

Organic & Biomolecular Chemistry

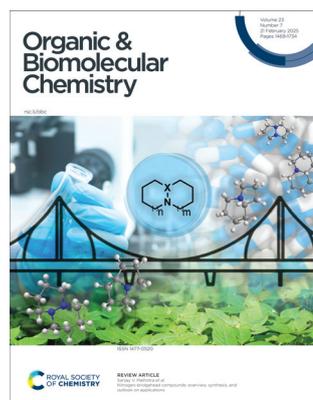
An international journal of synthetic, physical and biomolecular organic chemistry

rsc.li/obc

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

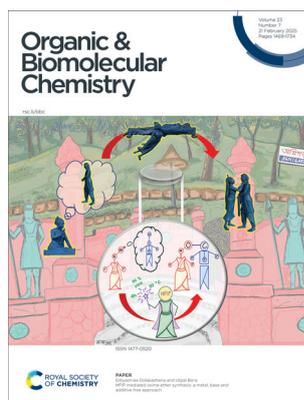
ISSN 1477-0520 CODEN OBCRAK 23(7) 1469-1734 (2025)



Cover

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

Image reproduced by permission of Benedikt W. Grau, Praveen Kumar and Sanjay V. Malhotra from *Org. Biomol. Chem.*, 2025, **23**, 1479.



Inside cover

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

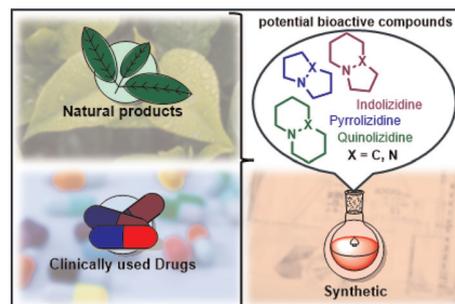
Image reproduced by permission of Dibyashree Dolakasharia and Utpal Bora from *Org. Biomol. Chem.*, 2025, **23**, 1622.

REVIEWS

1479

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

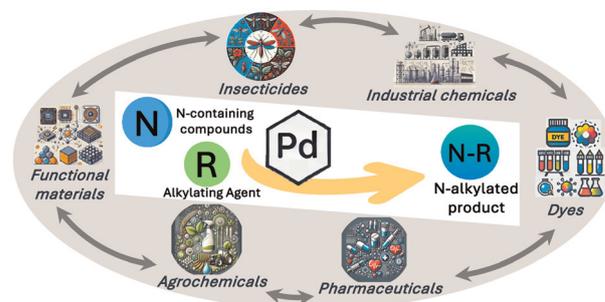
Benedikt W. Grau, Praveen Kumar, Aaron Nilsen and Sanjay V. Malhotra*



1533

An overview of palladium-catalyzed N-alkylation reactions

Soyal Sabu, Padinjare Veetil Saranya and Gopinathan Anilkumar*



EES Catalysis

GOLD
OPEN
ACCESS

Exceptional research on energy and environmental catalysis

Open to everyone. Impactful for all

rsc.li/EESCatalysis

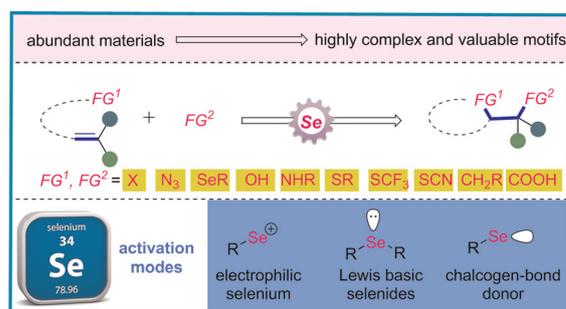
Fundamental questions
Elemental answers

REVIEWS

1552

Recent progress in the organoselenium-catalyzed difunctionalization of alkenes

Pei Qu and Gong-Qing Liu*

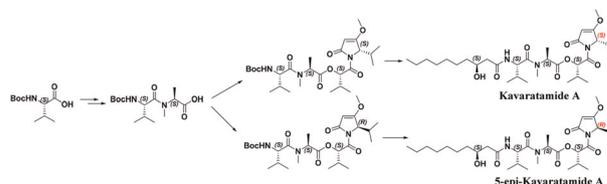


COMMUNICATIONS

1569

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

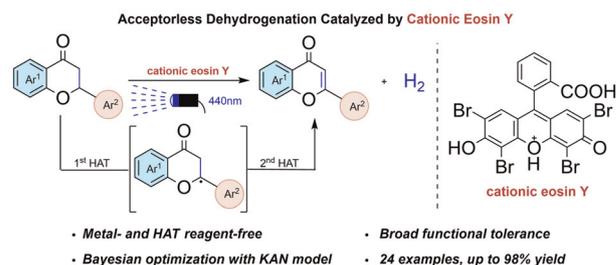
Tieshun Ren, Ke Lv, Fangzhong Hu* and Yue Chen*



1574

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

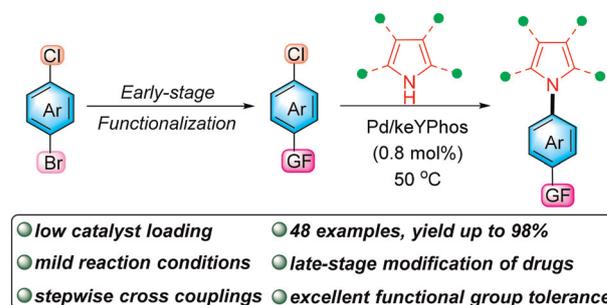
Peiyu Yi, Yufeng Wu, Juntao Wang, Qilei Liu,* Yafeng Xing, Yue Lu, Cunfei Ma, Liyuan Duan, Jingnan Zhao* and Qingwei Meng*



1581

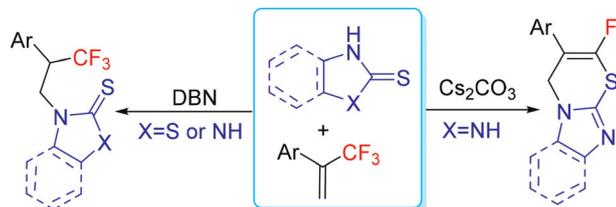
Palladium-catalyzed *N*-arylation of (hetero)aryl chlorides with pyrroles and their analogues

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



COMMUNICATIONS

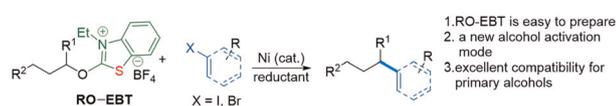
1588



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*

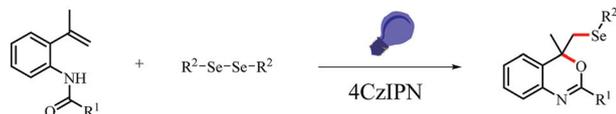
1596



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

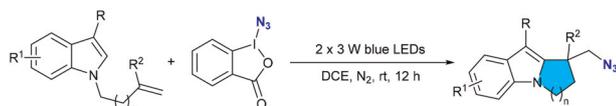


Visible-light-mediated selenocyclization of *o*-vinylanilides with diselenides

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-N₃ 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

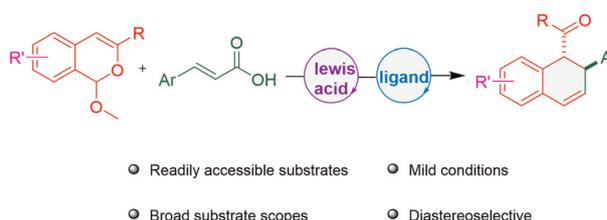
Sabhya Sandha and Chandra Bhushan Tripathi*



1617

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

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

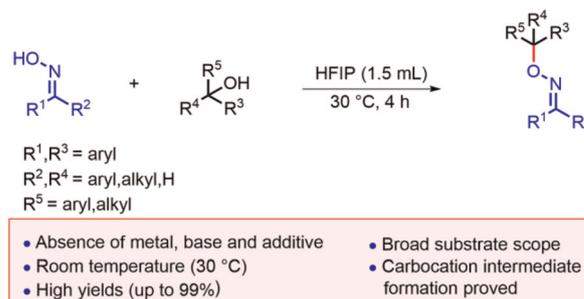


PAPERS

1622

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

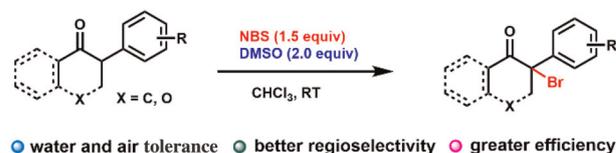
Dibyashree Dolakasharia and Utpal Bora*



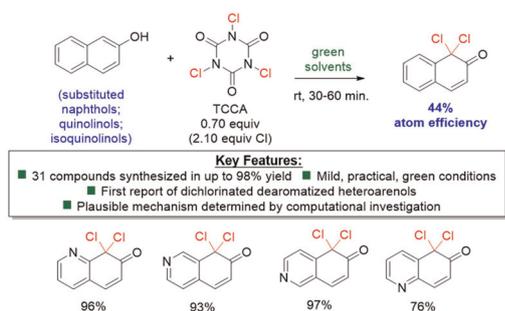
1627

DMSO-promoted α -bromination of α -aryl ketones for the construction of 2-aryl-2-bromo-cycloketones

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



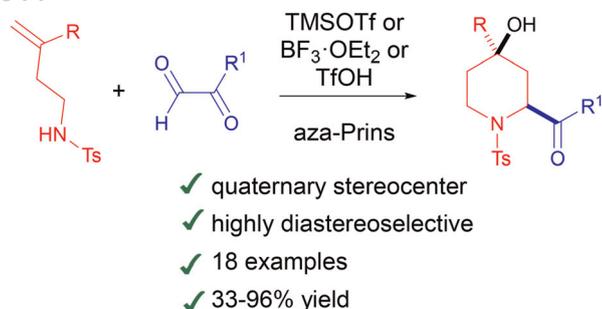
1633



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*

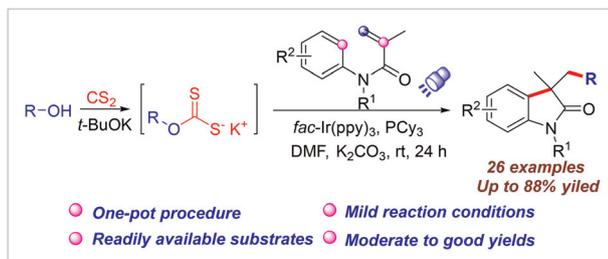
1644



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*

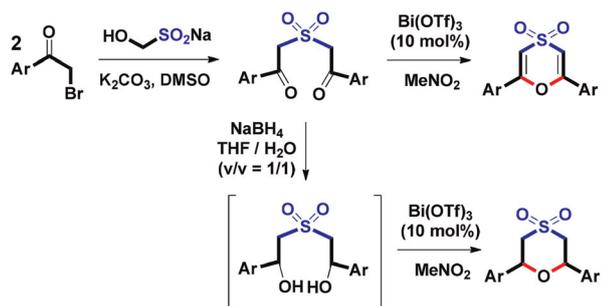
1653



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 Bi(OTf)₃-catalyzed intramolecular cyclocondensation of 1,3-diaroylsulfones

Meng-Yang Chang* and Chun-Yi Lin

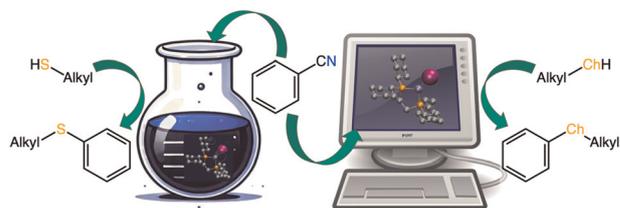


PAPERS

1673

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

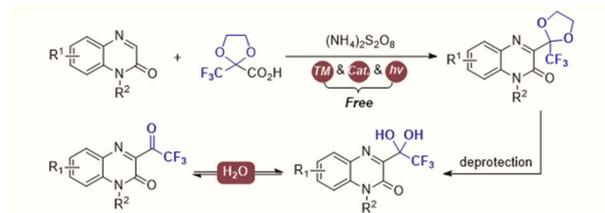
Francisco A. Gómez-Mudarra, Gabriel Aullón and Jesús Jover*



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*

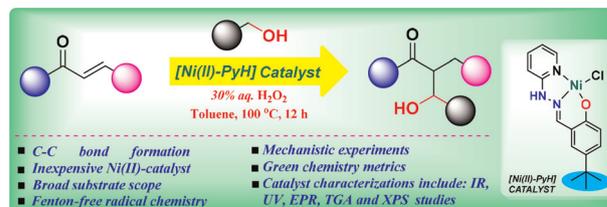


- Room temperature and convenient operation
- gram scale synthesis
- Metal, Catalyst, and Light-Free
- 21 examples, up to 90% yield
- Controllable transformation of trifluoromethyl ketone and its hydrate

1689

Nickel(II)-hydrazinepyridine catalyzed regioselective synthesis of α -benzyl substituted β -hydroxy ketones via a Fenton free radical reaction

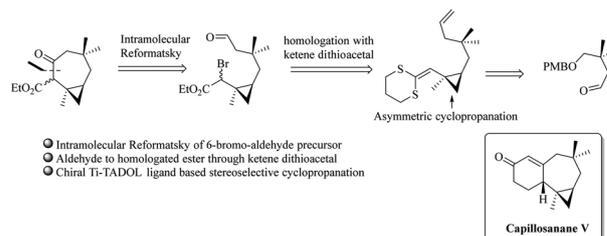
Apurva Singh and Naseem Ahmed*



1696

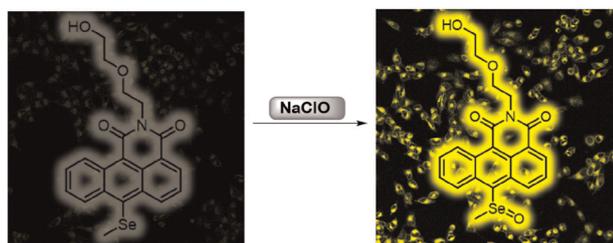
Synthetic studies towards naturally occurring sesquiterpene capillosanane V: construction of a fully functionalized cycloheptane core through an intramolecular Reformatsky reaction

Rasmita Barik, Jayanta Das and Samik Nanda*



PAPERS

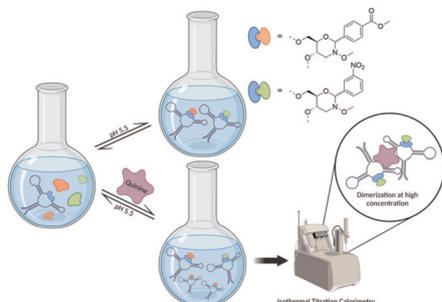
1708



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*

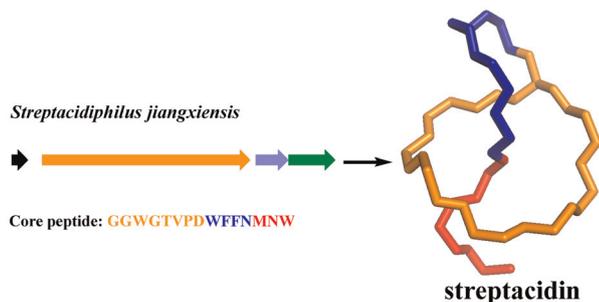
1714



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*

