

Tetrahedron Letters Vol. 51, No. 11, 2010

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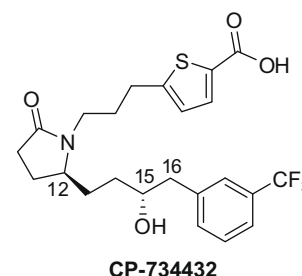
COMMUNICATIONS

Novel synthesis of CP-734432, an EP4 agonist, using Sharpless asymmetric dihydroxylation

pp 1451–1454

Sajiv K. Nair*, Jean J. Matthews, Stephan J. Cripps, Chunrong Ma, Elena Z. Dovalsantos, Alan W. Grubbs, Neal W. Sach, Wolter ten Hoeve, Han Koster, Erik J. Flahive, Steven P. Tanis, Matt Renner, Jim van Wiltenburg

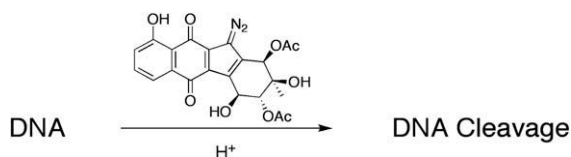
A novel and efficient asymmetric route to CP-734432, a lactam analog of PGE2, that shows selective agonism against the EP4 receptor subtype, is reported herein. The key steps include a Heck coupling to introduce the aryl ring at C-16 and a highly diastereoselective Sharpless asymmetric dihydroxylation to set the C-15 center.



Analysis of kinamycin D mediated DNA cleavage

pp 1455–1458

Christine L. Heinecke, Christian Melander*



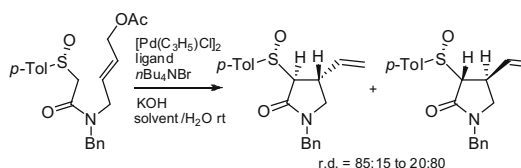
Kinamycin D is a potent antitumor antibiotic; however the biological mode of action is poorly understood. Recent efforts suggest the natural product is capable of generating reactive oxygen species under acidic pH to induce DNA damage in the presence of a reducing agent.



Palladium-catalyzed intramolecular allylic alkylation of α -sulfinyl carbanions: a new asymmetric route to enantiopure γ -lactams

pp 1459–1461

Sophie Vogel, Xavier Bantreil, Guillaume Maitro, Guillaume Prestat, David Madec*, Giovanni Poli*

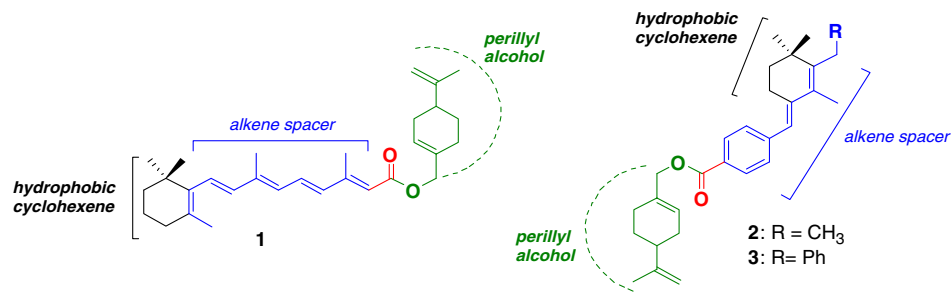


A simple and efficient protocol for the intramolecular palladium-catalyzed allylic alkylation of α -sulfinyl carbanions is reported. The use of unsaturated amides bearing a sulfinyl group of defined absolute configuration in concomitance with enantiopure BINAP as the ligand in a biphasic medium provided good diastereoselectivities.

Design and synthesis of potential new apoptosis agents: hybrid compounds containing perillyl alcohol and new constrained retinoids

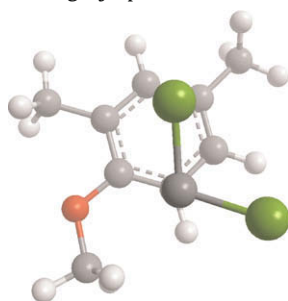
pp 1462–1466

Bhaskar C. Das*, Sakkarapalayam M. Mahalingam, Lipsa Panda, Bo Wang, Phillip D. Campbell, Todd Evans

**Complexation of dichlorocarbene by methylanisoles**

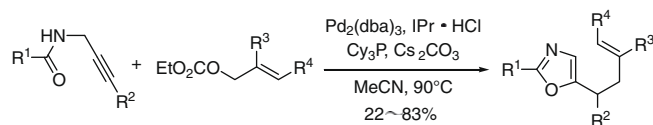
pp 1467–1470

Robert A. Moss*, Lei Wang, Christina M. Odorisio, Karsten Krogh-Jespersen*

Dichlorocarbene generated by laser flash photolysis of dichlorodiazirine readily forms UV-vis active π - and O-ylidic complexes with methylanisole derivatives.**Synthesis of oxazoles through Pd-catalyzed cycloisomerization–allylation of *N*-propargylamides with allyl carbonates**

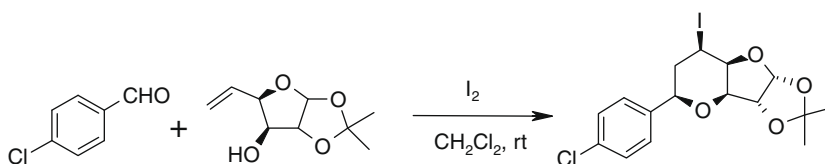
pp 1471–1474

Akio Saito*, Koichi Iimura, Yuji Hanzawa*

**First example of carbohydrate-based Prins cyclization: a novel class of sugar-annulated tetrahydropyrans**

pp 1475–1478

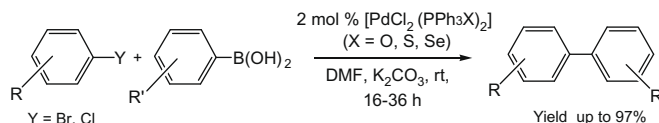
J. S. Yadav*, B. V. Subba Reddy, Ashutosh Pratap Singh, Dudhmal N. Chaya, Deepak Chatterjee, A. C. Kunwar



Triphenylphosphine chalcogenides as efficient ligands for room temperature palladium(II)-catalyzed Suzuki–Miyaura reaction

pp 1479–1482

Pankaj Das*, Utpal Bora, Archana Tairai, Chandan Sharma

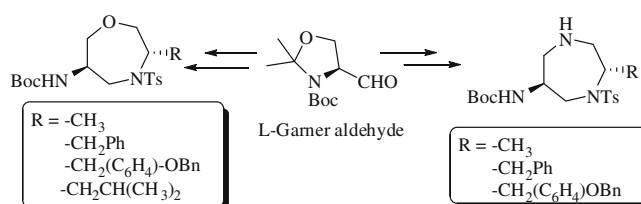


Triphenylphosphine chalcogenides are found to be effective ligands in the Pd(II)-catalyzed Suzuki–Miyaura reaction of aryl halides with aryl boronic acid at room temperature.

A new route to 1,4-oxazepanes and 1,4-diazepanes from Garner aldehyde

pp 1483–1485

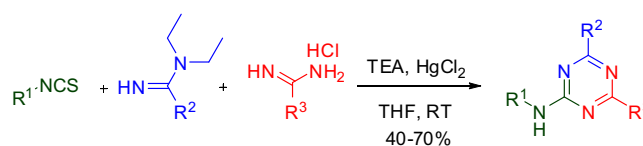
Sanjit Kumar Das, Ajay Kumar Srivastava, Gautam Panda*



A convenient one-pot synthesis of trisubstituted 1,3,5-triazines through intermediary amidinothioureas

pp 1486–1489

Jitendra C. Kaila, Arshi B. Baraiya, Amit N. Pandya, Hitesh B. Jalani, V. Sudarsanam, Kamala K. Vasu*



R¹ = C₆H₅, 4-ClC₆H₄, 4-FC₆H₄, CH₃(CH₂)₅, 3,4,5-triMeOC₆H₂

R² = CH₃, C₆H₅, C₆H₅CH₂, 4-MeC₆H₄, CH₃(CH₂)₃

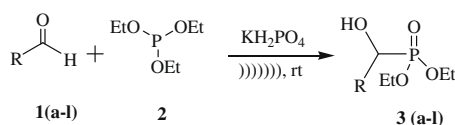
R³ = CH₃, C₆H₅, 4-ClC₆H₄CH₂, 4-MeOC₆H₄CH₂



Ultrasound-promoted greener approach to synthesize α-hydroxy phosphonates catalyzed by potassium dihydrogen phosphate under solvent-free condition

pp 1490–1492

Priyanka G. Mandhane, Ratnadeep S. Joshi, Deepak R. Nagargoje, Charansingh H. Gill*

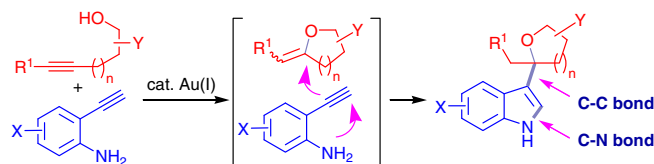


We report a new environmentally-benign, convenient, and facile methodology for the synthesis of α-hydroxyphosphonates from an aromatic/heteroaromatic aldehyde with triethyl phosphite in the presence of potassium dihydrogen phosphate (KH₂PO₄) under ultrasound-assisted solvent-free conditions. Furthermore, a series of compounds were synthesized and characterized by melting point, EI-MS, NMR, and IR tools. Utilization of easy reaction conditions, isolation, and purification makes this manipulation very interesting from an economic perspective.

Gold(I)-catalyzed one-pot reaction between 2-alkynylanilines and alkynols leading to the formation of C-3 substituted indoles: a case of formal carboamination of alkynes

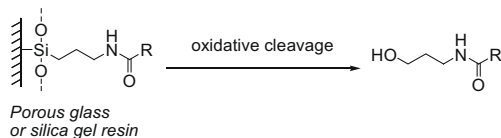
pp 1493–1496

Nitin T. Patil*, Vipender Singh, Ashok Konala, Anil Kumar Mutyala


A new method for cleavage of silicon–carbon linkers on glass plate supports with applications to solid-phase syntheses on silica resins

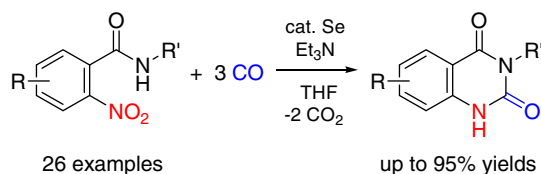
pp 1497–1499

Takeshi Terauchi, Sachiko Machida, Shiro Komba*


Metal and phosgene-free synthesis of 1H-quinazoline-2,4-diones by selenium-catalyzed carbonylation of o-nitrobenzamides

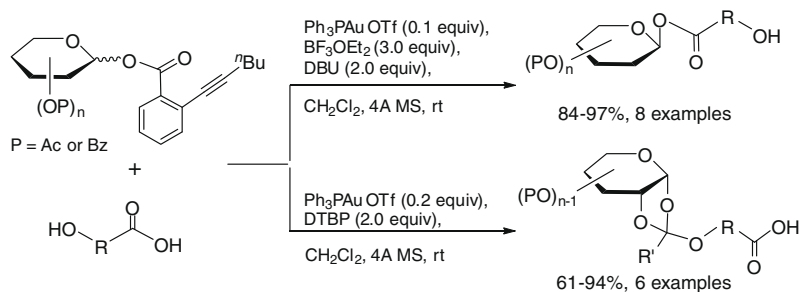
pp 1500–1503

Xiaowei Wu, Zhengkun Yu*


Chemoselective glycosylation of carboxylic acid with glycosyl ortho-hexynylbenzoates as donors

pp 1504–1507

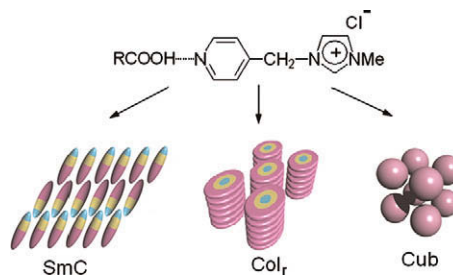
You Yang, Yao Li, Biao Yu*



Hydrogen-bonded ionic liquid crystals: pyridinylmethylimidazolium as a versatile building block

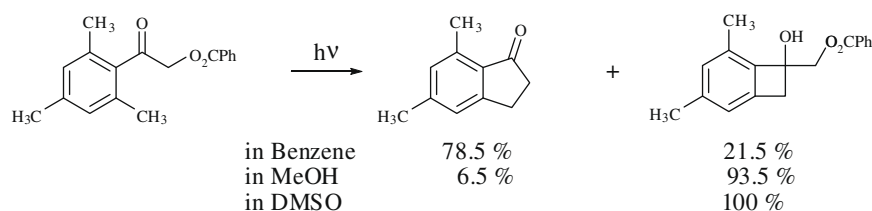
pp 1508–1511

Shigeo Kohmoto*, Yukiko Hara, Keiki Kishikawa

**Unique solvent effect on photochemistry of *ortho*-alkylphenacyl benzoates**

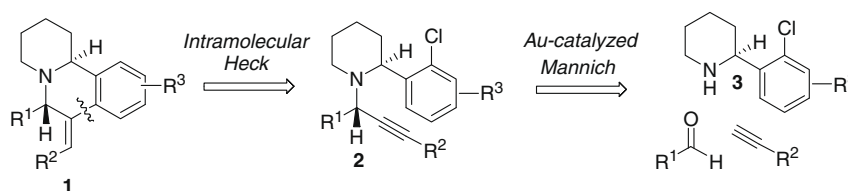
pp 1512–1516

Bong Ser Park*, Hyuk Jun Ryu

**Intramolecular Heck reactions of aryl chlorides with alkynes**

pp 1517–1522

Lauren M. Chapman, Bruce Adams, Laura T. Kliman, Alexandros Makriyannis, Christopher L. Hamblett*

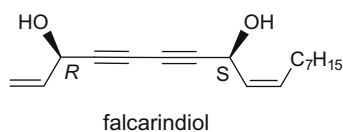


We have developed a reaction that affords the selective preparation of hexahydro-2*H*-pyrido[2,1-*a*]isoquinoline dienes, allenenes, or alkenes via an intramolecular Heck cyclization of an aryl chloride with an alkyne. Tricyclic isoquinoline core structures of this nature are difficult to access by alternative methods. The unsaturated product formed can be partially controlled by choice of ligand and reaction solvent.

Establishment of absolute stereostructure of falcarindiol, algicidal principle against *Heterocapsa circularisquama* from *Notopterygii Rhizoma*

pp 1523–1525


Satoru Tamura, Tomomichi Ohno, Yuuhi Hattori, Nobutoshi Murakami*



The absolute configuration of falcarindiol, isolated as an algicidal principle against *Heterocapsa circularisquama* from *Notopterygii Rhizoma*, was disclosed to be 3*R*,8*S* by the synthesis of all four stereoisomers.



*Corresponding author

 Supplementary data available via ScienceDirect

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