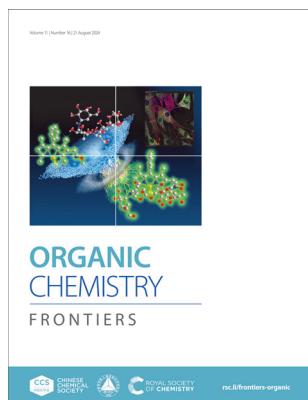


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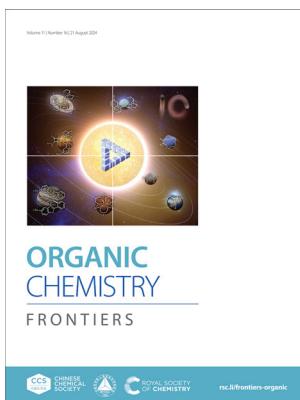
ISSN 2052-4129 CODEN OCFRA8 11(16) 4345–4640 (2024)



#### Cover

See Ana M. Gómez,  
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J. Cristobal Lopez *et al.*,  
pp. 4356–4365.

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#### Inside cover

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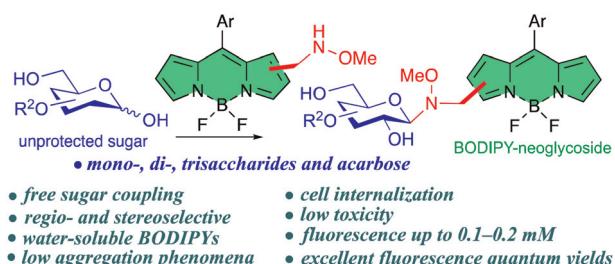
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### RESEARCH ARTICLES

4356

#### Chemoselective reaction of methoxyaminomethyl BODIPYs with unprotected carbohydrates: a powerful tool for accessing BODIPY neoglycosides

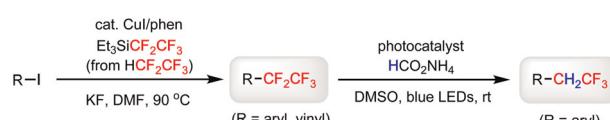
Ana M. Gómez,\* Luis García-Fernández,  
Andrés G. Santana, Clara Uriel, Leire Gartzia-Rivero,  
Jorge Bañuelos,\* Inmaculada García-Moreno,  
Lourdes Infantes, María Rosa Aguilar and  
J. Cristobal Lopez\*



4366

#### Copper-catalyzed pentafluoroethylation of aryl/alkenyl iodides with pentafluoroethylsilane

Yihan Tang and Gavin Chit Tsui\*



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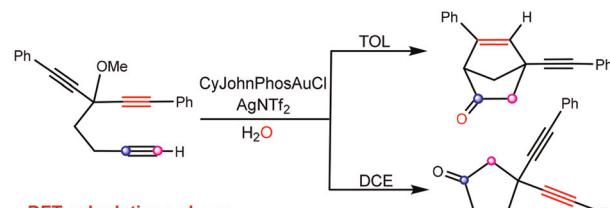
Fundamental questions  
Elemental answers

## RESEARCH ARTICLES

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**Insights into the mechanism and origin of solvent-controlled chemodivergence in the synthesis of Au-catalyzed bicyclo[2.2.1]heptanes from 3-alkoxy-1,6-diyynes: a DFT perspective**

Aili Feng and Dongju Zhang\*



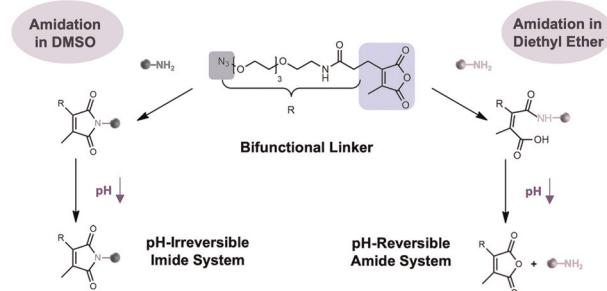
DFT calculations show:

- a new pathway for the formation of the bridged ring
- an essential allyl-gold species controlling the chemodivergence
- valuable insights for the preparation of bridged ring systems

4380

**Restoring the pH-responsiveness for amine-conjugated 2-propionic-3-methylmaleic anhydride linkers**

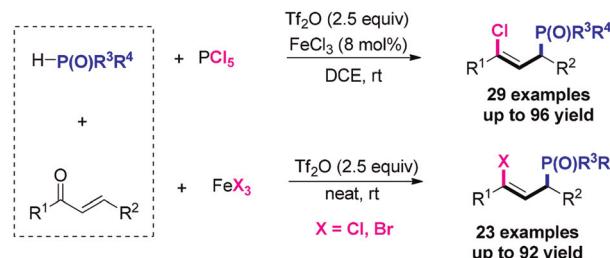
Alina G. Heck and Lutz Nuhn\*



4385

**Lewis acid-catalyzed phosphinylation and halogenation of  $\alpha,\beta$ -unsaturated ketones: access to  $\gamma$ -halo allylic phosphonates**

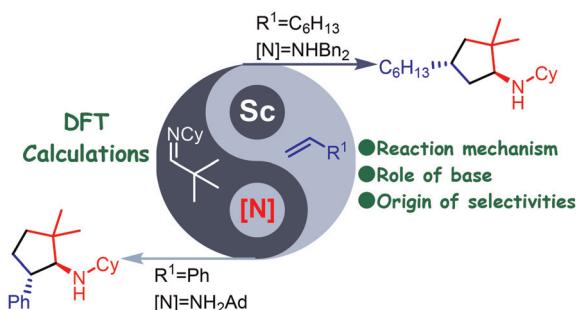
Xiao-Hong Wei,\* Ya-Wen Xue, Chun-Yuan Bai, Xuan Liu, Xiao-Hong Wang, Yan-Bin Wang and Qiong Su\*



4391

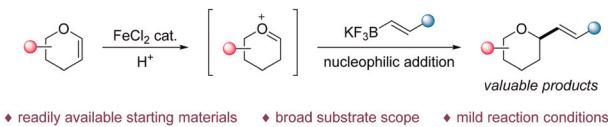
**Elucidating the mechanism and origin of diastereoselectivity in scandium-catalyzed  $\beta$ -C(sp<sup>3</sup>)-H activation and transformation of an aliphatic aldimine**

Yiran Zhang and Yang Wang\*



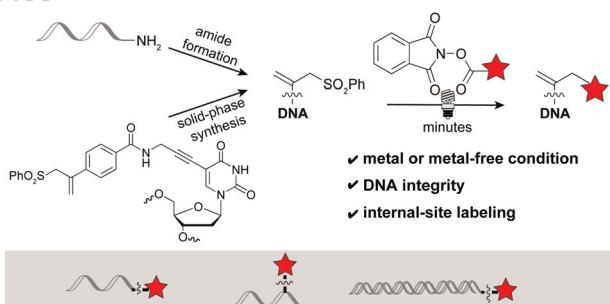
## RESEARCH ARTICLES

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**Brønsted acid-mediated selective  $\alpha$ -alkenylation of 3,4-dihydro-2H-pyran**

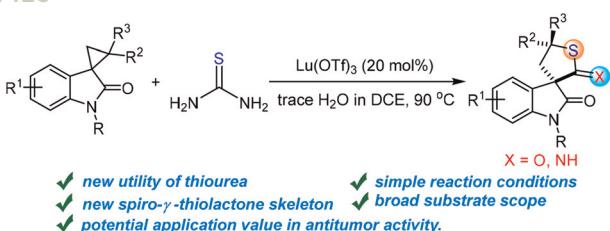
Nan Chen, Chaokun Li, Shangteng Liao, Jinglong Chen,\* Xingxing Ma and Qiuling Song\*

4408

**Site-specific DNA post-synthetic modification via fast photocatalytic allylation**

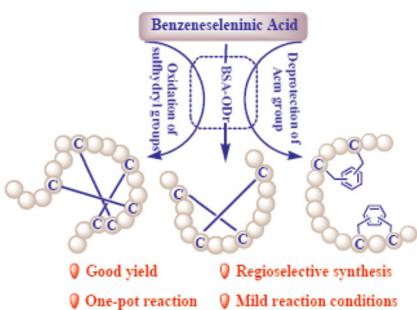
Ying Huang, Yixin Zhang, Chenchen Hu and Yiyun Chen\*

4416

**A domino [3 + 2] cycloaddition/deamination/imine hydrolysis reaction of cyclopropyl spirooxindoles with thiourea for access to spiro-gamma-thiolactone oxindoles**

Hai-Ting Wang, Xiao-Lin Wen, Xiao-Lin Xu, Dong-Chao Wang\* and Hai-Ming Guo\*

4423

**Benzeneseleninic acid used as an oxidizing and deprotecting reagent for the synthesis of multi-cyclic peptides constrained by multiple disulfide bonds and thioether bridges**

Yueyue Xing, Tianyu Bo, Nan Zhang, Meiqi Wu, Jiawei Wang, Shigang Shen,\* Yafang Wang, Changying Song, Tiesheng Shi\* and Shuying Huo\*



## RESEARCH ARTICLES

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**Photo-induced synthesis of fluoroalkylated quinolinones via an iron-catalyzed LMCT decarboxylation process**

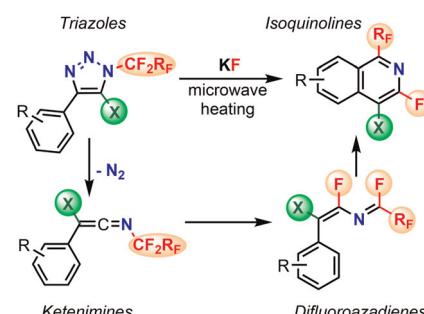
Zhuoheng Song, Lin Guo, Chao Yang\* and Wujiong Xia\*



4442

**One-pot multistep synthesis of 1-fluoroalkylisoquinolines and fused fluoroalkylpyridines from *N*-fluoroalkyl-1,2,3-triazoles**

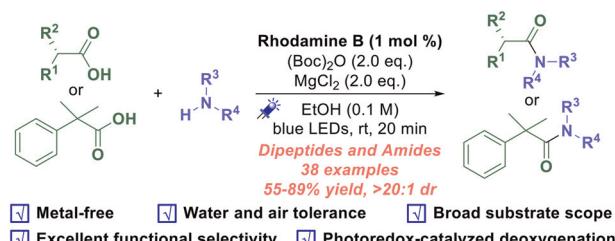
Anna Kubíčková, Svatava Voltrová, Adam Kleman, Blanka Klepetářová and Petr Beier\*



4449

**A visible light-induced deoxygenative amidation protocol for the synthesis of dipeptides and amides**

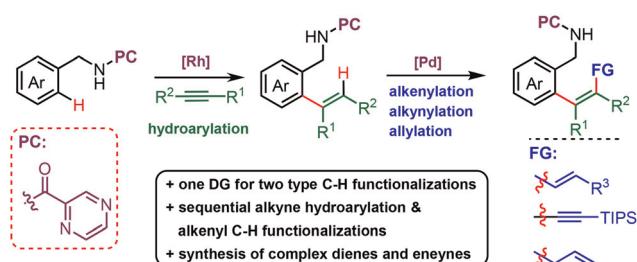
Ji-Wei Ren,\* Cheng-Shuai Han, Huai-Xin Zhang, Qing-Hao Zhang, Xian-Ting Song and Jing-Hui Sun



4456

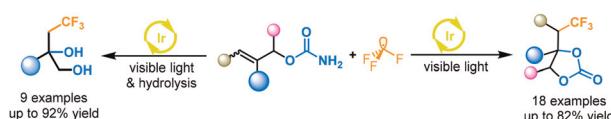
**Stereo-selective synthesis of complex dienes and enynes by sequential hydroarylation and olefinic C–H functionalization**

Yuhang Zhu, Xiaoli Li, Cheng Zhang, Xiuying Liu, Linzhi Huang, Yongbo Zhang, Chao Shen,\* Liyuan Ding, Guofu Zhong\* and Jian Zhang\*



## RESEARCH ARTICLES

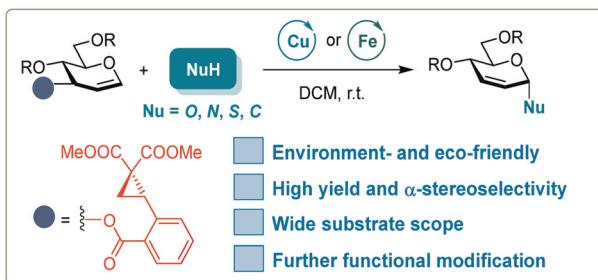
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### Photoredox-catalyzed oxytrifluoromethylation of alkenes toward CF<sub>3</sub>-containing five-membered cyclic carbonates

Yihui Mao, Xiangquan Wang, Chengcheng Zhong, Jinkang Jin and Zhan Lu\*

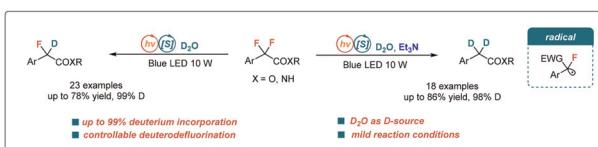
4470



### Stereoselective strain-release Ferrier rearrangement: the dual role of catalysts

Huajun Zhang, Aoxin Guo, Han Ding, Yuan Xu, Yuhan Zhang, Dan Yang and Xue-Wei Liu\*

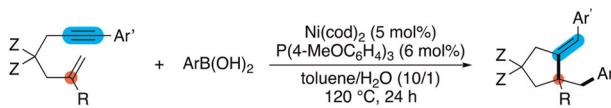
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### Photoredox-catalyzed selective deuterodeflourination of $\alpha,\alpha$ -difluoroarylacetic esters and amides

Zi-Hang Yuan, Hong Xin, Yuan Gao, Guo-Wei Sun, Rui-Ying Zhao, Xin-Hua Duan and Li-Na Guo\*

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### Nickel-catalyzed arylative cyclization of 1,6-enynes: arylation of unactivated alkene moieties

Jian Gao, Qi Wei, Zeqing Zhang, Zhishan Su,\* Jialin Ming\* and Yongmin Zhang\*

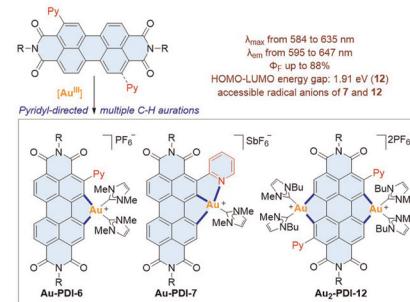


## RESEARCH ARTICLES

4496

**Direct synthesis of gold(III)-annulated perylene diimides via multiple C–H aurations**

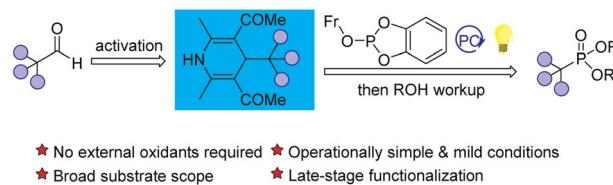
Wei Chen, Qing-Yu Yang, Kongchuan Wu, Jianbin Lin and Hui-Jun Zhang\*



4502

**Facile synthesis of alkylphosphonates from 4-alkyl-1,4-dihydropyridines via photoinduced formal deformylative phosphorylation**

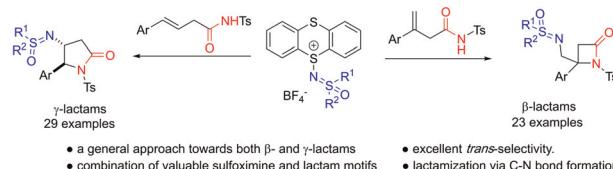
Huan Zhang, Zhonghe Cui, Jian Wang, Lin Zhu\* and Chaozhong Li



4508

**Photocatalyzed sulfoximation/amidation of (Het) arylethenes tethered N-tosyl amide: a versatile entry to sulfoximidoyl  $\beta$ - and  $\gamma$ -lactams**

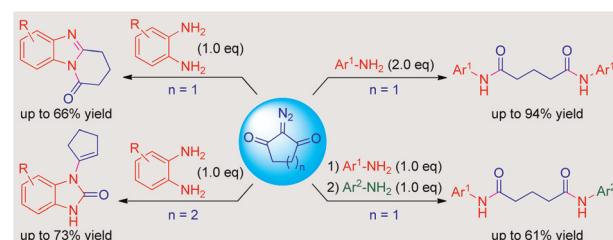
Chengtan Li, Yuming Yang, Xiaolan Zheng, Cairong Zhang, Hui Cai\* and Weilong Lin\*



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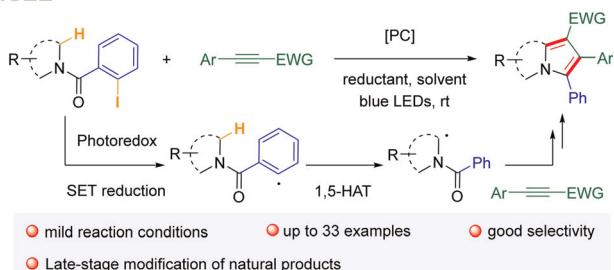
**Green synthesis of glutaramides, piperidino[1,2-a] benzimidazol-1-ones and *N*-cyclopentenyl benzimidazolones enabled by microwave assisted domino reactions of cyclic 2-diazo-1,3-diketones with aniline derivatives**

Cheng Zhao, Xiao-Wei Hu, Yi-Bin Xu, Xiong-Wei Liu,\* You-Ping Tian and Yun-Lin Liu\*



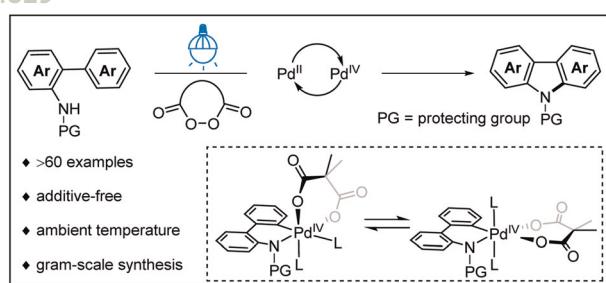
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**Visible-light-mediated synthesis of polysubstituted pyrroles via  $C_{Ar}-I$  reduction triggered 1,5-hydrogen atom transfer process**

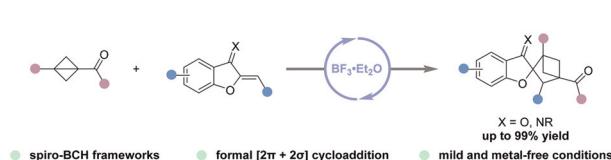
Junlei Wang,\* Qinglin Xie, Guocheng Gao, Guofen Wei, Xinxin Wei, Xuemei Chen, Daohai Zhang,\* Hongqing Li and Binbin Huang\*

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**Palladium(II)-catalyzed intramolecular C–H amination to carbazole: the crucial role of cyclic diacyl peroxides**

Ting Yuan, Kang Fu and Lei Shi\*

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**Access to spiro-bicyclo[2.1.1]hexanes via  $BF_3\cdot Et_2O$ -catalyzed formal  $[2\pi + 2\sigma]$  cycloaddition of bicyclo[1.1.0]butanes with benzofuran-derived oxa(aza)dienes**

Jia-Yi Su, Jian Zhang, Zhi-Yun Xin, Hao Li,\* Hanliang Zheng\* and Wei-Ping Deng\*

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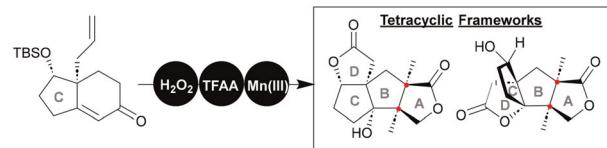
**A copper-catalyzed annulation reaction of diazo esters with propargyl amines for the synthesis of 2,5-dihydropyrroles**

Haodong Xie, Wei Zhao, Heping Wei, Yang Yu, Lili Zhao, Jonathan B. Baell and Fei Huang\*



## RESEARCH ARTICLES

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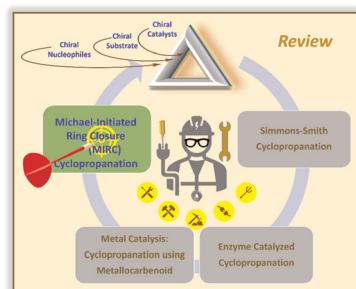
**A novel approach to the tetracyclic frameworks of anisalactone-type sesquiterpenoids**Long He, Xiaocheng Zhang, Sen Li, Xuexue Tian,  
Yimeng Han, Haitao Xie\* and Weiqing Xie\*

## REVIEWS

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**Unveiling the beauty of cyclopropane formation: a comprehensive survey of enantioselective Michaelis-Menten initiated ring closure (MIRC) reactions**

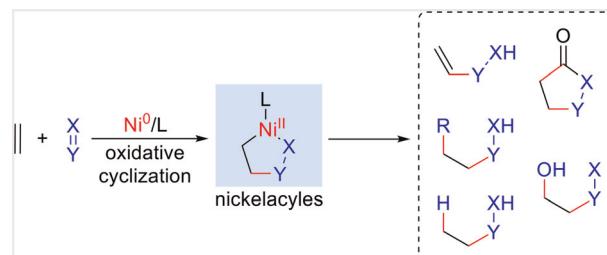
Ramkumar Moorthy, Waidath Bio-Sawe, Sagar S. Thorat and Mukund P. Sibi\*



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**Catalytic transformations of alkenes via nickelacycles**

Meng-Ying Qian, Kai-Xiang Zhang and Li-Jun Xiao\*



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**Recent advances on carbon nitride-based photocatalysts for organic transformations in aqueous media**

Pengfei Zhou, Yunfei Cai\* and Yurong Tang\*

