ELSEVIER

Tetrahedron Letters

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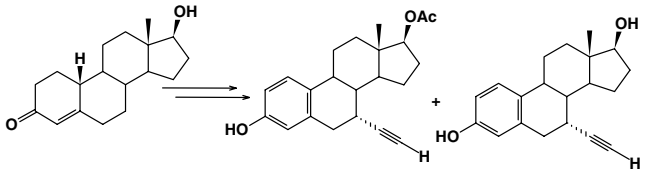
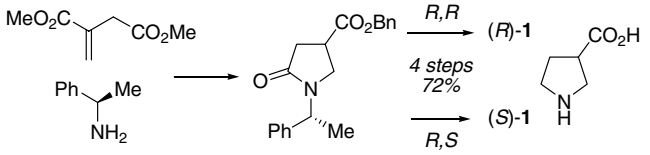
COMMUNICATIONS

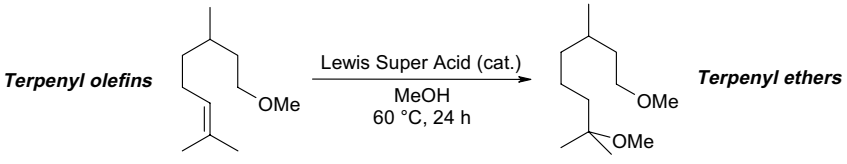
A novel and stereoselective synthesis of 7α-alkynylestra-1,3,5(10)-triene-3,17β-estradiol **pp 5723–5726**
Naseem Ahmed and Johan E. van Lier*



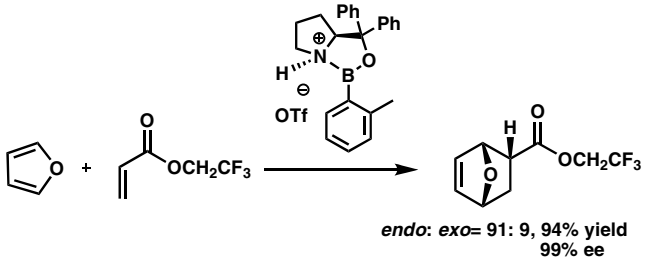
A rapid and convenient synthesis of β-proline **pp 5727–5730**
Jérôme Blanchet,* Mickael Pouliquen, Marie-Claire Lasne and Jacques Rouden



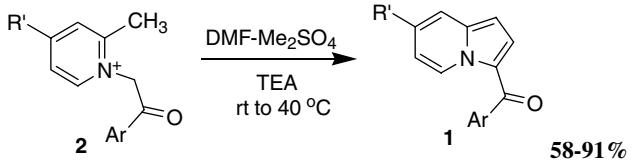
Hydroalkoxylation of non-activated olefins catalysed by Lewis superacids in alcoholic solvents: an eco-friendly reaction **pp 5731–5734**
Pierre Lemechko, Fanny Grau, Sylvain Antoniotti and Elisabet Duñach*



Catalytic enantioselective Diels–Alder reactions of furans and 1,1,1-trifluoroethyl acrylate **pp 5735–5737**
Do Hyun Ryu,* Kyung Hwa Kim, Jae Yi Sim and E. J. Corey*



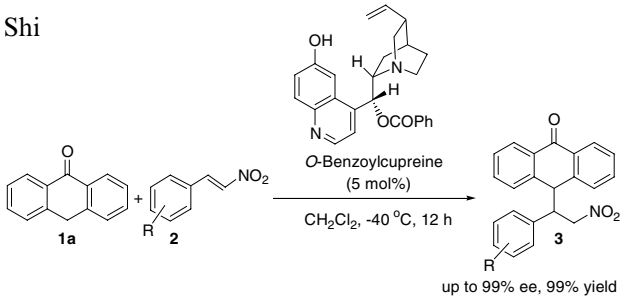
Application of DMF–methyl sulfate adduct in the regioselective synthesis of 3-acylated indolizines **pp 5739–5742**
Teresa Przewloka, Shoujun Chen, Zhiqiang Xia, Hao Li, Shijie Zhang, Dinesh Chimmanamada, Elena Kostik, David James, Keizo Koya and Lijun Sun*



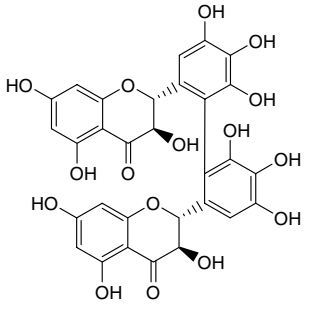
R': H, NO_2, Et, OMe, OMOM, CO_2Me; Ar: Aryl, Heteroaryl

A highly efficient asymmetric Michael addition of anthrone to nitroalkenes with cinchona organocatalysts **pp 5743–5746**
Min Shi,* Zhi-Yu Lei, Mei-Xin Zhao and Jing-Wen Shi

A highly efficient asymmetric Michael addition of anthrone to nitroalkenes catalyzed by cinchona alkaloids was described. Up to 99% ee of the corresponding adduct was obtained.

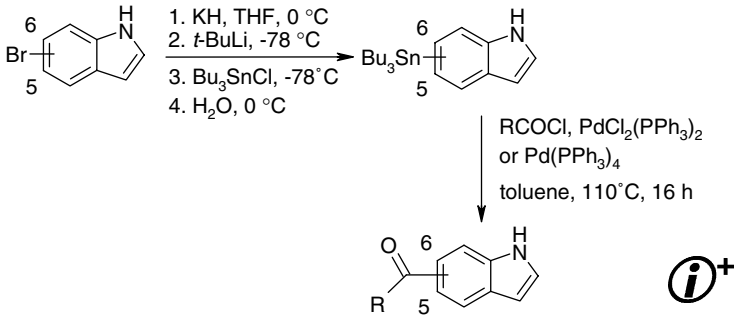


Acuminatanol, the first 2′,2‴-bis-dihydrobiflavonol from the aqueous extract of *Trichoscypha acuminata* **pp 5747–5749**
Jin-Feng Hu,* Eliane Garo, Grayson W. Hough, Matt G. Goering, Mark O'Neil-Johnson and Gary R. Eldridge

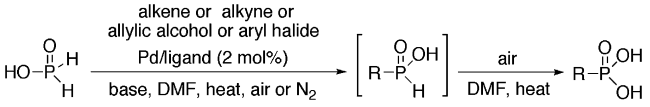


Efficient synthesis of 5- and 6-tributylstannylindoles and their reactivity with acid chlorides in the Stille coupling reaction **pp 5751–5753**
Khalil Cherry, Nicolas Lebegue,* Veronique Leclerc, Pascal Carato, Saïd Yous and Pascal Berthelot

Several 5- and 6-acylindoles have been synthesized in good yield by means of palladium catalyzed cross-coupling reactions between acid chloride derivatives and 5- or 6-tributylstannylindoles to give useful intermediates for the synthesis of analogues of biologically and pharmacologically active molecules.

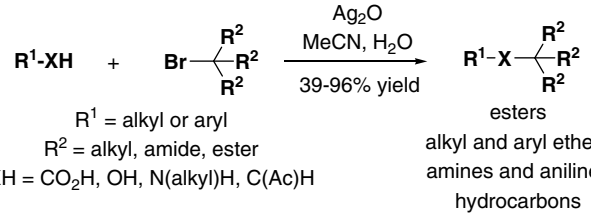


A novel approach to phosphonic acids from hypophosphorous acid **pp 5755–5759**
Karla Bravo-Altamirano and Jean-Luc Montchamp*

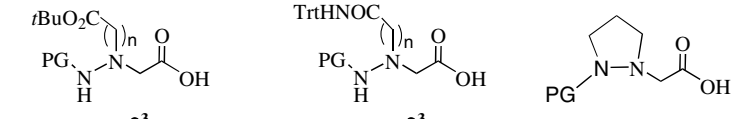


A novel access to phosphonic acids via Pd-catalyzed tandem carbon–phosphorus bond formation–oxidation processes was developed. The procedures involve atom-economical and environmentally friendly functionalization reactions of hypophosphorous acid (H_3PO_2) and *H*-phosphinic acids [RP(O)(OH)(H)].

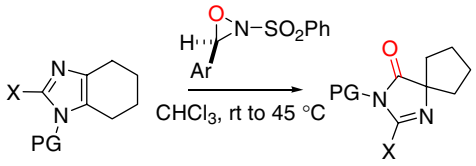
A direct functionalization of tertiary alkyl bromides with O-, N-, and C-nucleophiles **pp 5761–5765**
Petr Vachal,* Joan M. Fletcher and William K. Hagmann



Preparation of new monomers aza-β^3-aminoacids for solid-phase syntheses of aza-β^3-peptides **pp 5767–5770**
Olivier Busnel and Michèle Baudy-Floc'h*

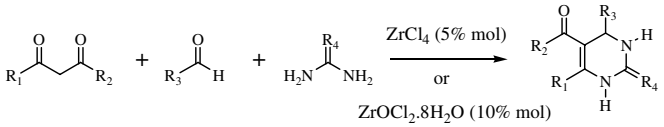


Oxidative reactions of tetrahydrobenzimidazole derivatives with *N*-sulfonyloxaziridines **pp 5771–5775**
Rasapalli Sivappa, Panduka Koswatta and Carl J. Lovely*



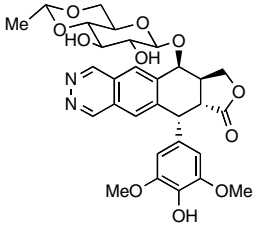
Treatment of tetrahydrobenzimidazoles with *N*-sulfonyloxaziridines leads to the formation of spiro fused 5-imidazolone in moderate to excellent yield.

$ZrCl_4$ or $ZrOCl_2$ under neat conditions: optimized green alternatives for the Biginelli reaction **pp 5777–5780**
Juan Carlos Rodríguez-Domínguez,* Dan Bernardi and Gilbert Kirsch

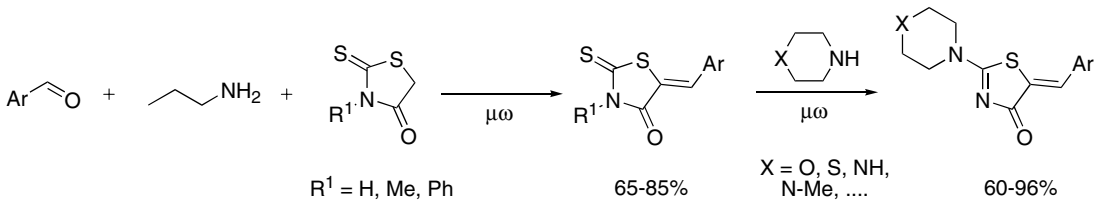


3,4-Dihydropyrimidin-2(1*H*)-ones and thioxo-3,4-dihydropyrimidin-2(1*H*)-ones were prepared by optimized methods using either $ZrCl_4$ or $ZrOCl_2{\cdot}8H_2O$ as catalysts under neat conditions.

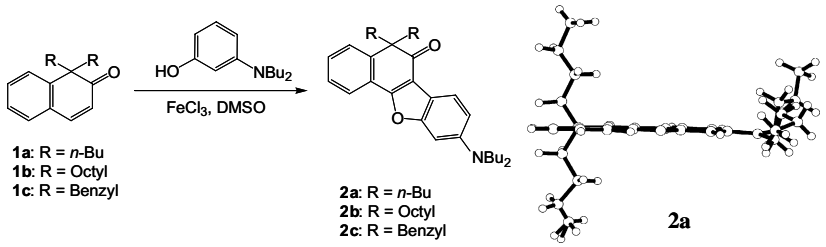
Synthetic approach to condensed heterocyclic analogues from etoposide revisited. Synthesis of A-ring pyridazine etoposide **pp 5781–5784**
Emmanuel Bertounesque,* Philippe Meresse, Claude Monneret and Jean-Claude Florent



A practical access to novel 2-amino-5-arylidene-1,3-thiazol-4(5*H*)-ones via sulfur/nitrogen displacement under solvent-free microwave irradiation **pp 5785–5789**
Khadidja Bourahla, Aïcha Derdour, Mustapha Rahmouni, François Carreaux and Jean Pierre Bazureau*

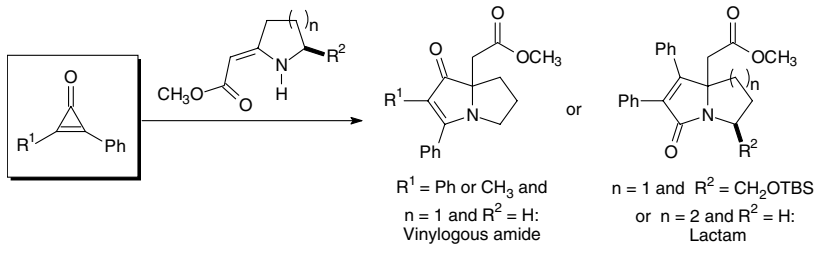


A facile synthesis of solid-emissive fluorescent dyes: dialkylbenzo[*b*]naphtho[2,1-*d*]furan-6-one-type fluorophores with strong blue and green fluorescence emission properties **pp 5791–5793**
Yousuke Ooyama,* Toshiki Mamura and Katsuhira Yoshida*

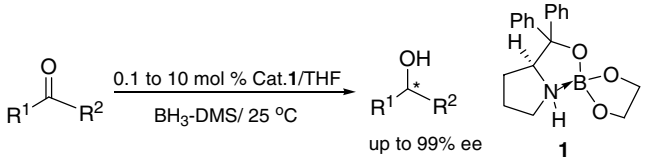


A new type of organic fluorophores exhibiting strong blue and green emission in the solid state has been easily synthesized by a one-step reaction.

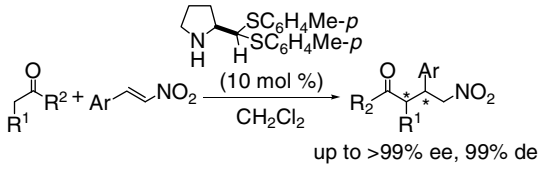
New alkaloid-like heterocycles via formal aza-[3+2] cycloaddition reaction of cyclic enaminones with cyclopropenones **pp 5795–5798**
Silvio Cunha,* Fabiano Damasceno and Jailton Ferrari



Enantioselective reduction of prochiral ketones using spiroborate esters as catalysts **pp 5799–5802**
Viatcheslav Stepanenko, Melvin De Jesús, Wildeliz Correa, Irisbel Guzmán, Cindybeth Vázquez, Wilanet de la Cruz, Margarita Ortiz-Marciales* and Charles L. Barnes

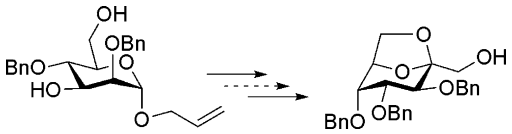


Synthesis of prolinal dithioacetals as catalysts for the highly stereoselective Michael addition of ketones and aldehydes to β-nitrostyrenes **pp 5803–5806**
Tanmay Mandal and Cong-Gui Zhao*



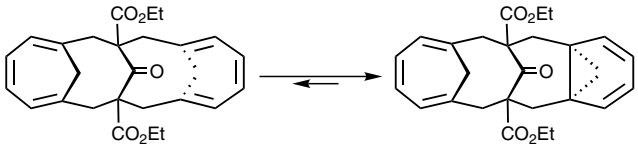
High enantioselectivity and diastereoselectivity has been achieved in the direct Michael addition with readily tunable prolinal dithioacetal catalysts.

Synthesis of a partially benzylated derivative of the anhydro-D-altro-heptulose found in *Coriaria japonica* A **pp 5807–5810**
Sho Matsuda, Kazuhide Matsumura, Mikio Watanabe and Takashi Yamanoi*



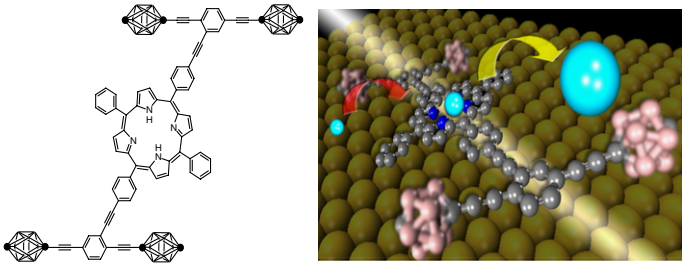
A partially benzylated derivative of the anhydro-D-altro-heptulose found in *Coriaria japonica* A was successfully synthesized from a D-mannose derivative by a novel synthetic approach.

Synthesis, structure and some reactions of a multi-bridged unsaturated cyclooctadecane derivative formally having two cycloheptatrienes **pp 5811–5815**
Shigeyasu Kuroda,* Isao Hirano, Yanmei Zhang, Nguyen Chung Thanh and Mitsunori Oda*



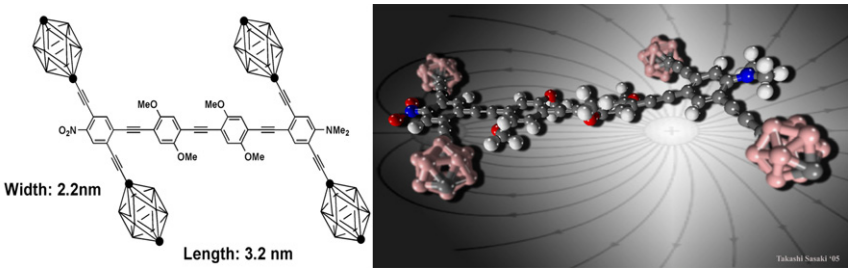
The cyclohetratriene–norcaradiene equilibrium of the right wing part in the title compound was found to be shifted to the norcaradiene side.

Synthesis of a single-molecule nanotruck **pp 5817–5820**
Takashi Sasaki, Jean-François Morin, Meng Lu and James M. Tour*



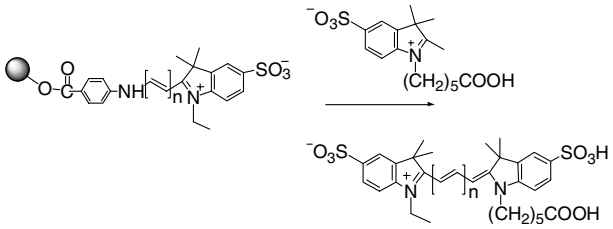
We report the synthesis of a new nanovehicle, a porphyrin-based nanotruck. The porphyrin inner core was designed for possible transportation of metals and small molecules across a surface.

Synthesis of a dipolar nanocar **pp 5821–5824**
Takashi Sasaki and James M. Tour*

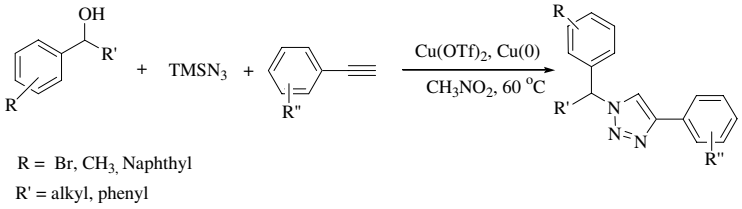


The synthesis of a nanocar with a built-in strong net dipole is disclosed. The synthesis was executed to explore a more effective handle on electric-field-induced rolling of nanocars.

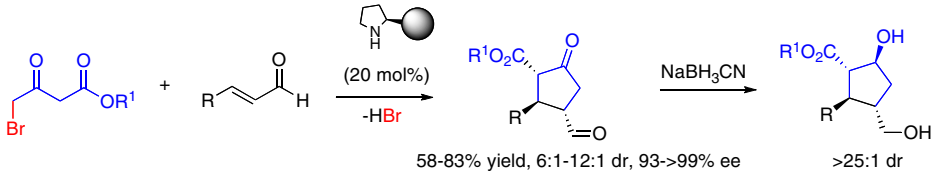
An efficient approach to the synthesis of water-soluble cyanine dyes using poly(ethylene glycol) as a soluble support pp 5825–5829
Lin-Ling Jiang, Li-Fang Dou and Bao-Lin Li*



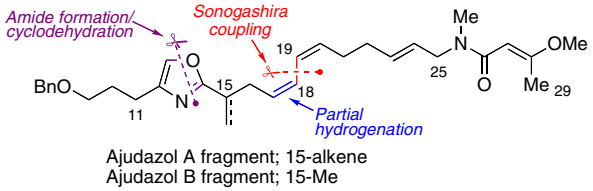
Regioselective synthesis of 1,4-disubstituted 1,2,3-triazoles via three-component coupling of secondary alcohols, $TMSN_3$ and alkynes pp 5831–5834
B. Sreedhar,* P. Surendra Reddy and V. Rama Krishna



One-pot organocatalytic domino Michael/α-alkylation reactions: highly enantioselective synthesis of functionalized cyclopentanones and cyclopentanols pp 5835–5839
Ramon Rios, Jan Vesely, Henrik Sundén, Ismail Ibrahem, Gui-Ling Zhao and Armando Córdova*

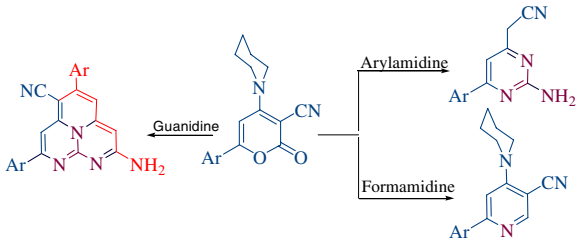


Synthesis of the C9–C29 fragments of ajudazols A and B pp 5841–5843
Danny Ganame, Tim Quach, Charlotte Poole and Mark A. Rizzacasa*

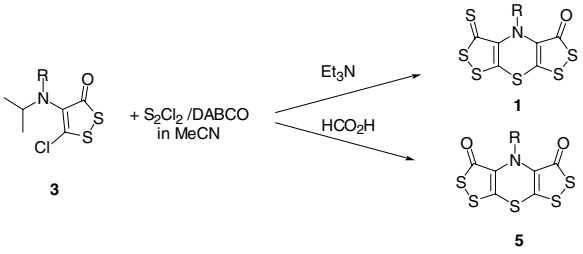


The syntheses of both the C9–C29 fragments of the ajudazols A and B from common precursors are described.

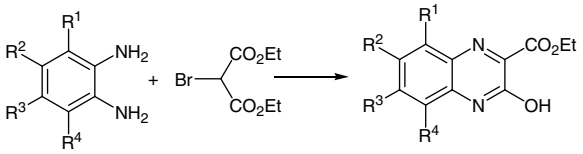
Guanidine and amidine mediated synthesis of bridgehead triazaphenalenes, pyrimidines and pyridines through domino reactions pp 5845–5849
Ramendra Pratap, Abhijeet Deb Roy, Shom Prakash Kushwaha, Atul Goel, Raja Roy and Vishnu Ji Ram*



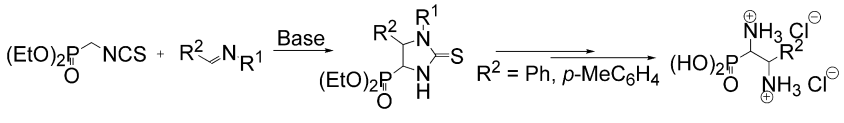
Selective synthesis of bis[1,2]dithiolo[1,4]thiazines from 4-isopropylamino-5-chloro-1,2-dithiole-3-ones pp 5851–5854
Lidia S. Konstantinova, Andrej A. Berezin, Kirill A. Lysov and Oleg A. Rakitin*



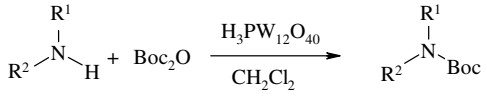
Uncatalyzed condensation between aryl-1,2-diamines and diethyl bromomalonate: a one-pot access to substituted ethyl 3-hydroxyquinoxaline-2-carboxylates pp 5855–5857
Pranab Haldar, Bishnupada Dutta, Joyram Guin and Jayanta K. Ray*



Direct synthesis of protected diethyl 1,2-diaminoalkylphosphonates pp 5859–5863
Roman Błaszczyk and Tadeusz Gajda*

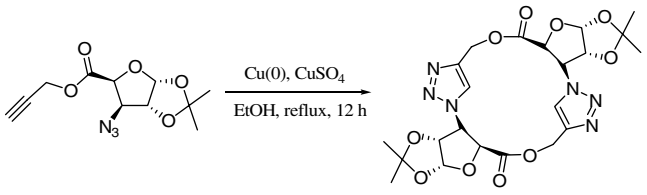


N-tert-Butoxycarbonylation of amines using $H_3PW_{12}O_{40}$ as an efficient heterogeneous and recyclable catalyst **pp 5865–5868**
Akbar Heydari,* Roohollah Kazem Shiroodi, Hossein Hamadi, Maryam Esfandyari and Mehrdad Pourayoubi

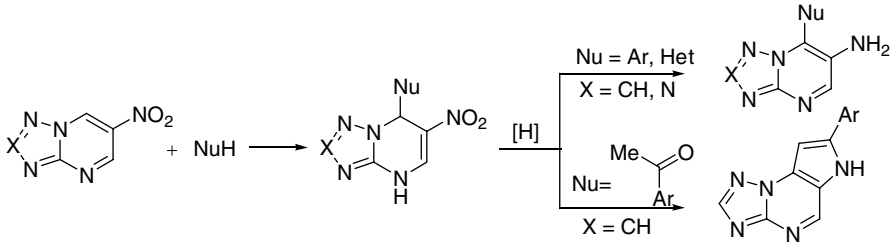


$H_3PW_{12}O_{40}$ (0.5 mol %) is a very efficient and environmentally benign catalyst for *N-tert*-butoxycarbonylation of amines (primary, secondary) with $(Boc)_2O$ at room temperature.

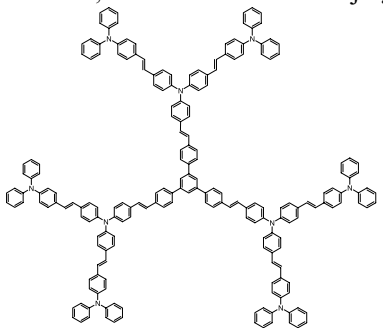
Inter and intramolecular copper(I)-catalyzed 1,3-dipolar cycloaddition of azido-alkynes: synthesis of furanotriazole macrocycles **pp 5869–5872**
Srivari Chandrasekhar,* Chennamaneni Lohitha Rao, Chidalla Nagesh, Chada Raji Reddy and Balasubramanian Sridhar



An unusual aromatisation of dihydropyrimidines facilitated by reduction of the nitro group **pp 5873–5876**
G. L. Rusinov, E. B. Gorbunov, V. N. Charushin and O. N. Chupakhin*

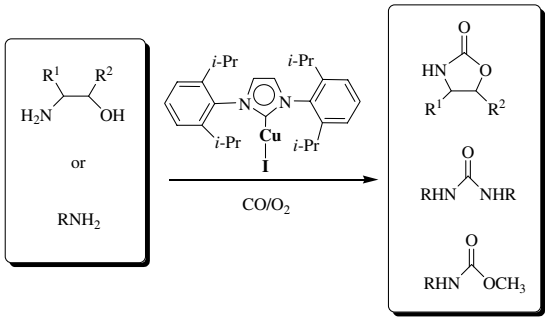


Synthesis and photophysical properties of triphenylamine-based dendrimers with 1,3,5-triphenylbenzene cores **pp 5877–5881**
Haijian Xia, Jiating He, Ping Peng, Yinhua Zhou, Yaowen Li and Wenjing Tian*

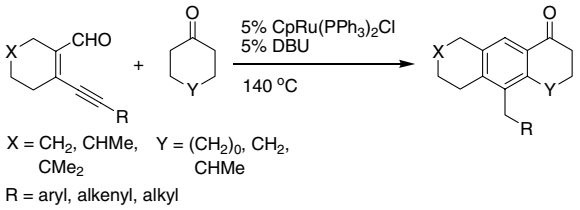


A novel and efficient (NHC)Cu^{I} (NHC = N-heterocyclic carbene) catalyst for the oxidative carbonylation of amino compounds pp 5883–5886
Shuzhan Zheng, Fuwei Li, Jianming Liu and Chungu Xia*

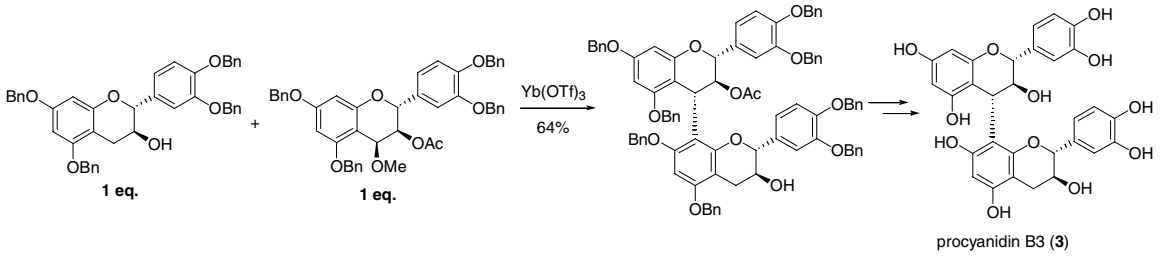
Oxidative carbonylation of amino compounds to prepare corresponding 2-oxazolidinones, ureas, and carbamates selectively in the presence of (NHC)Cu^{I} without any additives was first achieved in good yields and selectivities.



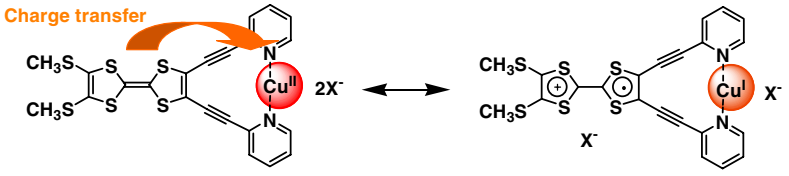
Catalytic annulation of 1-substituted-3-en-1-yn-5-als with cycloalkanones using acid–base dual catalysts pp 5887–5889
Chia-Wei Yang and Rai-Shung Liu*



An efficient synthesis of procyanidins. Rare earth metal Lewis acid catalyzed equimolar condensation of catechin and epicatechin pp 5891–5894
Yoshihiro Mohri, Masayoshi Sagehashi, Taiji Yamada, Yasunao Hattori, Keiji Morimura, Tsunashi Kamo, Mitsuru Hirota and Hidefumi Makabe*

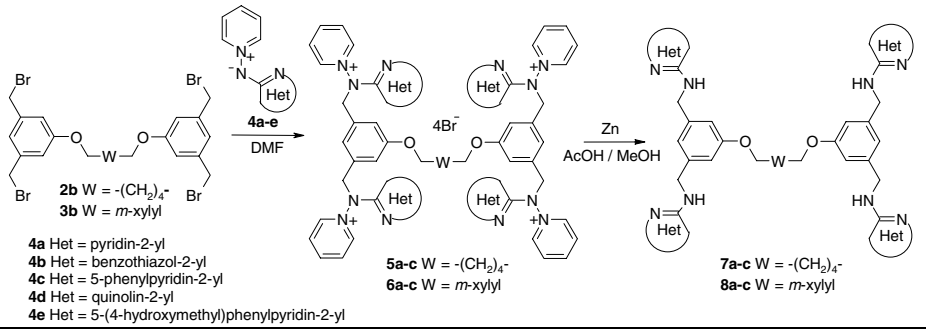


Synthesis and properties of 4′,5′-bis(methylthio)-4,5-bis(2-pyridylethynyl)tetrathiafulvalene and its copper complexes pp 5895–5898
Eigo Isomura, Ken-ichi Tokuyama, Tohru Nishinaga and Masahiko Iyoda*



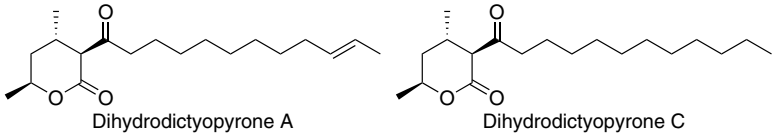
Pyridinium *N*-heteroarylaminides: synthesis of *N*-heteroaryltetramines based on 1,6-bis(phenoxy)hexane and 1,3-bis(phenoxymethyl)benzene pp 5899–5903

Rafael Castillo, M. Luisa Izquierdo and Julio Alvarez-Builla*



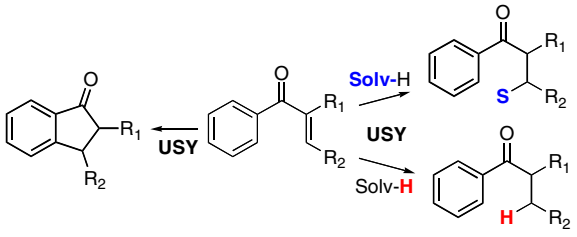
Dihydrodictyopyrones A and C: new members of dictyopyrone family isolated from *Dictyostelium* cellular slime molds pp 5905–5909

Haruhisa Kikuchi,* Koji Nakamura, Yuzuru Kubohara, Naomi Gokan, Kohei Hosaka, Yasuo Maeda and Yoshiteru Oshima*



Solvent-dependent behavior of arylvinylketones in HUSY-zeolite: a green alternative to liquid superacid medium pp 5911–5914

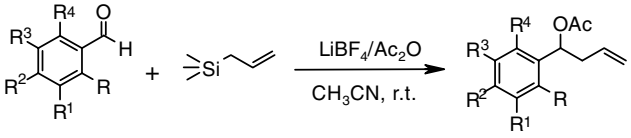
Abdelkarim Sani Souna Sido, Stefan Chassaing, Mayilvasagam Kumarraja, Patrick Pale* and Jean Sommer



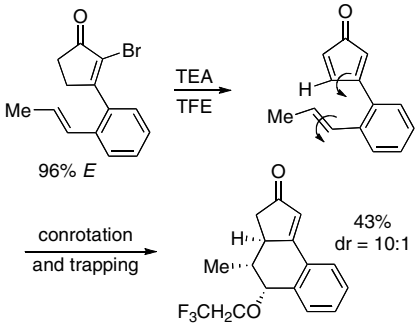
Depending on reaction conditions, zeolites can directly convert arylvinylketones to either indanones or dihydrochalcones, alkylated or not.

$LiBF_4$-Catalyzed three-component coupling of an aldehyde, acetic anhydride and allyltrimethylsilane/TMSCN pp 5915–5918

J. S. Yadav,* B. V. Subba Reddy, P. Vishnumurthy and Ch. Janardhana Chary



Diastereoselectivity in an electrocyclization reaction of cyclopentadienones **pp 5919–5922**
Michael Harmata,* Pinguan Zheng, Peter R. Schreiner and Armando Navarro-Vázquez



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