

# Organic & Biomolecular Chemistry

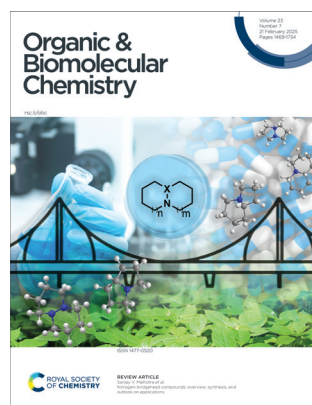
An international journal of synthetic, physical and biomolecular organic chemistry

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## IN THIS ISSUE

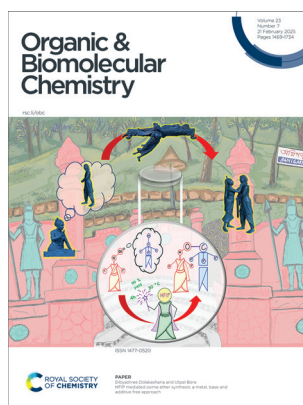
ISSN 1477-0520 CODEN OBCRAK 23(7) 1469-1734 (2025)



### Cover

See Sanjay V. Malhotra *et al.*, pp. 1479–1532.

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### Inside cover

See Dibyashree Dolakasharia and Utpal Bora, pp. 1622–1626.

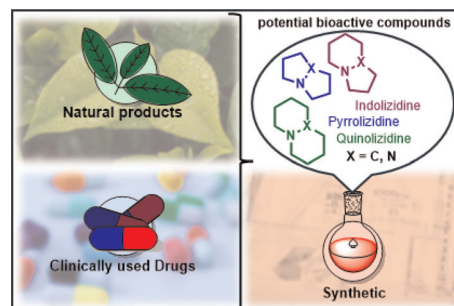
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## REVIEWS

1479

### Nitrogen-bridgehead compounds: overview, synthesis, and outlook on applications

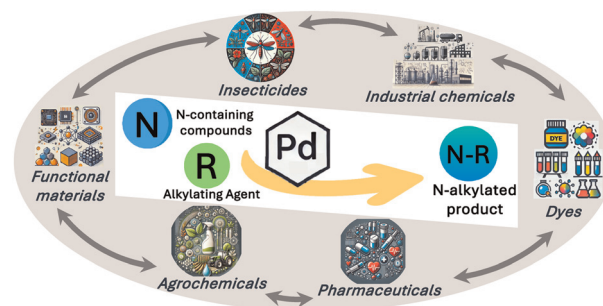
Benedikt W. Grau, Praveen Kumar, Aaron Nilsen and Sanjay V. Malhotra\*



1533

### An overview of palladium-catalyzed N-alkylation reactions

Soyal Sabu, Padinjare Veetil Saranya and Gopinathan Anilkumar\*



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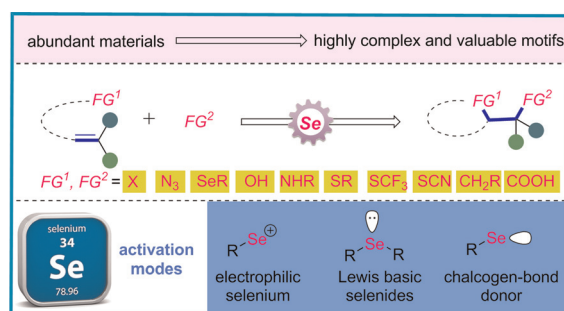
Fundamental questions  
Elemental answers

## REVIEWS

1552

## Recent progress in the organoselenium-catalyzed difunctionalization of alkenes

Pei Qu and Gong-Qing Liu\*

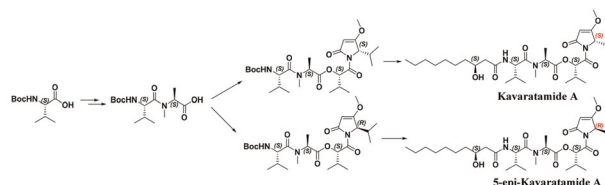


## COMMUNICATIONS

1569

Total syntheses of Kavaratamide A and 5-*epi*-Kavaratamide A

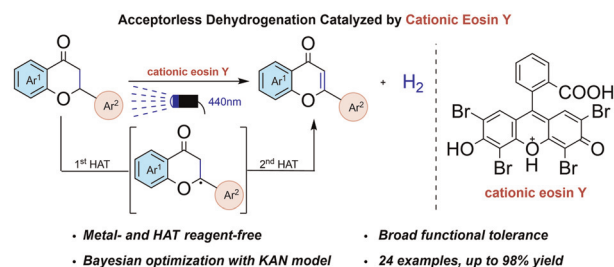
Tieshun Ren, Ke Lv, Fangzhong Hu\* and Yue Chen\*



1574

## Photocatalytic acceptorless dehydrogenation of flavanones by cationic Eosin Y as a bifunctional catalyst

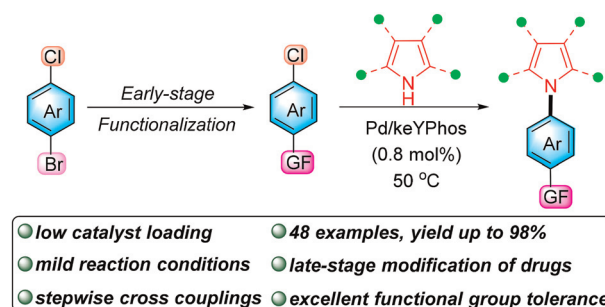
Peiyu Yi, Yufeng Wu, Juntao Wang, Qilei Liu,\* Yafeng Xing, Yue Lu, Cunfei Ma, Liyuan Duan, Jingnan Zhao\* and Qingwei Meng\*



1581

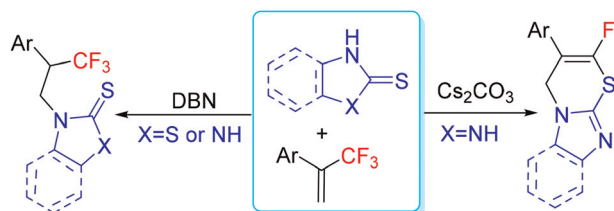
Palladium-catalyzed *N*-arylation of (hetero)aryl chlorides with pyrroles and their analogues

Ying Yin, Yuxuan Xiao, Xun Yang, Haiyan Li, Jiahui Du, Wengui Duan\* and Lin Yu\*



## COMMUNICATIONS

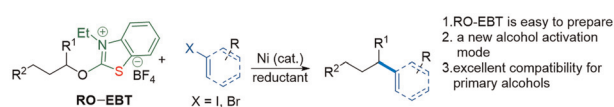
1588



### Tunable base-controlled chemoselective synthesis of trifluoromethyl-containing *N*-substituted benzimidazole-2-thiones and monofluorinated 4*H*-benzo[4,5]imidazo[2,1-*b*][1,3]thiazine

Yupian Deng, Yuhao Qian, Jiaqi Huang, Zhudi Sun, Ronghua Zhuge, Qingchun Huang and Song Cao\*

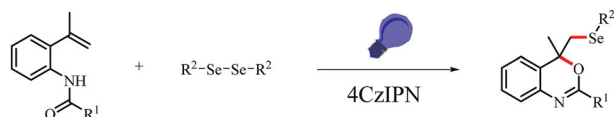
1596



### Benzothiazolium salts as versatile primary alcohol derivatives in Ni-catalyzed cross-electrophile arylation/vinylation

Cheng Ye, Quan Lin, Yunrong Chen, Fan Wu\* and Hegui Gong\*

1602

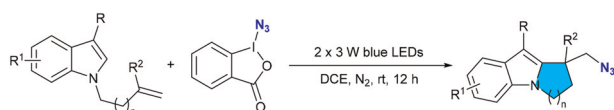


### Visible-light-mediated selenocyclization of *o*-vinylanilides with diselenides

Xuecheng Wang, Jiajie Guo, Shaofan Xue, Zikun Wang\* and Jincan Zhao\*

- ✓ Atom economy
- ✓ r.t., metal free, no additive
- ✓ 29 examples, up to 98% yield

1607



### Visible-light-promoted azidation/arylation of unactivated alkenes with Togni-N<sub>3</sub> via electron donor–acceptor complexes

Peng Xie, Yue Gao, Chenqi Wu, Peidong Cheng, Yong Zhang\* and Song Sun\*

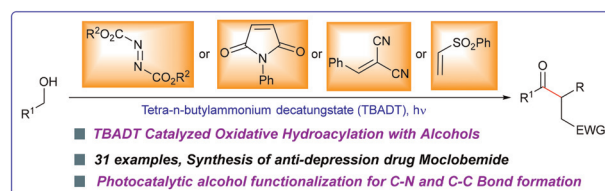


## COMMUNICATIONS

1612

## Photocatalytic oxidative hydroacylation with alcohols

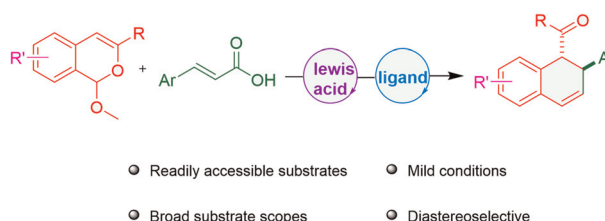
Sabhya Sandha and Chandra Bhushan Tripathi\*



1617

## Efficient synthesis of dihydronaphthalenes via cerium-catalyzed annulation of 1-alkoxy substituted 1H-isochromenes with cinnamic acids

Meng Guo, Xuetao Zhang, Wenqi Yang, Yanmei Chen, Jun Zhang, Zhiqing Liu, Chang-Yun Wang\* and Pingyuan Wang\*

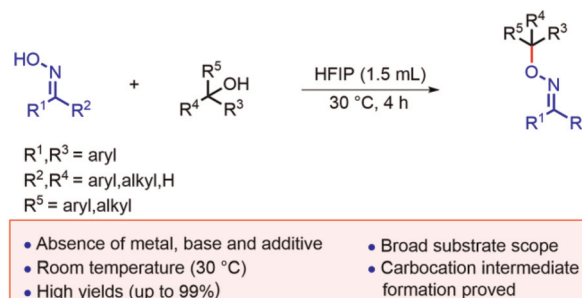


## PAPERS

1622

## HFIP mediated oxime ether synthesis: a metal, base and additive free approach

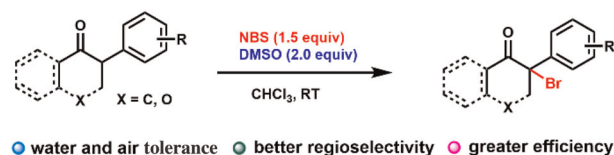
Dibyashree Dolakasharia and Utpal Bora\*



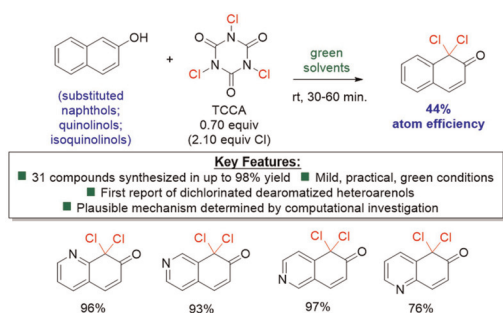
1627

DMSO-promoted  $\alpha$ -bromination of  $\alpha$ -aryl ketones for the construction of 2-aryl-2-bromo-cycloketones

Haojiang Zhai, Penghui Li, Hongshuang Wang\* and Xiaohui Wang\*



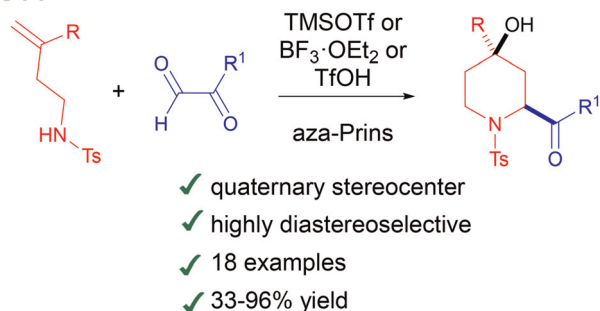
1633



### Atom-efficient chlorinative dearomatization of naphthol, quinolinol, and isoquinolinol derivatives using trichloroisocyanuric acid (TCCA)

Jenna D. Caudle, Marlow K. Ennis, Dillon C. Dodge, Audrey A. Iskandar, Yesenia Portillo Urquiza, David K. Seo, Franklyn M. Wright, Gordon H. Purser, Daniele Leonori and Angus A. Lamar\*

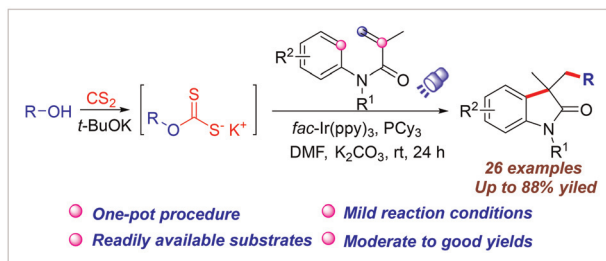
1644



### Synthesis of 4-hydroxypiperidines containing a quaternary stereocenter by aza-Prins cyclization

Myriam Le Roch, Nicolas Gouault,\* Jacques Renault, Gilles Argouarch, Thierry Roisnel, Swarnayu Banik, B. V. Subba Reddy and Claudia Lalli\*

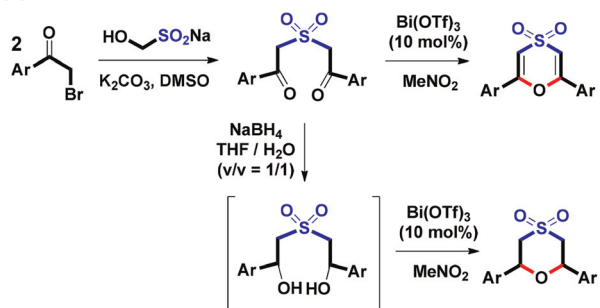
1653



### Visible-light-induced radical-cascade alkylation/cyclization of acrylamides: access to 3,3-dialkylated oxindoles

Pengyuan Yang, Lili Wang, Meng Yan, Jinwei Yuan,\* Yongmei Xiao, Liangru Yang, Xiujuan Xu\* and Lingbo Qu\*

1662



### Construction of diaryl oxacyclic sulfones via $\text{Bi(OTf)}_3$ -catalyzed intramolecular cyclocondensation of 1,3-diaroylsulfones

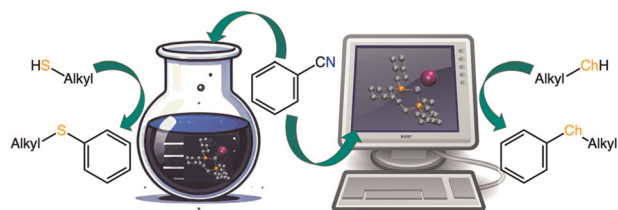
Meng-Yang Chang\* and Chun-Yi Lin



1673

### Exploring nickel-catalyzed organochalcogen synthesis via cross-coupling of benzonitrile and alkyl chalcogenols with computational tools

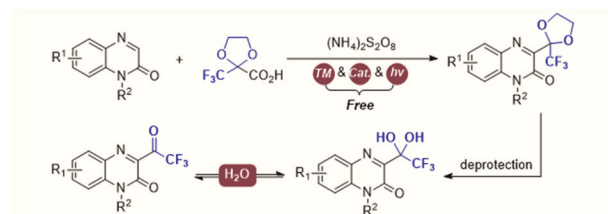
Francisco A. Gómez-Mudarra, Gabriel Aullón and Jesús Jover\*



1683

### Late-stage C–H trifluoroacetylation of quinoxaline-2(1H)-ones using masked trifluoroacyl reagents

Yawei Shen, Yuan Li, Xia Wang, Jiaoyan Wei, Yafen Shen, Lei Wu\* and Kai Luo\*

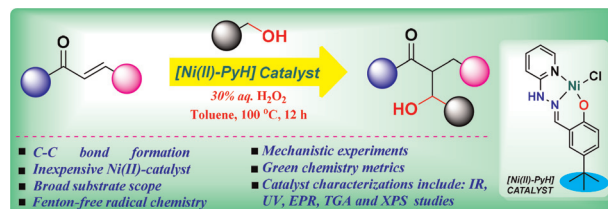


- Room temperature and convenient operation
- Metal, Catalyst, and Light-Free
- Controllable transformation of trifluoromethyl ketone and its hydrate
- gram scale synthesis
- 21 examples, up to 90% yield

1689

### Nickel(II)-hydrazinepyridine catalyzed regioselective synthesis of $\alpha$ -benzyl substituted $\beta$ -hydroxy ketones via a Fenton free radical reaction

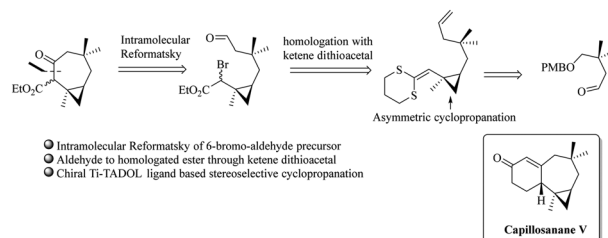
Apurva Singh and Naseem Ahmed\*



1696

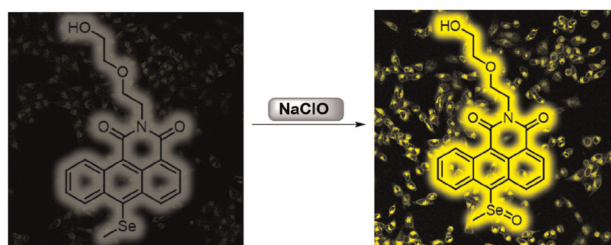
### Synthetic studies towards naturally occurring sesquiterpene capillosanane V: construction of a fully functionalized cycloheptane core through an intramolecular Reformatsky reaction

Rasmita Barik, Jayanta Das and Samik Nanda\*



## PAPERS

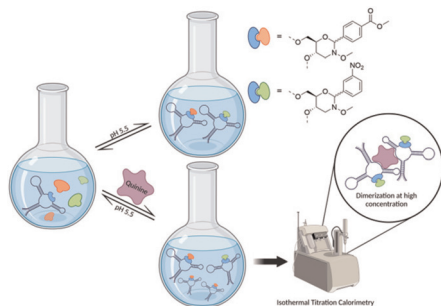
1708



### Anthracene carboxyimide-based selenide as a fluorescent probe for the ultrasensitive detection of hypochlorous acid

Xueling Liu, Ziqi Liu, Yujia Li, Yali Wang\* and Wenzhou Zhang\*

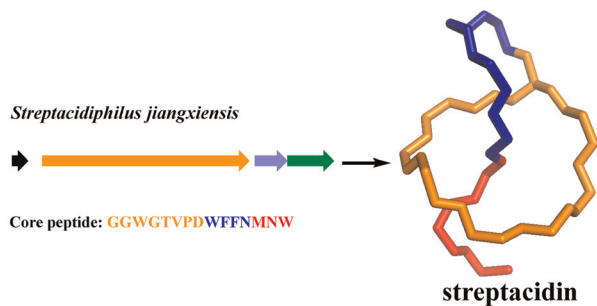
1714



### Post-SELEX modification of quinine aptamers through neoacetalization

Heidi Kähkölä, Muditha Herath, Pasi Virta and Tuomas Lönnberg\*

1723



### Genome mining and heterologous expression reveal streptacidin, a new lasso peptide from *Streptacidiphilus jiangxiensis*

Jiwu Huang, Botao Cheng, Chunyang Cao\* and Wen Liu\*

## CORRECTION

1731

### Correction: Total syntheses of Kavaratamide A and 5-*epi*-Kavaratamide A

Tieshun Ren, Ke Lv, Fangzhong Hu\* and Yue Chen\*

