

Organic & Biomolecular Chemistry

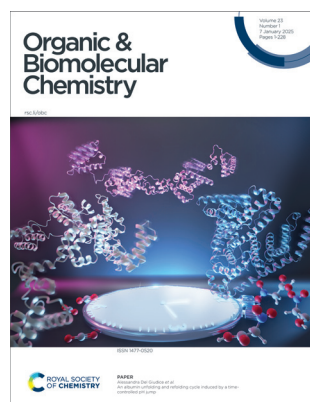
An international journal of synthetic, physical and biomolecular organic chemistry

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Cover

See Alessandra Del Giudice *et al.*, pp. 118–125.

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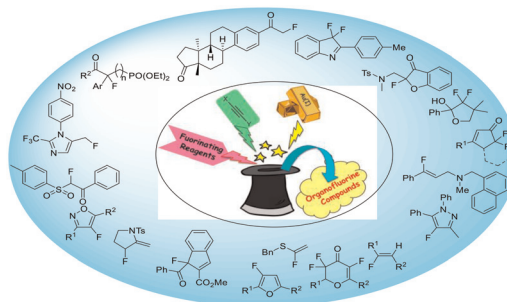
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Gold-catalyzed fluorination of alkynes/allenes: mechanistic explanations and reaction scope

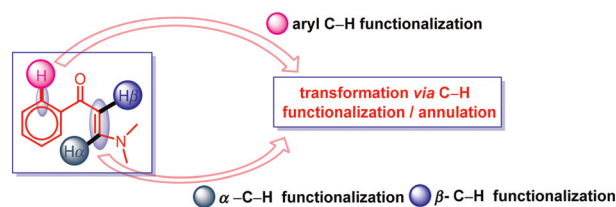
Deblina Singha Roy, Yogesh Bhaskar Singh Tanwer, Snigdha Rani Patra, Shivam Kumar, Sabyasachi Bhunia* and Debjit Das*



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Recent advances in site-selective transformations of β -enaminones via transition-metal-catalyzed C–H functionalization/annulation

Prasanta Roy, Karuna Mahato, Divya Shrestha, Sonaimuthu Mohandoss, Seung Woo Lee* and Yong Rok Lee*



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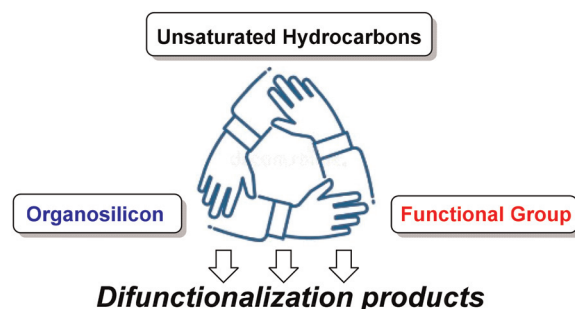
**Fundamental questions
Elemental answers**

REVIEWS

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Recent developments in difunctionalization of unsaturated hydrocarbons with organosilicon reagents

Jiawei Mao, Ming Chen,* Yao Zhong and Ren-Jie Song*

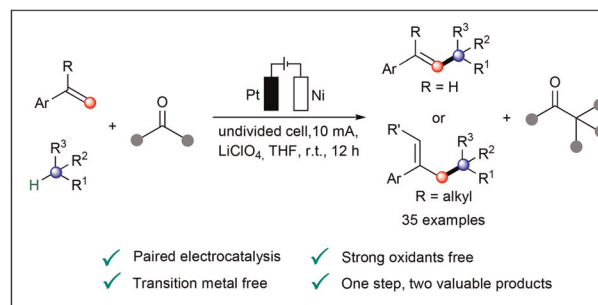


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Paired electrocatalysis enabled oxidative coupling of styrenes with alkyl radicals

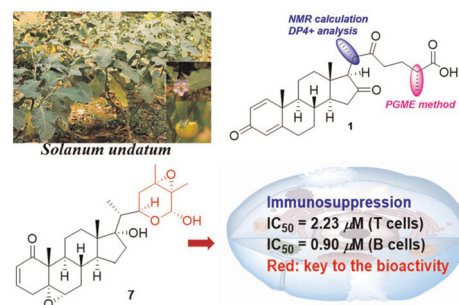
Dong Li, Ling Zhang, Daixi Li, Peng Yu* and Tao Shen*



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Highly oxygenated steroids with immunosuppressive activity from *Solanum undatum*

Shu-Shuai Chen, Cheng-Yu Zheng, Guan-Zhou Yang, Jun-Su Zhou, Shi-Jun He,* Yao-Yue Fan* and Jian-Min Yue*



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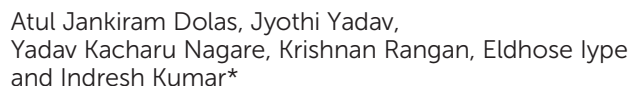
Palladium-catalyzed [3 + 2] cycloaddition of 4-vinyl-4-butyrolactones with sulfamate-derived cyclic imines: construction of sulfamate-fused pyrrolidines

Honghao Sun, Siyuan Ding, Bo Wang,* Jiaying Huang* and Hongchao Guo*

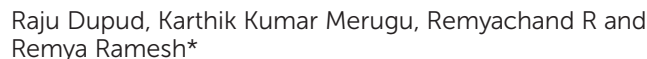




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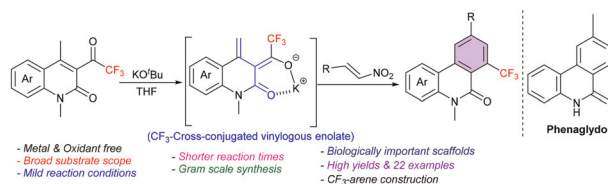
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Expeditious synthesis of CF₃-phenanthridones through a base-mediated cross-conjugated vinylogous benzannulation (VBA)

Madhu Desagoni, Chavakula Nagababu and
Nagender Punna*

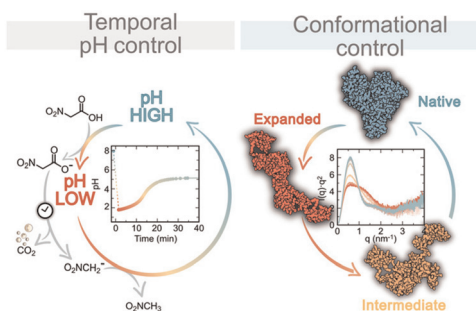


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An albumin unfolding and refolding cycle induced by a time-controlled pH jump

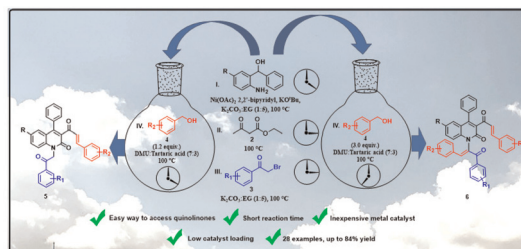
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Emanuele Spatola, Valentina Alemanno,
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Facile synthesis of functionalized quinolinones in a green reaction medium and their photophysical properties

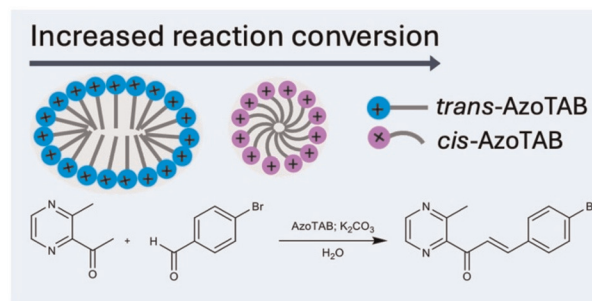
Pari Keerthana, Sundararajan Suresh and
Fazlur Rahman Nawaz Khan*



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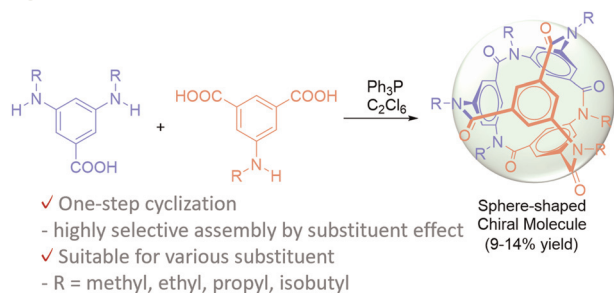
Size and shape matter for micellar catalysis using light-responsive azobenzene surfactants

Camille Blayo, Beatrice E. Jones, Michael J. Bennison
and Rachel C. Evans*



PAPERS

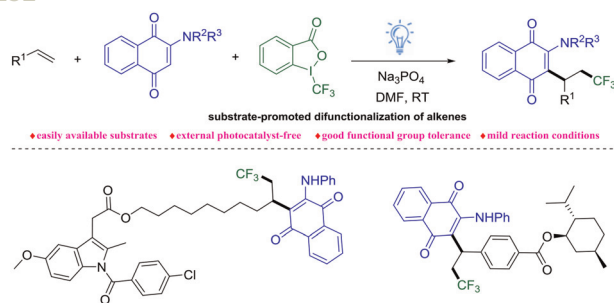
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Chiral spherical aromatic amides: one-step synthesis and their stereochemical/chiroptical properties

Daiki Koike, Hyuma Masu, Shoko Kikkawa, Ayako Chiba, Kaho Kamohara, Arisa Okuda, Hidemasa Hikawa and Isao Azumaya*

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Visible light-driven and substrate-promoted alkenyltrifluoromethylation of alkenes to synthesize CF₃-functionalized 1,4-naphthoquinones

Lin Tang,* Fengjuan Jia, Ruijun Yu, Lufang Zhang and Qiuju Zhou

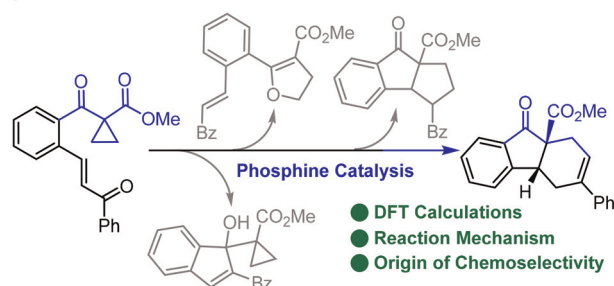
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Design of coiled-coil N-peptides against HIV-1 based on a CADD strategy

Yan Huang, Hui Luo, Yihui Jin, Yuheng Ma, Yan Zhao, Xin Gao, Yuting Zhao, Xiao Qi, Guodong Liang,* Lu Ga,* Gang Li* and Jie Yang*

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DFT study on the mechanism of phosphine-catalyzed ring-opening reaction of cyclopropyl ketones

Xiaohan Yu and Yang Wang*



The design, synthesis, and biological evaluation of 5,6,7,8-tetrahydropteridines as anti-inflammatory compounds

6 Steps

18% overall yield

CLogP 3.06
TPSA 88
Fsp³ 0.27
MW 456.6

Sodium trifluoromethanesulfinate-mediated photocatalytic aerobic oxidative esterification of aromatic aldehydes and alcohols

The reaction scheme shows the conversion of an aryl aldehyde ($\text{Ar}-\text{CHO}$) and an alcohol ($\text{R}'\text{OH}$) into an α -aryloxy ketone ($\text{Ar}-\text{C}(=\text{O})-\text{OR}'$). The reaction is catalyzed by a pentacoordinate sulfide photocatalyst, $\text{F}_3\text{C}-\text{S}(\text{O})_2\text{ONa}$, which is shown in its ground state and an excited state (indicated by a red $\text{O}-\text{O}$ bond) within a blue circular region. The reaction conditions are O_2 and LED light at room temperature (rt). The photocatalyst is labeled as a "pentacoordinate sulfide photocatalyst".

Generation of antibody–drug conjugates by proximity-driven acyl transfer and sortase-mediated ligation

Facile access to trifluoromethyl propargyl alcohol by metal-free transfer hydrogenation and cyanation of alkynyl ketones

Reaction scheme showing the synthesis of *trans*-alkenyl alcohols from *trans*-alkynyl alcohols via a *trans*-alkynyl ketone intermediate.

Starting material: *trans*-alkynyl alcohol (R-alkyne-1-ol).

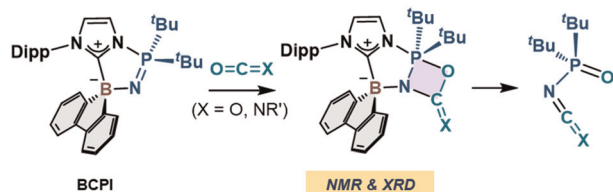
Step 1: Reaction with TMS-CN, 60 °C, 2h, followed by Silica, MeOH, 60 °C, 2h, yields the *trans*-alkynyl ketone intermediate (R-alkyne-1-one).

Step 2: Reaction of the intermediate with HBPIn, r.t, 2h, followed by Silica, MeOH, 60 °C, 2h, yields the final *trans*-alkenyl alcohol product (R-alkene-1-ol).

Key features of the reaction:

- ✓ Metal and catalyst Free
- ✓ Solvent and Base Free
- ✓ Broad substrate scope
- ✓ Mild conditions

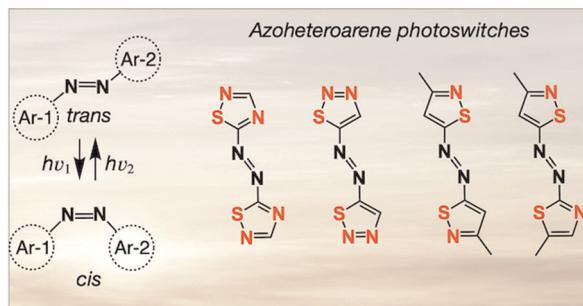
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Transformation of CO₂ and isocyanates mediated by *N*-borane-substituted cyclic phosphine imides (BCPIs) via λ⁵-oxazaphosphetanes

Shun Nagai, Sensuke Ogoshi and Yoichi Hoshimoto*

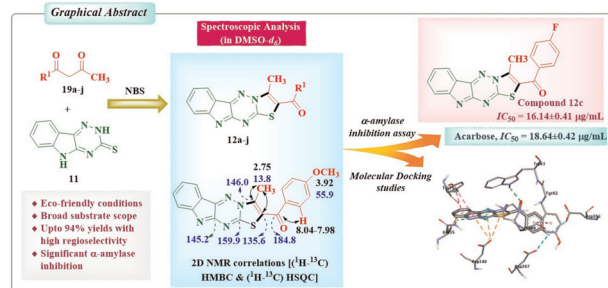
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Azophotoswitches containing thiazole, isothiazole, thiadiazole, and isothiadiazole

Nusaiba Madappuram Cheruthu, P. K. Hashim, Saugata Sahu, Kiyonori Takahashi, Takayoshi Nakamura, Hideyuki Mitomo, Kuniharu Ijiro and Nobuyuki Tamaoki*

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Efficient synthesis of promising antidiabetic triazinoindole analogues via a solvent-free method: investigating the reaction of 1,3-diketones and 2,5-dihydro-3H-[1,2,4]triazino[5,6-*b*]indole-3-thione

Ranjana Aggarwal,* Prince Kumar, Mona Hooda, Rahul Singh and Parvin Kumar

