

Organic & Biomolecular Chemistry

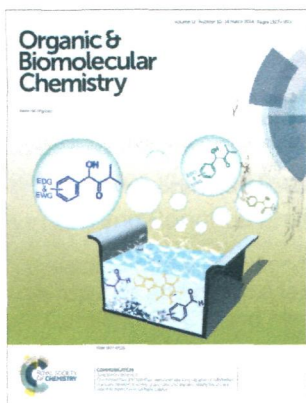
An international journal of synthetic, physical and biomolecular organic chemistry

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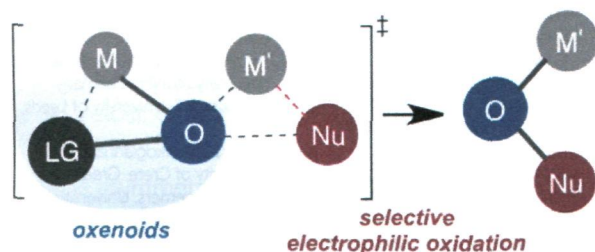
Cover

See Jung Woon Yang *et al.*,
pp. 1547–1550.

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REVIEW

1535



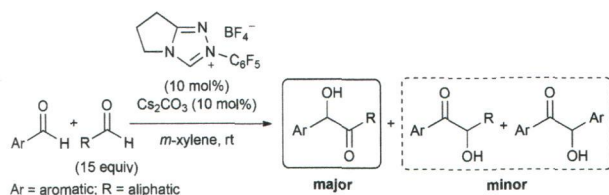
Oxenoids in organic synthesis

Yury Minko and Ilan Marek*

Recent advances on the use of oxenoid compounds in organic synthesis are highlighted in this review.

COMMUNICATIONS

1547



Chemoselective and repetitive intermolecular cross-acyloin condensation reactions between a variety of aromatic and aliphatic aldehydes using a robust N-heterocyclic carbene catalyst

Ming Yu Jin, Sun Min Kim, Hui Mao, Do Hyun Ryu, Choong Eui Song and Jung Woon Yang*

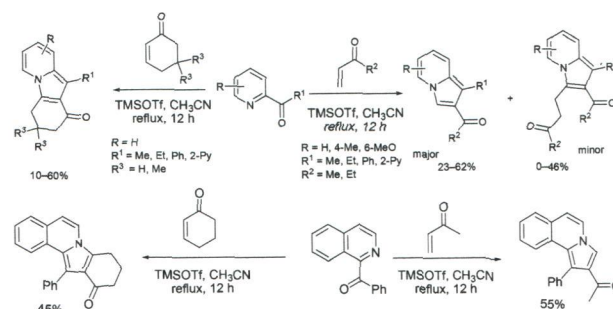
Chemoselectivity of the crossed acyloin product is controlled by the adjustment of the aromatic aldehyde/aliphatic aldehyde ratio.

1551

Ketones as electrophiles in two component Baylis–Hillman reaction: a facile one-pot synthesis of substituted indolizines

Deevi Basavaiah,* Gorre Veeraraghavaiah and Satpal Singh Badsara

2-Alkanoyl(aryl)-pyridines were used for coupling with alkyl vinyl ketones under the influence of TMSOTf providing a facile protocol for synthesis of substituted indolizines, demonstrating the application of ketones as electrophiles in a two component Baylis–Hillman reaction.

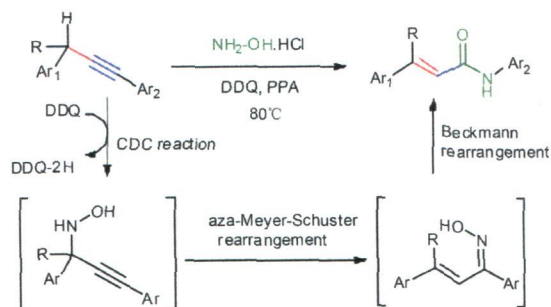


1556

Direct transformation of arylpropynes to acrylamides via a three-step tandem reaction

Jun Qiu and Ronghua Zhang*

A novel and metal-free acrylamides formation between arylpropynes and hydroxylamine hydrochloride through sp^3 C–H and C–C bond cleavage has been achieved with DDQ as an oxidant.



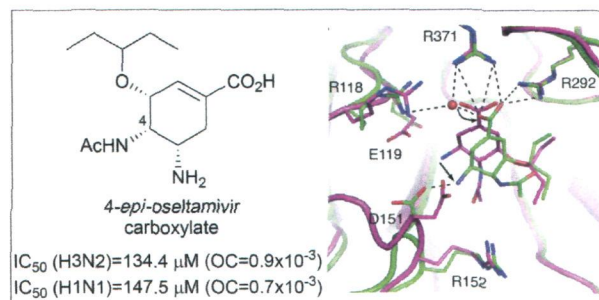
PAPERS

1561

Synthesis, structure and inhibitory activity of a stereoisomer of oseltamivir carboxylate

Andrea Sartori,* Luca Dell'Amico, Lucia Battistini, Claudio Curti, Silvia Rivara, Daniele Pala, Philip S. Kerry, Giorgio Pelosi, Giovanni Casiraghi, Gloria Rassu and Franca Zanardi*

A versatile asymmetric synthesis of the C-4 epimer of oseltamivir carboxylate (OC) is reported. A marked drop in inhibitory activity toward influenza virus neuraminidase was observed and rationalized.

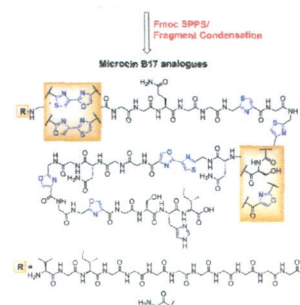


1570

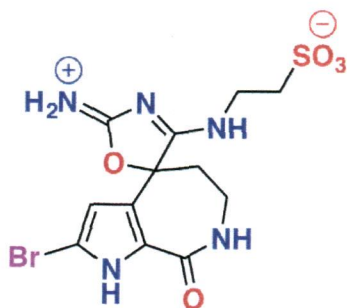
Synthesis of full length and truncated microcin B17 analogues as DNA gyrase poisons

Robert E. Thompson, Frédéric Collin, Anthony Maxwell, Katrina A. Jolliffe* and Richard J. Payne*

Using a combination of solid-phase peptide synthesis and fragment assembly strategies a library of full-length and truncated analogues of the antibacterial post-translationally modified peptide microcin B17 have been synthesised. Both antibacterial and DNA gyrase poisoning activities are also described for the synthetic analogues.



1579

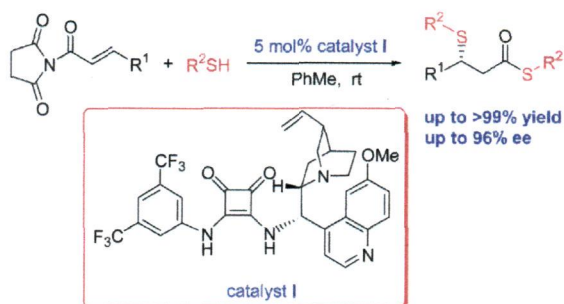


Callyspongisines A–D: bromopyrrole alkaloids from an Australian marine sponge, *Callyspongia* sp.

Fabien Plisson, Pritesh Prasad, Xue Xiao, Andrew M. Piggott, Xiao-cong Huang, Zeinab Khalil and Robert J. Capon*

An Australian *Callyspongia* sp. yielded the new bromopyrrole alkaloids callyspongisines A–D. Callyspongisine A is only the second reported example of a natural imino-oxazoline and the first to feature a *spiro* heterocyclic framework.

1585

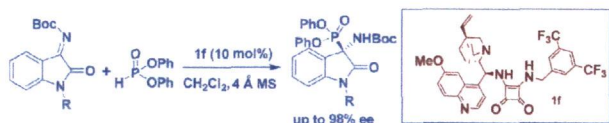


Chiral squaramide-catalysed one-pot enantioselective sulfa-Michael addition/thioesterification of thiols with α,β -unsaturated *N*-acylated succinimides

Bo-Liang Zhao and Da-Ming Du*

A novel enantioselective one-pot dithiolation through sulfa-Michael addition/thioesterification of thiols with α,β -unsaturated *N*-acylated succinimides catalysed by squaramide afforded β -sulfated thioesters in good to excellent yields with high enantioselectivities (up to 96% ee).

1595

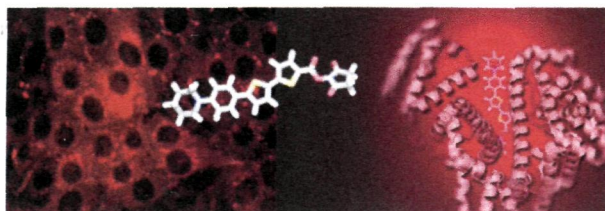


First example of quinine-squaramide catalyzed enantioselective addition of diphenyl phosphite to ketimines derived from isatins

Jimil George, B. Sridhar and B. V. Subba Reddy*

A quinine-squaramide catalyzed asymmetric addition of diphenyl phosphite to isatin derived ketimines is reported.

1603



Live cell cytoplasm staining and selective labeling of intracellular proteins by non-toxic cell-permeant thiophene fluorophores

F. Di Maria, I. E. Palamà,* M. Baroncini, A. Barbieri, A. Bongini, R. Bizzarri, G. Gigli and G. Barbarella*

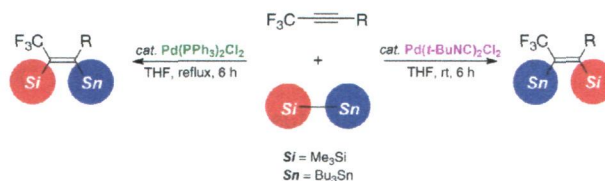
Newly synthesized cell-permeant thiophene fluorophores experience a distinct fate inside live cells: from cytoplasm staining to selective tagging of globular proteins.

1611

A remarkable regiocontrol in the palladium-catalyzed silylstannylation of fluoroalkylated alkynes – highly regio- and stereoselective synthesis of multi-substituted fluorine-containing alkenes

Tsutomu Konno,* Ryoko Kinugawa, Takashi Ishihara and Shigeyuki Yamada

The palladium-catalyzed silylstannylation reaction of CF_3 -containing alkynes proceeded very smoothly to give the corresponding adducts in a highly *cis*-selective manner. In this reaction, a novel regiocontrol by switching the palladium catalyst was observed.

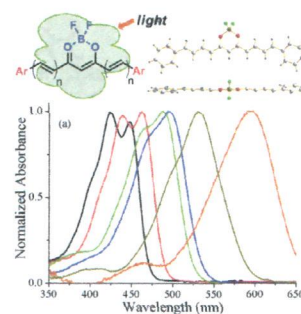


1618

Syntheses and photophysical properties of BF_2 complexes of curcumin analogues

Guifeng Bai, Changjiang Yu, Chi Cheng, Erhong Hao,* Yun Wei, Xiaolong Mu and Lijuan Jiao*

Highly photostable π -extended curcumin- BF_2 complexes with strong absorption and fluorescence ranging from 400 to 800 nm were reported.

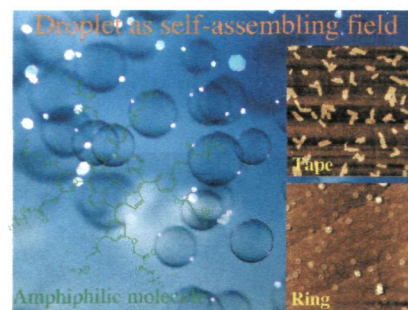


1627

Two-dimensional self-assembly of amphiphilic porphyrins on a dynamically shrinking droplet surface

Munenori Numata,* Yusuke Takigami, Naoya Hirose and Ryoichiro Sakai

Unique self-assembled structures can be selectively created depending on the initial stage of the droplet. By using the droplet as a self-assembly field, we can select an appropriate self-assembly pathway by merely changing the initial state of the droplet.

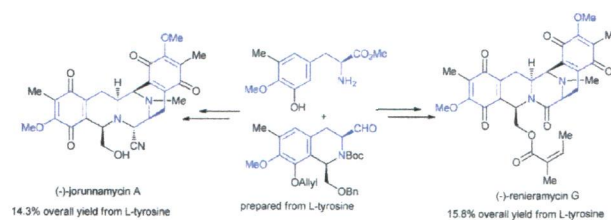


1633

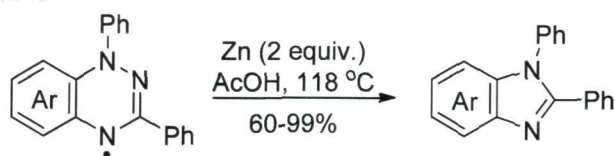
A rapid and efficient access to renieramycin-type alkaloids featuring a temperature-dependent stereoselective cyclization

Hao Liu, Ruijiao Chen and Xiaochuan Chen*

A flexible protocol for the asymmetric syntheses of renieramycin-type alkaloids featuring a temperature-dependent Pictet–Spengler cyclization and the subsequent lactamization is described.



1641



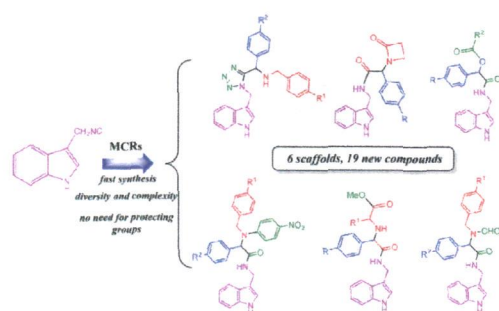
Ar = substituted and fused arenes

Ring contraction of 1,3-diphenylbenzo[1,2,4]-triazinyl radicals to 1,2-diphenylbenzimidazoles

Andrey A. Berezin and Panayiotis A. Koutentis*

Optimized conditions for the reductive ring contraction of benzotriazinyl radicals and related analogues afford benzimidazoles in near quantitative yields.

1649

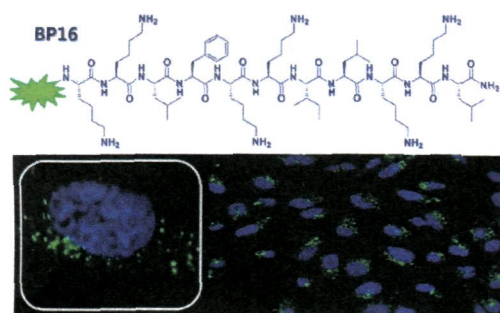


Towards a facile and convenient synthesis of highly functionalized indole derivatives based on multi-component reactions

Constantinos G. Neochoritis and Alexander Dömling*

A library of potentially bioactive compounds through the novel 1*H*-indole-methyl-isocyanide and MCRs has been described.

1652

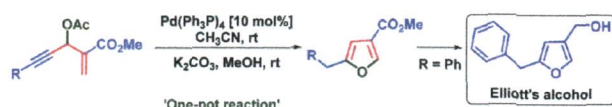


Identification of BP16 as a non-toxic cell-penetrating peptide with highly efficient drug delivery properties

Marta Soler, Marta González-Bártulos, David Soriano-Castell, Xavi Ribas, Miquel Costas, Francesc Tebar, Anna Massaguer,* Lidia Feliu* and Marta Planas*

BP16 is a non-toxic cell-penetrating peptide with high cellular uptake *in vitro*. This peptide is an efficient vector for the delivery of therapeutic agents into cells, as has been shown for the anticancer drug chlorambucil.

1664



Synthesis of substituted 3-furanoates from MBH-acetates of acetylenic aldehydes via tandem isomerization–deacetylation–cycloisomerization: access to Elliott's alcohol

Chada Raji Reddy,* Gaddam Krishna and Motatipally Damoder Reddy

A new approach for the synthesis of 5-substituted 3-furoates from MBH-acetates of acetylenic aldehydes has been developed. This methodology provided an entry to Elliott's alcohol, a key subunit of resmethrin.