

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(15) 3473–3690 (2025)



Cover

See Yusuke Kawamoto,
Soyoung Park et al.,
pp. 3535–3541.

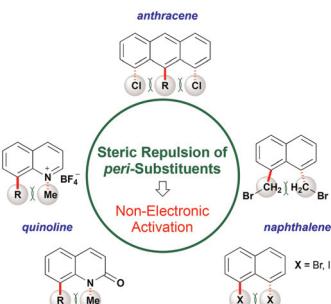
Image reproduced
by permission of
Soyoung Park from
Org. Biomol. Chem.,
2025, **23**, 3535.

REVIEWS

3483

Non-electronic activation of aromatic frameworks by steric repulsion between *peri*-substituents

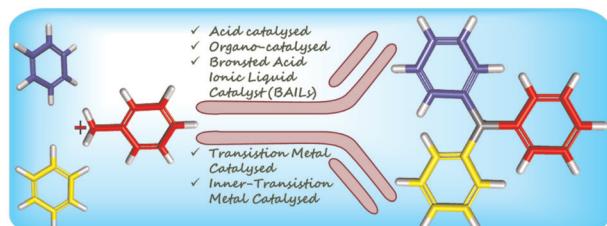
Annisa Indah Reza and Nagatoshi Nishiwaki*



3492

Generation of C(sp³)–C_{Ar} bonds in the synthesis of triarylmethanes (TRAMs): comprehensive progress since 2009

Yaqoob A. Teli, Kamal Kant, S. Aleena Chanu,
Nayyef Aljaar and Chandi C. Malakar*





GOLD
OPEN
ACCESS

RSC Applied Polymers

The application of polymers,
both natural and synthetic

Interdisciplinary and open access

rsc.li/RSCApplPolym

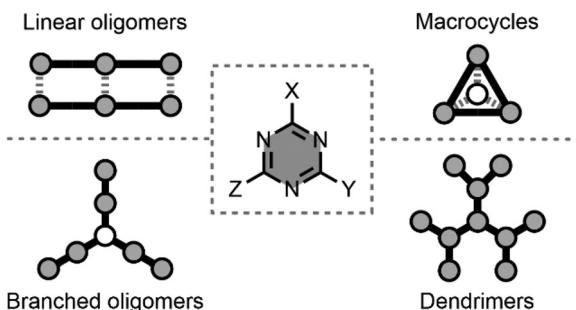
Fundamental questions
Elemental answers

REVIEWS

3520

The supramolecular chemistry of monodisperse 1,3,5-triazine oligomers

Luis Escobar and Christopher A. Hunter*

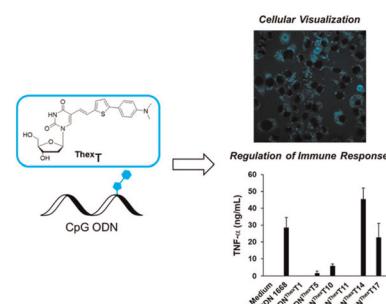


COMMUNICATIONS

3535

Fluorescent nucleobase analogue for cellular visualisation and regulation of immunostimulatory CpG oligodeoxynucleotides

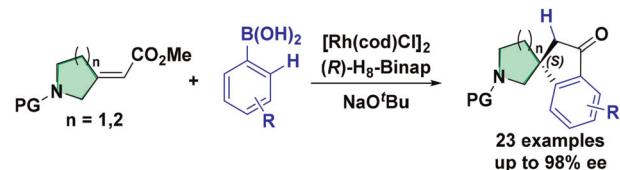
Tatum Melati Andini, Satoshi Tada, Tomotaka Kumagai, Yuki Takahashi, Yuriko Higuchi, Yusuke Kawamoto* and Soyoung Park*



3542

Highly enantio-selective synthesis of aza-spirocyclic indanones via rhodium catalysis

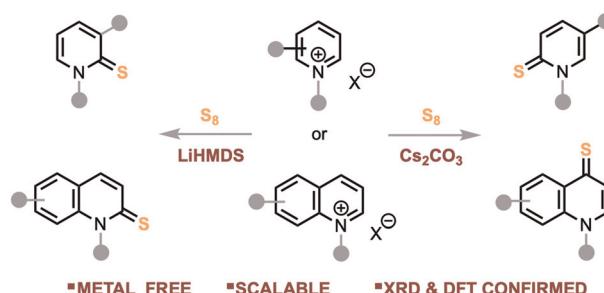
Cai-Lan Kou, Long Yang, Ling-Zhi Sun, Meng Li, Xi Luo, Hong-Bo Guo* and Jian-Bo Xie*



3547

Base-controlled regioselectivity *via* distinct mechanisms during C–H thionation of azinium salts with elemental sulfur

Olga A. Kositova, Dmitry I. Bugaenko*, Victoria E. Goncharenko, Mikhail S. Nechaev and Alexander V. Karchava*



COMMUNICATIONS

3553

Base-mediated synthesis of ring-fluorinated imidazo[1,2-a]pyridines *via* sequential C–F substitutions

Qiuyun Li,* Tianyu Du, Xue Feng, Fan Zhang, Wei Wang, Zhongfei Han, Yannan Zhu, Kelu Yan,* Wen-Juan Hao and Bo Jiang*

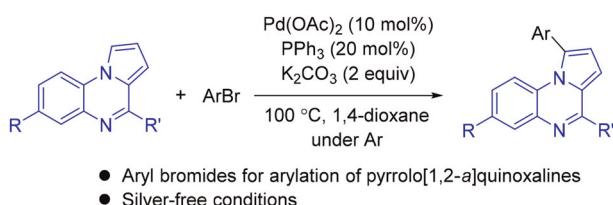
3558



Metal-free regioselective hydrophosphorylation of electron-deficient alkynes catalyzed by oxazaborolidines

Liangrui Xiao, Yu Chen, Liuyang Ding, Jiuling Li,* Yafei Guo* and Baomin Fan*

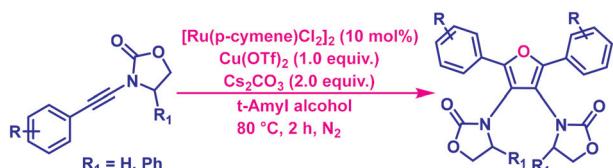
3562



Silver-free, palladium-catalyzed arylation of pyrrolo[1,2-a]quinoxaline C–H bonds with aryl bromides

Khanh Thi Ngoc Ong, Ha Thi Thu Nguyen, Anh Thai Nguyen, Vu Huynh Luu, Dat Huy Tran, Thuy Thi Ca, Tan Le Hoang Doan, Hung Huy Nguyen and Tung Thanh Nguyen*

3567

Ruthenium(II)-catalyzed synthesis of poly-substituted furans *via* intermolecular oxidative annulation of 3-(phenylethynyl) oxazolidin-2-ones

Vikrant Nawal Vikram, Mohit Chourasiya, Ruchir Kant and Narendra Tadigoppula*



PAPERS

3572

One-pot synthesis of diaroyl benzothiepine-1,1-dioxides

Meng-Yang Chang* and Nai-Chen Hsueh



3583

Design, synthesis, and apoptotic evaluation of spiro[indoline-3,3'-pyrazolo[1,2-a]indazole] derivatives via [3 + 2] *N,N*-cycloaddition

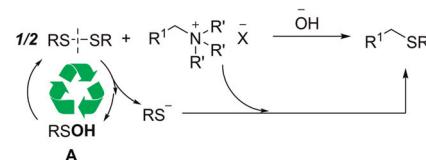
Rapeti Thrinadh Kumar, Sohel C. Mulani, Shaik Anwar* and Ravi K. Kottalanka*



3590

TM-free full utilization of S atoms: synthesis of thioethers from disulfides and quaternary ammonium salts

Xiantao Ma,* Yingying Zhu, Yuying Chen, Xiaoyu Yan and Mengcheng Zhang*

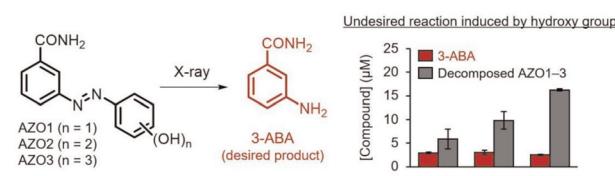


- ✓ Utilization of two S atoms ✓ TM and chemical oxidant/reductant-free
- ✓ Commercially available reagents ✓ Broad substrate scope
- ✓ Gram scale synthesis ✓ Synthesis of bioactive molecules

3595

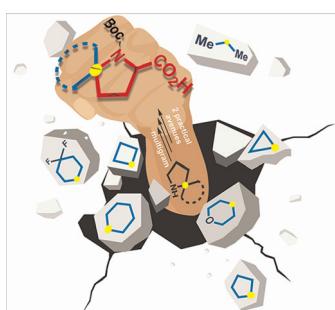
Effect of hydroxy groups on X-ray-induced reactions of azo benzene derivatives

Koki Ogawara, Naoya Ieda, Hideo Takakura, Kohei Nakajima, Akari Mukaimine, Mei Harada, Kazuaki Hashimoto, Osamu Inanami and Mikako Ogawa*



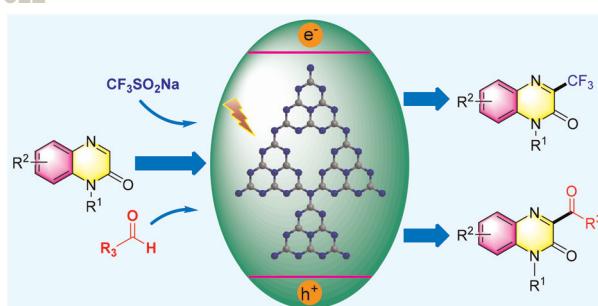
PAPERS

3601

**Concise practical avenues toward 5,5-spiro- α -prolines**

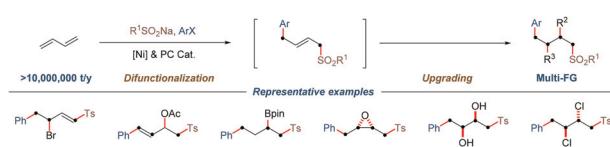
Ievgenii A. Iermolenko, Artem A. Artemenko, Dmytro O. Vasko, Alina O. Shcherbyna, Oleksandr P. Datsenko, Eugeniy N. Ostapchuk, Dmytro O. Leha, Alexandr B. Rozhenko, Dmytro M. Volochnyuk and Serhiy V. Ryabukhin*

3612

**Visible light-induced $g\text{-C}_3\text{N}_4$ catalyzed C–H acylation and trifluoromethylation of quinoxalinones: an efficient and recyclable approach**

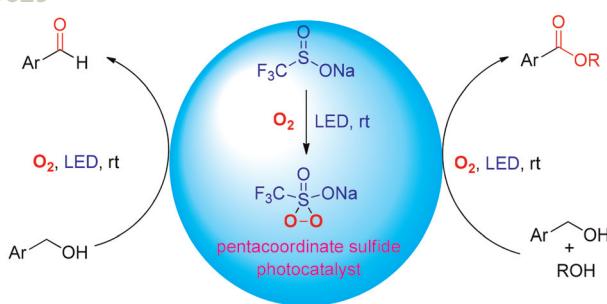
Linzhao Li, Zongjie Ma, Cong Li, Gaoli Chen, Taiping Gao* and Xiaoxiao Chu*

3619

**Construction of multi-functionalized carbon chains by Ni-catalyzed carbosulfonylation of butadiene**

Yan Liu, Xiang-Xin Zhang, Xue-Ting Li, Su-Yang Xu, Ding-Wei Ji and Qing-An Chen*

3629

 **$\text{CF}_3\text{SO}_2\text{Na}$ -promoted photocatalytic aerobic oxidation of benzyl alcohols to aromatic aldehydes and aromatic esters**

Yong Liu, Weixin Xiao, Yue Zhang, Lunyu Ou, Zhengyi Yi, Xiaobo Yang* and Hua Fu*



PAPERS

3634

An azothiazole probe as a multianalyte colorimetric chemosensor for urea and biologically significant amines

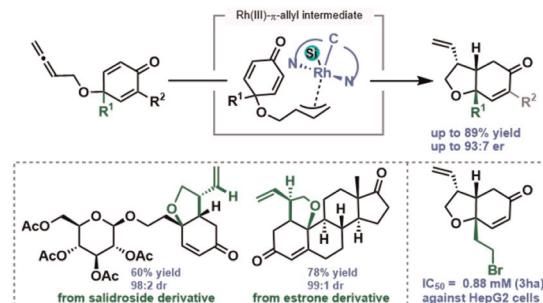
Sapna Singh, Archana Velloth, Rishi Ram Mahato, Surbhi Grewal, Subhabrata Maiti* and Sugumar Venkataramani*



3643

Rhodium(III)-catalyzed asymmetric allylic cyclization of cyclohexadienone-tethered allenes

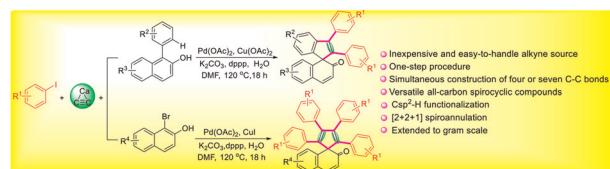
Jian-Wei Zhang, Da-Yu Shi, Ping Tian and Qing-Hua Li*



3648

Construction of spirocarbocyclic scaffolds through dearomatization using calcium carbide as an alkyne source

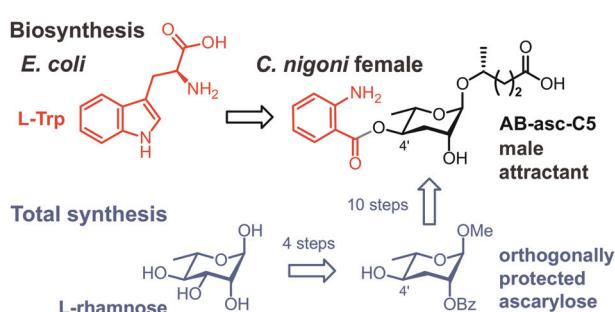
Zhiqiang Wang, Botao Wang, Jiao Wang, Zheng Li* and Jinhui Yang*



3654

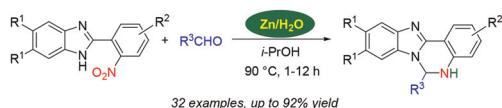
Identification and synthesis of 4'-*ortho*-aminobenzoyl ascarosides as sex pheromones of gonochoristic *Caenorhabditis nigoni*

Célia P. Bergame, Chuanfu Dong, Siva Bandi, Marie-Désirée Schlemper-Scheidt, Sylvain Sutour and Stephan H. von Reuß*



PAPERS

3671

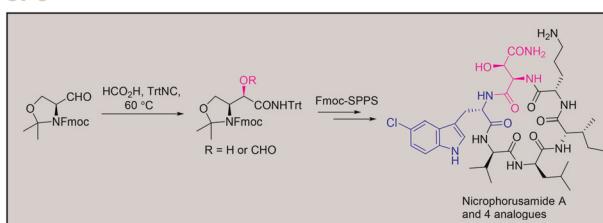


- ✓ cheap and readily available raw materials and reductants
- ✓ low cost, high step economy and efficiency
- ✓ simple, green and safe operating conditions
- ✓ good product yields and product diversity

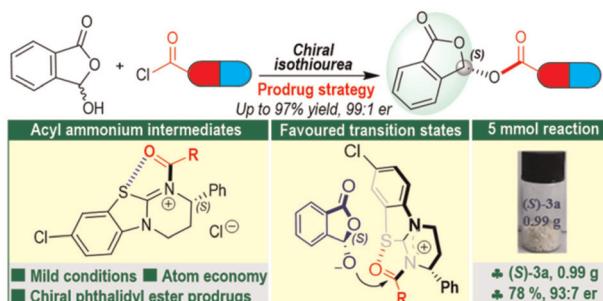
Zn/H₂O-mediated tandem reductive cyclization of 2-(2-nitrophenyl)-1*H*-benzo[*d*]imidazoles with aldehydes to synthesize 5,6-dihydrobenzo[4,5]imidazo[1,2-*c*]quinazolines

Xiaopeng Zhang,* Qiuyang Pang, Zhenhua Guo, Zihua Yang and Guisheng Zhang*

3676



3680



Asymmetric synthesis of Fmoc-*threo*-HOAsn for the total synthesis of nicrophorusamide A

Fangfang Bian, Jiarong Jiao, Qian Gong, Zhitao Chen* and Delin Chen*

Access to chiral phthalidyl ester prodrugs via an isothiourea-catalyzed dynamic kinetic resolution reaction

Hui Cai, Chaoyang Song, Dan Ling, Youlin Deng, Zhichao Jin and Tingting Li*