

# Organic & Biomolecular Chemistry

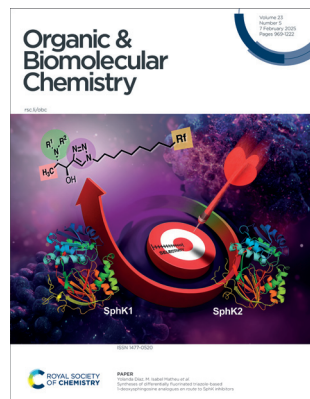
An international journal of synthetic, physical and biomolecular organic chemistry

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## IN THIS ISSUE

ISSN 1477-0520 CODEN OBCRAK 23(5) 969–1222 (2025)



### Cover

See Yolanda Díaz,  
M. Isabel Matheu *et al.*,  
pp. 1104–1111.

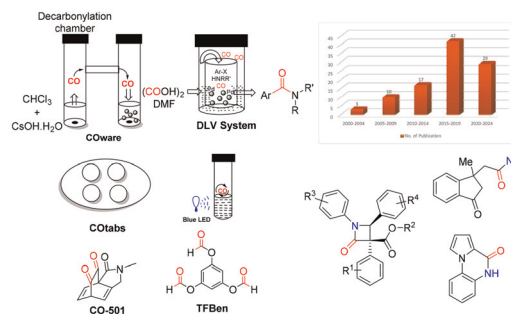
Image reproduced  
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María Isabel Matheu and  
Yolanda Díaz from  
*Org. Biomol. Chem.*,  
2025, **23**, 1104.

## REVIEWS

980

### Aminocarbonylation using CO surrogates

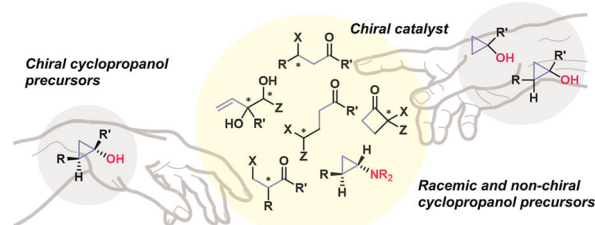
Kamya Rao, Anku Sharma, Gajanan K. Rathod,  
Aman S. Barahdia and Rahul Jain\*



992

### Recent advances in asymmetric synthesis via cyclopropanol intermediates

Marharyta Laktsevich-Iskryk, Alaksiej Hurski,  
Maksim Ošeka and Dzmitry Kananovich\*



# EES Catalysis

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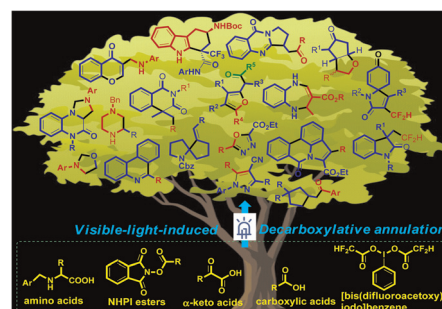
**Fundamental questions  
Elemental answers**

## REVIEWS

1016

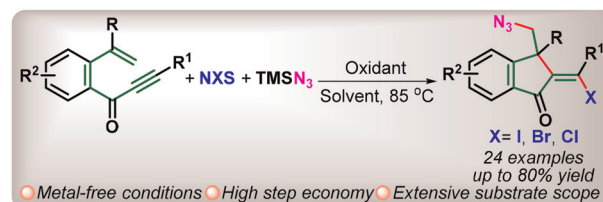
## Visible-light-induced decarboxylative cyclization

Suven Das



## COMMUNICATIONS

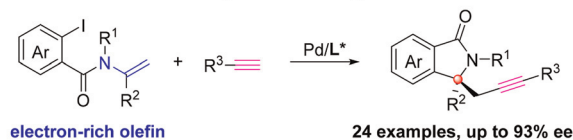
1067

Metal-free radical cascade cyclization/  
haloazidation of enynones to access functionalized  
1-indanonesHua-Feng Yan, Xiao Zou, Jian-Qiang Wang,  
Cheng Guo\* and Hang-Dong Zuo\*

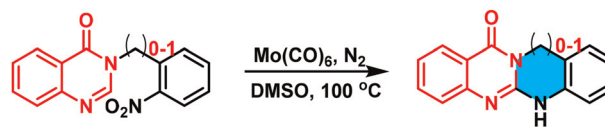
1073

Synthesis of 3-propargyl isoindolinones by  
Pd/Cu-catalyzed enantioselective Heck/  
Sonogashira reaction of enamidesQiang Wang, Ya-Lin Pan, Ren-Xiao Liang,  
Yuan-Yuan Hu\* and Yi-Xia Jia\*

Enantioselective Pd/Cu-catalyzed Heck/Sonogashira reaction of enamides



1078

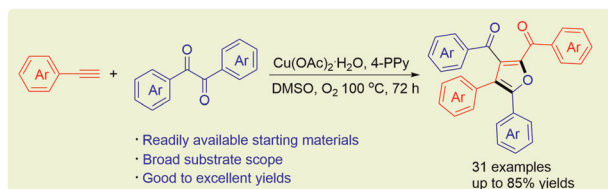
Mo(CO)<sub>6</sub>-catalyzed reductive coupling reaction to  
synthesize benzimidazoquinazolinones and  
dihydroquinazolinoquinazolinonesRan Zhao, Xinrui Huang, Xiaoru Meng, Yuhang Wang,  
Ruiyu Li, Xiangwei Meng\* and Caixia Xie\*

- ✓ 27 examples up to 89% yield
- ✓ Both five and six-membered rings were constructed
- ✓ Anticancer activities of products were screened



## COMMUNICATIONS

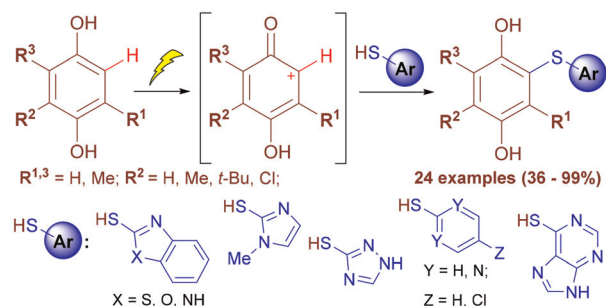
1084



### Synthesis of tetrasubstituted furans through a Cu/base-mediated cascade reaction from terminal alkynes and 1,2-diketones

Jian Fan,\* Xuecheng Liang, Liangliang Yao, Yating Wang, Kai Wang, Bangben Yao, Yujun Liu\* and Shuwen Xu\*

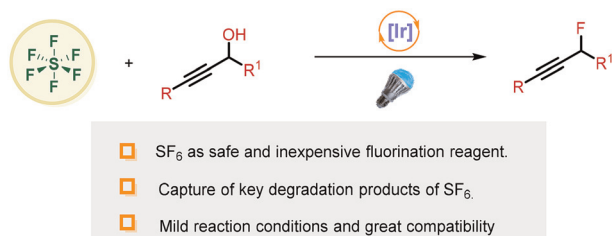
1089



### Electrochemically driven Michael reaction: synthesis of hydroquinone thioethers

Natalia V. Moiseeva, Alexey E. Sokolov, Igor V. Trushkov and Vladimir A. Kokorekin\*

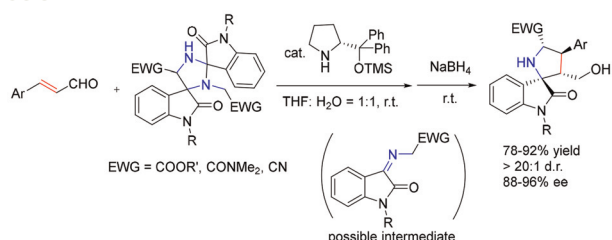
1094



### Photoinduced SF<sub>6</sub> degradation for deoxyfluorination of propargyl alcohols

Yue Zhao, Fengxiang Ma, Yifeng Chen, Shiyu Gu, Feng Zhu, Jun Cao, Shan Zhu\* and Lan-Gui Xie\*

1098



### Asymmetric synthesis of spiro[oxindole-3,2'-pyrrolidine]s through organocatalytic 1,3-dipolar cycloaddition via cycloreversion of precursor isatinimine homodimers

Qian Liu, Isao Yoshikawa, Kohsaku Okuyama and Kazuaki Kudo\*

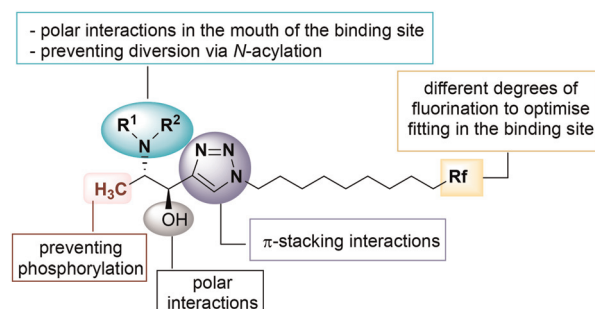


## PAPERS

1104

### Syntheses of differentially fluorinated triazole-based 1-deoxysphingosine analogues *en route* to SphK inhibitors

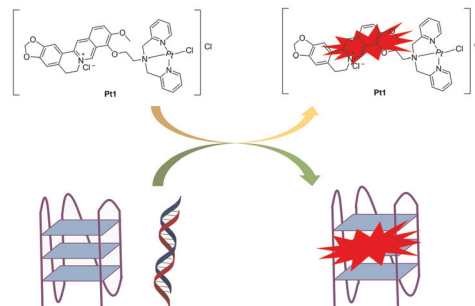
Adrià Cardona, Varbina Ivanova, Raúl Beltrán-Debón, Xavier Barril, Sergio Castellón, Yolanda Díaz\* and M. Isabel Matheu\*



1112

### A novel platinum(II) complex with a berberine derivative as a potential antitumor agent targeting G-quadruplex DNA

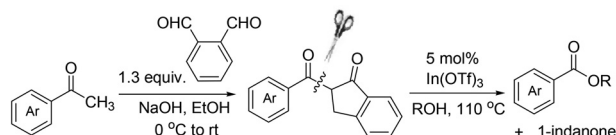
Shu-Lin Zhang, Haimei Fu, Yingxia Ma, Qifu Lin, Yanli Xu, Qiyuan Yang,\* Peng He\* and Zuzhuang Wei\*



1120

### Conversion of aromatic methyl ketones to esters and carboxylic acids using *o*-phthalaldehyde as an oxidant

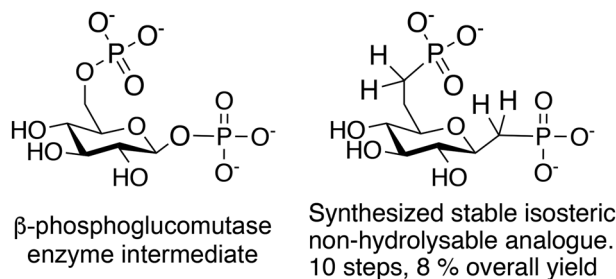
Rajendra Prasad, Saurabh Kumar Singh, Ranajit Maity and Partha Ghosh\*



1129

### A novel bis-phosphonyl C-glycoside: the first synthesis of C-(1,6-deoxy- $\beta$ -D-glucopyranosyl) dimethylphosphonate, a stable bisphosphonate to probe the mechanism of $\beta$ -phosphoglucomutase

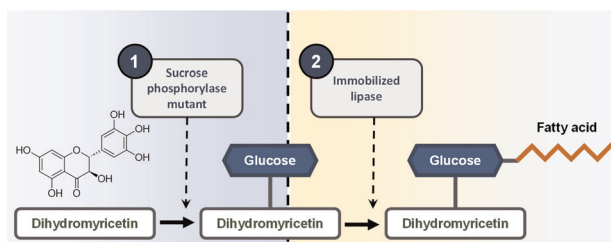
Ramprasad Ghosh and David L. Jakeman\*





## PAPERS

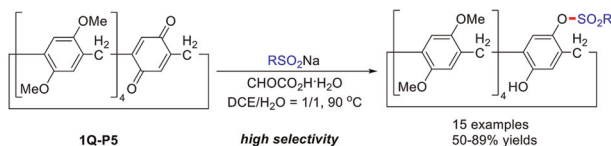
1136



### Enzymatic modification of dihydromyricetin by glucosylation and acylation, and its effect on the solubility and antioxidant activity

David Rodriguez-Garcia, Carlos Uceda, Laura Barahona, Marta Ruiz-Nuñez, Antonio O. Ballesteros, Tom Desmet, Julia Sanz-Aparicio, Maria Fernandez-Lobato, Jose L. Gonzalez-Alfonso\* and Francisco J. Plou\*

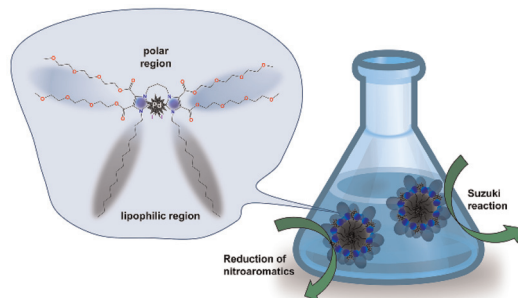
1146



### Glyoxylic acid monohydrate promoted reductive addition of sodium sulfinates to pillar[4]arene[1]quinone

Enfu Zhang, Da Ma\* and Chenghao Zhu\*

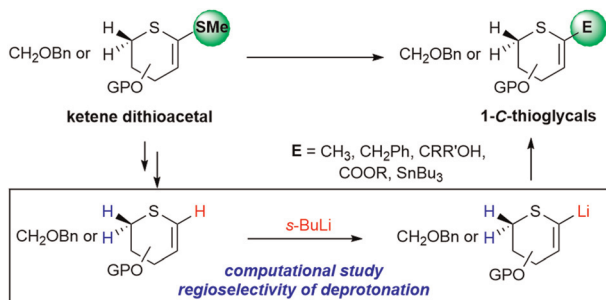
1150



### Amphiphilic palladium NHC-complexes with chelating bis-NHC ligands based on imidazole-4,5-dicarboxylic acid: synthesis and catalysis in water

Dmitriy D. Radaev, Daria P. Duglav, Elizaveta A. Pushkareva, Angelina A. Fedoseeva, Elza D. Sultanova, Artur A. Khannanov, Vladimir G. Evtugyn, Svetlana E. Solovieva, Vladimir A. Burilov\* and Igor S. Antipin

1161



### From carbohydrate-derived ketene dithioacetals to 1-C-thioglycals: a synthetic and theoretical insight

Eddy Goyer, Hassan Khartabil, Gatien Messire, Murielle Muzard and Richard Plantier-Royon\*

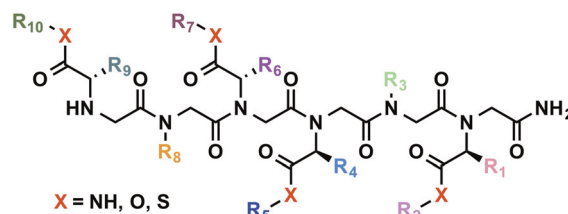


## PAPERS

1175

## Enhancing molecular diversity of peptoid oligomers using amino acid synthons

Peter T. Smith, Jennifer L. Franco and Kent Kirshenbaum\*

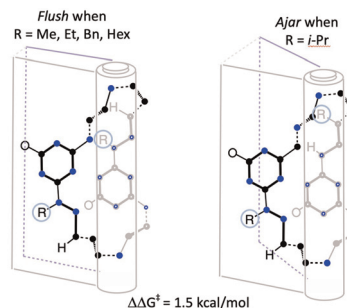


- Dense peptoid side chain functionality
- Commercially available reagents
- No solution-phase synthesis

1184

## Conservation of structure and dynamic behavior in triazine macrocycles with opportunities for subtle control of hinge motion

Casey Patterson-Gardner, Hongjun Pan, Benjamin G. Janesko and Eric E. Simanek\*



1190

TFA-catalyzed solvent-free dearomative cyanidation of isoquinoline using  $(\text{Boc})_2\text{O}$  as an acylation agent

Xujin Zhang, Lihua Huang, Ye Zhang, Fanhua Meng, Xiandong Dai, Chunru Cheng,\* Yongbiao Guo\* and Zhenhua Gao\*

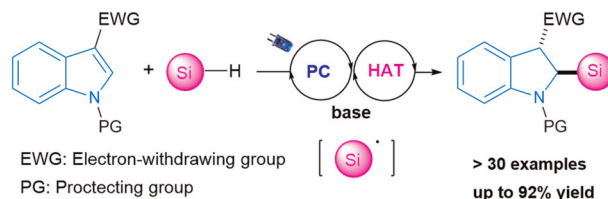


- Solvent-free condition
- Cost-effective materials
- Room temperature
- 37 examples, yields up to 99%
- 100 mmol scale synthesis
- Synthetic application

1197

## Organo-photocatalytic dearomative hydrosilylation of indoles with silanes

Qiao Zhang, Yadi Xu, Congjian Xia, Wengang Xu\* and Mingbo Wu\*

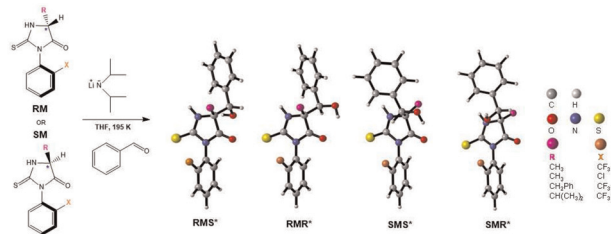


- ✓ Transition metal free
- ✓ Si-H activation
- ✓ Visible-light-mediated
- ✓ High atom economy
- ✓ Wide scope
- ✓ Excellent diastereoselectivity



## PAPERS

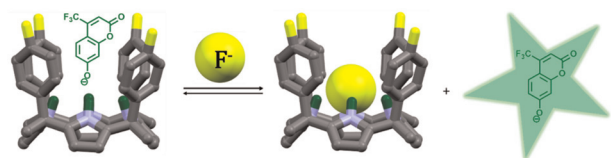
1202



### Origins of the substituent effects in the aldol condensation of axially chiral thiohydantoins: a computational study

Nazli Goksel Carpa, Zekihan Ozerdem, Ilknur Dogan, Zeynep Pinar Haslak\* and Viktorya Aviyente\*

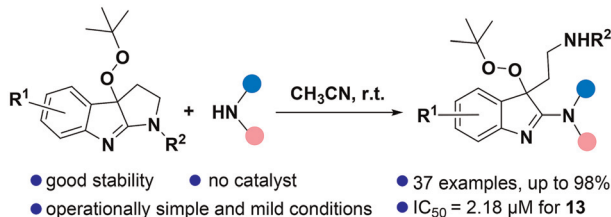
1209



### Submicromolar fluorescence 'turn-on' detection of fluoride anions using *meso*-(tetra-aryl) calix[4]pyrrole

Anik Roy, Ranjan Dutta,\* Dibakar Halder, Koushik Mandal, Somenath Kundu, Maidul Hossain,\* Indrajit Saha\* and Chang-Hee Lee\*

1215



### Catalyst-free coupling of peroxypyrroloindolenines with amines to afford stable peroxyindolenines

Xiaoshan Zheng, Menghan Wang, Xianbin Sun, Yu Gao and Haijun Chen\*

## CORRECTION

1219

### Correction: A novel platinum(II) complex with a berberine derivative as a potential antitumor agent targeting G-quadruplex DNA

Shu-Lin Zhang, Haimei Fu, Yingxia Ma, Qifu Lin, Yanli Xu, Qiyan Yang,\* Peng He\* and Zuzhuang Wei\*





## RETRACTION

1220

**Retraction: Thiourea dioxide promoted efficient organocatalytic one-pot synthesis of a library of novel heterocyclic compounds**

Sanny Verma, Subodh Kumar, Suman L. Jain and Bir Sain\*

