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IN THIS ISSUE

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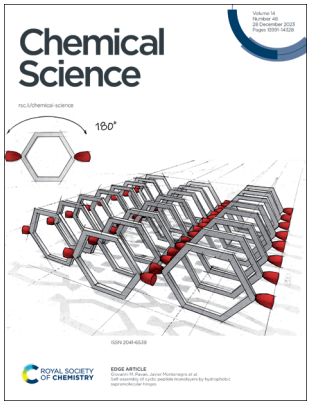
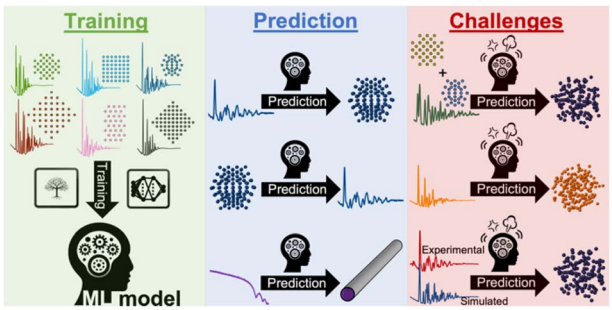
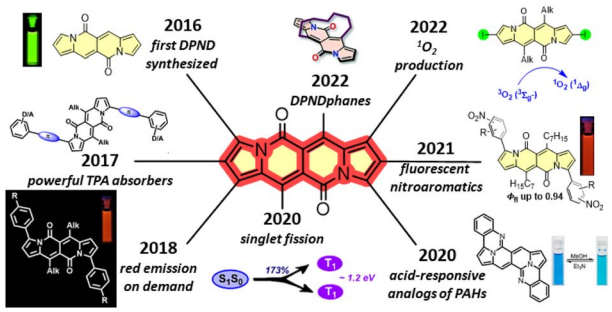


Cover
See Giovanni M. Pavan, Javier Montenegro *et al.*, pp. 14074–14081. Image reproduced by permission of Beatriz Perez and Javier Montenegro from *Chem. Sci.*, 2023, **14**, 14074.

Inside cover
See Andrew Kellett, José Martínez-Costas, Miguel Vázquez López *et al.*, pp. 14082–14091. Image reproduced by permission of M. Eugenio Vázquez from *Chem. Sci.*, 2023, **14**, 14082.

PERSPECTIVES





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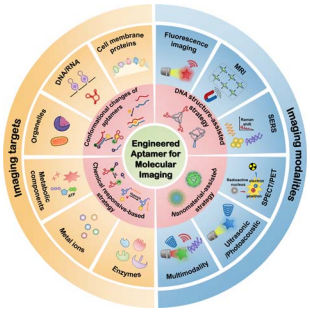

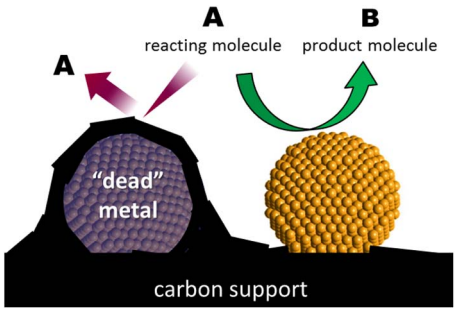

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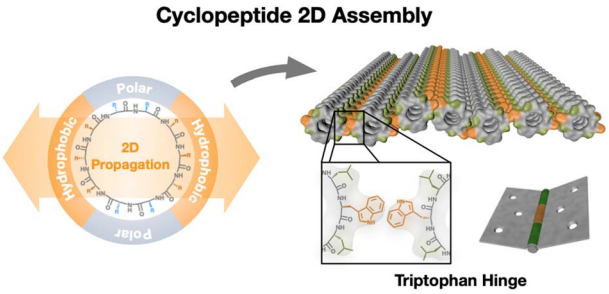

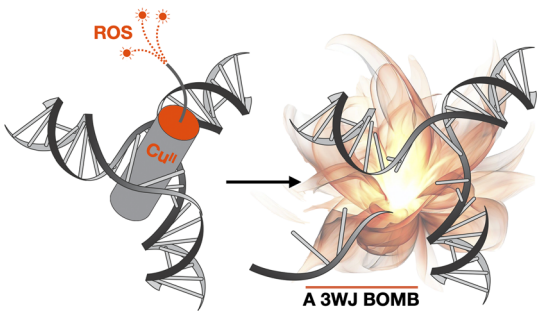

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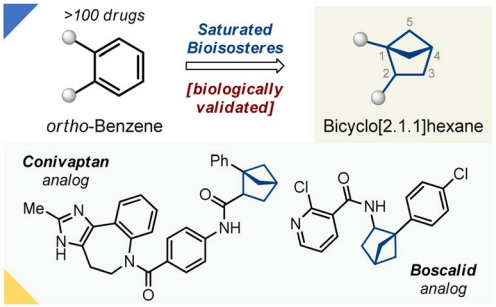
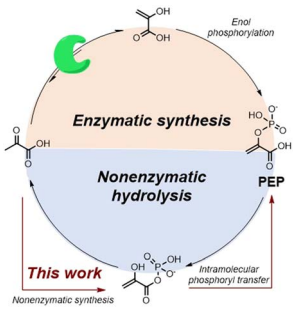


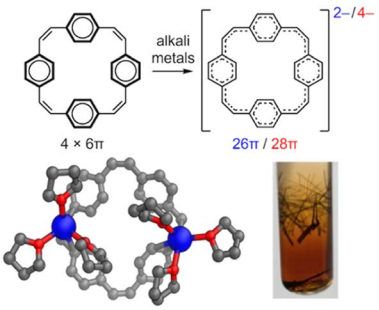
1,2-Disubstituted bicyclo[2.1.1]hexanes as saturated bioisosteres of *ortho*-substituted benzene

Aleksandr Denisenko, Pavel Garbuz, Yelyzaveta Makovetska, Oleh Shablykin, Dmytro Lesyk, Galeb Al-Maali, Rodion Korzh, Iryna V. Sadkova and Pavel K. Mykhailiuk*



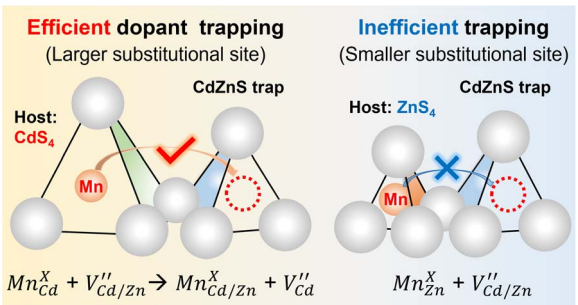
A single phosphorylation mechanism in early metabolism – the case of phosphoenolpyruvate

Joris Zimmermann, Robert J. Mayer and Joseph Moran*



Crystallographic evidence for global aromaticity in the di-anion and tetra-anion of a cyclophane hydrocarbon

Wojciech Stawski, Yikun Zhu, Zheng Wei, Marina A. Petrukhina* and Harry L. Anderson*



Inserting an "atomic trap" for directional dopant migration in core/multi-shell quantum dots

Chun Chu, Elan Hofman, Chengpeng Gao, Shuya Li, Hanjie Lin, Walker MacSwain, John M. Franck, Robert W. Meulenberg, Arindam Chakraborty and Weiwei Zheng*

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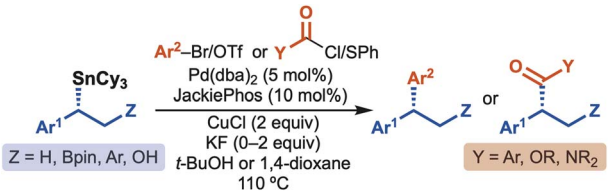

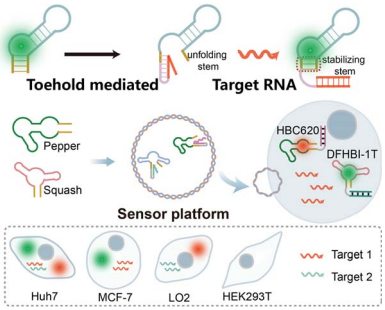

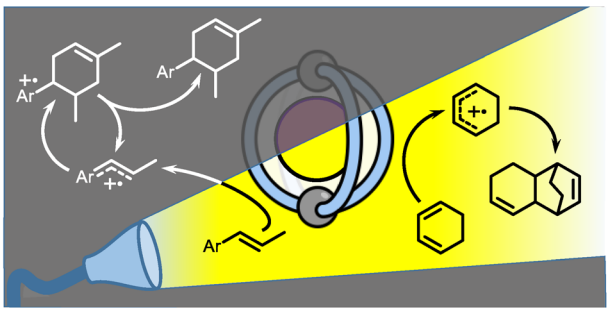

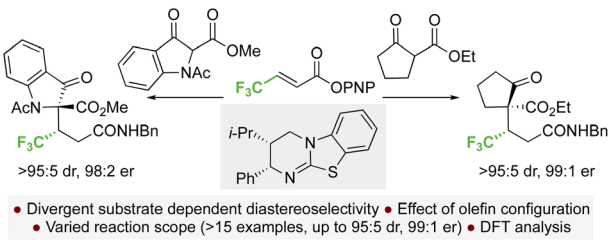

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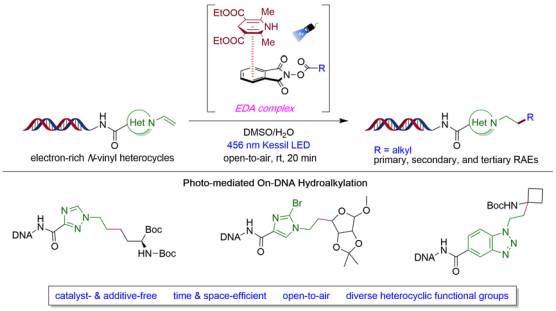

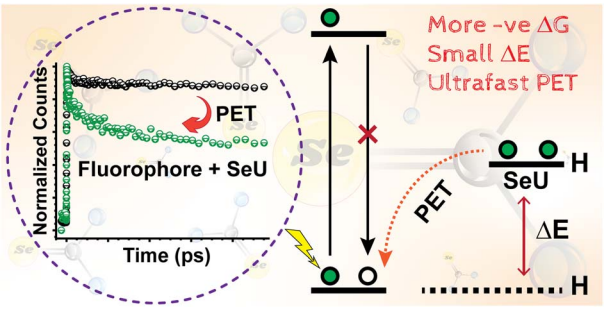

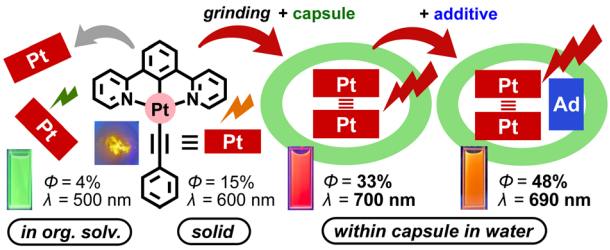

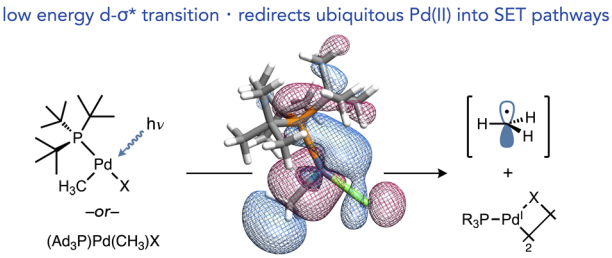

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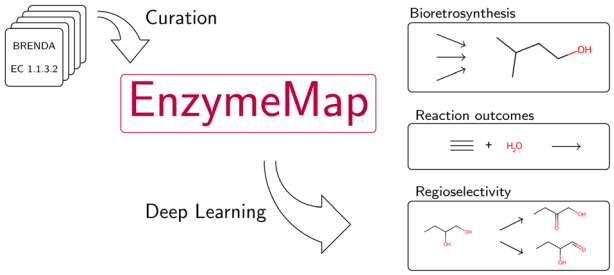
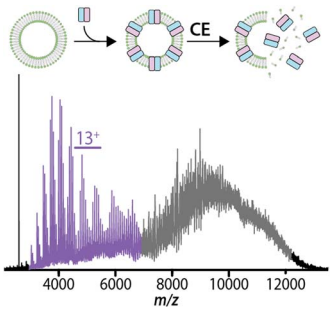


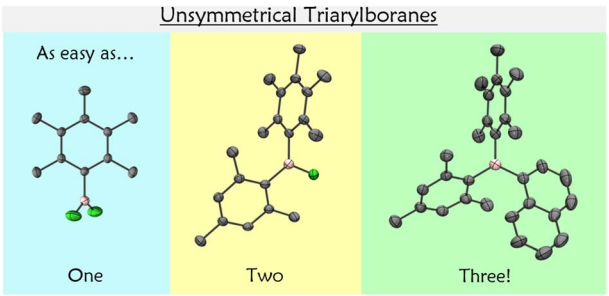
EnzymeMap: curation, validation and data-driven prediction of enzymatic reactions

Esther Heid,* Daniel Probst, William H. Green and Georg K. H. Madsen



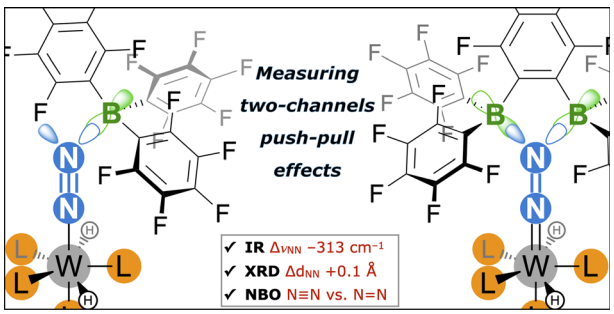
Native mass spectrometry of proteoliposomes containing integral and peripheral membrane proteins

Yun Zhu, Sangho D. Yun, Tianqi Zhang, Jing-Yuan Chang, Lauren Stover and Arthur Laganowsky*



Rapid, iterative syntheses of unsymmetrical di- and triarylboranes from crystalline aryldifluoroboranes

Douglas Turnbull and Marc-André Légaré*



An orbitally adapted push–pull template for N_2 activation and reduction to diazene-diide

David Specklin, Marie-Christine Boegli, Anaïs Coffinet, Léon Escomel, Laure Vendier, Mary Grellier and Antoine Simonneau*

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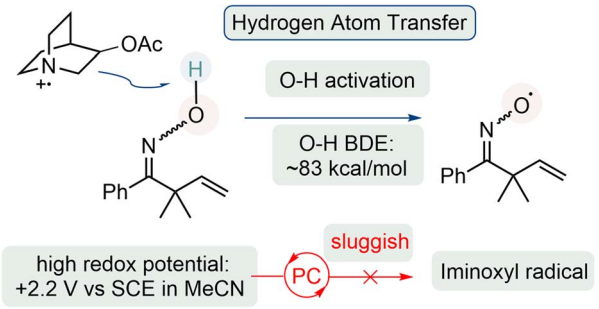

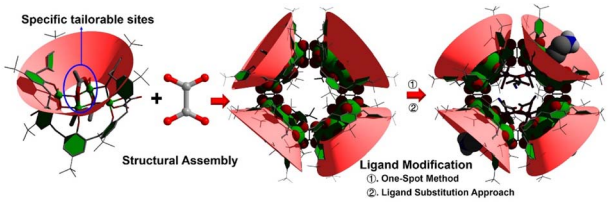

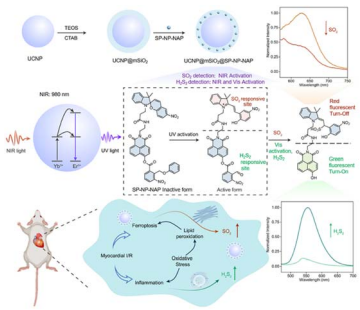

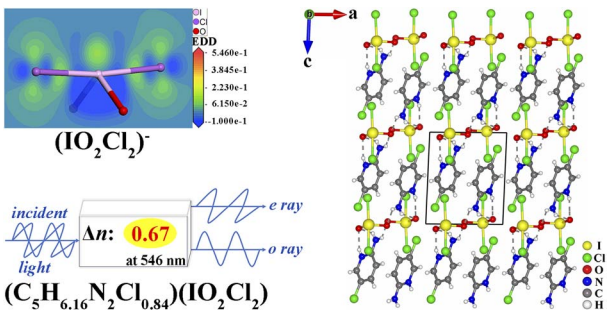

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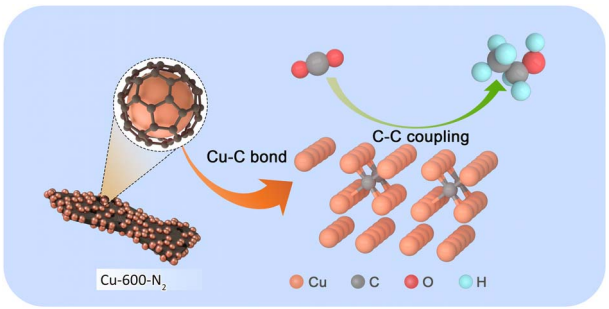
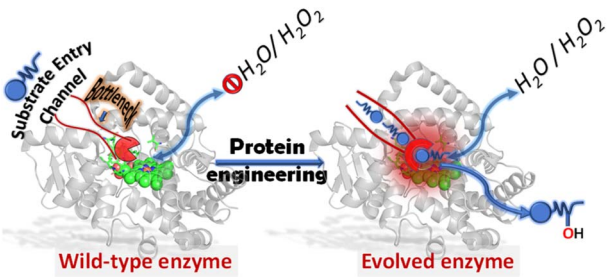


Optimizing copper nanoparticles with a carbon shell for enhanced electrochemical CO_2 reduction to ethanol

Ting Yao, Wei Xia,* Shitao Han, Shuaiqiang Jia, Xue Dong, Min Wang, Jiapeng Jiao, Dawei Zhou, Jiahao Yang, Xueqing Xing, Chunjun Chen, Mingyuan He, Haihong Wu* and Buxing Han*



Computationally guided bioengineering of the active site, substrate access pathway, and water channels of thermostable cytochrome P450, CYP175A1, for catalyzing the alkane hydroxylation reaction

Mohd Taher,* Kshatresh Dutta Dubey* and Shyamalava Mazumdar*