

Organic & Biomolecular Chemistry

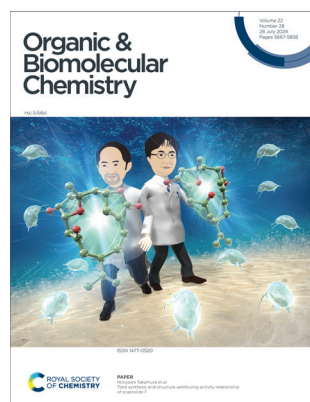
An international journal of synthetic, physical and biomolecular organic chemistry

rsc.li/obc

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 1477-0520 CODEN OBCRAK 22(28) 5667–5858 (2024)



Cover

See Hiroyoshi Takamura
et al., pp. 5739–5747.

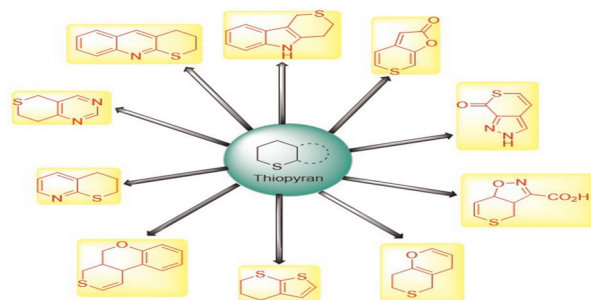
Image reproduced by
permission of
Hiroyoshi Takamura from
Org. Biomol. Chem., 2024,
22, 5739.

REVIEW

5676

Update on thiopyran-fused heterocycle synthesis (2013–2024)

Ani Deepthi,* Sruthi Sudheendran Leena and
Devika Krishnan

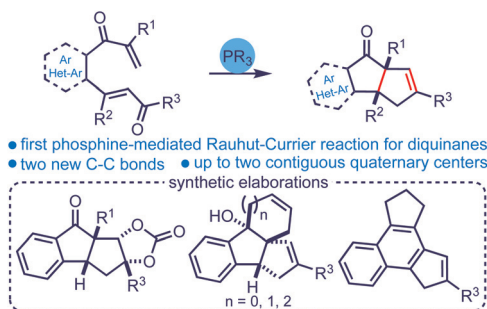


COMMUNICATIONS

5718

Phosphine-promoted intramolecular Rauhut–Currier/Wittig reaction cascade to access (hetero)arene-fused diquinanes

Jay Prakash Maurya, Subham S. Swain and
S. S. V. Ramasastry*



RSC Sustainability

GOLD
OPEN
ACCESS

Dedicated to sustainable
chemistry and new solutions

For an open, green and inclusive future

rsc.li/RSCSus

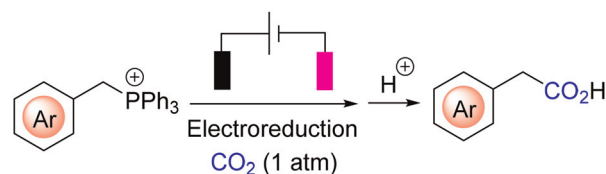
Fundamental questions
Elemental answers

COMMUNICATIONS

5724

Electroreductive carboxylation of benzylphosphonium salts with CO₂ through the cleavage of the C(sp³)–P bond

Fen Han, Fenfen Xie, Mengyun Yin,* Linhai Jing* and Pan Han*

⇒ CO₂ (1 atm) as the carboxyl source

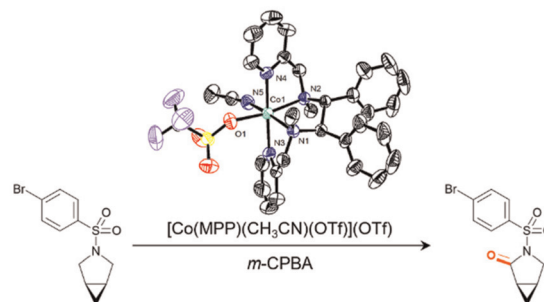
⇒ No reductive debromination

⇒ Redox reagents-/Noble metal-/Strong base-free

5729

A synthetically useful catalytic system for aliphatic C–H oxidation with a nonheme cobalt complex and *m*-CPBA

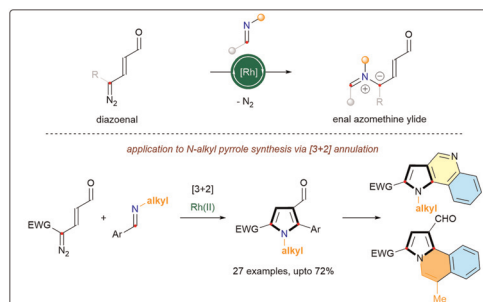
Xiang Wen, Yidong Ma, Jie Chen* and Bin Wang*



5734

Enal-azomethine ylides: application in the synthesis of functionalized pyrroles

Pratap Kumar Mandal, Sandeep Patel and Sreenivas Katukojvala*

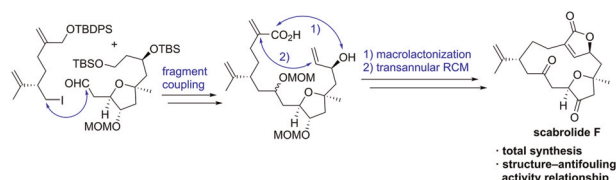


PAPERS

5739

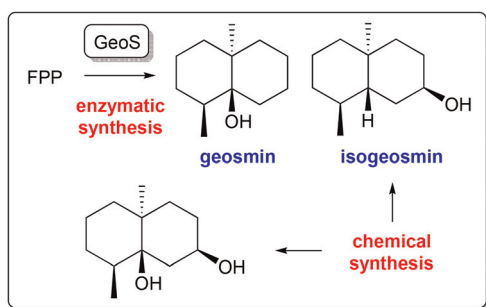
Total synthesis and structure–antifouling activity relationship of scabrolide F

Hiroyoshi Takamura,* Yuki Sugitani, Ryohei Morishita, Takefumi Yorisue and Isao Kadota



PAPERS

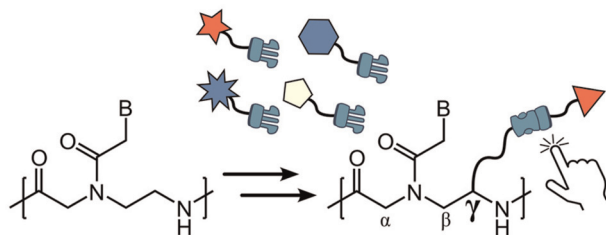
5748



Enantioselective synthesis of all stereoisomers of geosmin and of biosynthetically related natural products

Zhiyong Yin, Michael Maczka, Gregor Schnakenburg, Stefan Schulz and Jeroen S. Dickschat*

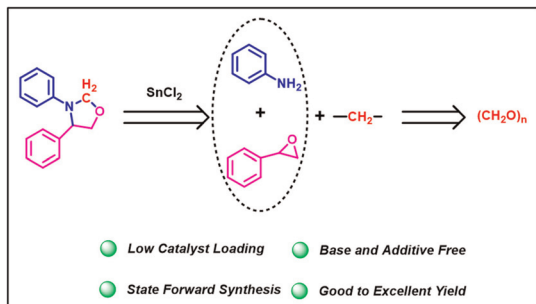
5759



Impact of charges on the hybridization kinetics and thermal stability of PNA duplexes

Miguel López-Tena and Nicolas Winssinger*

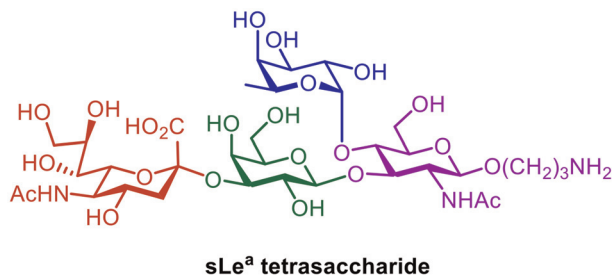
5768



SnCl_2 -catalyzed multicomponent coupling: synthesis of 1,3-oxazolidine derivatives using paraformaldehyde as a C1 feedstock

Mukesh Kumar Nayak, Swati Chakraborty, Anuradha Mohanty and Sujit Roy*

5776



Chemical and chemoenzymatic syntheses of sialyl Lewis^a tetrasaccharide antigen

Yuanyuan Jiang, Shichao Duan, Jiaming Li, Yanli Zhao and Jinsong Yang*

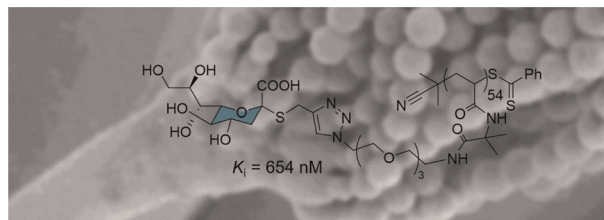


PAPERS

5783

Multivalent inhibition of the *Aspergillus fumigatus* KDNase

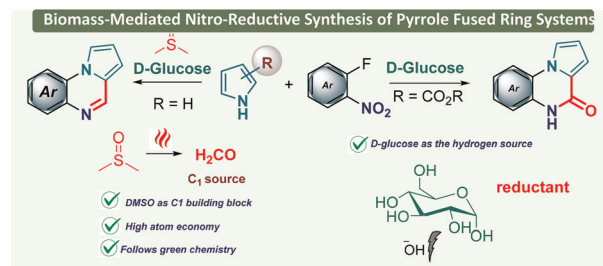
Mathieu Scalabrini, Denis Loquet, Camille Rochard, Mélyne Baudin Marie, Coralie Assailly, Yoan Brissonnet, Franck Daligault, Amélie Saumonneau, Annie Lambert, Cyrille Grandjean, David Deniaud, Paul Lottin, Sagrario Pascual, Laurent Fontaine, Viviane Balloy and Sébastien G. Gouin*



5790

Modular synthesis of pyrrole-fused heterocycles via glucose-mediated nitro-reductive cyclization

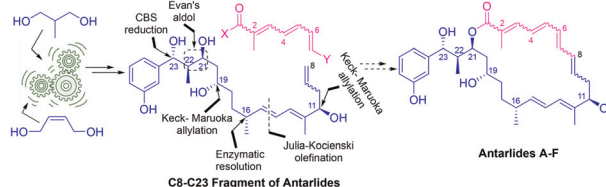
Surabhi Panday, Amitava Hazra, Pankaj Gupta, Srimanta Manna* and Joydev K. Laha*



5797

Stereo flexible synthesis of the C8–C23 fragment of antarlides, androgen receptor antagonists

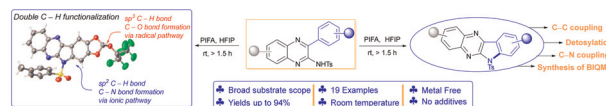
Palash Ghosh, Pralay Das, Prathama S. Mainkar, Thenkrishnan Kumaraguru, Rudrakshula Madhavachary* and Srivari Chandrasekhar*



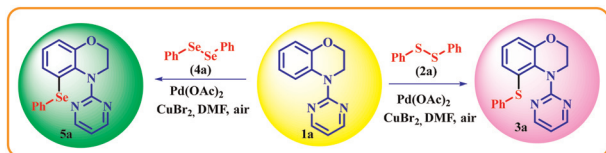
5803

PIFA-mediated intramolecular *N*-arylation of 2-aminoquinoxalines to afford indolo[2,3-*b*]quinoxaline derivatives

Subhashini V. Subramaniam, Badal Singh, Natarajan Pradeep and Saravanan Peruncheralathan*



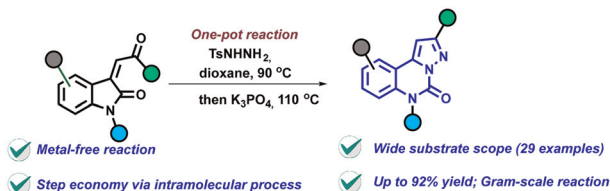
5809



Expedient, regioselective C–H chalcogenation of 3,4-dihydro-1,4-benzoxazines using a palladium–copper catalyst

Ram Sunil Kumar Lalji, Monika, Mohit Gupta, Sandeep Kumar, Ray J. Butcher and Brajendra Kumar Singh*

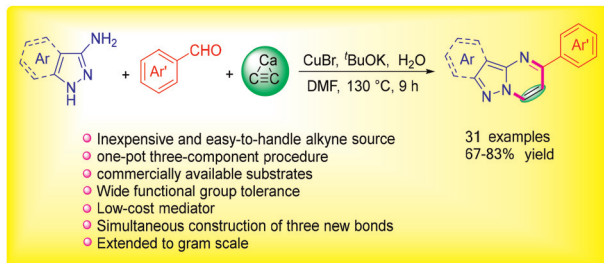
5816



Leveraging *in situ* *N*-tosylhydrazones as diazo surrogates for efficient access to pyrazolo-[1,5-c]quinazolinone derivatives

Jun Yan, Pascal Retailleau, Christine Tran* and Abdallah Hamze*

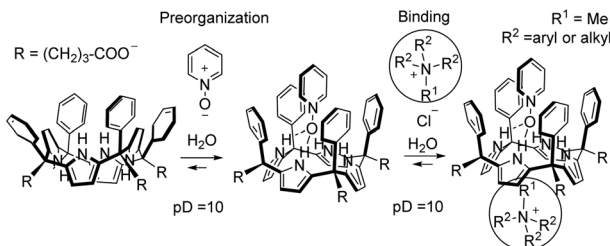
5822



Construction of pyrazolo[1,5-a]pyrimidines and pyrimido[1,2-b]indazoles with calcium carbide as an alkyne source

Xinjie You, Botao Wang, Fei Wen and Zheng Li*

5827



Enhanced binding of methyl alkylammonium cations through preorganization of a water-soluble calix[4]pyrrole

Esteban Valencia and Pablo Ballester*

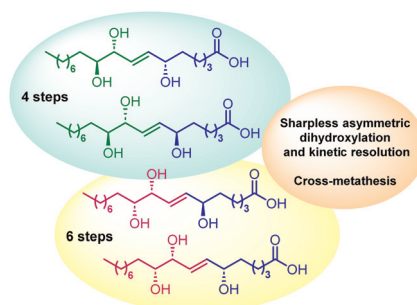


PAPERS

5835

Stereoselective convergent total synthesis of oxylipins

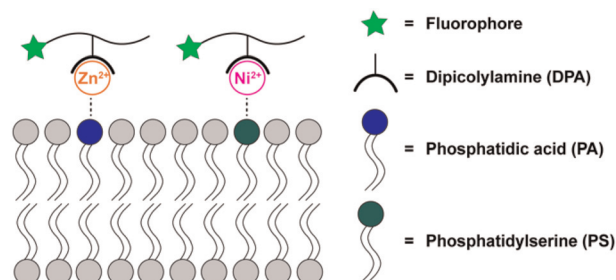
Rodney A. Fernandes,* Sandhya S. Yadav and Sanjita Moharana



5843

A change in metal cation switches selectivity of a phospholipid sensor from phosphatidic acid to phosphatidylserine

Stephen M. Butler, Bilge Ercan, Jingyao You, Luke P. Schulz and Katrina A. Jolliffe*



5850

Highly (regio)selective hydroformylation of olefins using self-assembling phosphines

Pierre Fablet, Maria Dolores Fernandez-Martinez, Anke Spannenberg, Haijun Jiao,* Ralf Jackstell* and Matthias Beller*

