

# Organic & Biomolecular Chemistry

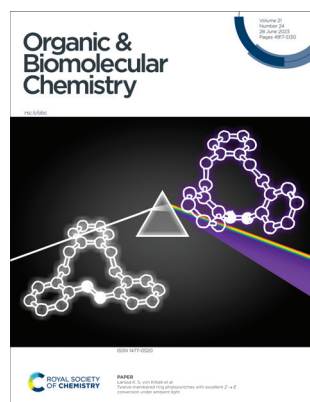
An international journal of synthetic, physical and biomolecular organic chemistry

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## IN THIS ISSUE

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### Cover

See Larissa K. S. von Krbek  
*et al.*, pp. 4993–4998.

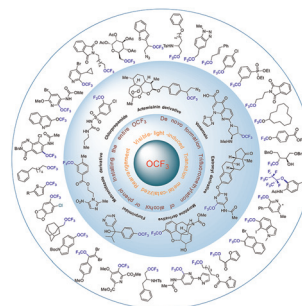
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*Org. Biomol. Chem.*, 2023,  
**21**, 4993.

## REVIEW

4926

### New synthetic approaches toward OCF<sub>3</sub>-containing compounds

Bo-Ya Hao, Ya-Ping Han,\* Yuecheng Zhang\* and  
Yong-Min Liang

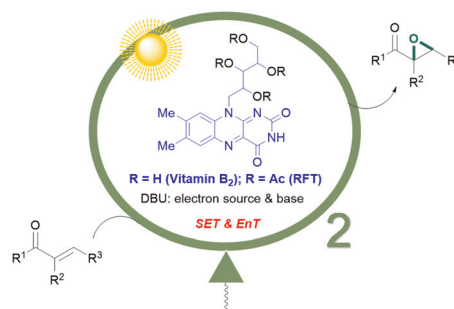


## COMMUNICATIONS

4955

### Visible-light-induced aerobic epoxidation with vitamin B2-based photocatalyst

Duyi Shen,\* Ting Ren, Zhen Luo, Feiyang Sun, Yun Han,  
Kaihui Chen, Xuan Zhang, Mengxin Zhou, Peiwei Gong  
and Mianran Chao\*



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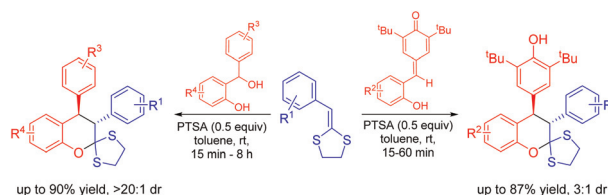


## COMMUNICATIONS

4962

## Annulation of quinone methides with 2-benzylidene dithiolanes: synthesis of spirochroman dithiolanes

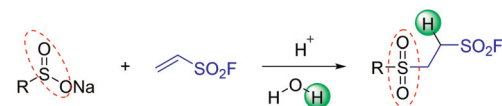
Surya Pratap Singh, Shivani Arora, Prashant Kumar Bhardwaj and Anand Singh\*



4967

Green and efficient synthesis of pure  $\beta$ -sulfonyl aliphatic sulfonyl fluorides through simple filtration in aqueous media

Kang Feng, Jian-Bai Wang, Wei-Dong Zhang and Hua-Li Qin\*



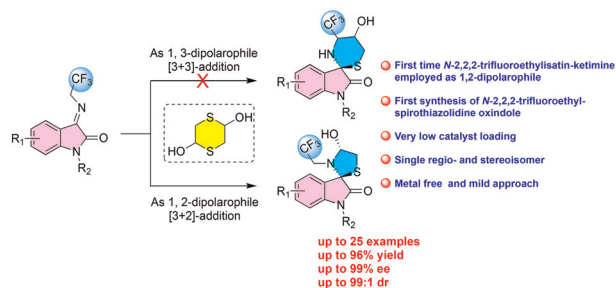
26 examples, up to 91% yield

- Transition-metal free and mild conditions
- Gram scale, easy work up
- Simple isolation to obtain pure products
- Water as solvent

4972

*N*-2,2,2-Trifluoroethylisatin ketimine as a 1,2-dipolarophile for [3 + 2]-addition to access optically pure spirothiazolidine oxindoles

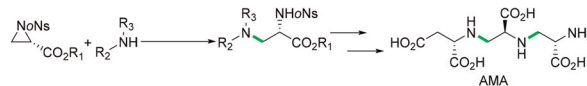
Madavi S. Prasad,\* Sankar Bharani, Murugesan Sivaprakash, Prabha Vadivelu, Durairajan Siva Sundara Kumar and L. Raju Chowhan\*



4977

Catalyst- and solvent-free regioselective ring opening of aziridines with amines: application in the gram-scale synthesis of the  $\alpha,\beta$ -diamino propionic derivative, aspergillomarasmine A

Xing Lin, Dajun Zhang, Jing Li and Lei Zhang\*



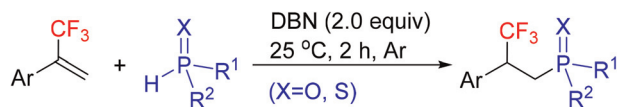
- No catalyst
- No solvent
- Regioselectivity
- Availability of solid amines

Gram-scale synthesis of AMA



## COMMUNICATIONS

4982

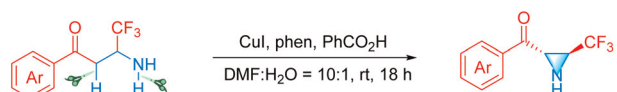


- ✓ Mild reaction conditions
- ✓ Excellent FG tolerance
- ✓ Operational simplicity
- ✓ Broad substrate scope
- ✓ Scaled up to grams
- ✓ Short reaction times

**Solvent-free base-controlled addition reaction of *H*-phosphonates and *H*-phosphine oxides to  $\alpha$ -CF<sub>3</sub> styrenes: facile synthesis of  $\beta$ -CF<sub>3</sub>-substituted phosphonates and phosphine oxides**

Qianding Zeng, Ying Liu, Jingjing He, Yupian Deng, Pai Zheng, Zhudi Sun and Song Cao\*

4988



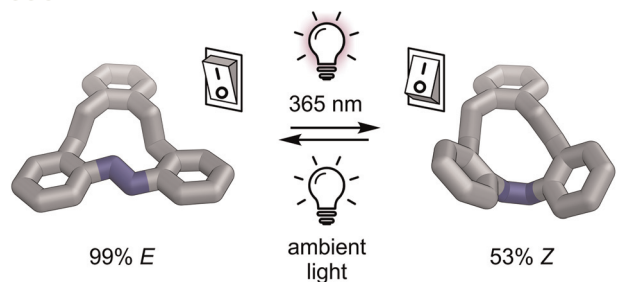
- efficient access to trifluoromethylated aziridine
- good yields
- readily available substrates
- excellent stereoselectivity

**A Cu-promoted reaction of  $\beta$ -keto trifluoromethyl amines enabling stereoselective synthesis of trifluoromethylated aziridines**

Nana Wang, Youlong Du, Haibo Mei,\* Jorge Escorihuela and Jianlin Han\*

## PAPERS

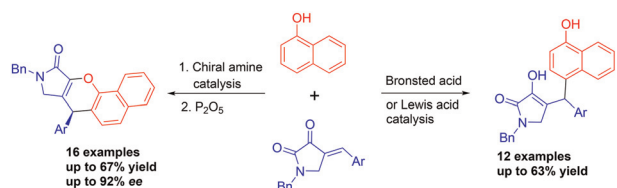
4993



**Twelve-membered ring photoswitches with excellent  $Z \rightarrow E$  conversion under ambient light**

Ruben Falkenburg, Maximilian J. Notheis, Gregor Schnakenburg and Larissa K. S. von Krbek\*

4999



**Catalyst-controlled regiodivergent Friedel–Crafts reactions of 1-naphthols with 2,3-dioxopyrrolidines: synthesis of polycyclic 2-pyrrolidinones**

Si-Kai Liu, Pei-Hsuan Chien, Bo-Wei Huang and Jeng-Liang Han\*

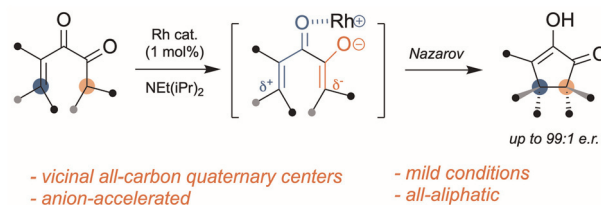


## PAPERS

5014

### Anion-accelerated asymmetric Nazarov cyclization: access to vicinal all-carbon quaternary stereocenters

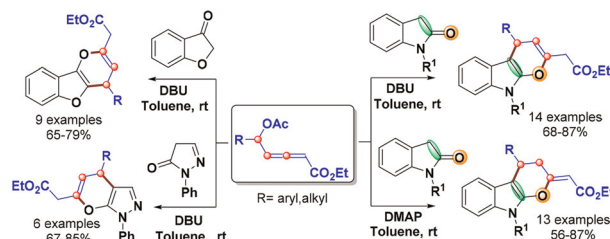
Cody F. Dickinson, Glenn P. A. Yap and Marcus A. Tius\*



5021

### (3 + 3) Annulation of acetoxy allenates with enolisable carbonyl substrates leading to fused pyrans

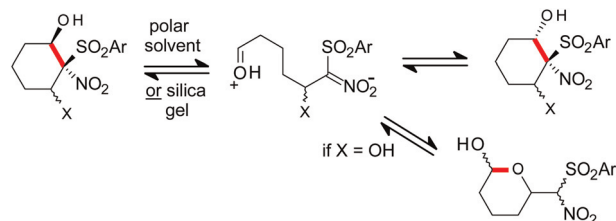
Shubham Debnath, Sachin Chauhan and K. C. Kumara Swamy\*



5033

### Cyclic $\beta$ -hydroxy- $\alpha$ -nitrosulfone isomers readily interconvert via open-chain aldehyde forms

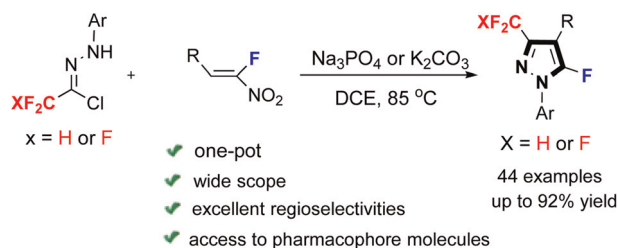
Peter A. Wade,\* Ruchi Tandon and Patrick J. Carroll

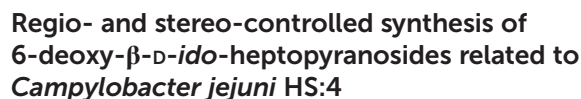


5040

### Regioselective [3 + 2] cycloaddition of di/trifluoromethylated hydrazonoyl chlorides with fluorinated nitroalkenes: a facile access to 3-di/trifluoroalkyl-5-fluoropyrazoles

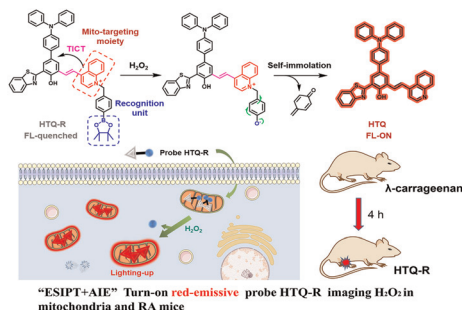
Nan Zhang, Hai Ma, Chi Wai Cheung, Fa-Guang Zhang, Marcin Jasiński, Jun-An Ma\* and Jing Nie\*





Saba Homayonia, Pengfei Zhang, Ping Zhang and  
Chang-Chun Ling\*

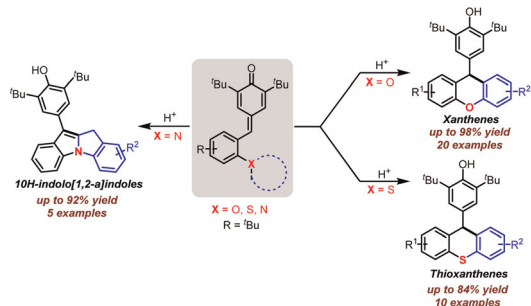
5063



# An ES IPT-based AIE fluorescent probe to visualize mitochondrial hydrogen peroxide and its application in living cells and rheumatoid arthritis

Shibo Zhong, Shuai Huang, Bin Feng, Ting Luo,  
Feiyi Chu, Fan Zheng, Yingli Zhu, Fei Chen and  
Wenbin Zeng\*

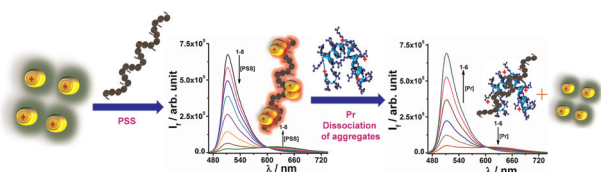
5072



## Acid-catalysed intramolecular Friedel–Crafts annulation of hetero-atom-functionalized *para*-quinone methides: access to O-, S- and N-based heterocycles

Sonam Sharma, Gurdeep Singh, Rekha, Munnu Kumar  
and Ramasamy Vijaya Anand\*

5079



# Polymer-mediated tuning of the monomer–aggregate equilibrium of a coumarin derivative for ratiometric sensing of protamine

Dibya Kanti Mal, Rajani Kant Chittela and  
Goutam Chakraborty\*

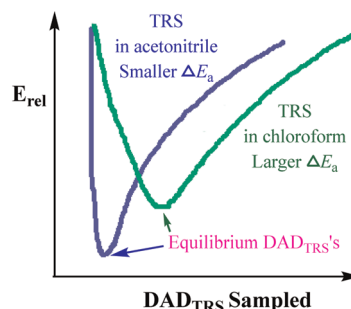


## PAPERS

5090

## Correlation of temperature dependence of hydride kinetic isotope effects with donor–acceptor distances in two solvents of different polarities

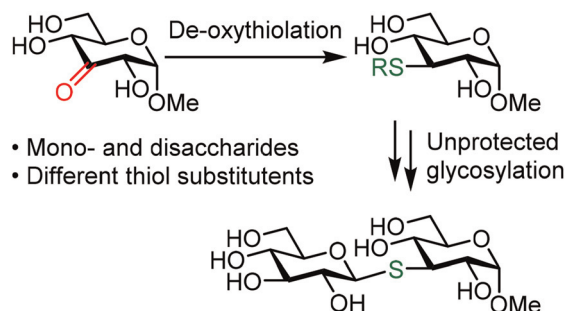
Mingxuan Bai, Rijal Pratap, Sanaz Salarvand and Yun Lu\*



5098

## Site-selective introduction of thiols in unprotected glycosides

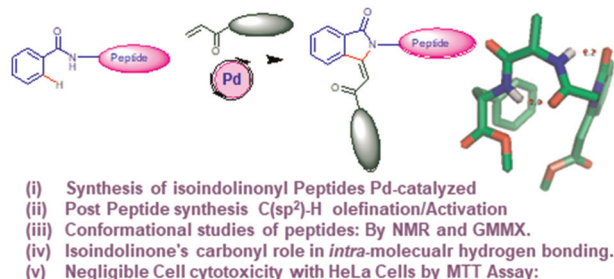
Niels R. M. Reintjens, Martin D. Witte\* and Adriaan J. Minnaard\*



5104

Synthesis of *N*-isoindolinonyl peptides via Pd-catalyzed C(sp<sup>2</sup>)-H olefination–activation and their conformational studies

Manish K. Gupta, Ankita Panda, Subhasish Panda and Nagendra K. Sharma\*



5117

## Seven-membered ring nucleobases as inhibitors of human cytidine deaminase and APOBEC3A

Harikrishnan M. Kurup, Maksim V. Kvach, Stefan Harjes, Geoffrey B. Jameson, Elena Harjes\* and Vyacheslav V. Filichev\*

