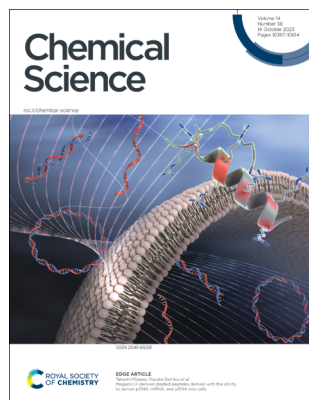


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ISSN 2041-6539 CODEN CSHCBM 14(38) 10367–10614 (2023)



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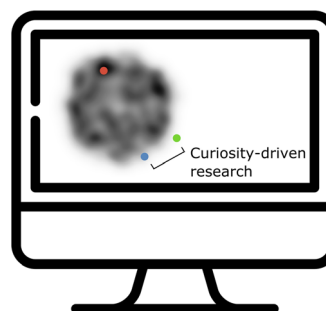
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PERSPECTIVE

10378

The rise of automated curiosity-driven discoveries in chemistry

Latimah Bustillo, Teodoro Laino and Tiago Rodrigues*

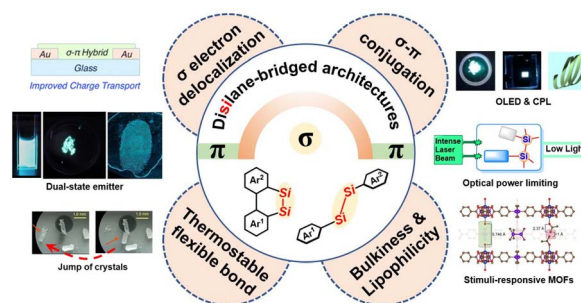


REVIEW

10385

Disilane-bridged architectures: an emerging class of molecular materials

Zhikuan Zhou,* Lizhi Gai, Li-Wen Xu, Zijian Guo
and Hua Lu*



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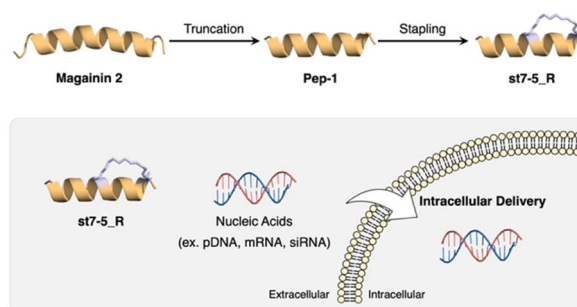
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Magainin 2-derived stapled peptides derived with the ability to deliver pDNA, mRNA, and siRNA into cells

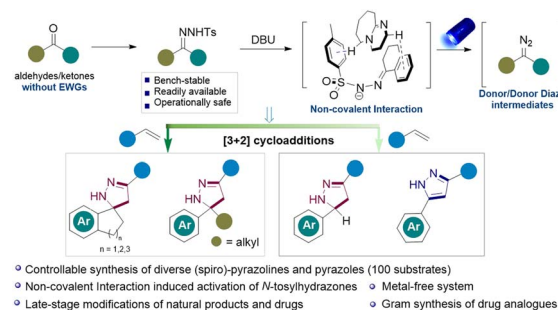
Motoharu Hirano, Hidetomo Yokoo, Chihiro Goto, Makoto Oba, Takashi Misawa* and Yosuke Demizu*



10411

Visible-light-induced [3+2] cycloadditions of donor/donor diazo intermediates with alkenes to achieve (spiro)-pyrazolines and pyrazoles

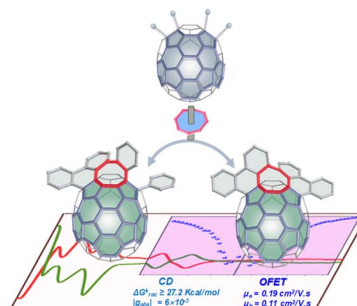
Yu Zhang, Yanchuan Li, Shao-Fei Ni, Jin-Peng Li, Dingding Xia, Xinyu Han, Jingchuan Lin, Jinxin Wang*, Shoubhik Das* and Wei-Dong Zhang*



10420

Buckybowl and its chiral hybrids featuring eight-membered rings and helicene units

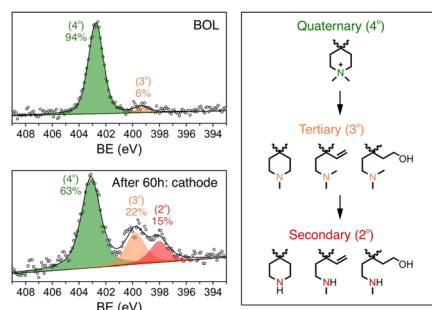
Yuxiao Duan, Meng Chen, Hironobu Hayashi, Hiroko Yamada, Xinyue Liu and Lei Zhang*



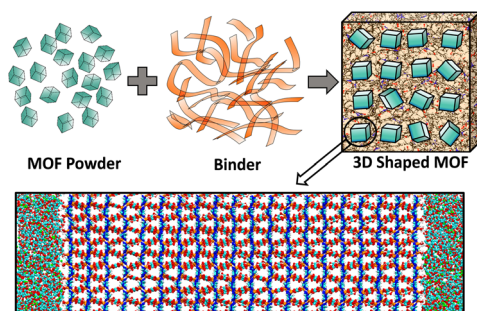
10429

Ionomer degradation in catalyst layers of anion exchange membrane fuel cells

Qihao Li, Meixue Hu, Chuangxin Ge, Yao Yang, Li Xiao*, Lin Zhuang* and Héctor D. Abruña*



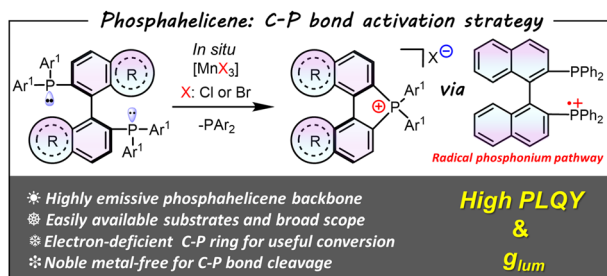
10435



Microscopic insight into the shaping of MOFs and its impact on CO₂ capture performance

Supriyo Naskar, Dong Fan, Aziz Ghoufi and Guillaume Maurin*

10446

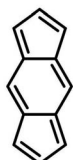


Mn(III)-mediated C-P bond activation of diphosphines: toward a highly emissive phosphahelicene cation scaffold and modulated circularly polarized luminescence

Bo Yang, Suqiong Yan, Chengbo Li, Hui Ma, Fanda Feng, Yuan Zhang and Wei Huang*

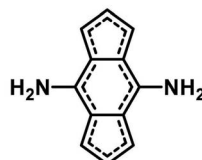
10458

Localized double bonds (C_{2h})



$$E(S_1-T_1) = +1460 \text{ meV}$$

Delocalized double bonds (D_{2h})

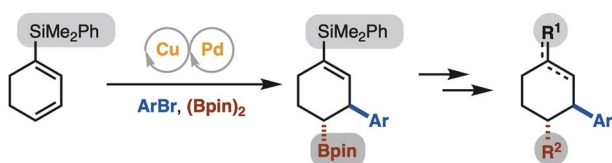


$$E(S_1-T_1) = -72 \text{ meV}$$

Double-bond delocalization in non-alternant hydrocarbons induces inverted singlet-triplet gaps

Marc H. Garner,* J. Terence Blaskovits and Clémence Corminboeuf*

10467



Cu/Pd-catalyzed arylation of a 1-silyl-1,3-cyclohexadiene for stereocontrolled and diverse cyclohexane/ene synthesis

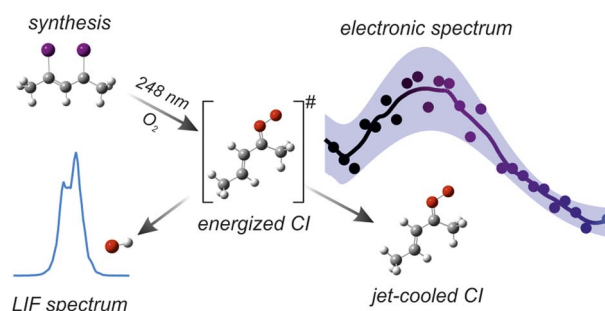
Phillip F. Crook, Alan R. Lear, Suman Das and M. Kevin Brown*



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A five-carbon unsaturated Criegee intermediate: synthesis, spectroscopic identification, and theoretical study of 3-penten-2-one oxide

Tarun Kumar Roy, Tianlin Liu, Yujie Qian, Christopher A. Sojda, Marisa C. Kozlowski and Marsha I. Lester*

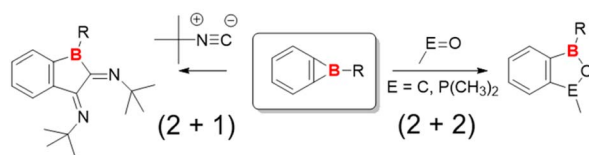


10478

Accessing unusual heterocycles: ring expansion of benzoborirenes by formal cycloaddition reactions

Marvin Sindlinger, Markus Ströbele, Jörg Grunenberg* and Holger F. Bettinger*

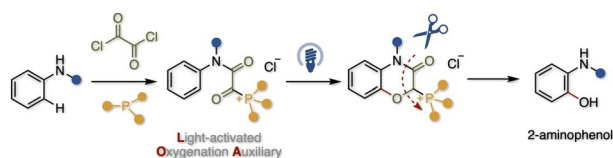
Strain Release Driven Synthesis of B-Heterocycles



10488

Biomimetic design of an α -ketoacylphosphonium-based light-activated oxygenation auxiliary

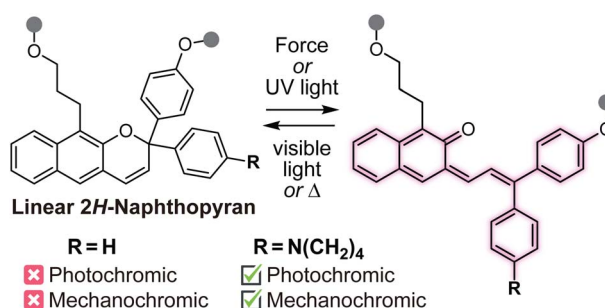
Ryoto Oya, Kenji Ota, Masaaki Fuki, Yasuhiro Kobori, Masahiro Higashi, Kazunori Nagao* and Hirohisa Ohmiya*



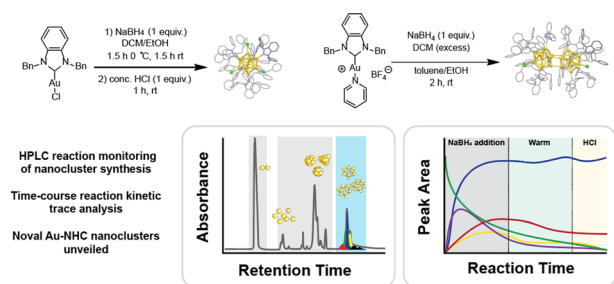
10494

Anomalous photochromism and mechanochromism of a linear naphthopyran enabled by a polarizing dialkylamine substituent

Yan Sun, Molly E. McFadden, Skylar K. Osler, Ross W. Barber and Maxwell J. Robb*



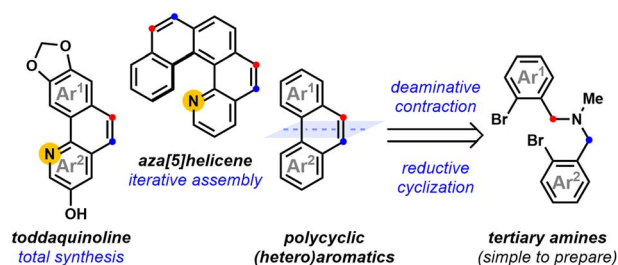
10500



Insights into the synthesis of NHC-stabilized Au nanoclusters through real-time reaction monitoring

Junliang Liu, Yusuke Sato, Viveka K. Kulkarni, Angus I. Sullivan, Wenyu Zhang, Cathleen M. Crudden* and Jason E. Hein*

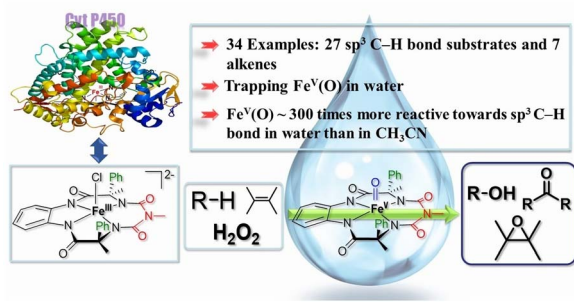
10508



Deaminative ring contraction for the synthesis of polycyclic heteroaromatics: a concise total synthesis of tottadaquinoline

Emily K. Kirkeby, Zachary T. Schwartz, Myles A. Lovasz and Andrew G. Roberts*

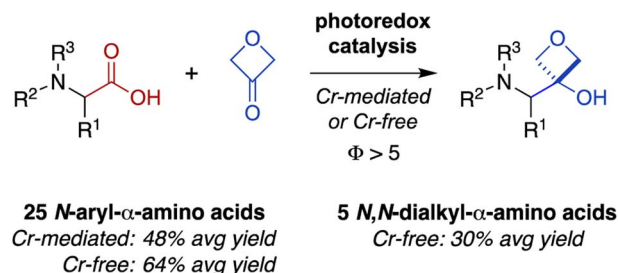
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Highly regioselective oxidation of C-H bonds in water using hydrogen peroxide by a cytochrome P450 mimicking iron complex

Sandipan Jana, Puja De, Chinmay Dey, Somdatta Ghosh Dey,* Abhishek Dey* and Sayam Sen Gupta*

10524



Direct conversion of amino acids to oxetanols bioisosteres via photoredox catalysis

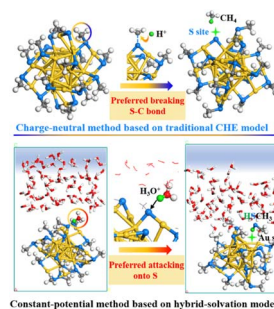
Avelyn Mae V. Delos Reyes, Christopher S. Nieves Escobar, Alberto Muñoz, Maya I. Huffman and Derek S. Tan*



10532

–SR removal or –R removal? A mechanistic revisit on the puzzle of ligand etching of $\text{Au}_{25}(\text{SR})_{18}$ nanoclusters during electrocatalysis

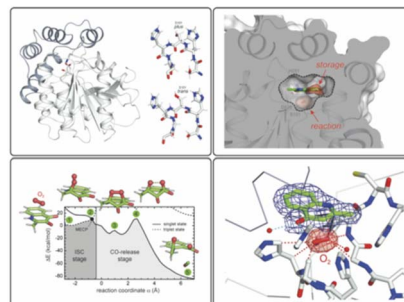
Fang Sun, Lubing Qin, Zhenghua Tang,* Guocheng Deng, Megalamane S. Bootharaju, Zidong Wei,* Qing Tang* and Taeghwan Hyeon



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Evolutionary adaptation from hydrolytic to oxygenolytic catalysis at the α/β -hydrolase fold

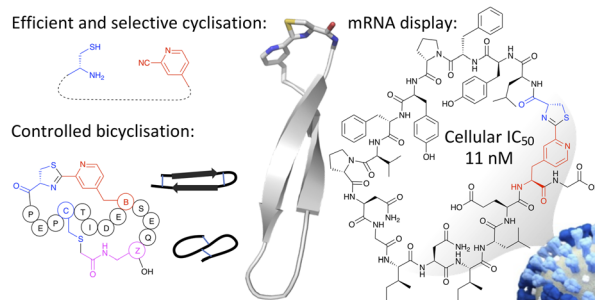
Soi Bui, Sara Gil-Guerrero, Peter van der Linden, Philippe Carpentier, Matteo Ceccarelli,* Pablo G. Jambrina* and Roberto A. Steiner*



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Selective thiazoline peptide cyclisation compatible with mRNA display and efficient synthesis

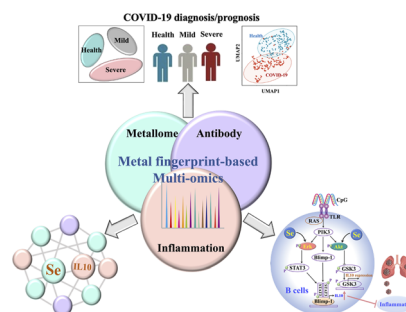
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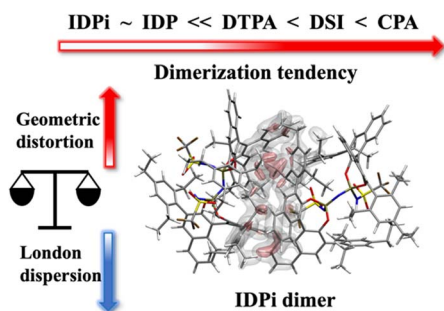
Metal-coding assisted serological multi-omics profiling deciphers the role of selenium in COVID-19 immunity

Ying Zhou, Shuofeng Yuan, Fan Xiao, Hongyan Li, Ziwei Ye, Tianfan Cheng, Cuiting Luo, Kaiming Tang, Jianpiao Cai, Jianwen Situ, Siddharth Sridhar, Wing-Ming Chu, Anthony Raymond Tam, Hin Chu, Chi-Ming Che, Lijian Jin, Ivan Fan-Ngai Hung, Liwei Lu, Jasper Fuk-Woo Chan* and Hongzhe Sun*



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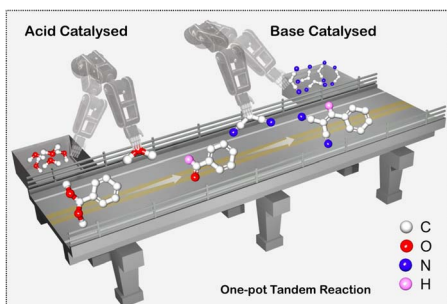
10580



Dimerization of confined Brønsted acids in enantioselective organocatalytic reactions

Ingolf Harden, Frank Neese and Giovanni Bistoni*

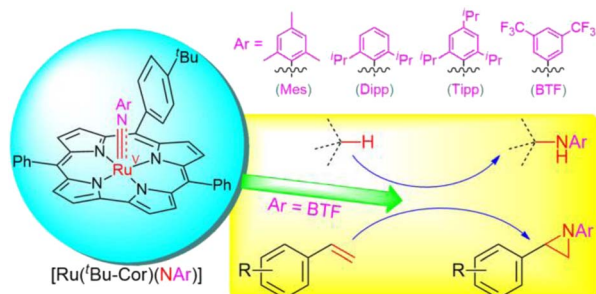
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Organic porous heterogeneous composite with antagonistic catalytic sites as a cascade catalyst for continuous flow reaction

Sumanta Let, Gourab K. Dam, Sahel Fajal and Sujit K. Ghosh*

10602



Ruthenium(v) terminal arylimido corroles: isolation, spectroscopic characterization and reactivity

Ka-Pan Shing, Lin Qin, Liang-Liang Wu, Jie-Sheng Huang* and Chi-Ming Che*

CORRECTIONS

10610

Correction: Liquid electrolyte chemistries for solid electrolyte interphase construction on silicon and lithium-metal anodes

Sewon Park, Saehun Kim, Jeong-A Lee, Makoto Ue and Nam-Soon Choi*



CORRECTIONS

10611

Correction: Magnetic coupling between Fe(NO) spin probe ligands through diamagnetic Ni^{II}, Pd^{II} and Pt^{II} tetrathiolate bridges

Manuel Quiroz, Molly M. Lockart, Shan Xue, Dakota Jones, Zachary Martinez, Yisong Guo, Brad S. Pierce, Kim R. Dunbar,^{*} Michael B. Hall^{*} and Marcetta Y. Darensbourg^{*}

