

# Organic & Biomolecular Chemistry

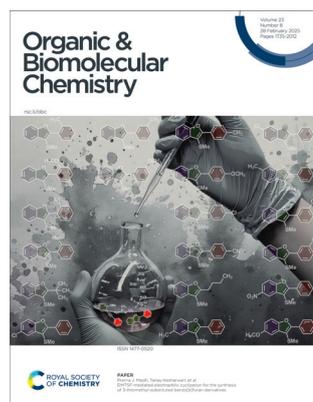
An international journal of synthetic, physical and biomolecular organic chemistry

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## IN THIS ISSUE

ISSN 1477-0520 CODEN OBCRAK 23(8) 1735–1212 (2025)



### Cover

See Prerna J. Masih,  
Tanay Kesharwani *et al.*,  
pp. 1851–1857.

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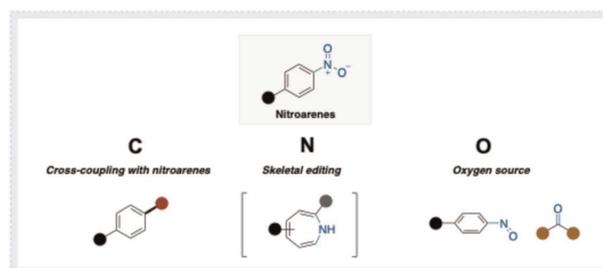
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Tanay Kesharwani from  
*Org. Biomol. Chem.*, 2025,  
**23**, 1851.

## REVIEWS

1746

### Transformative reactions in nitroarene chemistry: C–N bond cleavage, skeletal editing, and N–O bond utilization

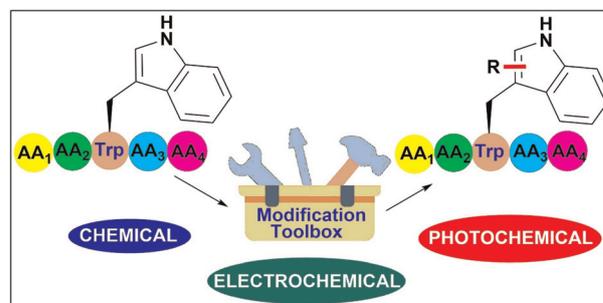
Keiichiro Iizumi and Junichiro Yamaguchi\*



1773

### Tryptophan-specific modification and diversification of peptides and proteins

Sudipta K. Kundu, Ayan Bandyopadhyay and  
Rajib Sarkar\*



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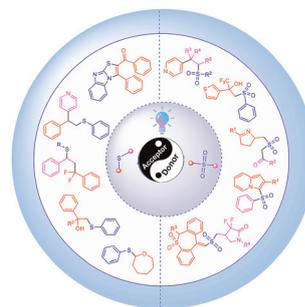
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## REVIEWS

1794

## Recent progress in C–S bond formation via electron donor–acceptor photoactivation

Sichang Wang, Liting Wang, Jin Cui, Liying Zhang, Qunzheng Zhang, Congyu Ke\* and Shenlin Huang\*

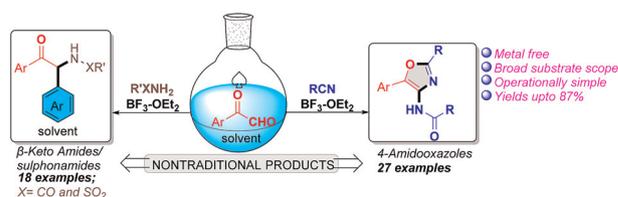


## COMMUNICATIONS

1809

BF<sub>3</sub>·Et<sub>2</sub>O-promoted unconventional reactions of 2-oxoaldehyde: access to 4-amidooxazoles and β-keto amides/sulphonamides

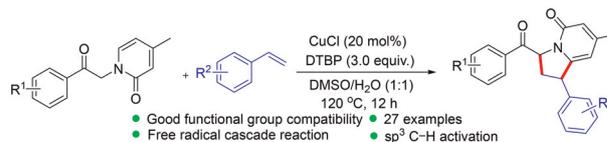
Ashiq Hussain Padder, Bhawna Ghora, Feroze Hussain, Mohammad Yaqoob Bhat and Qazi Naveed Ahmed\*



1814

## Copper-catalysed radical cascade reaction of N-(2-oxo-2-phenylethyl) substituted 2-pyridones with styrene to access 1,6-carboannulated 2-pyridone scaffolds

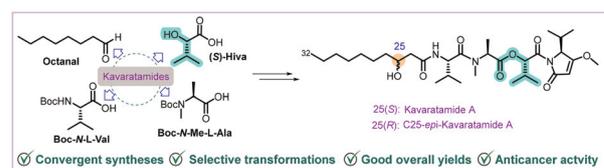
Shengkui Jin, Liqiang Hao, Cunneng Li, Xian Liu, Xiao Yu, Jiaqian Mao, Dong Ding\* and Yafei Ji\*



1819

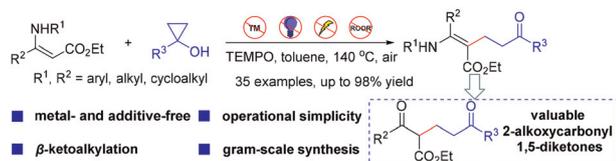
## Total synthesis of linear lipodepsipeptide kavaratamide A and its C25-epimer

Manas Ranjan Sahu, Sudhir R. Ingale and Ravindar Kontham\*



## COMMUNICATIONS

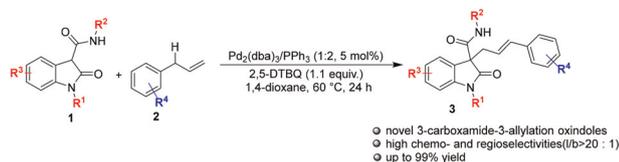
1823



### Direct $\beta$ -C–H ketoalkylation of enaminoesters with cyclopropanols under metal-free conditions

Jun-Long Zhan,\* Sai-Nan Zhou, Yu Wang, Rui Liu, Yu-Tong Wang, Mengke Tian, Qiang Meng,\* Lin Zhu, Xiangtao Kong and Yunhe Lv\*

1828



### Palladium-catalyzed allylic C–H alkylation of terminal olefins with 3-carboxamide oxindoles

Ning Zhang, Guojuan Liang, Dexin Zhang, Gaochen Liu, Xing Liu, Pengfei Zhou, Dong Zhang, Hui Zhou\* and Jing Zhou\*

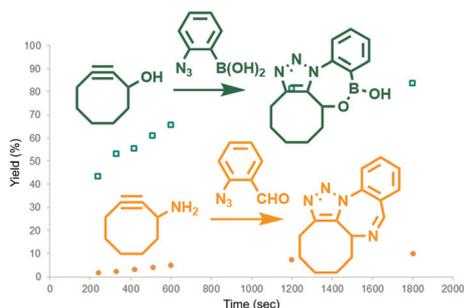
1832



### DBU-catalyzed annulation strategy for modular assembly of 2,3-difunctionalized dihydrobenzofurans

Lili Yuan, Jie Wang, Qiang Tang, Yiping Wang, Beibei Ma, Yongjia Shang\* and Xinwei He\*

1837



### Strain-promoted azide–alkyne cycloaddition enhanced by secondary interactions

Riko Yoshikawa, Shohei Hamada and Jun-ichi Matsuo\*

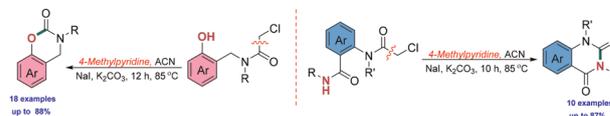


## COMMUNICATIONS

1841

### Synthesis of benzouracils and carbamates from chloroacetamides through carbon–carbon bond cleavage

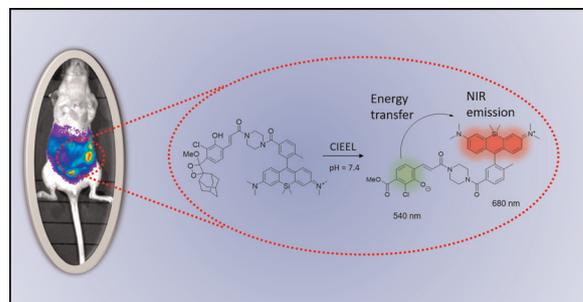
Sulaiman Al-Shidhani, Ahmad Takallou,\*  
Yazdanbakhsh Lotfi Nosood, Munir Al-Siyabi,  
Jørn Bolstad Christensen, Parisa Pakari Shalmani,  
Alhajaj Almaani, Ali Rostami and Ahmed Al-Harrasi\*



1846

### A silicon rhodamine 1,2-dioxetane chemiluminophore for *in vivo* near-infrared imaging

Rokia Osman, Uroob Haris, Maidileyvis C. Cabello,  
Ralph P. Mason and Alexander R. Lippert\*



## PAPERS

1851

### DMTSF-mediated electrophilic cyclization for the synthesis of 3-thiomethyl-substituted benzo[*b*]furan derivatives

Declan T. McGurk, Langley E. Knighten,  
Maria J. Peña Bú, Faith I. Christofferson, Sierra D. Rich,  
Prerna J. Masih\* and Tanay Kesharwani\*



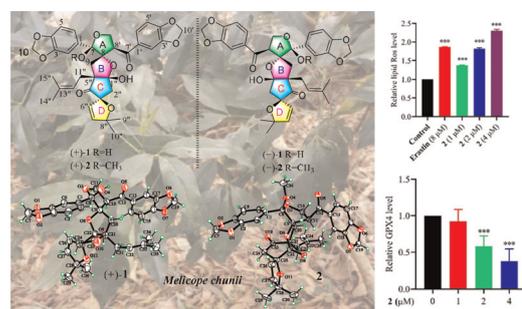
- Environmentally Benign Salt  
- Mild Solvent and Conditions

- Moderate to High Yields  
- Transition Metal and Oxidant Free

1858

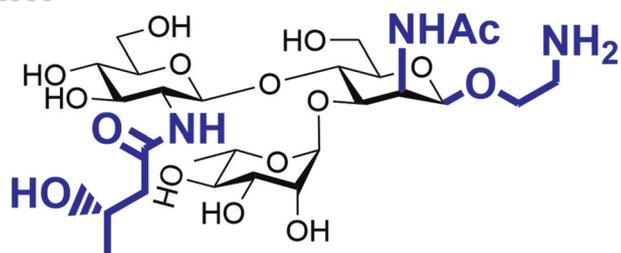
### Lignan–phloroglucinol hybrids with an unprecedented beadlike core from the leaves of *Melicope chunii*

Shi-Ying Fan, Li-Hong Hong, Yu-Xia Wang,  
Jiang-Min Zhu, Zi-Tong Feng, Van-Tuan Vu,\*  
Ling-Yi Kong\* and Jian-Guang Luo\*



## PAPERS

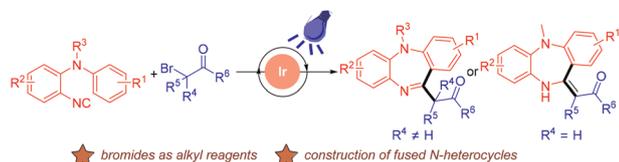
1866



### Synthesis of the conjugation-ready $\beta$ -mannosamine-containing O-antigen repeat from *Vibrio cholerae* O14

Sanajit Maiti and Baram Mukhopadhyay\*

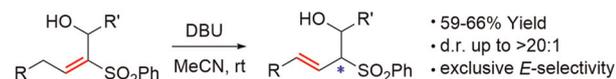
1874



### Photoinduced radical cyclization reaction of isocyanides with $\alpha$ -carbonyl bromides to access 11-alkyl-substituted 1,4-dibenzodiazepines

Ao-Yun Li, Rong Xie, Quan Zhou, Peng-Fei Huang\* and Yu Liu\*

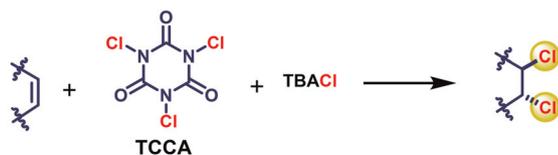
1883



### Diastereoselective $\beta$ -hydroxy vinylsulfone isomerizations

G. W. O'Neil,\* T. D. Clark, A. P. Jones, C. Wallace, D. M. Carnahan and H. Crockett

1894



### Dichlorination of olefins with trichloroisocyanuric acid (TCCA) and tetrabutylammonium chloride (TBACl)

Ramazan Koçak

- |                            |                    |
|----------------------------|--------------------|
| ✓ Metal-free               | ✓ Inexpensive      |
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| ✓ Environmentally friendly | ✓ Mild condition   |
| ✓ Atom economical          | ✓ Simple operation |

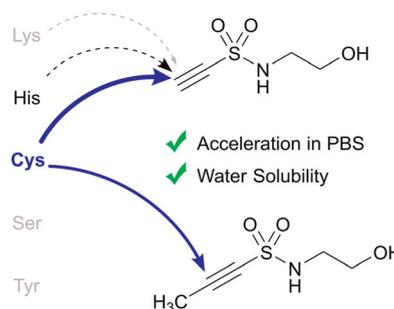


## PAPERS

1901

## Preparation of ethynylsulfonamides and study of their reactivity with nucleophilic amino acids

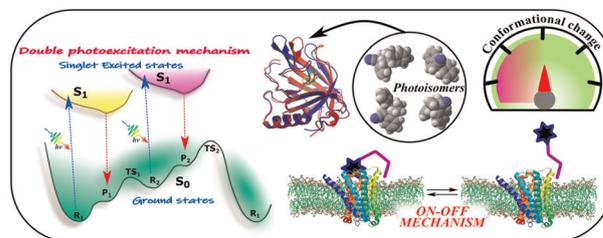
Tatsuhiko Kyoya, Hiroaki Ishida, Toshiaki Saitoh and Toshimasa Itoh\*



1909

## An unprecedented double photoexcitation mechanism for photoswitching in conjugated-dienes to trigger physiological processes for photopharmacology

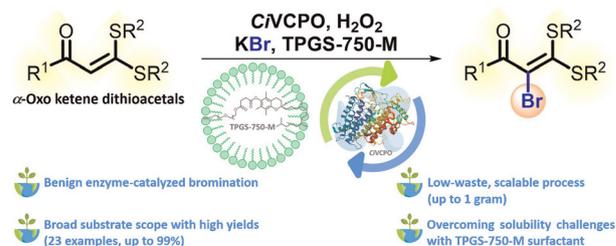
Akanksha Ashok Sangolkar, Rama Krishna Kadiyam and Ravinder Pawar\*



1923

Micelle-enabled bromination of  $\alpha$ -oxo ketene dithioacetals: mild and scalable approach via enzymatic catalysis

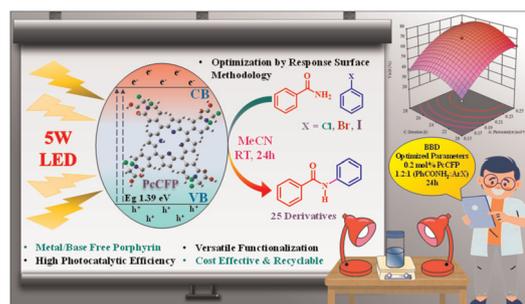
Thao Nguyen Thanh Huynh, Khuyen Thu Nguyen, Chisanu Krongyut, Rung-Yi Lai, Mongkol Sukwattanasinitt and Sumrit Wacharasindhu\*



1930

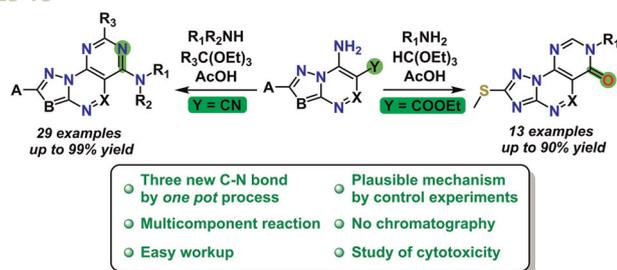
Exploring a metal/base-free porphyrin involving a carboxyl-functionalized pyridine moiety for photocatalytic *N*-arylation of benzamide validated using RSM

Bhairav Chandroday Mataghare and Pundlik Rambhau Bhagat\*



## PAPERS

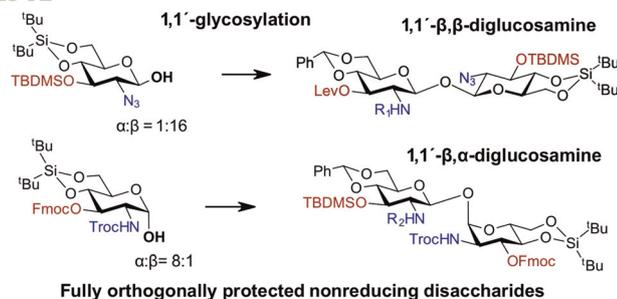
1945



### Pyrimido[5,4-e]azolo[1,5-a]pyrimidines and pyrimido[4,5-e][1,2,4]triazolo[5,1-c][1,2,4]triazines: *one-pot* multi-component synthesis and cytotoxic activity

Eva V. Bersneva, Konstantin V. Savateev,\*  
Pavel A. Slepukhin, Vsevolod V. Melekhin,  
Maria D. Tokhtueva and Vladimir L. Rusinov

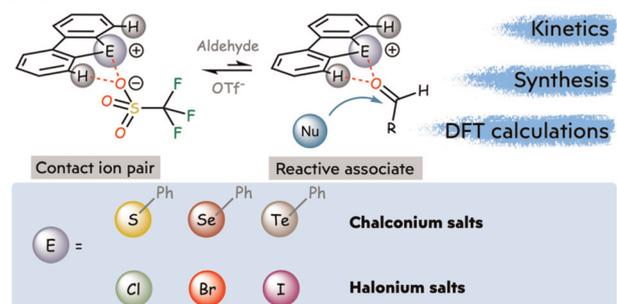
1961



### Stereoselective 1,1'-glycosylation *via* reactivity tuning with protecting groups

Daniele Zucchetta, Karin Hofbauer and Alla Zamyatina\*

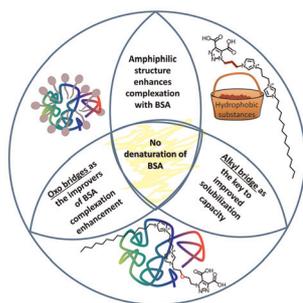
1970



### Halonium and chalconium salt-catalyzed Schiff condensation: kinetics and DFT insights into organocatalyst activity parameters

Alexandra A. Sysoeva, Yana V. Safinskaya, Mikhail V. Il'in,  
Alexander S. Novikov and Dmitrii S. Bolotin\*

1981



### Synthesis of zwitterionic asymmetric and symmetric carboxy-imidazolium derivatives and their use in molecular interactions with bovine serum albumin

Elza D. Sultanova,\* Ilshat M. Bogdanov,  
Nadezhda I. Gromova, Anna V. Astrakhantseva,  
Mikhail A. Kapralov, Alexey S. Nizamutdinov,  
Timur A. Mukhametzyanov, Daut R. Islamov,  
Konstantin S. Usachev, Nikita Y. Serov, Vladimir A. Burilov,  
Svetlana E. Solovieva and Igor S. Antipin

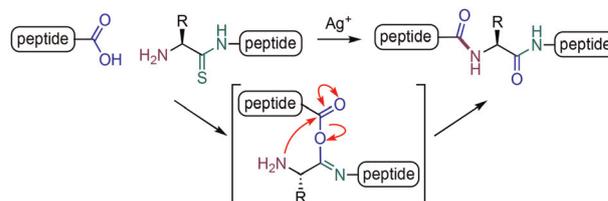


## PAPERS

1995

**Ag(I)-promoted fragment coupling of peptide thioamides**

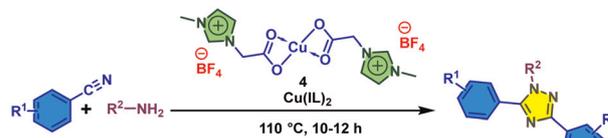
Varsha J. Thombare, Carlie L. Charron and Craig A. Hutton\*



2000

**Ionic-liquid-supported copper-promoted synthesis of 3,5-disubstituted-1,2,4-triazoles**

Soumyadip Das, Badruzzaman Choudhury, Barnali Maiti and Kaushik Chanda\*



- In neat condition
- Ionic-liquid supported copper catalyst
- 1,2,4-triazole synthesis via sustainable approach

- Mechanistic Insights
- Quantitative Yield
- 18-examples

