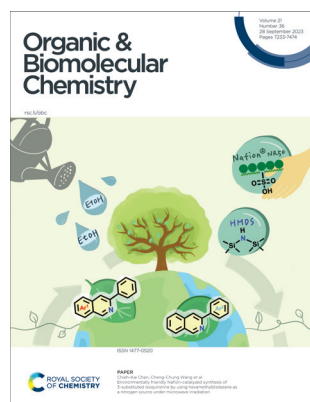


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ISSN 1477-0520 CODEN OBCRAK 21(36) 7233-7474 (2023)



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Cheng-Chung Wang *et al.*,
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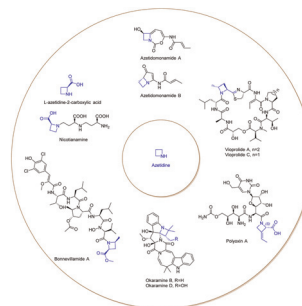
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Biosyntheses of azetidine-containing natural products

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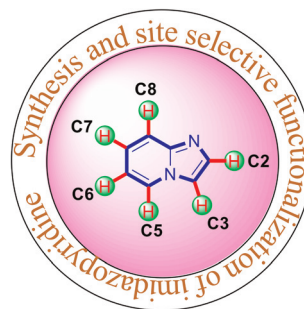


REVIEWS

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Synthesis and site selective C–H functionalization of imidazo-[1,2-a]pyridines

Javeed Ahmad Tali, Gulshan Kumar, Bhupesh Kumar Sharma, Younis Rasool, Yashika Sharma and Ravi Shankar*

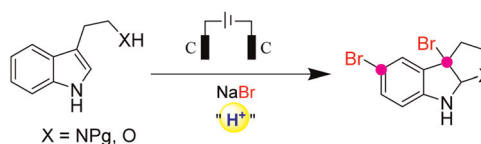


COMMUNICATIONS

7290

Electrochemical bromocyclization enables 3,5-diversification of heterocyclic indolines

Hai Ren,* Rui-An Wang, Jun Shi, Jun-Rong Song, Wei Wu, Qin Chi and Ni Zhang

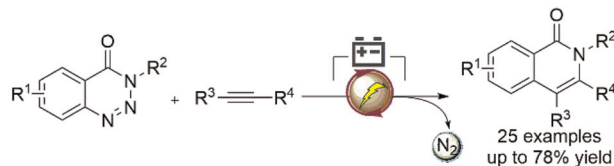


- protonic acid-promoted
- H₂ as the only byproduct
- Electrolyte as source of "Br"
- late-stage 3, 5-diversification

7295

Electrochemical annulation of 1,2,3-benzotriazinones with alkynes to access isoquinolin-1(2H)-ones

JinKang Chen,* Linxia Xiao and Liang Qi*



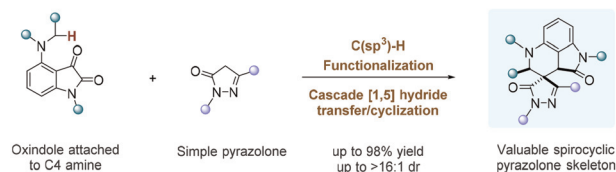
- ✓ Metal- / Oxidant- /Base-free condition
- ✓ gram-scale synthesis
- ✓ undivided cell
- ✓ N₂ as only by-product

7300

Assembly of spirocyclic pyrazolone-pyrrolo[4,3,2-de]quinoline skeleton *via* cascade [1,5] hydride transfer/cyclization by C(sp³)–H functionalization

Xin Xie, He Huang, Yu Fan, Yuan Luo, Qiwen Pang, Xiang Li* and Wei Huang*

This work : Efficient synthesis of spirocyclic pyrazolone-pyrrolo[4,3,2-de]quinoline skeleton

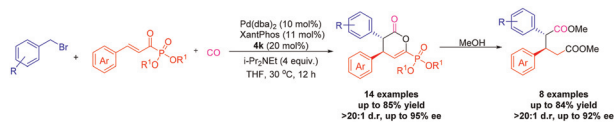


- ✓ simple operation
- ✓ impressive substrate tolerance
- ✓ excellent diastereoselectivity
- ✓ gram-scale capability



COMMUNICATIONS

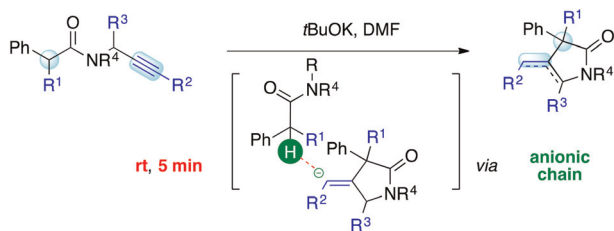
7305



Asymmetric construction of phosphono dihydropyranones from α -ketophosphonates enabled by Pd/chiral isothiurea relay catalysis

Mostafa Sayed, Zhipeng Shi, Zhi-Yong Han* and Liu-Zhu Gong*

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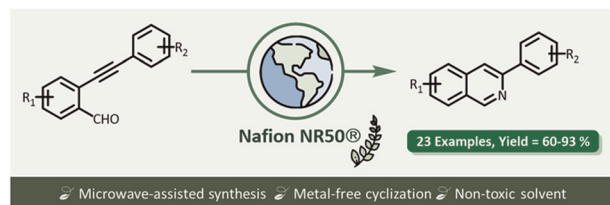


Base-promoted *Conia-ene* cyclization of propargyl amides

Alessandro Cerveri, Mattia Vettori, Andrea Serafino and Giovanni Maestri*

PAPERS

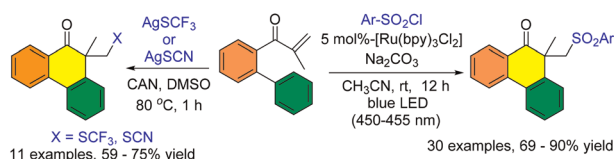
7316



Environmentally friendly Nafion-catalyzed synthesis of 3-substituted isoquinoline by using hexamethyldisilazane as a nitrogen source under microwave irradiation

Tzu-Chun Lin, Chieh-Kai Chan,* Yi-Hsiu Chung and Cheng-Chung Wang*

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Radical-mediated sulfonylative/thiolative cyclization of biaryl enones to phenanthrone derivatives

Chada Raji Reddy,* Sana Fatima, Dattahari H. Kolgave and Balasubramanian Sridhar



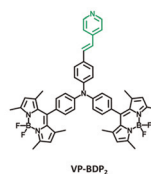
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A type I and II compatible vinyl-pyridine modified BODIPY dimer photosensitizer for photodynamic therapy in A-549 cells

Lingfeng Wang and Ying Qian*

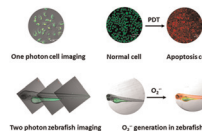
Small modification for big improvement



1. Working in pure water condition
2. Singlet oxygen yield : 9.36 % \rightarrow 22.2 %
3. Charge transfer rate : ~ 30 ps \rightarrow ~ 10 ps
4. Enhance red channel fluorescence imaging

 $\cdot\text{O}_2$ and $\text{O}_2^{\cdot-}$ generation:

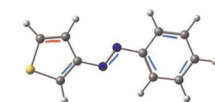
Biological application:



7351

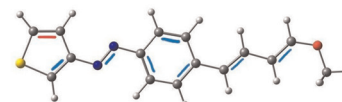
Design rules for optimization of photophysical and kinetic properties of azoarene photoswitches

Daniel M. Adrion and Steven A. Lopez*



Cross-conjugated hemi-azothiophene

- ✓ Long-lived Z-isomer $t_{1/2}$



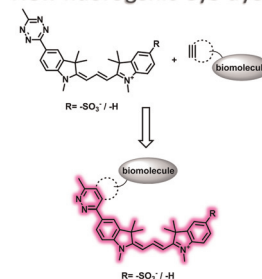
- ✓ Additional π -conjugation
- ✓ Visible-light range E-isomer λ^{max}
- ✓ Long-lived Z-isomer $t_{1/2}$ maintained

7358

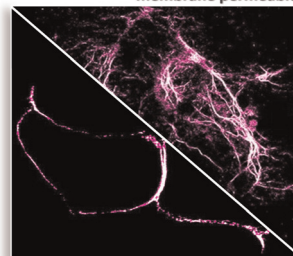
Evaluation of bioorthogonally applicable tetrazine–Cy3 probes for fluorogenic labeling schemes

Evelin Albitz, Krisztina Németh, Gergely Knorr* and Péter Kele*

New fluorogenic Cy3 dyes



membrane permeable

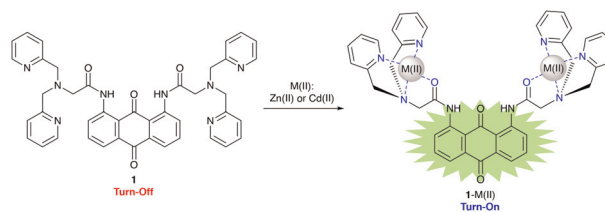


membrane impermeable

7367

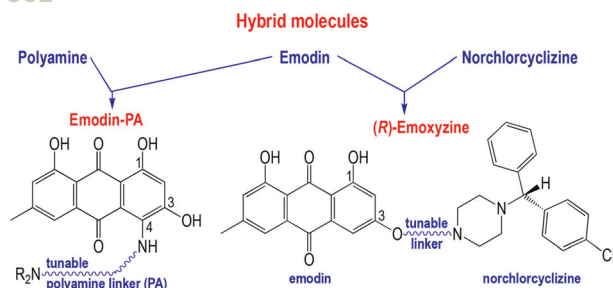
Turn-on fluorogenic sensors based on an anthraquinone signaling unit for the detection of Zn(II) and Cd(II) ions

Chawanakorn Kongsak, Natthiti Chiangraeng, Puracheth Rithchumpon, Piyarat Nimmanpipug, Puttanan Meepowpan, Thawatchai Tuntulani and Praput Thavornytikarn*



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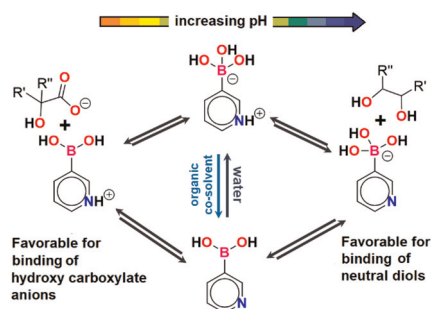
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Hybrid molecules based on an emodin scaffold. Synthesis and activity against SARS-CoV-2 and *Plasmodium*

Youzhi Li, Franck Touret, Xavier de Lamballerie, Michel Nguyen, Marion Laurent, Françoise Benoit-Vical, Anne Robert,* Yan Liu* and Bernard Meunier*

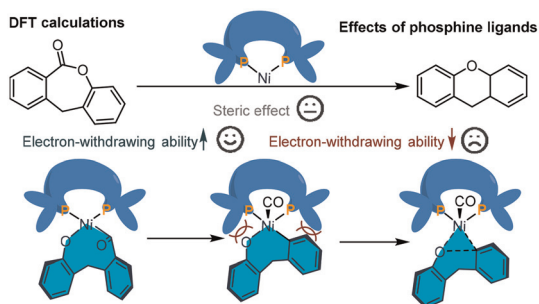
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Zwitterion-neutral form equilibria and binding selectivity of pyridineboronic acids

Luis Ramón Ortega-Valdovinos, Jose Guadalupe Chino-Cruz and Anatoly K. Yatsimirsky*

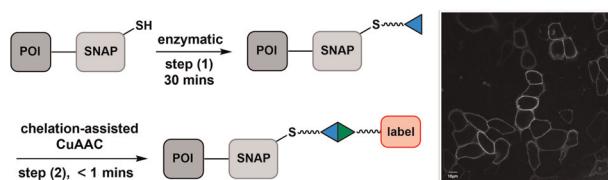
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Effects of phosphine ligands in nickel-catalyzed decarbonylation reactions of lactone

Xinghua Wang, Peng Jin, Shiqiang Li, Yiqiang Wen, Fuke Wang, Huijuan Wei* and Donghui Wei*

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SNAP-tagging live cells via chelation-assisted copper-catalyzed azide-alkyne cycloaddition

Daniel J. Stone, Miguel Macias-Contreras, Shaun M. Crist, Christelle F. T. Bucag, Gwimoon Seo and Lei Zhu*

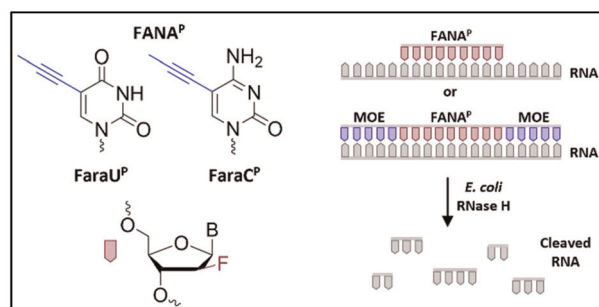


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C5-Propynyl modified 2'-fluoroarabinonucleic acids form stable duplexes with RNA that are RNase H competent

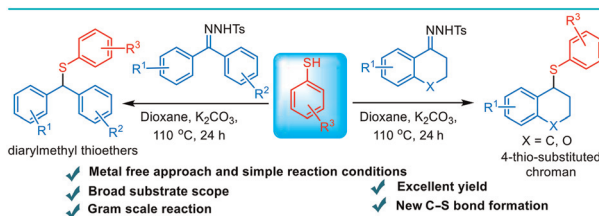
Alexander Pontarelli and Christopher J. Wilds*



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Metal-free thiolation of sulfonyl hydrazone with thiophenol: synthesis of 4-thio-chroman and diarylmethyl thioethers

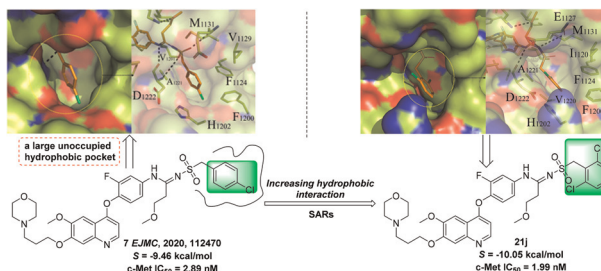
Kasim Ali, Indranil Chatterjee and Gautam Panda*



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Design, synthesis and biological evaluation of sulfonylamidines as potent c-Met inhibitors by enhancing hydrophobic interaction

Xiang Nan, Xin Li, Yanchao Wu,* Huijing Li, Qiuxu Wang,* Shaojun Xing and Zhigang Liang*



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1-(N,N-Dialkylcarbamoyl)-1,1-difluoromethanesulfonyl ester as a stable and effective precursor for a neopentyl labeling group with astatine-211

Ichiro Sasaki, Masatoshi Tada, Ziyun Liu, Maho Tatsuta, Takeru Okura, Miho Aoki, Kazuhiro Takahashi, Noriko S. Ishioka, Shigeki Watanabe and Hiroshi Tanaka*

