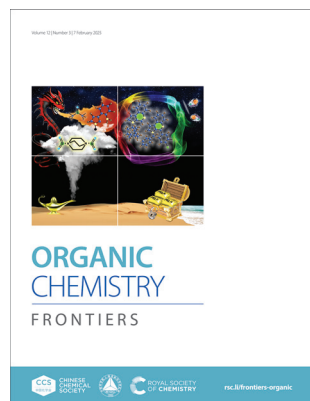


IN THIS ISSUE

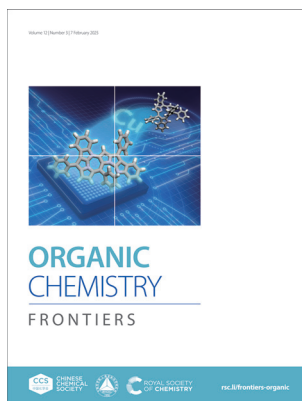
ISSN 2052-4129 CODEN OCFRA8 12(3) 693–1066 (2025)



Cover

See Tabrez Khan *et al.*,
pp. 706–716.

Image reproduced by
permission of Tabrez Khan
from *Org. Chem. Front.*,
2025, **12**, 706.



Inside cover

See Takuma Yasuda,
Hiroyuki Furuta,
Masatoshi Ishida *et al.*,
pp. 717–724.

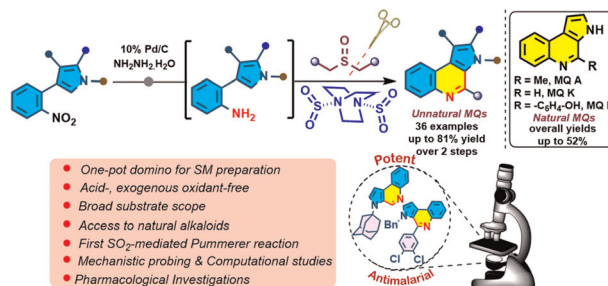
Image reproduced by
permission of
Masatoshi Ishida from
Org. Chem. Front., 2025, **12**,
717.

RESEARCH ARTICLES

706

DABSO-mediated Pummerer reaction enables one-pot synthesis of pyrroloquinolines for accessing marinoquinolines: mechanistic, photophysical and pharmacological investigations

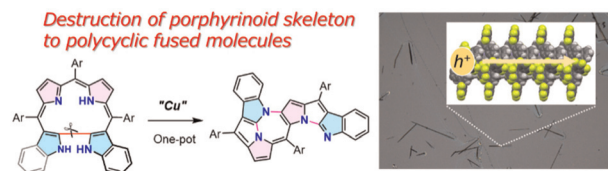
Rahimuddin Khan, Dipun Kumar Penthi,
Aditi Chatterjee, Chandrakanta Sahoo,
Shanti Gopal Patra, Viswanathan Arun Nagaraj and
Tabrez Khan*



717

Transformation of a benzocorrole isomer into pyrrole-containing polycyclic molecules via copper-mediated cleavage and annulation

Biju Basumatary, Sawako Yada, Shunsuke Oka,
Shigeki Mori, Tatsuya Mori, Tatsuki Abe,
Daisuke Kawaguchi, Takuma Yasuda,* Hiroyuki Furuta*
and Masatoshi Ishida*



**GOLD
OPEN
ACCESS**

EES Solar

**Exceptional research on solar
energy and photovoltaics**

Part of the EES family

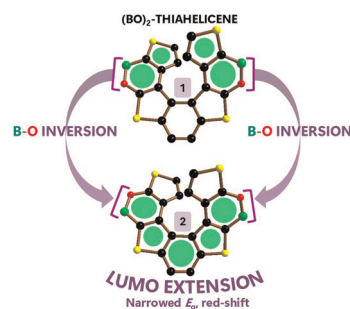
**Join
in** | Publish with us
rsc.li/EESolar

RESEARCH ARTICLES

725

(BO)₂-doped tetrathia[7]helicenes: synthesis and property-change induced by “BO bond inversion”

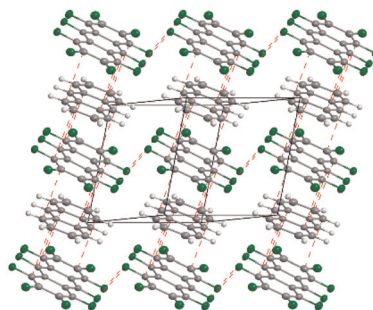
Luigi Menduti,* Clara Baldoli, Simone Manetto, Claudio Villani, Marta Penconi, Sara Grecchi, Serena Arnaboldi, Giuseppe Mazzeo, Giovanna Longhi, Michael Bolte, Alexander Virovets, Hans-Wolfram Lerner, Matthias Wagner* and Emanuela Licandro



736

Synthesis, crystal growth, structure and photophysical properties of decafluoroanthracene and its co-crystals with polycyclic arenes

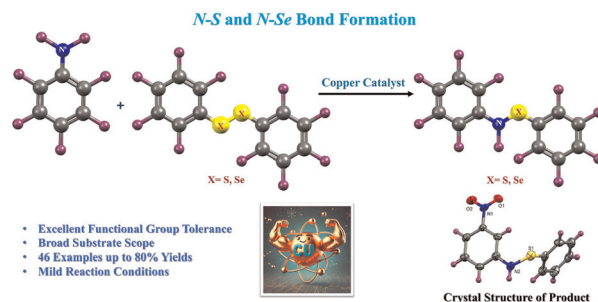
Alexandra Friedrich,* Lisa Schraut-May, Florian Rauch, Pablo Durand, Johannes Krebs, Paul N. Ruth, Sebastian Hammer, Rüdiger Bertermann, Maik Finze, Stewart J. Clark,* Jens Pflaum,* Nicolas Leclerc* and Todd B. Marder*



754

Copper-catalyzed N–H bond chalcogenation of anilines

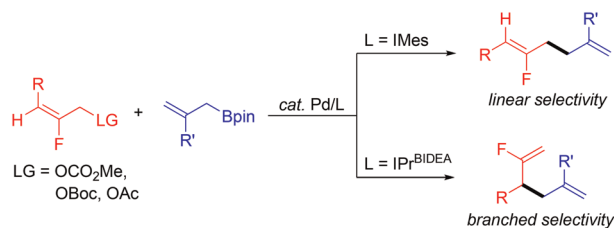
Monak Patel, Rishukumar Panday, Bharatkumar Z. Dholakiya and Togati Naveen*



760

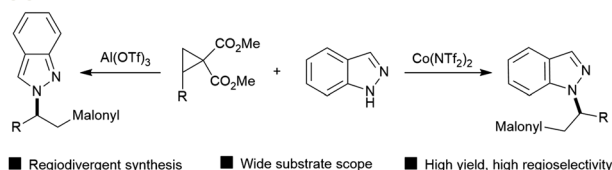
Palladium-catalyzed NHC ligand-controlled regiodivergent allyl-fluoroallyl cross-couplings

Yangyang Ma,* Boxia Xu, Hua Zhang and Zhiping Li*



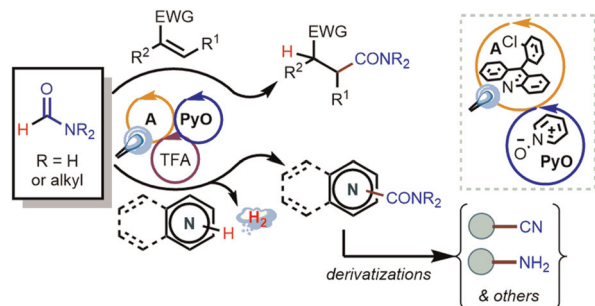
RESEARCH ARTICLES

766

Lewis acid-catalyzed regiodivergent *N*-alkylation of indazoles with donor–acceptor cyclopropanes

Xiaoyan Zhang, Yujiao Xiang, Xiangyang Zhao, Xin Zhou,* Weiliang Chen* and Yungui Peng*

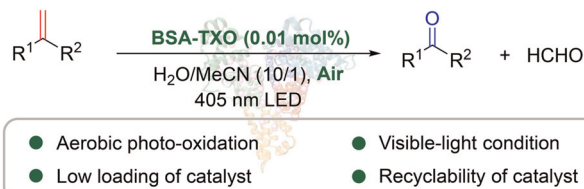
772



Carbamoylation of azaarenes and olefins with formamides through dual photoredox/HAT catalysis

Mario Martos, Beatriz Quevedo-Flores, Loris Laze, Irene Bosque* and Jose C. Gonzalez-Gomez*

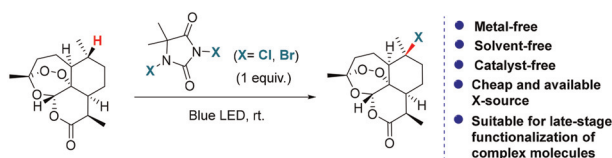
779



Artificial photoenzyme catalyzed aerobic oxidative cleavage of olefins in water

Yu Fu, Xutong Ye, Yuanjie Sun, Zehui Wang, Yingru Xu, Yuzhou Wu, Shangxian Xie, Weining Zhao,* Guojiao Wu and Fangrui Zhong*

786

A catalyst- and solvent-free visible-light-promoted bromination and chlorination of tertiary C(sp³)-H bonds

Quanjin Rong, Zhe Zhang, Jingyu Meng, Fan Wang* and Zhong-Quan Liu*

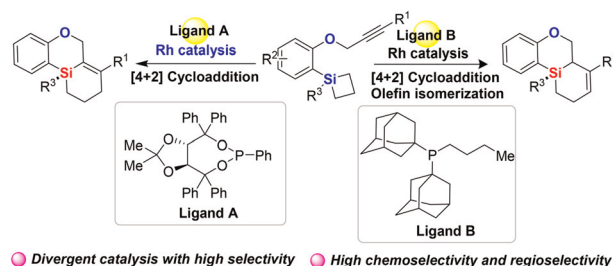


RESEARCH ARTICLES

793

Ligand-controlled Rh(I)-catalyzed intramolecular alkyne sila-cyclization: divergent catalysis and mechanistic studies

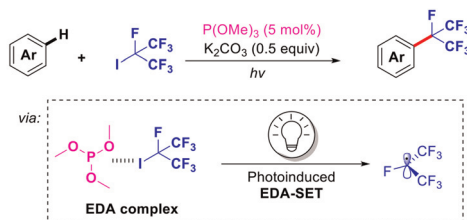
Wei-Ke Zhu, Jia-Wei Si, Sui-Fang Peng, Li Li, Fei Ye, Zheng Xu* and Li-Wen Xu*



800

Practical heptafluoroisopropylation of nitrogen-containing (hetero)aromatics under visible light

Xin Luo, Shao-Jie Lou, Yan-Biao Sun, Cheng-Cheng Jing, Xiang Fei, Xiao-Xiao Zhang, Jing-Jing Zhai, Yi-Feng Wang* and Dan-Qian Xu*

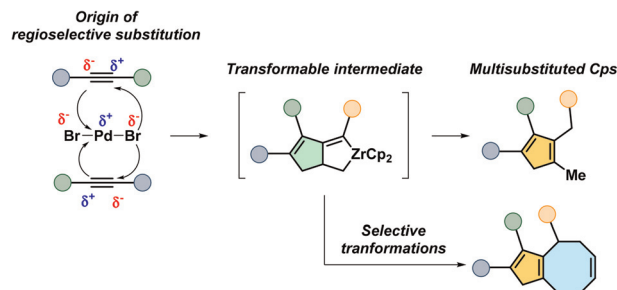


- Readily available reagents
- Transition metals and photosensitizers free
- Mild conditions, easy-to-handle
- High site-selectivity
- High efficiency (up to 96% yield)
- Broad substrate scope (47 examples)

808

Catalytic haloallylation/Zr-mediated dienyne cyclization/isomerization sequence for tailored cyclopentadiene substitution

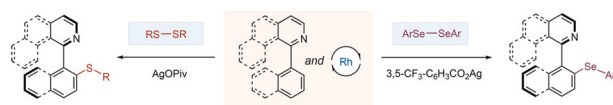
Marko Gobin, Ivana Nikšić-Franjić and Nikola Topolovčan*



816

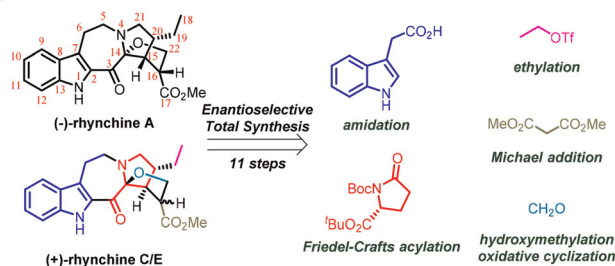
Axially chiral biaryls via rhodium-catalyzed atroposelective C–H sulfenylation and selenylation

Yishou Wang, Songjie Yu* and Xingwei Li*



RESEARCH ARTICLES

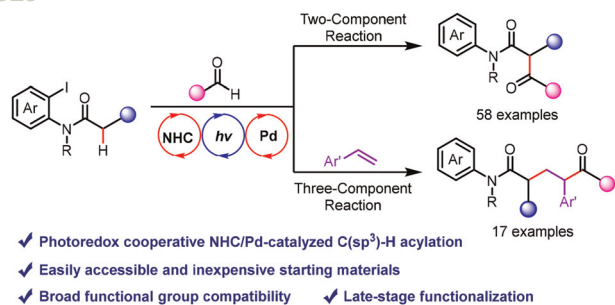
824



Total synthesis of (-)-rhynchine A, (+)-rhynchine C and (+)-rhynchine E

Yinghao Cao, Xian Lu, Yuan-Yang Li, Lihua Huang* and Beiling Gao*

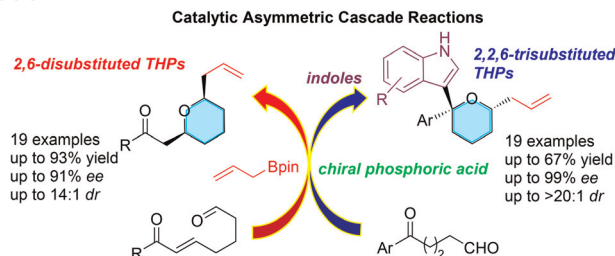
829



Remote C(sp³)-H acylation of amides under photoredox cooperative N-heterocyclic carbene/palladium catalysis

Xiaoyu Lin, Haoran Huang, Fanyuanhang Yang, Yuxi Ren, Yuzhen Gao* and Weiping Su*

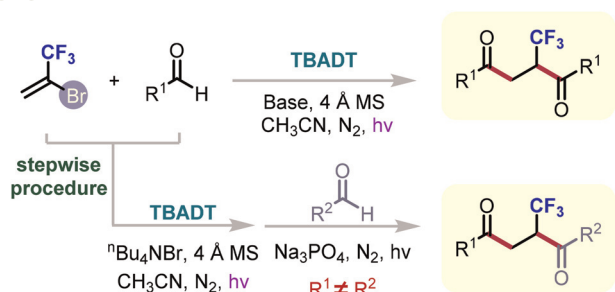
838



Modular assembly of chiral multisubstituted tetrahydropyrans through a cascade asymmetric aldehyde allylboration/oxa-cyclization by a chiral phosphoric acid

Yu-Hao Wang, Bo-Jun He, Subarna Jyoti Kalita, Zhen-Ni Zhao, Yi-Chao Li, De-Hua Zhang, Zi-Qi Yi,* Uwe Schneider and Yi-Yong Huang*

849



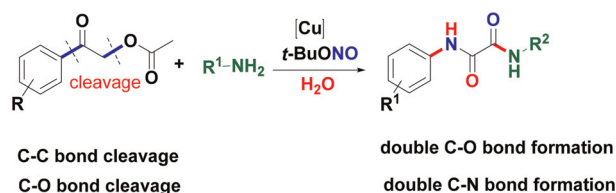
Photocatalyzed cascade hydrogen atom transfer for the construction of α-CF₃-1,4-diketones

Xiao-Ya Yuan, Jing-Fei Zheng, Xinyu Ma, Xianqiang Huang, Qiyang Lv, Kai Sun,* Xiaolan Chen, Lingbo Qu and Bing Yu*

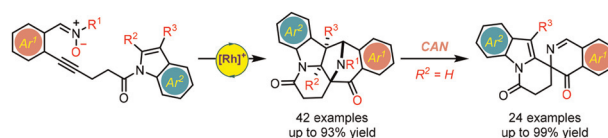


RESEARCH ARTICLES

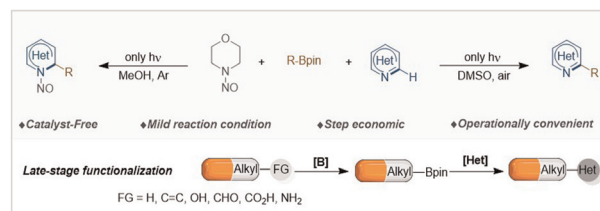
856

TBN-promoted regioselective C–C bond cleavage: a new strategy for the synthesis of unsymmetrically substituted *N*-aryl oxalamidesGuiqin Liu, Zheyang Zhang, Huifeng Wang,*
Ruiling Chen,* Haiying Tian* and Xiuling Chen*

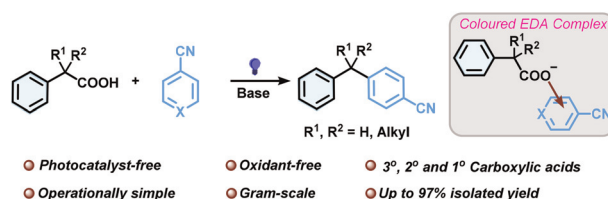
863

Rhodium(I)-catalyzed dearomative cycloisomerization of 1*H*-indole *N*-tethered *o*-alkynylphenyl nitrones and application to spirocyclic pyrido[1,2-*a*]indole synthesisDandan Shang, Tianyu Lin, Yili Shen, Yongsheng Zhang,
Philip Wai Hong Chan* and Weidong Rao*

869

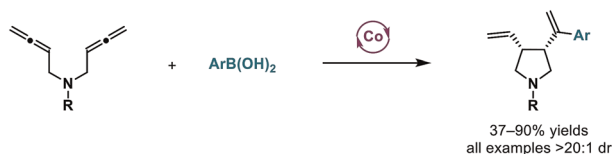
Photomediated controllable alkylation/nitrosoalkylation of *N*-heteroaromatics via nucleophilic substitution of alkylboronic esters with *N*-nitrosaminesJi-Wei Sang, Yu Zhang, Dingding Xia, Zhimin Hu,*
Jinxin Wang* and Wei-Dong Zhang*

879

Light-induced decarboxylative arylation of carboxylic acids via electron donor–acceptor complexesBowen Lei, Lu Tian, Xinwei Du, Boyu Yue, Jun Zhou,
Na Hao, Siping Wei,* Dong Yi, Ying Xiong* and
Yimou Gong*

RESEARCH ARTICLES

886

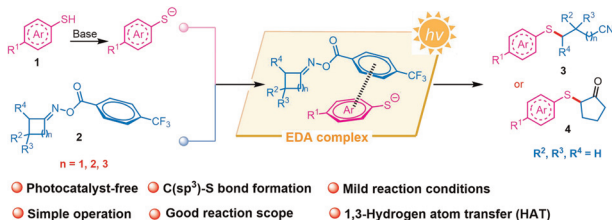


- ▲ non-precious cobalt catalyst
- ▲ new carbocyclization/arylation mode
- ▲ high regio- and diastereoselectivity
- ▲ wide functional group compatibility

Cobalt-catalyzed regio- and diastereoselective carbocyclization/arylation of 1,5-bisallenes

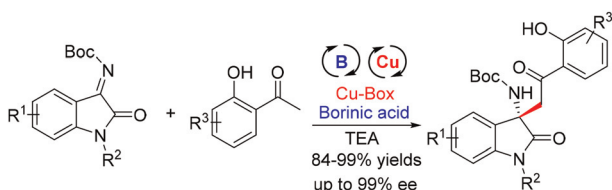
Tao Wang, Hua Huang, Ji-Xun Guan, Xiao-Die An, Yun-Xuan Tan* and Ping Tian*

892

Visible-light-induced radical C(sp³)-S coupling for the synthesis of cyanoalkyl thioethers

Zhi-Qiang Zhu,* Xiao-Wen Zheng, Dong-Liang Zhang, Xiao-Long Huang, Qian-Qian Xu, Zong-Bo Xie and Zhang-Gao Le*

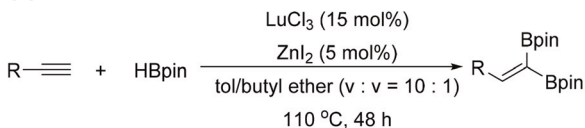
898



Enantioselective Mannich reaction of ketone enolates with imines through cooperative B/Cu catalysis

Jiangbo Wu, Mingtong Ji, Zhiming Li, Shengyi Tu, Zhihe Cen, Kai Huang, Yan Wang, Changwu Zheng* and Xiaoyu Wu*

906



- ✓ simple catalysts
- ✓ one-step synthesis
- ✓ ligand-free catalysis
- ✓ wide substrate scope
- ✓ 33 examples, up to 91% yield
- ✓ mechanistic insights

LuCl₃/ZnI₂ cocatalyzed 1,1-diborylation of terminal alkynes to 1,1-diborylalkenes with pinacolborane

Rongrong Zhou, Wenli Wang, Jianping Zhang, Qi Wang, Ziyang Chen, Yinlin Shao* and Fangjun Zhang*

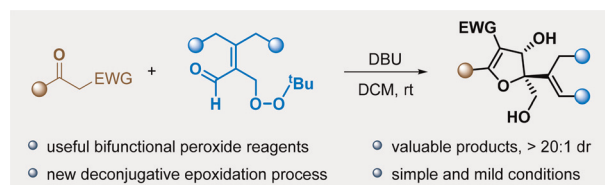


RESEARCH ARTICLES

912

A new tandem reaction of bifunctional peroxides enables the expedient synthesis of functionalized dihydrofurans

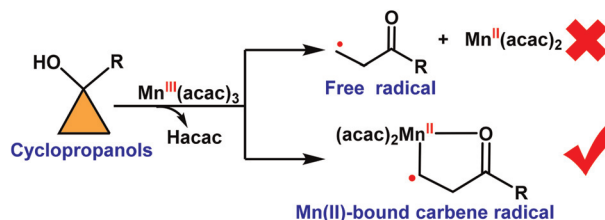
Jiayi He, Yiwei Chen, Yukun Zhao* and Lin Hu*



918

Computational studies on Mn(III)-catalyzed cyclopropanols: a case of Mn(III)-based metalloradical catalysis involving an α -Mn(II)-bound-alkyl radical key intermediate

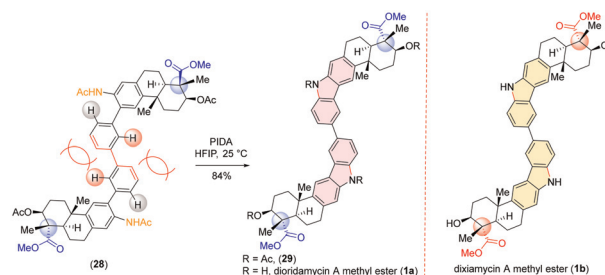
Pan Hong, Xiu-Yuan Zou, Peng-Cheng Zhang, Xin Lu, Long-Wu Ye, Yi-Dong Luo and Qing Sun*



928

Highly regioselective oxidative Csp^2 -H amination for indolosesquiterpene alkaloids: total synthesis of (+)-dioridamycin

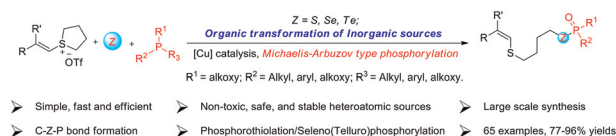
Rhituparna Nandi, Sovan Niyogi, Sourav Kundu, Ayan Mondal, Nanda Kishore Roy and Alakesh Bisai*



936

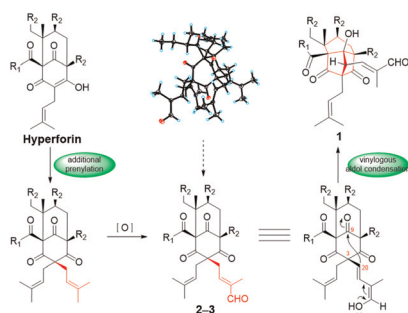
Copper-catalyzed phosphorothiolation/seleno(telluro) phosphorylation of vinylsulfonium salts with P(III)-nucleophiles via the insertion of elemental sulfur/selenium/tellurium

Biquan Xiong,* Siya Zheng, Weifeng Xu, Yu Liu, Longzhi Zhu,* Ke-Wen Tang, Zelin Sun* and Wai-yeung Wong*



RESEARCH ARTICLES

947

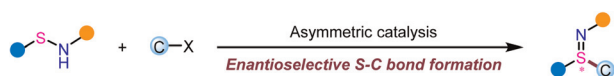


Hypseudone A, a hyperforin-derived polycyclic polyprenylated acylphloroglucinol with caged skeleton from *Hypericum pseudohenryi*

Na-Na Jiang, Yan-Song Ye and Gang Xu*

HIGHLIGHT

953

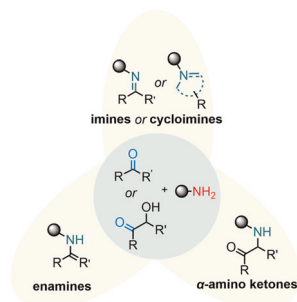


Catalytic asymmetric synthesis of chiral sulfilimines via S–C bond formation

Yingying Shi, Shuiyun Zheng, Jiapian Huang, Fu-Sheng He,* Min Yang* and Jie Wu*

REVIEWS

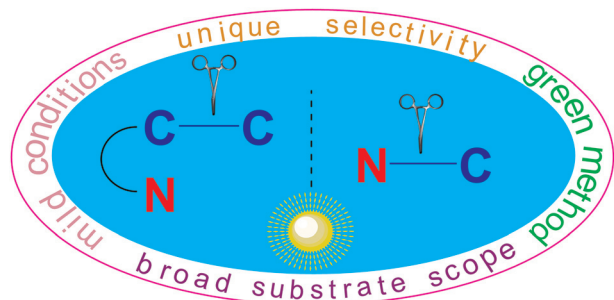
960



Recent advances in catalytic asymmetric condensation reactions for the synthesis of nitrogen containing compounds

Jifan Jia, Qianqian Xu, Haitong Fan, Yunpeng Lv and Dan Li*

975



Recent advances in the photocatalytic cleavage of C–C and C–N bonds associated with amines and their derivatives

Qibo Ni, Yan Zhou, Lang Chen and Yunkui Liu*



REVIEWS

1001

Catalytic asymmetric synthesis and synthetic application of heteroatom-substituted axially chiral allenes

Lifei Gan, Xuanchen Wan, Yucheng Pang, Yuqi Zou, Yu-Hua Deng* and Zhihui Shao*

