

# Organic & Biomolecular Chemistry

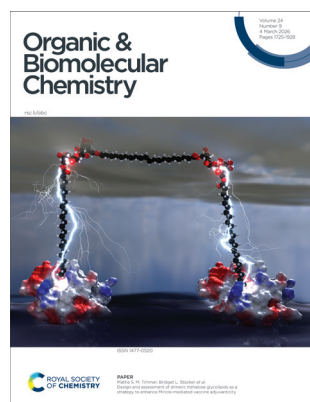
An international journal of synthetic, physical and biomolecular organic chemistry

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## IN THIS ISSUE

ISSN 1477-0520 CODEN OBCRAK 24(9) 1725-1928 (2026)



### Cover

See Mattie S. M. Timmer, Bridget L. Stocker *et al.*, pp. 1822–1836.

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Cover image designed by Mattie S. M. Timmer.

## REVIEWS

1734

### Advances of well-defined alkali metal complexes in organic synthesis

Kimberly Martinez-Fair, Dinora N. Rodriguez, Kayla Bui, Alexander Dua and Sam Yruegas\*



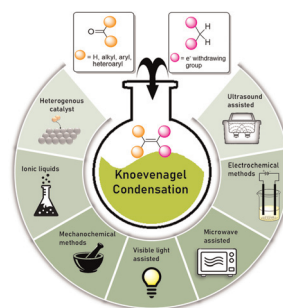
#### Contemporary Advances of the Alkali Metals

- Synthetic access to defined precursors
- Hydrofunctionalization
- Carbon-carbon bond formation
- Polymerization
- C-H activation
- Sustainable chemistry

1758

### Sustainable and green approaches for Knoevenagel condensation

Nikita, Arju, Aman Kumar, Nisha and Vinod Kumar\*



# EES Catalysis

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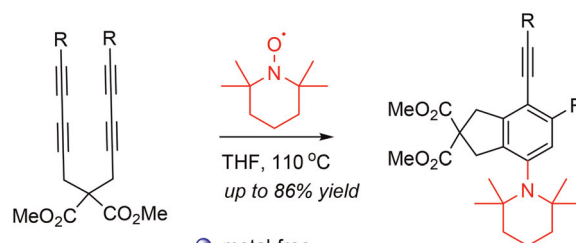
Fundamental questions  
Elemental answers

## COMMUNICATIONS

1792

## Aryne-mediated synthesis of sterically hindered arylamines using TEMPO as the amine source

Qiaofeng Liang, Zhiwen Zhong, Zhihan Sheng, Bingfeng Sun\* and Chenlong Zhu\*

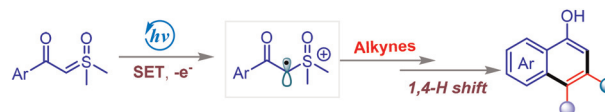


- metal-free
- highly regioselective
- radical transformations with arynes

1798

## Photoredox radical annulation of aryl sulfoxonium ylides and alkynes for 1-naphthol assembly

Ning Xian, Huawen Huang\* and Feng Zhao\*

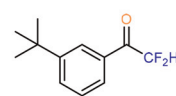
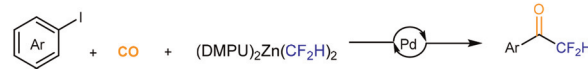
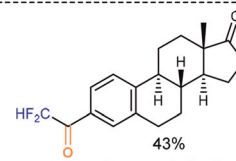


- ✓ Mild reaction conditions
- ✓ Excellent regio-selectivity
- ✓ Novel radical cascade process
- ✓ Valuable structural frameworks

1803

## Palladium-catalyzed difluoromethylcarbonylation of aryl iodides

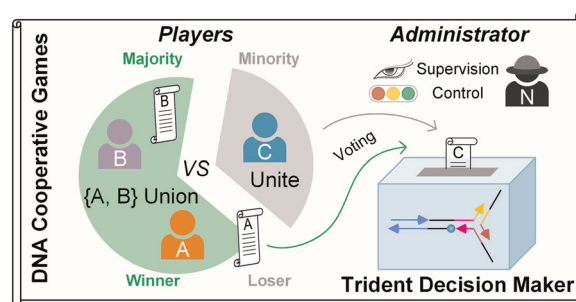
Yijie Wei, Jinxu Dong, Xiaohong Wen, Xiaodong Xiong\* and Xiaojun Zeng\*

68%  
Inhibitor of AgAChE43%  
Estrone derivative

1808

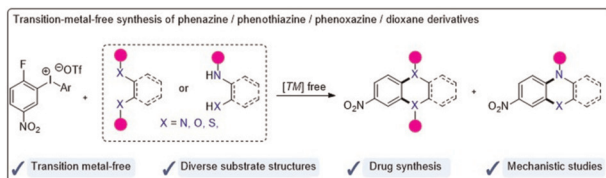
## DNA-based cooperative games: an interactive collective decision-making architecture

Yao Yao, Xiaokang Zhang, Ranfeng Wu, Shuang Cui, Lijun Sun, Bin Wang and Qiang Zhang\*



## COMMUNICATIONS

1817

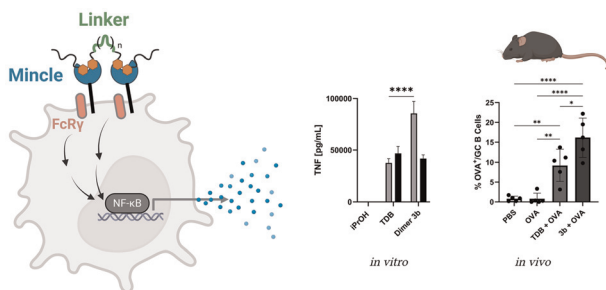


### Transition-metal-free [4 + 2] cyclocondensation of diaryliodonium salts accessing phenazine, phenothiazine, phenoxazine and dioxane derivatives

Shaoqing Wang, Weilin Lan, Chengkai Yin, Tao Qin,\*  
Heye Zhou and Bin Liu\*

## PAPERS

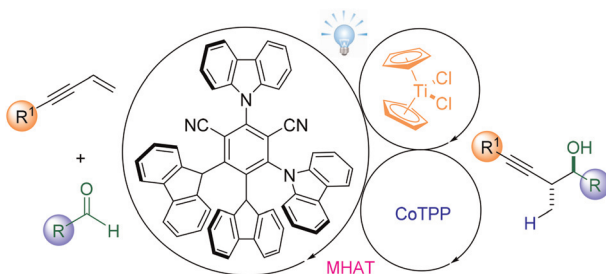
1822



### Design and assessment of dimeric trehalose glycolipids as a strategy to enhance Mincle-mediated vaccine adjuvanticity

Emma M. Dangerfield, M. A. Thathsaranie  
P. Manthirathna, James C. Robinson, Brenda S. Luong,  
Olga R. Palmer, Lisa M. Connor, Mattie S. M. Timmer\*  
and Bridget L. Stocker\*

1837



### Regio- and diastereoselective 1,2-hydroalkylation of 1,3-enynes via dual photoredox/Ti catalysis

Xiaoxia He, Hongjiang Li,\* Tao Huang, Fengzhen Li,  
Junru Wang, Zulin Xiao, Xueping Zong, Xin Xiong and  
Fusheng Li\*

1844



### Sodium halide-switchable divergent electrochemical synthesis of sulfonyl chlorides and thiosulfonates from thiols

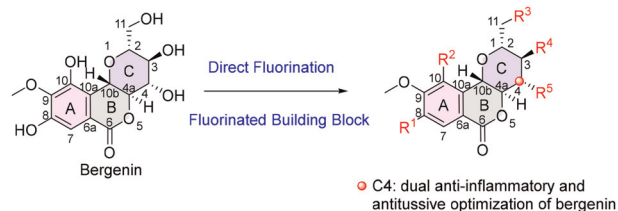
Fateh Golmoradi, Amin Rostami and Farzad Nikpour\*



1852

### Synthesis and biological evaluation of fluorinated bergenin derivatives

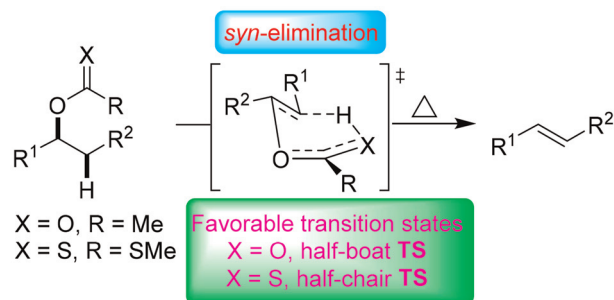
Hui Zhang, Ya-Li Xu and Lin Dong\*



1857

### Conformations of favorable transition states in the thermal pyrolysis of alkyl acetates and xanthates

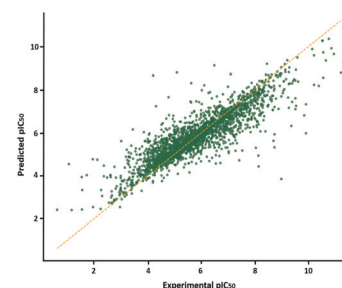
Chongjie Su and Jiayi Xu\*



1868

### TropMol: a cloud-based web tool for virtual screening and early-stage prediction of acetylcholinesterase inhibitors using machine learning

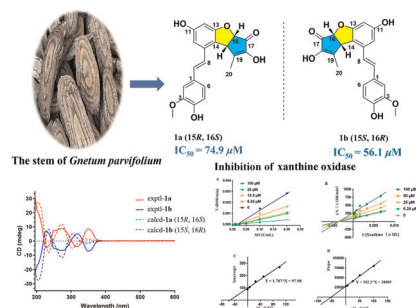
Thiago H. Doring



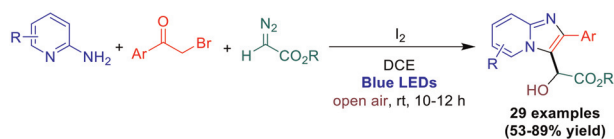
1877

### (±)-Gnetuparin A: a pair of stilbene enantiomers from *Gnetum parvifolium* and their xanthine oxidase inhibitory activity

Qin-Feng Zhu, Qian Chen, Bei-Bei Gao, Ye Xue, Ling-Ling Yu, Jun-Li Ao, Guo-Bo Xu and Shang-Gao Liao\*



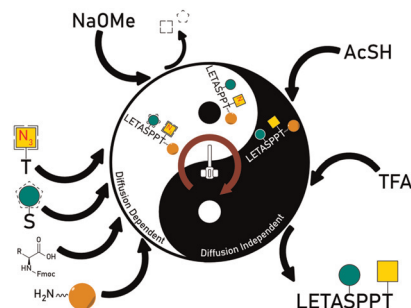
1883



### One-pot three-component synthesis of hydroxyacetylated imidazo[1,2-a]pyridines via visible-light-mediated halogen atom transfer

Jalaj Kumar Pathak and Namrata Rastogi\*

1889



### Expeditious synthesis of multiglycopeptides with heterogeneous glycan cores derived from an $\alpha$ -dystroglycan mucin-like domain

Dror Ben Abba Amiel and Mattan Hurevich\*

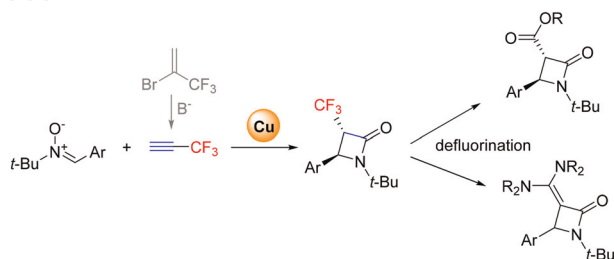
1899



### Intramolecular hydrogen bonding in phenolic amides enables direct synthesis of indolizines

Alhajaj Almaani, Sulaiman Al-Shidhani, Parisa Pakari Shalmani, Mohammad Reza Hosseini, Ahmad Takallou,\* Mohammad Kamangar, Yazdanbakhsh Lotfi Nosood and Ahmed Al-Harrasi\*

1908



### Synthesis of $\alpha$ -trifluoromethyl- $\beta$ -lactams via a copper-catalyzed Kinugasa reaction of nitrones with 3,3,3-trifluoropropyne and their defluorination

Shouxiang Chen, Peiqi Yang, Biqiong Hong,\* Fafu Yang and Zhiqiang Weng\*

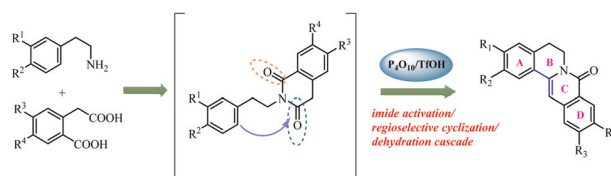


## PAPERS

1915

**P<sub>4</sub>O<sub>10</sub>/TfOH-assisted one-pot access to 8-oxoprotoberberines**

Madhuri Gaikwad, Hari Kadam and Santosh Tilve\*



1920

**B(C<sub>6</sub>F<sub>5</sub>)<sub>3</sub>/I<sub>2</sub> co-mediated cascade [4 + 2]/[3 + 2] cyclization to access spiroimidazolines**

Huanyi Qiu, Jingxi Fang, Mingyan Guan, Surong Xie, Xi Chen, Qiuqi Zhang, Zhentao Pan\* and Yongmin Ma\*

