

Tetrahedron Letters Vol. 51, No. 36, 2010

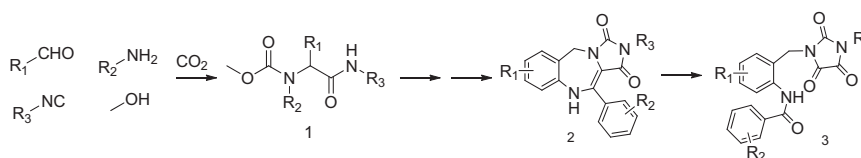
Contents

COMMUNICATIONS

Concise preparation of novel tricyclic chemotypes: fused hydantoin–benzodiazepines

pp 4689–4692

Steven Gunawan, Gary S. Nichol, Shashi Chappeta, Justin Dietrich, Christopher Hulme*

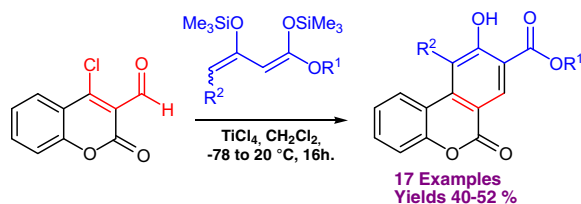


The article describes a concise synthesis of a collection of 4,5-dihydro-1*H*-benzo[*e*][1,4]diazepines fused to a hydantoin ring, generated in a mere three steps. The protocol employs the Ugi-5-component CO₂-mediated condensation, benzodiazepine formation promoted by acidic conditions and basic treatment to afford the fused hydantoin. Mechanistic caveats, dependent on the aldehydes of choice will be revealed and a facile oxidation of the final products to imidazolidinetriones is briefly discussed.

Regioselective synthesis of benzo[*c*]chromen-6-ones by one-pot cyclocondensation of 1,3-bis(trimethylsilyloxy)-1,3-butadienes with 4-chloro-2-oxo-2*H*-chromene-3-carbaldehyde

pp 4693–4695

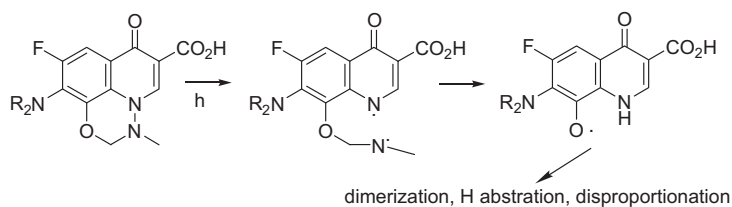
Olumide Fatunsin, Viktor O. Iaroshenko*, Sergii Dudkin, Satenik Mkrtchyan, Alexander Villinger, Peter Langer*



The unexpected photochemistry of marbofloxacin

pp 4696–4698

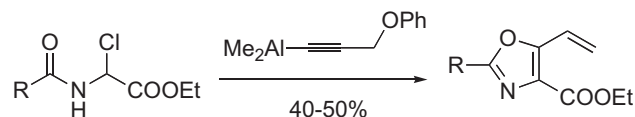
Luca Pretali, Elisa Fasani*, Daniele Dondi, Mariella Mella, Angelo Albini*



A direct route to 2-alkyl-4-carbethoxy-5-vinyloxazoles

pp 4699–4701

Jianmin Zhang, Marco A. Ciufolini*

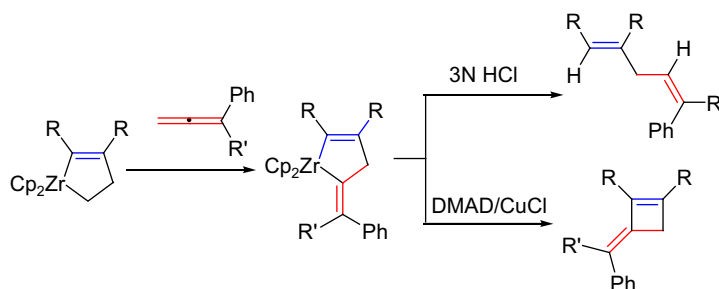


The reaction of chloroglycinates with the dimethylaluminum acetylide prepared from phenyl propargyl ether directly provides 5-vinyloxazoles in 40–50% yield.

**Selective synthesis of α -methylene zirconacyclopentene via cross-coupling of alkyne and allene**

pp 4702–4704

Weixin Zheng*, Yangfeng Wu, Fenfen Zheng, Linfeng Hu, Ya Hong

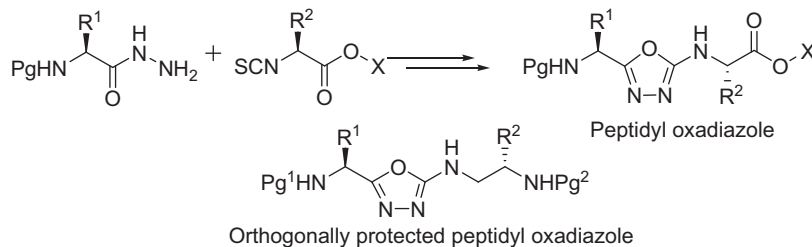


Synthesis and application of α -methylene zirconacyclopentene.

**A facile synthesis of *N*-Z/Boc-protected 1,3,4-oxadiazole-based peptidomimetics employing peptidyl thiosemicarbazides**

pp 4705–4709

Ravi S. Lamani, G. Nagendra, Vommina V. Sureshbabu*

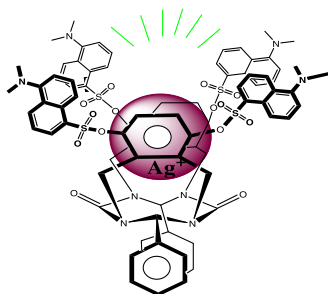


Synthesis of 1,3,4-oxadiazole containing peptidomimetics from the corresponding dipeptidyl thiosemicarbazides is reported. Further, the protocol is extended for the synthesis of orthogonally protected 1,3,4-oxadiazole tethered mimetics as well.

A novel dansyl-appended glycoluril-based fluorescence sensor for silver ions

pp 4710–4711

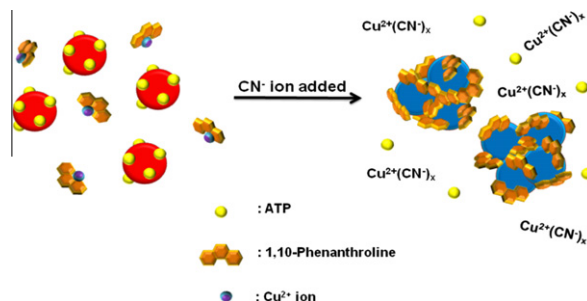
Amir Azam, H. M. Chawla*, Shubha Pandey



A gold nanoparticle-based colorimetric sensing ensemble for the colorimetric detection of cyanide ions in aqueous solution

pp 4712–4716

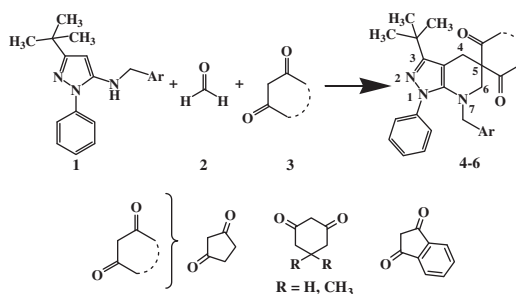
Mi Hee Kim, Sudeok Kim, Hyun Hye Jang, Sujung Yi, Seong Hyeok Seo, Min Su Han*



Microwave-assisted synthesis of pyrazolo[3,4-b]pyridine-spirocycloalkanediones by three-component reaction of 5-aminopyrazole derivatives, paraformaldehyde and cyclic β -diketones

pp 4717–4719

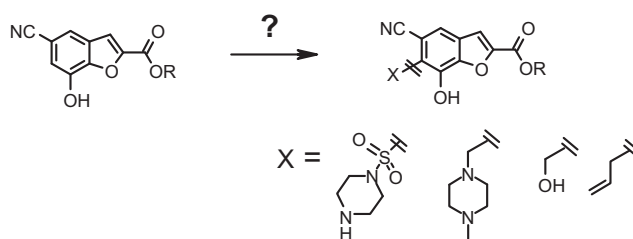
Jairo Quiroga*, Jorge Trilleras*, Dayana Pantoja, Rodrigo Abonía, Braulio Insuasty, Manuel Noguerras*, Justo Cobo



Synthesis of 6-substituted 5-cyano-7-hydroxy-2-carboxybenzofurans

pp 4720–4722

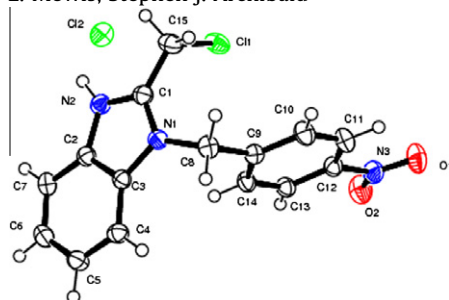
Simon J. Teague*, Simon Barber



Synthesis, structure and reactivity of 1-(4-nitrobenzyl)-2-chloromethyl benzimidazole

pp 4723–4726

Amanda E. Sparke, Christopher M. Fisher, Ryan E. Mewis, Stephen J. Archibald*

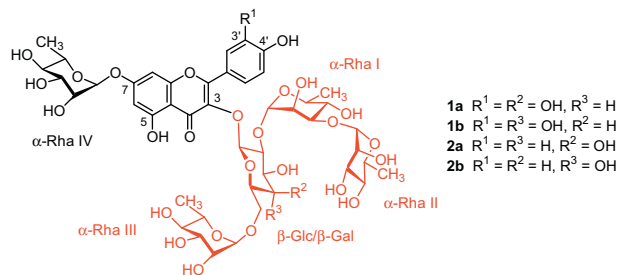


1-(4-Nitrobenzyl)-2-chloromethyl benzimidazole has been synthesised and structurally characterised (X-ray crystallography). It is a useful precursor for the synthesis of anti-virals, receptor-targeting antagonists or multifunctional chelating ligands.

Highly glycosylated flavonoids from the pods of *Bobgunnia madagascariensis*

pp 4727–4730

Philip C. Stevenson*, Stephen P. Nyirenda, Nigel C. Veitch

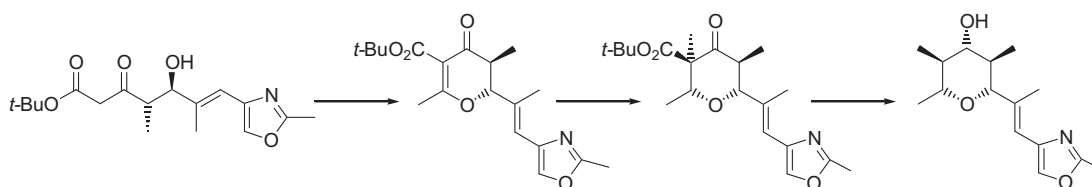


Two flavonol pentaglycosides (**1b**, **2b**) characterized by a novel O-linked branched tetrasaccharide were obtained from the pods of the legume *Bobgunnia madagascariensis*, together with the galactopyranosyl analogs **1a** and **2a**.

Synthetic studies on the phorbaxozoles: a short synthesis of an *epi*-C23 tetrahydropyran core

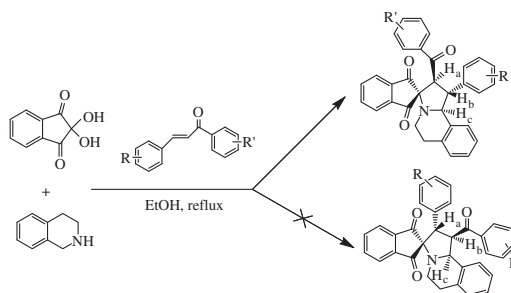
pp 4731–4733

Paul A. Clarke*, Jason M. Hargreaves, Daniel J. Woollaston, Rosa María Rodríguez Sarmiento

**Regioselective synthesis of novel spiroindane-1,3-diones through 1,3-dipolar cycloaddition reactions**

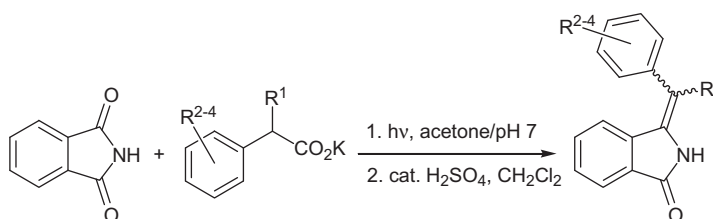
pp 4734–4737

Yaghoub Sarrafi*, Mahshid Hamzehlouian, Kamal Alimohammadi, Hamid Reza Khavasi

**Photodecarboxylative benzylations of phthalimide in pH 7 buffer: a simple access to 3-arylmethyleneisoindolin-1-ones**

pp 4738–4741

Vincent Belluau, Pierre Noeureuil, Elfrun Ratzke, Aleksei Skvortsov, Sonia Gallagher, Cherri Ann Motti, Michael Oelgemöller*

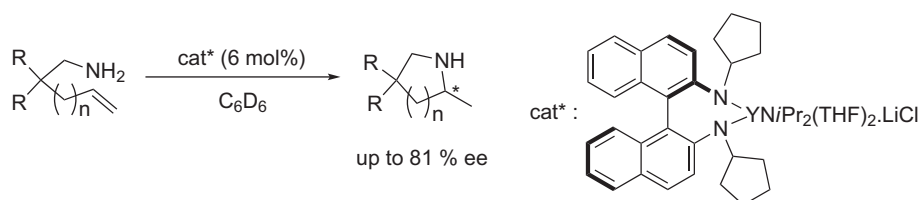


Photoadditions of phenylacetates to phthalimide in pH 7 buffer solution give the corresponding benzylated-hydroxyphthalimidines in moderate to high yields of up to 94%. Subsequent acid-catalyzed dehydration furnishes the corresponding 3-arylmethyleneisoindolin-1-ones in good to excellent yields and with high *E*-selectivities.

Comparison of yttrium binaphthylamido alkyl and amide complexes for enantioselective intramolecular hydroamination

pp 4742–4745

Isabelle Aillaud, Jacqueline Collin*, Jérôme Hannedouche, Emmanuelle Schulz, Alexander Trifonov

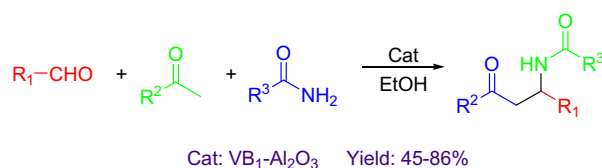


The complex $\text{Y}[(\text{R})\text{-C}_{20}\text{H}_{12}(\text{NC}_5\text{H}_9)_2][\text{NiPr}_2][\text{THF}]_2\text{LiCl}$ catalyses the cyclisation of aminoolefins with ee up to 81% and reveals a more efficient catalyst for both its activity and enantioselectivity in a lesser extent than neutral alkyl, ate alkyl or ate tetraamido complexes coordinated by the same ligand.

**VB₁-Al₂O₃-catalyzed one-pot condensation of aromatic ketone, aromatic aldehyde, and amide**

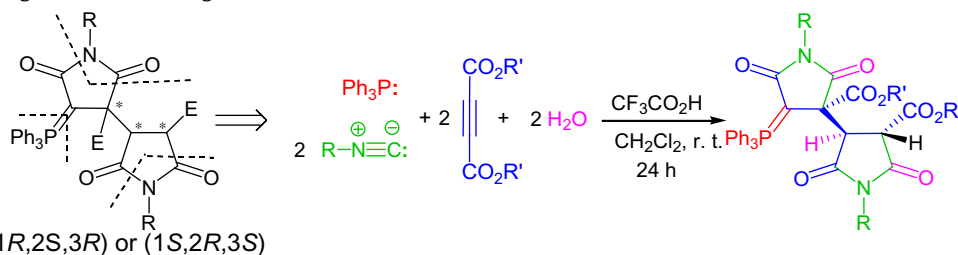
pp 4746–4749

Min Lei, Lei Ma*, Lihong Hu*

**A novel pseudo-seven-component diastereoselective synthesis of λ⁵-phosphanylidene bis(2,5-dioxotetrahydro-1H-pyrrole-3-carboxylates) via binucleophilic systems**

pp 4750–4754

Abdolali Alizadeh*, Sadeqh Rostamnia, Long-Guan Zhu

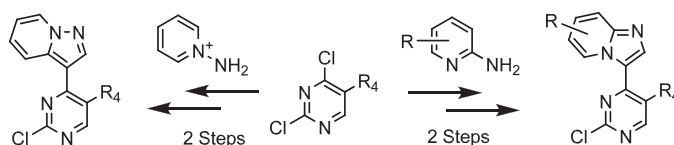


The synthesis of λ⁵-phosphanylidene bis(2,5-dioxotetrahydro-1H-pyrrole-3-carboxylates) via the multicomponent reaction of triphenylphosphine (TPP), dialkyl acetylenedicarboxylates (DAAD), alkyl isocyanides, and water in the presence of TFA as an initial proton source is reported.

**A versatile route to 3-(pyrimidin-4-yl)-imidazo[1,2-a]pyridines and 3-(pyrimidin-4-yl)-pyrazolo[1,5-a]pyridines**

pp 4755–4758

Richard Ducray*, Pascal Boutron, Myriam Didelot, Hervé Germain, Franck Lach, Maryannick Lamorlette, Antoine Legriffon, Mickael Maudet, Morgan Ménard, Georges Pasquet, Fabrice Renaud, Iain Simpson, Gail L. Young

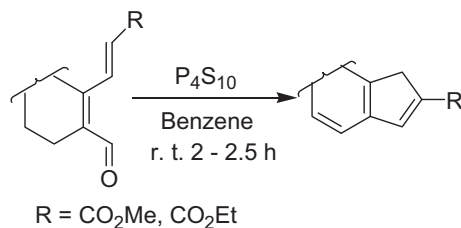


A two-step synthesis of 3-(2-chloropyrimidin-4-yl)imidazo[1,2-a]pyridines is presented. The late-stage elaboration of the imidazopyridine through a cyclocondensation allows a rapid access to a variety of substitution patterns. The intermediate enol ethers were obtained from inexpensive reagents in a ligand free Heck coupling. This methodology has been extended to the formation of pyrazolo[1,5-a]pyridines via a formal 1,3-dipolar cycloaddition.

A novel approach to benz[e]indenes

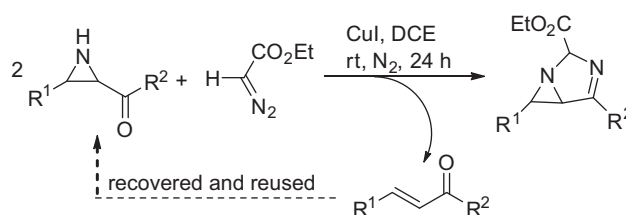
Nasima Yasmin, Jayanta K. Ray*

pp 4759–4762

**Copper-catalyzed cascade approach to 1,3-diazabicyclo[3.1.0]hex-3-enes from aziridines and ethyl diazoacetate**

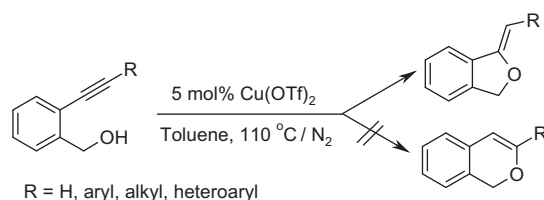
Yuanxun Zhu, Shaoyin Wang, Shan Wen, Ping Lu*, Yanguang Wang*

pp 4763–4766

**Regioselective synthesis of phthalans via Cu(OTf)₂-catalyzed 5-*exo-dig* intramolecular hydroalkoxylation of 2-(ethynyl)benzyl alcohols**

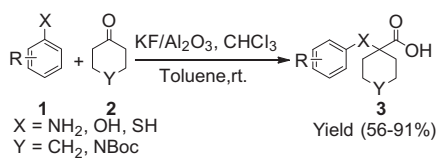
Chandrasekaran Praveen, Chandran Iyyappan, Paramasivan Thirumalai Perumal*

pp 4767–4771

**KF-alumina-mediated Bargellini reaction**

Md. Rumum Rohman, Bekington Myrboh*

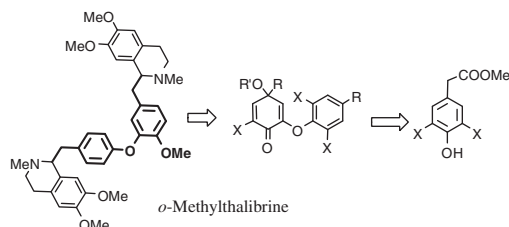
pp 4772–4775



Electrochemical construction of the diaryl ethers: a synthetic approach to *o*-methylthalibrine

pp 4776–4778

Yu Naito, Takamasa Tanabe, Yuki Kawabata, Yuichi Ishikawa, Shigeru Nishiyama*

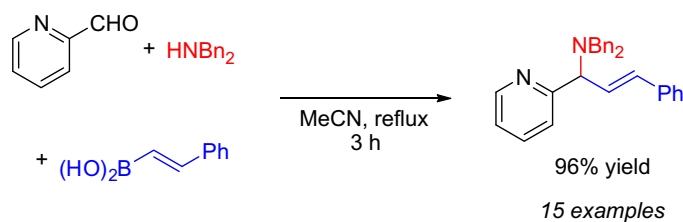


Electrochemical dimerization of halogenated *p*-hydroxyphenylacetic acid derivatives, followed by Zn reduction provided the diaryl ethers. Its reductive manipulation enabled the construction of *o*-methylthalibrine, an isoquinoline-class alkaloid.

An improved protocol for Petasis reaction of 2-pyridinecarbaldehydes

pp 4779–4782

Hiroki Mandai*, Kyouta Murota, Takashi Sakai



A highly efficient and improved method has been developed for Petasis reactions of various 2-pyridinecarbaldehydes with secondary amines and boronic acids under catalyst-free conditions.



*Corresponding author

Supplementary data available via ScienceDirect

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