

Tetrahedron Letters Vol. 51, No. 8, 2010

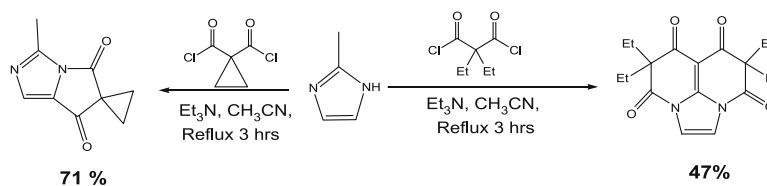
Contents

COMMUNICATIONS

Reactions of 2-alkylimidazoles and 2-methylbenzimidazoles with 1,3-diacid chlorides. Synthesis of highly functionalized hetero-cycles under mild conditions

pp 1139–1144

Sabornie Chatterjee, Guozhong Ye, Charles U. Pittman Jr. \*



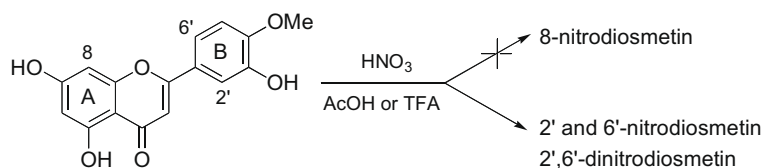
Highly functionalized heterocycles were synthesized in one-pot reactions of 2-alkylimidazoles or 2-methylbenzimidazoles with 1,3-diacid chlorides. Some of the cyclizations proceed through cyclic-*N,N'*-ketene acetal intermediates.



Unexpected B-ring regioselective di-nitration of diosmetin, a *Citrus* flavonoid

pp 1145–1148

Guy Lewin \*, Jean-Christophe Jullian, Jordi Rodrigo



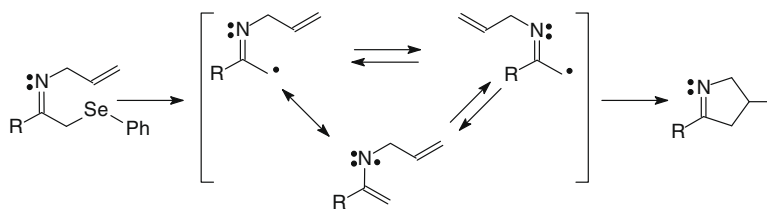
Nitration of diosmetin occurred only on the B-ring at C-2' and C-6', but not on the however highly activated ring A. Nitration in position C-8 was therefore performed in five steps, requiring selective deactivation of ring B.



A radical cyclization route to cyclic imines

pp 1149–1151

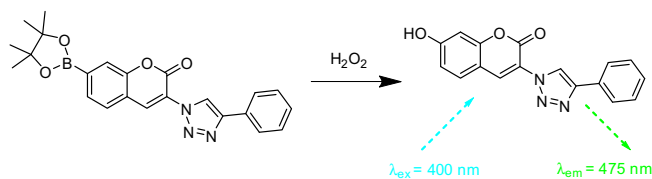
Puneet Srivastava, Lars Engman \*



**A fluorescent hydrogen peroxide probe based on a 'click' modified coumarin fluorophore**

pp 1152–1154

Lupei Duý, Nanting Niý, Minyong Li \*, Binghe Wang \*

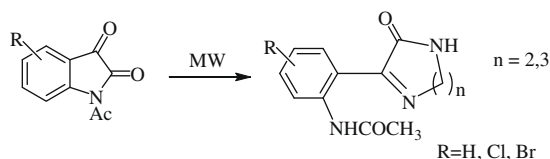


A novel 'click' modified coumarin-based fluorescent probe for hydrogen peroxide is depicted.

**An efficient microwave-assisted synthesis of dihydropyrazinones and bis-benzoylketones**

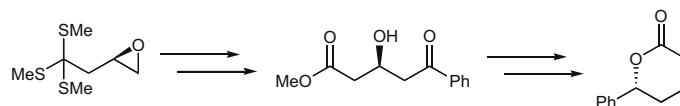
pp 1155–1157

Mamun M. Hossain \*, Rabiul M. Islam, Sukanta K. Saha, Mohammad K. Islam

Dihydropyrazinones are obtained in fairly good yields from *N*-acetylisatins by means of ring cleavage with ethanol followed by ring closure with alkanediamines under microwave irradiation.**A convenient new route to enantiopure 3-hydroxy-5-oxo esters and 5,6-dihydropyran-2-ones: intricacies of the trithioorthoester protecting group**

pp 1158–1160

Rebecca L. Grange, Craig M. Williams \*

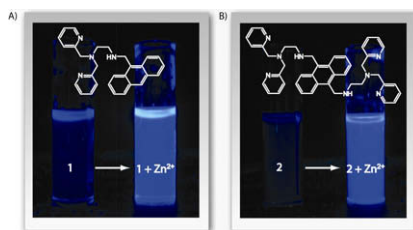


3-Hydroxy-5-oxo esters are useful precursors to biologically active compounds. An expedient three step synthesis of 3-hydroxy-5-oxo esters based on dithiane anion chemistry is presented along with the transformation of the 3-hydroxy-5-oxo esters into 5,6-dihydropyran-2-ones.

**Fluorescent Zn<sup>2+</sup> chemosensors, functional in aqueous solution under environmentally relevant conditions**

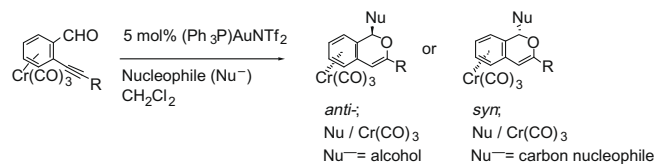
pp 1161–1165

Amanda E. Lee, Michael R. Grace, Adam G. Meyer, Kellie L. Tuck \*

The synthesis and evaluation of two new ratiometric chemosensors for the quantification of potentially toxic free Zn<sup>2+</sup> ions in aqueous solutions are described.

**Gold(I)-catalyzed stereoselective cyclization of *ortho* alkynyl benzaldehyde chromium complexes with nucleophiles** pp 1166–1169

Asami Kotera, Jun'ichi Uenishi, Motokazu Uemura \*

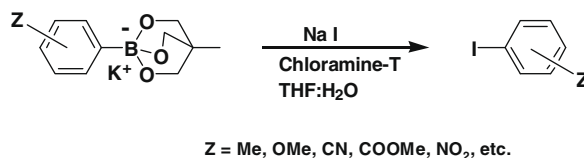


Gold(I)-catalyzed cyclization of *o*-alkynyl benzaldehyde chromium complexes gave stereoselectively 1-*anti*- and *syn*-functionalized 1*H*-isochromene chromium complexes depending on nucleophiles.

**Triolborates: water-soluble complexes of arylboronic acids as precursors to iodoarenes**

pp 1170–1171

Murthy R. Akula, Min-Liang Yao, George W. Kabalka \*

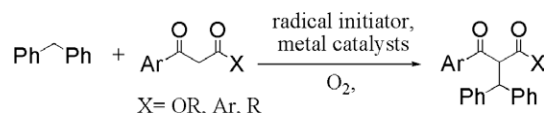


A facile synthesis of iodoarenes from triolborates, water-soluble complexes of arylboronic acids, has been developed.

**Catalytic alkylation of benzylic C–H bonds with 1,3-dicarbonyl compounds utilizing oxygen as terminal oxidant**

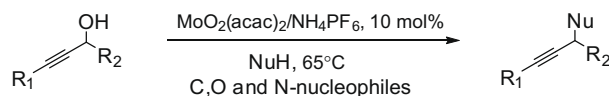
pp 1172–1175

Camille A. Correia, Chao-Jun Li \*

**Direct substitution of propargylic alcohol with oxygen, nitrogen, and carbon nucleophiles catalyzed by molybdenum(VI)**

pp 1176–1179

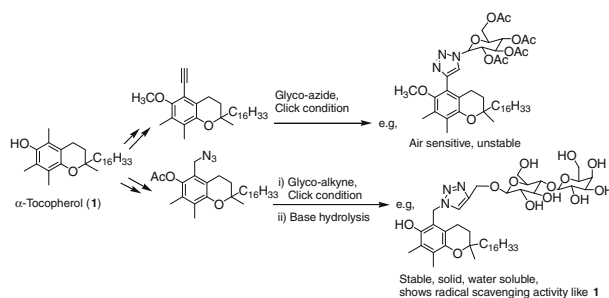
Ming Zhang, Hongwei Yang, Yixiang Cheng \*, Yuhua Zhu, Chengjian Zhu \*



### Synthesis and antioxidant properties of novel $\alpha$ -tocopherol glycoconjugates

pp 1180–1184

Anil K. Singh \*, K. Gopu



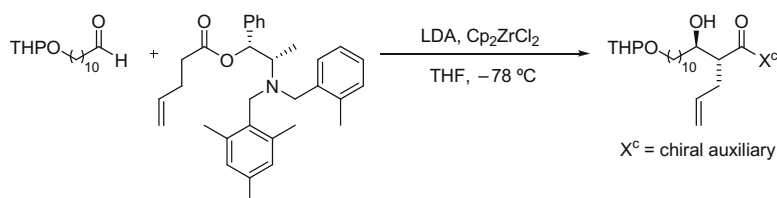
Glycoconjugates of  $\alpha$ -tocopherol (**1**), synthesized using click chemistry between  $\alpha$ -tocopherol-azide and glyco-alkynes are solids, have enhanced water solubility and exhibit radical-scavenging activities comparable to **1**, as determined by DPPH and lipid peroxidation assay methods.



### A biomimetic approach to the synthesis of a mycolic acid motif

pp 1185–1186

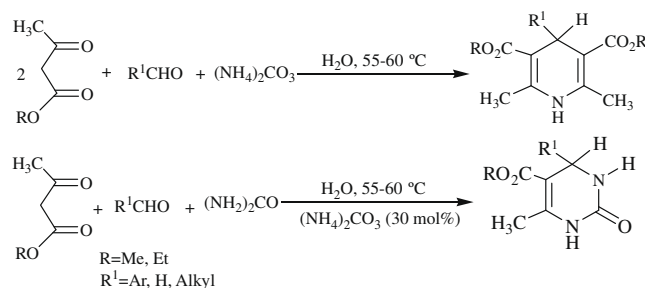
Cathryn H. S. Driver, Mohammed O. Balogun, Gianna Toschi, Jan A. Verschoor, Mark S. Baird, Lynne A. Pilcher \*



### Synthesis of 3,4-dihydropyrimidin-2(1H)-ones and 1,4-dihydropyridines using ammonium carbonate in water

pp 1187–1189

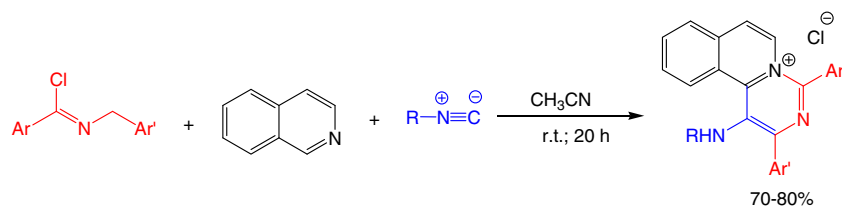
Fatemeh Tamaddon \*, Zahra Razmi, Abbas Ali Jafari



### Tandem synthesis of 1-(alkylamino)-2,4-diarylpyrimido[6,1-a]isoquinolin-5-ium chlorides from isoquinoline, N-alkyl-benzimidoyl chlorides, and isocyanides

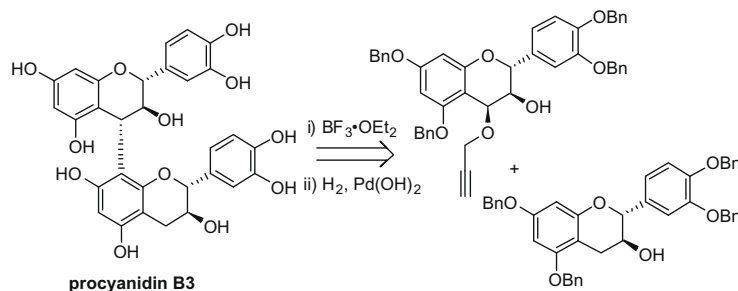
pp 1190–1192

Issa Yavari \*, Gholamhossein Khalili, Anvar Mirzaei



**Procyanidin B3 synthesis: a study of leaving group and Lewis acid activator effects upon interflavan bond formation** pp 1193–1195

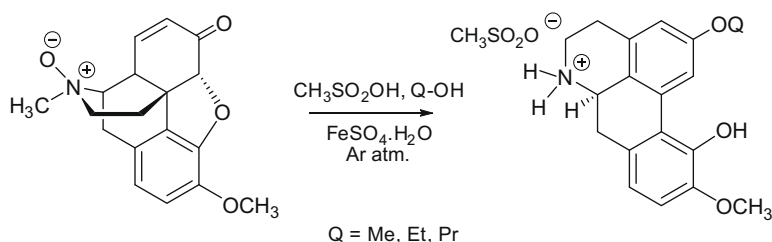
Rima D. Alharthy, Christopher J. Hayes \*



**One-pot N-dealkylation and acid-catalyzed rearrangement of morphinans into aporphines**

pp 1196–1198

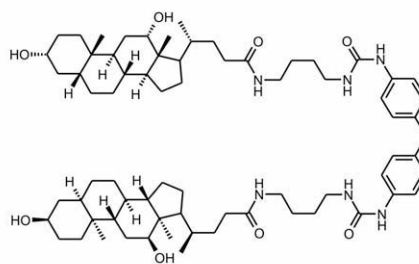
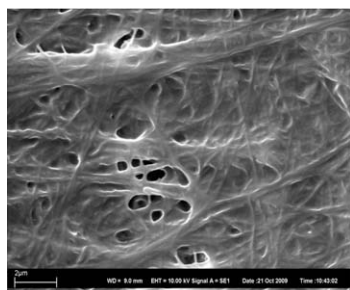
Sándor Berényi, Zsuzsanna Gyulai, Antal Udvardy, Attila Sipos \*



**Novel deoxycholic acid alkylamide-phenylurea-derived organogelators**

pp 1199–1201

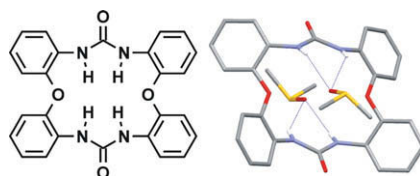
Juha Koivukorpi \*, Erkki Kolehmainen



**A macrocyclic diurea derived from diphenylether**

pp 1202–1204

Denys Meshcheryakov, Michael Bolte, Volker Böhmer \*



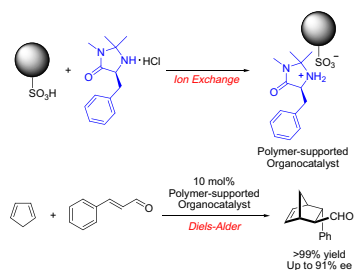
A new 16-membered cyclic diurea was synthesized and tested as potential receptor for fluoride. <sup>1</sup>H and <sup>19</sup>F NMR spectroscopy revealed an unexpected deprotonation of both urea groups after initial 1:1 binding. A single crystal X-ray structure shows bifurcated hydrogen bonds to two DMSO molecules.



### Novel polymer-supported organocatalyst via ion exchange reaction: facile immobilization of chiral imidazolidin-4-one and its application to Diels–Alder reaction

pp 1205–1208

Naoki Haraguchi \*, Yu Takemura, Shinichi Itsuno



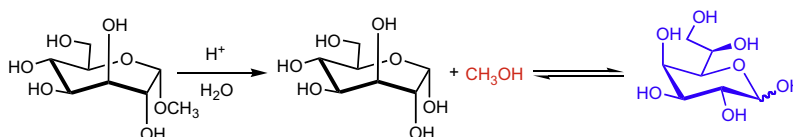
The polymer-supported organocatalyst prepared by ion exchange reaction with polymer-supported sulfonic acids was effective for Diels–Alder reaction of 1,3-cyclopentadiene and *trans*-cinnamaldehyde in  $\text{CH}_3\text{OH}/\text{H}_2\text{O}$ , affording good enantioselectivity and reusability.



### Hydroxyl group orientation affects hydrolysis rates of methyl $\alpha$ -septanosides

pp 1209–1212

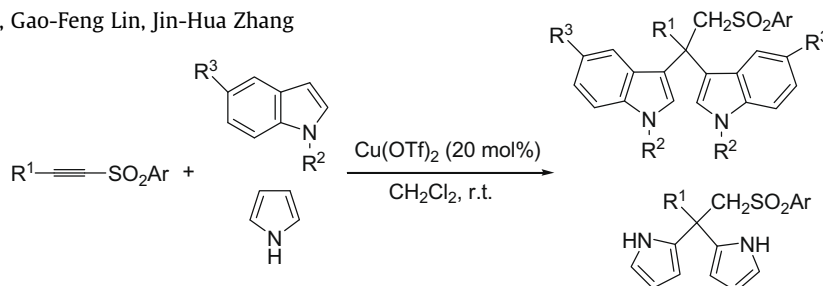
Shankar D. Markad, Shawn M. Miller, Martha Morton, Mark W. Pecuh \*



### Convenient synthesis of bis(indolyl)alkanes and bis(pyrrolyl)alkanes by $\text{Cu}(\text{OTf})_2$ -catalyzed addition of indole and pyrrole to acetylenic sulfone

pp 1213–1215

Mei-Hua Xie \*, Fa-Dong Xie, Gao-Feng Lin, Jin-Hua Zhang



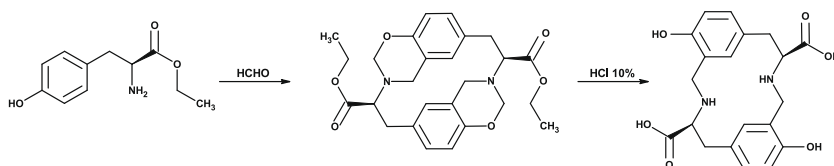
Sulfonyl-containing bis(indolyl)alkanes and bis(pyrrolyl)alkanes were synthesized conveniently by  $\text{Cu}(\text{OTf})_2$ -catalyzed double Michael addition of indole and pyrrole to acetylenic sulfone.



### Synthesis and conformational analysis of azacyclophanes from L-tyrosine

pp 1216–1219

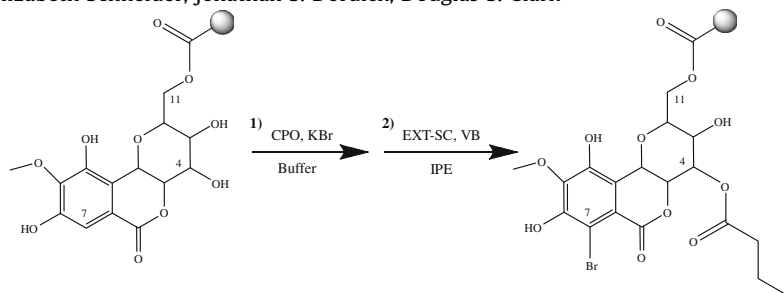
Rodolfo Quevedo \*, Ismael Ortiz, Andrés Reyes



**Two-step enzymatic modification of solid-supported bergenin in aqueous and organic media**

pp 1220–1225

Umar Akbar, Dong-Sik Shin, Elizabeth Schneider, Jonathan S. Dordick, Douglas S. Clark \*

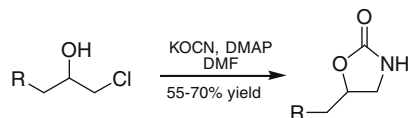


A natural flavonoid molecule, bergenin is attached to a solid support without a linker and is modified and cleaved enzymatically in both aqueous and organic media as a demonstration of solid-phase biocatalysis.

**DMAP-catalyzed synthesis of 2-oxazolidinones from corresponding halohydrins using KO/CN/DMF**

pp 1226–1229

K. Chinnam Naidu, G. Ravi Babu, L. Gangaiah, K. Mukkanti, G. Madhusudhan \*

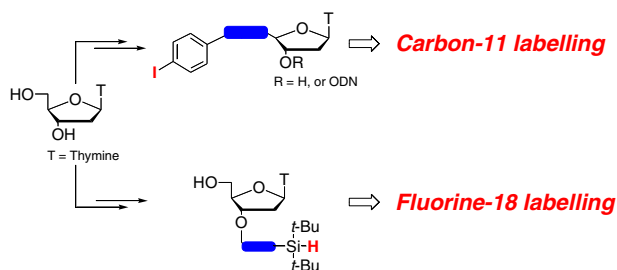


We report facile and simple synthesis of a variety of 2-oxazolidinones from the corresponding halohydrins by reaction with KO/CN in DMF catalyzed by DMAP. DMAP and temperature play key roles in enriching the yield of 2-oxazolidinones. A few examples in this Letter are applicable to pharmaceutically important processes.

**A 'click chemistry' approach to the efficient synthesis of modified nucleosides and oligonucleotides for PET imaging**

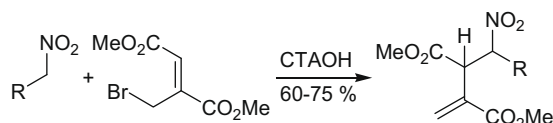
pp 1230–1232

Damien James, Jean-Marc Escudier, Eric Amigues, Jürgen Schulz, Christiane Vitry, Thomas Bordenave, Magali Szlosek-Pinaud \*, Eric Fouquet \*

**Chemoselective S<sub>N</sub>2' reaction of nitroalkanes to dialkyl 2-(bromomethyl)fumarates under cetyltrimethylammonium hydroxide (CTAOH) catalysis**

pp 1233–1235

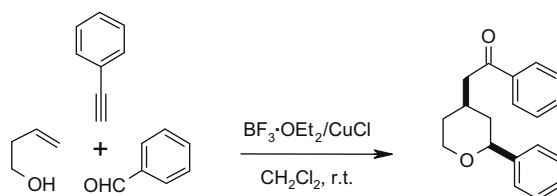
Roberto Ballini \*, Serena Gabrielli, Alessandro Palmieri




**A novel Prins-alkynylation reaction for the synthesis of 4-phenacyl tetrahydropyrans**

pp 1236–1239

J. S. Yadav \*, B. V. Subba Reddy, Y. Jayasudhan Reddy, Bh. Phaneendra Reddy, P. Adinarayana Reddy



\*Corresponding author

 Supplementary data available via ScienceDirect

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