
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Concise synthesis of (*R*)-reticuline and (+)-salutaridine by combining early-stage organic synthesis and late-stage biocatalysis

Emmanuel Cigan, Jakob Pletz, Sarah A. Berger, Bettina Hierzberger, Michael Grilec-Zlamal, Alexander Steiner, Isabel Oroz-Guinea and Wolfgang Kroutil*

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Interrogating bioinspired ES IPT/PCET-based Ir(III)-complexes as organelle-targeted phototherapeutics: a redox-catalysis under hypoxia to evoke synergistic ferroptosis/apoptosis

Maniklal Shee, Dan Zhang, Moumita Banerjee, Samrat Roy, Bipul Pal, Anakuthil Anoop,* Youyong Yuan* and N. D. Pradeep Singh*

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ortho-, *meta*-, and *polysubstituted* benzene bioisosteres
new geometries outside aromatic chemical space

Synthesis of polysubstituted bicyclo[2.1.1]hexanes enabling access to new chemical space

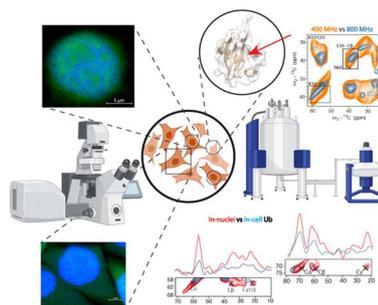
Marius Reinhold, Justin Steinebach, Christopher Golz and Johannes C. L. Walker*



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A high-field cellular DNP-supported solid-state NMR approach to study proteins with sub-cellular specificity

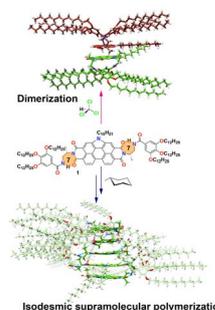
David Beriashvili, Ru Yao, Francesca D'Amico, Michaela Krafčiková, Andrei Gurinov, Adil Safeer, Xinyi Cai, Monique P. C. Mulder, Yangping Liu, Gert E. Folkers and Marc Baldus*



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Solvent-dependent self-assembly of *N*-annulated perylene diimides. From dimers to supramolecular polymers

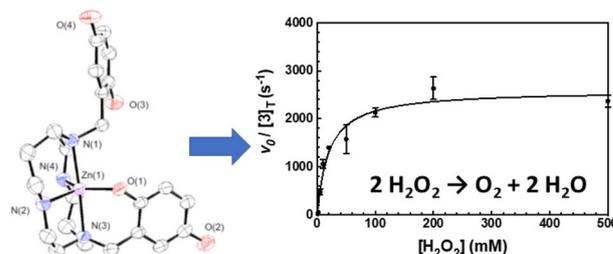
Cristina Naranjo, Azahara Doncel-Giménez, Rafael Gómez, Juan Aragón,* Enrique Orti* and Luis Sánchez*



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A macrocyclic quinol-containing ligand enables high catalase activity even with a redox-inactive metal at the expense of the ability to mimic superoxide dismutase

Sana Karbalaei, Alicja Franke, Julian Oppelt, Tarfi Aziz, Aubree Jordan, P. Raj Pokkuluri, Dean D. Schwartz, Ivana Ivanović-Burmazović* and Christian R. Goldsmith*

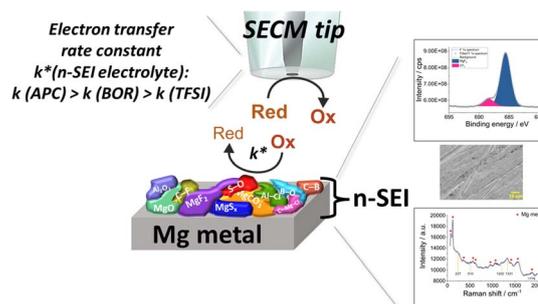


Rapid catalase activity without redox-active metals

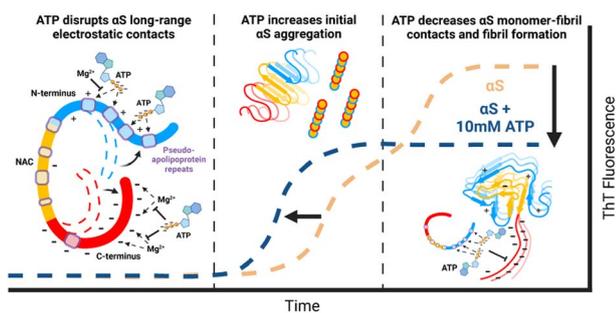
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Unveiling the electronic properties of native solid electrolyte interphase layers on Mg metal electrodes using local electrochemistry

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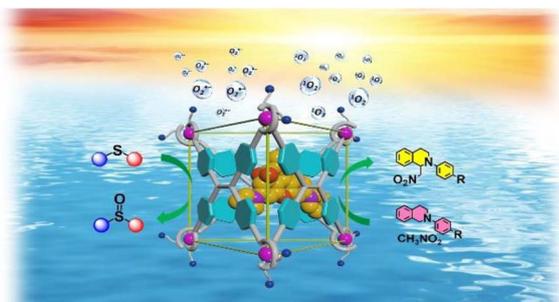
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Toward a molecular mechanism for the interaction of ATP with alpha-synuclein

Evelyn Rose Kamski-Hennekam, Jinfeng Huang, Rashik Ahmed and Giuseppe Melacini*

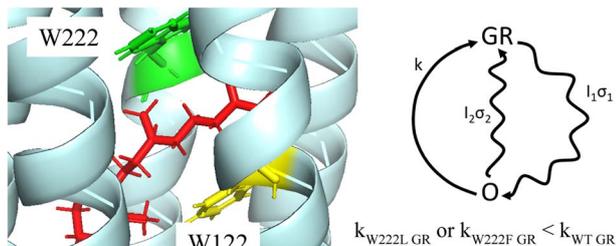
9943



An artificial light-harvesting system constructed from a water-soluble metal–organic barrel for photocatalytic aerobic reactions in aqueous media

Danyang Li, Linlin Yang, Wangjian Fang, Xinmei Fu, Hechuan Li, Jianxu Li, Xuezhao Li and Cheng He*

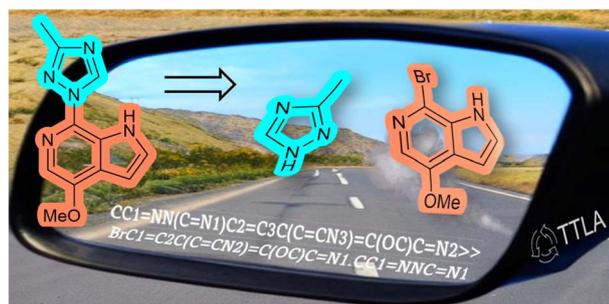
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Impact of protein–chromophore interaction on the retinal excited state and photocycle of *Gloeobacter* rhodopsin: role of conserved tryptophan residues

Ramprasad Misra, Ishita Das, András Dér, Gábor Steinbach, Jin-gon Shim, Wayne Busse, Kwang-Hwan Jung, László Zimányi* and Mordechai Sheves*

9959



Multistep retrosynthesis combining a disconnection aware triple transformer loop with a route penalty score guided tree search

David Kreutter and Jean-Louis Reymond*



EDGE ARTICLES

9970

Continuous addition kinetic elucidation: catalyst and reactant order, rate constant, and poisoning from a single experiment

Peter J. H. Williams, Charles Killeen, Ian C. Chagunda, Brett Henderson, Sofia Donnecke, Wil Munro, Jaspreet Sidhu, Denaisha Kraft, David A. Harrington* and J. Scott McIndoe*



CORRECTIONS

9978

Correction: Self-healing mixed matrix membranes containing metal–organic frameworks

Prantik Mondal and Seth M. Cohen*

9980

Correction: Peptide epitope-imprinted polymer microarrays for selective protein recognition. Application for SARS-CoV-2 RBD protein

Zsófia Bognár, Eszter Supala, Aysu Yarman, Xiaorong Zhang, Frank F. Bier, Frieder W. Scheller and Róbert E. Gyurcsányi*

