

## Tetrahedron Letters Vol. 51, No. 17, 2010

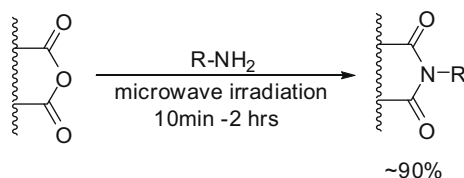
## Contents

## COMMUNICATIONS

## Comparison of microwave-assisted and conventional preparations of cyclic imides

pp 2215–2217

Sunil K. Upadhyay, Subramanya R. K. Pingali, Branko S. Jursic\*

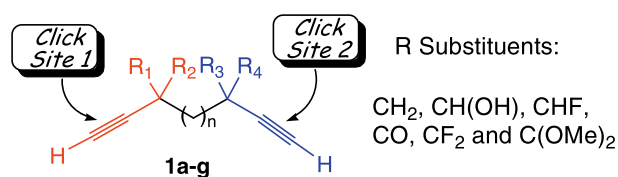


Microwave-assisted preparation of cyclic imides is superior with respect to isolated yield and length of reaction time when compared to conventional methods of preparation of imides.

## Effect of fluorine or oxygen atom(s) in propargylic position on the reactivity in click chemistry

pp 2218–2221

Danielle Grée, René Grée\*



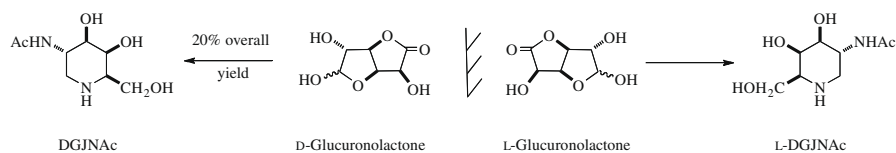
Newly designed  $\omega$ -diynes allow to establish, through competitive reactions, the effect of C-F, C-OH, CF<sub>2</sub>, C=O and C(OMe)<sub>2</sub> substituents on the reactivity of neighbouring triple bonds in click chemistry.


 Synthesis of 2-acetamido-1,2-dideoxy-D-galacto-nojirimycin [DGJNAc] from D-glucuronolactone: the first sub-micromolar inhibitor of  $\alpha$ -N-acetylgalactosaminidases

pp 2222–2224

Daniel Best, Phoom Chairatana, Andreas F. G. Glawar, Elizabeth Crabtree, Terry D. Butters, Francis X. Wilson, Chu-Yi Yu, Wu-Bao Wang, Yue-Mei Jia, Isao Adachi, Atsushi Kato, George W. J. Fleet\*

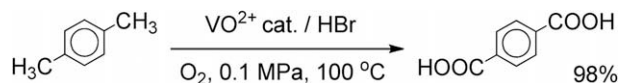
First sub-micromolar inhibitor of  $\alpha$ -N-acetyl-galactosaminidases  
 K<sub>i</sub> 0.081  $\mu$ M from chicken liver,  
 K<sub>i</sub> 0.136  $\mu$ M from *Charonia lampas*



### Novel oxidation of toluenes catalyzed by reusable vanadyl(IV) sulfate under mild conditions with molecular oxygen

pp 2225–2227

Takeo Nakai\*, Toshiyuki Iwai, Masatoshi Mihara, Takatoshi Ito, Takumi Mizuno

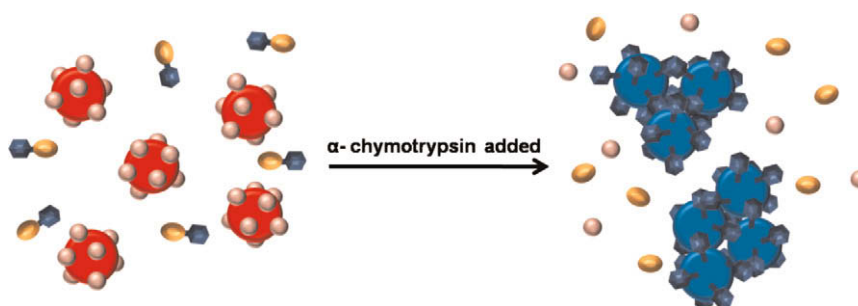


Efficient oxidation system using vanadyl(IV) sulfate catalyst with molecular oxygen was established. Recovered catalyst could be reused without loss of activity.

### Real-time colorimetric screening of endopeptidase inhibitors using adenosine triphosphate (ATP)-stabilized gold nanoparticles

pp 2228–2231

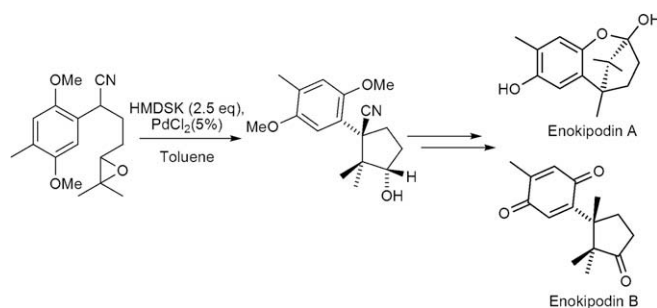
Mi Hee Kim, Soo Suk Lee, Sang J. Chung, Hyun Hye Jang, Sujung Yi, Sudeok Kim, Suk-Kyu Chang, Min Su Han\*



### Palladium (II) catalyzed 5-endo epoxynitrile cyclizations: total syntheses of enokipodins A and B

pp 2232–2236

Jesús Armando Luján-Montelongo, José G. Ávila-Zárraga\*



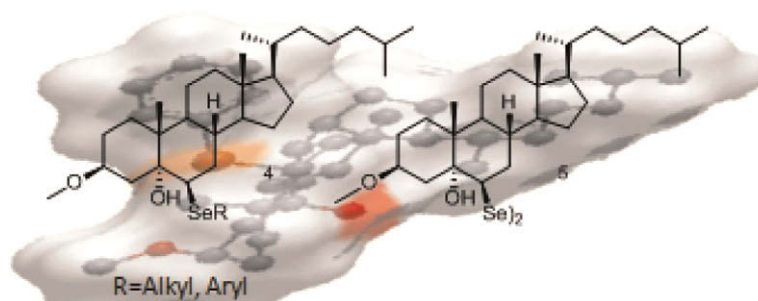
A new divergent total synthesis of the cuparenic sesquiterpenes enokipodins A and B is described. It features as the key step a novel cation-controlled, palladium (II) improved, 5-endo cyclization, which has been classically considered as 'non-favoured'.



### Stereoselective synthesis of selenosteroids

pp 2237–2240

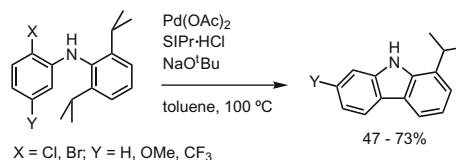
Oscar E. D. Rodrigues\*, Diego de Souza, Letiére C. Soares, Luciano Dornelles, Robert A. Burrow, Helmoz R. Appelt, Camila F. Alves, Diego Alves\*, Antonio L. Braga



**Palladium-catalyzed synthesis of carbazoles from *N*-(2-halophenyl)-2,6-diisopropylanilines via C–C cleavage**

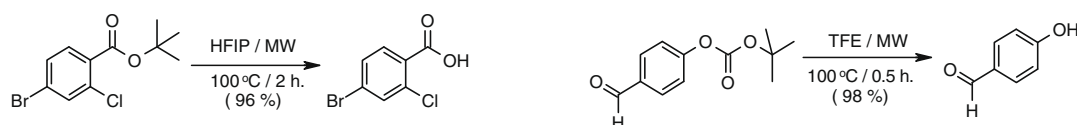
pp 2241–2243

Anthony R. Chianese\*, Scott L. Rogers, Hanna Al-Gattas

**A novel practical cleavage of *tert*-butyl esters and carbonates using fluorinated alcohols**

pp 2244–2246

Jason Choy, Saul Jaime-Figueroa\*, Teresa Lara-Jaime

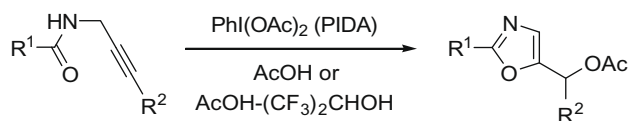


The thermolytic cleavage of *t*-butyl esters and *t*-butyl carbonates was accomplished using TFE (2,2,2-trifluoroethanol) or HFIP (hexafluoroisopropanol) as solvent, several examples are presented.

**PIDA-mediated synthesis of oxazoles through oxidative cycloisomerization of propargylamides**

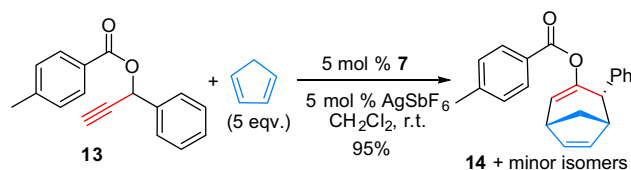
pp 2247–2250

Akio Saito\*, Asami Matsumoto, Yuji Hanzawa\*

**Gold-catalyzed intermolecular [4C+3C] cycloaddition reactions**

pp 2251–2253

Benjamin W. Gung\*, Lauren N. Bailey, Josh Wonser



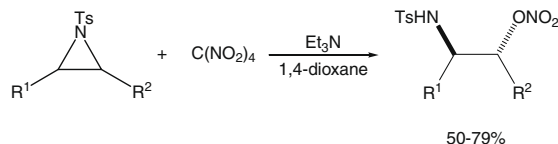
In the presence of the *N*-heterocyclic carbene gold catalyst (NHC-AuIPr, **7**), propargyl esters **1a–f** and **13** undergo a [4C+3C] cycloaddition reaction with cyclopentadiene and furan under mild conditions. The evidence suggests that the formation of the seven-membered ring occurs by a direct cycloaddition process, rather than a stepwise cyclopropanation/Cope rearrangement sequence.



**Ring opening of aziridines with tetranitromethane in the presence of triethylamine. Efficient synthesis of  $\beta$ -tosylamino nitrates**

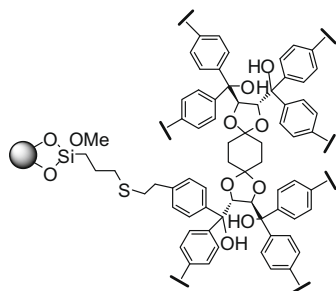
pp 2254–2257

Yuliya A. Volkova, Elena B. Averina\*, Tamara S. Kuznetsova, Nikolai S. Zefirov


**Preparation, characterization and application of a stationary chromatographic phase from a new (+)-tartaric acid derivative**

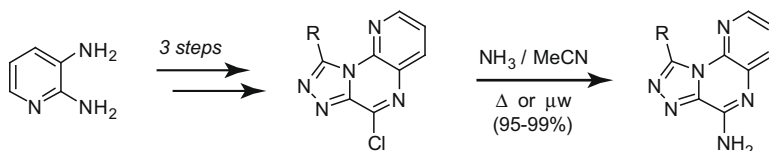
pp 2258–2261

Sacha Legrand\*, Harri Heikkinen, Ian A. Nicholls, Andrew Root, Johan Svenson, C. Rikard Unelius


**Synthesis of 9-alkyl-6-amino[1,2,4]triazolo[3,4-c]-5-azaquinoxalines. Mild and effective  $S_NAr$  amination of highly electron-poor heterocycles**

pp 2262–2264

Asier Unciti-Broceta\*, María José Pineda-de-las-Infantas, Miguel Ángel Gallo, Antonio Espinosa

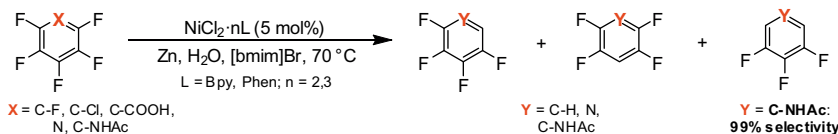


Due to the notable electrophilic character of the C-6 position of the [1,2,4]triazolo[3,4-c]-5-azaquinoxaline tricyclic system, direct  $S_NAr$  amination was performed by reacting the corresponding 6-chloro derivative with ammonia-saturated acetonitrile in a sealed reaction vessel, using microwave-mediated or conventional heating.


**The ionic liquid [bmim]Br as an alternative medium for the catalytic cleavage of aromatic C–F and C–Cl bonds**

pp 2265–2268

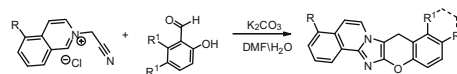
Sergey A. Prikhod'ko, Nicolay Yu. Adonin\*, Valentin N. Parmon



**A novel cascade Kröhnke condensation—an intramolecular nucleophilic cyclization approach toward annulated chromenes**

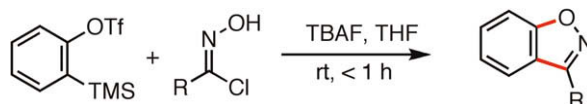
pp 2269–2270

Leonid G. Voskressensky\*, Larisa N. Kulikova, Anna V. Listratova, Roman S. Borisov, Muhamadsho A. Kukaniev, Alexey V. Varlamov

**Cycloaddition of benzyne and nitrile oxides: synthesis of benzisoxazoles**

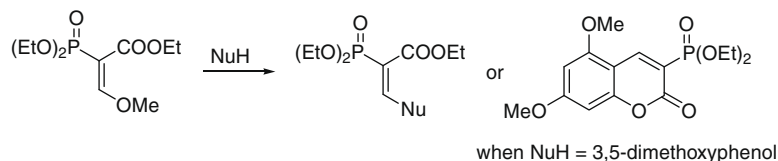
pp 2271–2273

James A. Crossley, Duncan L. Browne\*

**A simple and effective synthesis of activated vinylphosphonates from 3-methoxy-2-diethoxyphosphorylacrylate**

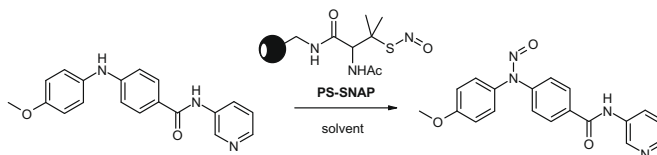
pp 2274–2276

Tomasz Janecki\*, Anna Albrecht, Jacek F. Koszuc, Jakub Modranka, Dominika Słowak

**PS-SNAP, a practical polymer-supported nitrosation reagent in organic synthesis**

pp 2277–2280

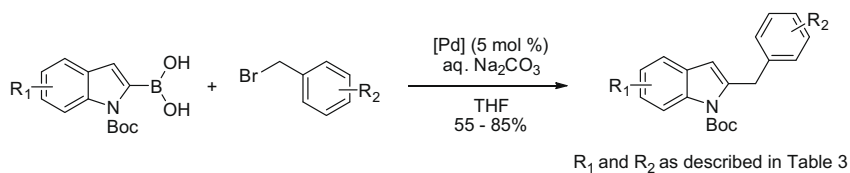
Didier Roche\*, Claude Lardy, Lucie Tournier, Marc Prunier, Eric Valeur



**Palladium-catalyzed benzylation of *N*-Boc indole boronic acids**

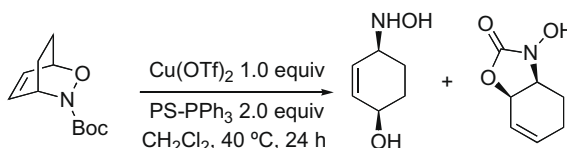
pp 2281–2283

Aaron M. Kearney, Adrienne Landry-Bayle, Laurent Gomez\*

**Copper-promoted rearrangement of 1,3-cyclohexadiene-acylnitroso cycloadducts**

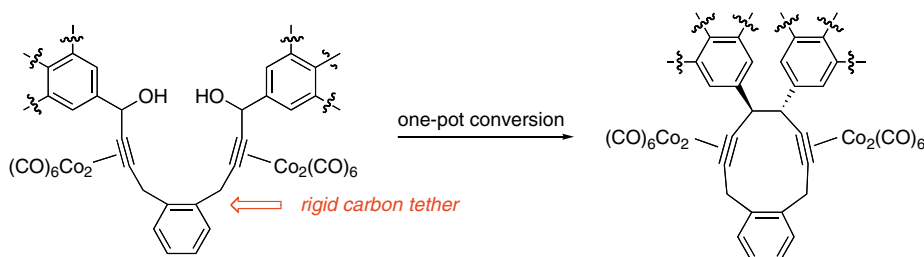
pp 2284–2286

Stefano Crotti, Ferruccio Bertolini, Franco Macchia, Mauro Pineschi\*

**Carbon tether rigidity as a stereochemical tool directing intramolecular radical cyclizations**

pp 2287–2290

Gagik G. Melikyan\*, Erin Voorhees, Christopher Wild, Ryan Spencer, Justin Molnar

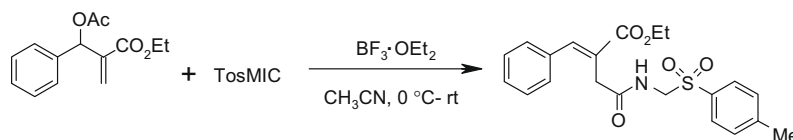


The phenyl group incorporated into a carbon tether provides for the synthesis of 1,5-cyclodecadiynes with 95–100% *d,l*-diastereoselectivity due to intrinsic conformational constraints and preorganization of the Co<sub>2</sub>(CO)<sub>6</sub>-complexed propargyl intermediates.

**The allylic nucleophilic substitution of Morita–Baylis–Hillman acetates with isocyanides: a facile synthesis of trisubstituted olefins**

pp 2291–2294

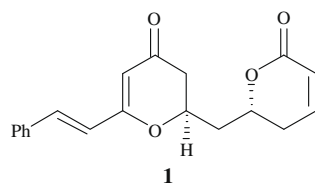
J. S. Yadav\*, B. V. Subba Reddy, Ashutosh Pratap Singh, Nilanjan Majumder



**PTSA-catalyzed tandem cyclization protocol for the stereoselective total synthesis of obolactone**

pp 2295–2296

Palakodety Radha Krishna\*, Palabindela Srinivas

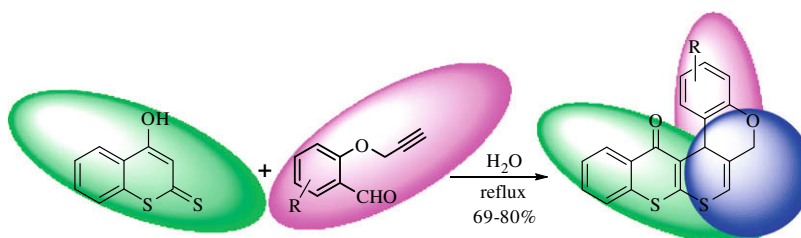


A stereoselective total synthesis of obolactone is reported.

**Catalyst-free regioselective synthesis of benzopyran-annulated thiopyrano[2,3-*b*]thiochromen-5-(4*H*)-one derivatives by domino-Knoevenagel-hetero-Diels–Alder reaction of terminal alkynes with 4-hydroxy dithiocoumarin in aqueous medium**

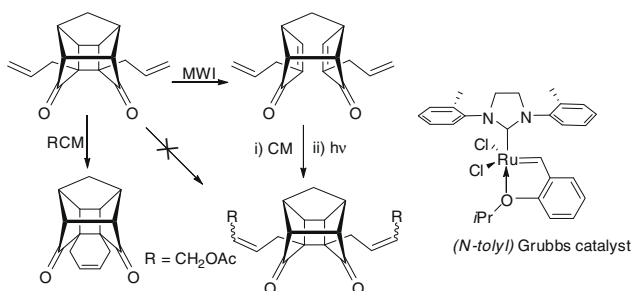
pp 2297–2300

K. C. Majumdar\*, Abu Taher, Sudipta Ponra

**Strategic utilization of catalytic metathesis and photo-thermal metathesis in caged polycyclic frames**

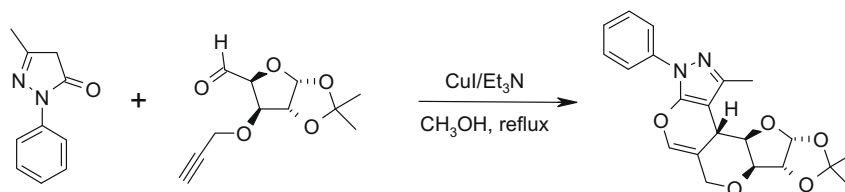
pp 2301–2304

Sambasivarao Kotha\*, Vittal Seema, Kuldeep Singh, Kodand Dinkar Deodhar

**Domino Knoevenagel–hetero-Diels–Alder reactions: a stereoselective synthesis of sugar-annulated furo[3,2-*b*]pyrano[4,3-*d*]pyran derivatives**

pp 2305–2308

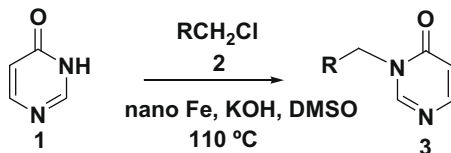
J. S. Yadav\*, B. V. Subba Reddy, A. V. Hara Gopal, R. Nageshwar Rao, R. Somaiah, P. Purushotham Reddy, A. C. Kunwar



**Fe nano particles mediated C–N bond-forming reaction: Regioselective synthesis of 3-[(2-chloroquinolin-3-yl)methyl]pyrimidin-4(3H)ones**

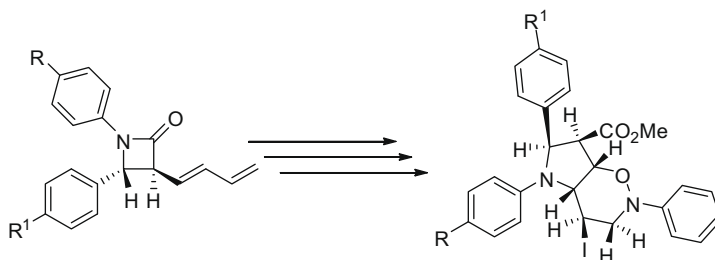
pp 2309–2311

Selvaraj Mohana Roopan, Fazlur Rahman Nawaz Khan\*, Badal Kumar Mandal


**A regio and diastereoselective transformation of 3-dienyl-2-azetidinones to novel pyrroloxazine**

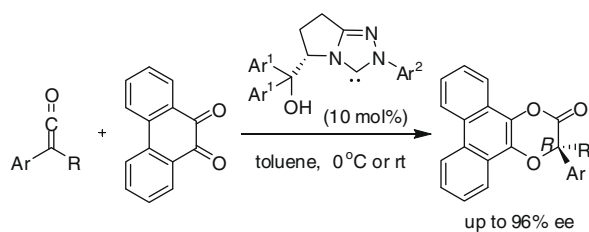
pp 2312–2315

Amit Anand, Gaurav Bhargava, Vipin Kumar, Mohinder P. Mahajan\*


**Enantioselective [4+2] cycloaddition of ketenes and 9,10-phenanthrenequinone catalyzed by N-heterocyclic carbenes**

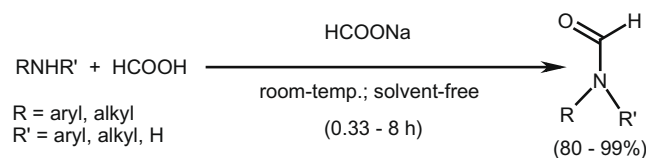
pp 2316–2318

Pan-Lin Shao, Xiang-Yu Chen, Li-Hui Sun, Song Ye\*


**A very simple and highly efficient procedure for N-formylation of primary and secondary amines at room temperature under solvent-free conditions**

pp 2319–2322

Goutam Brahmachari\*, Sujay Laskar



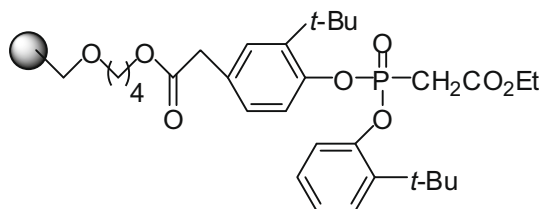
A very simple, highly efficient and cost-effective method for *N*-formylation of primary and secondary amines in excellent yield using catalytic amount of sodium formate in formic acid under solvent-free conditions is reported.



**New polymer-supported phosphonate reagents for the synthesis of Z- $\alpha,\beta$ -unsaturated esters**

pp 2323–2325

Kaori Ando\*, Yusaku Suzuki

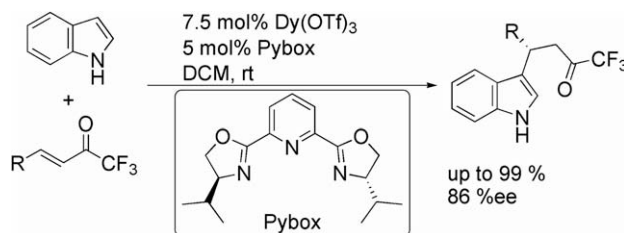


New polymer-supported phosphonate reagents have been prepared and evaluated for the synthesis of Z- $\alpha,\beta$ -unsaturated esters. High Z-selectivity was obtained using the reagent having two *o*-*t*-BuC<sub>6</sub>H<sub>4</sub> groups.

**Dy(OTf)<sub>3</sub>/Pybox-catalyzed enantioselective Friedel–Crafts alkylation of indoles with  $\alpha,\beta$ -unsaturated trifluoromethyl ketones**

pp 2326–2328

Shigeru Sasaki, Takayasu Yamauchi, Kimio Higashiyama\*

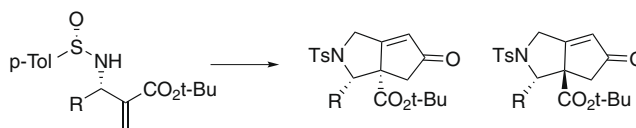


The first catalytic enantioselective Friedel–Crafts alkylation of indoles with  $\alpha,\beta$ -unsaturated trifluoromethyl ketones has been accomplished using the Dy(OTf)<sub>3</sub>/Pybox complex.

**Intramolecular Pauson–Khand reaction of optically active aza-Baylis–Hillman adducts**

pp 2329–2331

Shingo Ishikawa, Fumiaki Noguchi, Hidemitsu Uno, Akio Kamimura\*

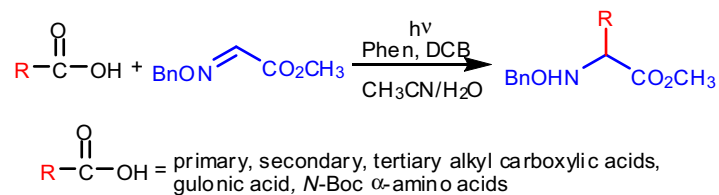


The intramolecular Pauson–Khand reaction of aza-Baylis–Hillman adducts, which were prepared through the thio-Michael/imino-aldol domino reaction of optically active sulfinimines, was examined.

**Addition of alkyl radicals, generated from carboxylic acids via photochemical decarboxylation, to glyoxylic oxime ether: a mild and efficient route to  $\alpha$ -substituted  $\alpha$ -aminoesters**

pp 2332–2334

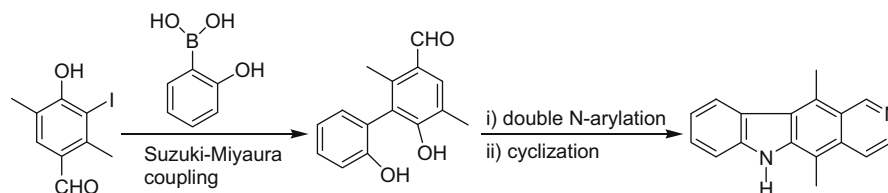
Yasuharu Yoshimi\*, Kosuke Kobayashi, Hayato Kamakura, Keisuke Nishikawa, Yoshiki Haga, Kousuke Maeda, Toshio Morita, Tatsuya Itou, Yutaka Okada, Minoru Hatanaka\*



**An expedient synthesis of ellipticine via Suzuki–Miyaura coupling**

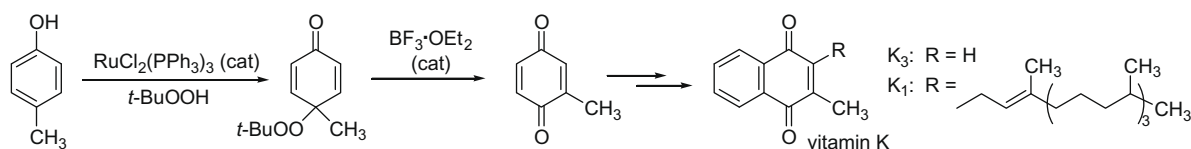
pp 2335–2338

Takeo Konakahara\*, Y. B. Kiran, Yuri Okuno, Reiko Ikeda, Norio Sakai

**Synthesis of 2-substituted quinones, vitamin K<sub>3</sub>, and vitamin K<sub>1</sub> from *p*-cresol. BF<sub>3</sub>·OEt<sub>2</sub>-catalyzed methyl migration of 4-*tert*-butyldioxcyclohexadienones**

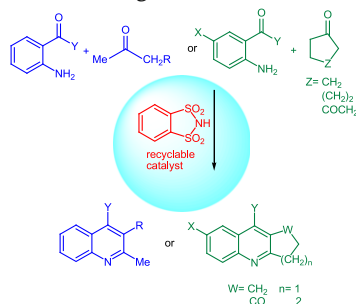
pp 2339–2341

Shun-Ichi Murahashi\*, Akiko Fujii, Yasutaka Inubushi, Naruyoshi Komiya

***o*-Benzenedisulfonimide as a reusable Brønsted acid catalyst for an efficient and facile synthesis of quinolines via Friedländer annulation**

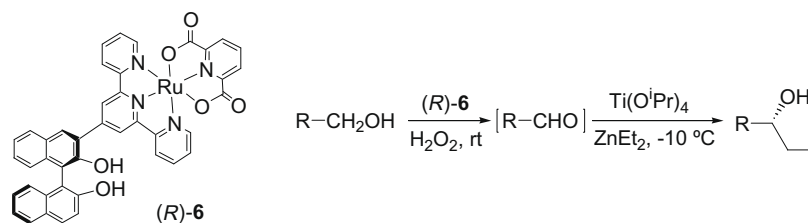
pp 2342–2344

Margherita Barbero, Stefano Bazzi, Silvano Cadamuro, Stefano Dughera\*

*o*-Benzenedisulfonimide as catalyst in quinoline synthesis.**A BINOL-terpyridine-based multi-task catalyst for a sequential oxidation and asymmetric alkylation of alcohols**

pp 2345–2347

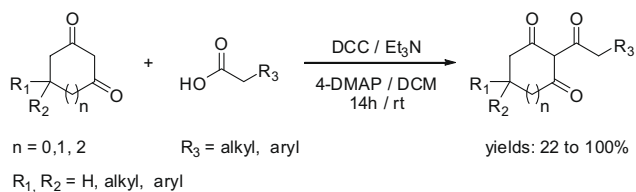
Xi Chen, Qiang Liu, Hong-Bao Sun, Xiao-Qi Yu\*, Lin Pu\*



**Exploring the *one-pot* C-acylation of cyclic 1,3-diones with unactivated carboxylic acid**

pp 2348–2350

Sylvie Goncalves, Marc Nicolas, Alain Wagner, Rachid Baati\*

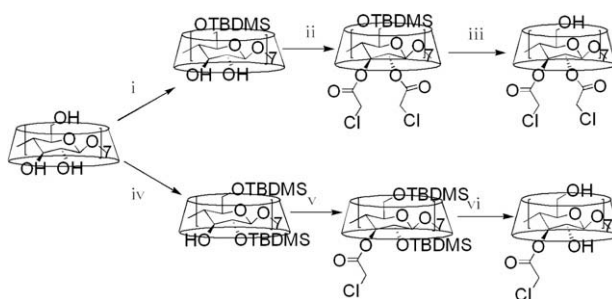


The use of DCC/Et<sub>3</sub>N/4-DMAP/DCM provides a general and standard *one-pot* procedure for the smooth C-acylation of cyclic 1,3-diones with unactivated carboxylic acids, giving rise to  $\beta$ -triketones.

**Effective syntheses of per-2,3-di- and per-3-O-chloroacetyl- $\beta$ -cyclodextrins: A new kind of ATRP initiators for star polymers**

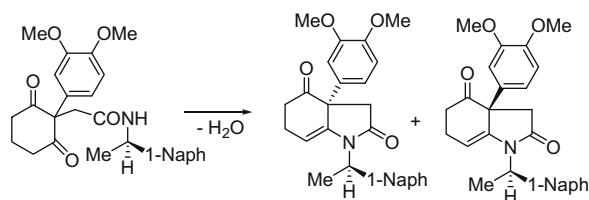
pp 2351–2353

Zhizhang Guo, Xingyu Chen, Xiao Zhang, Jianyu Xin, Jianshu Li\*, Huining Xiao\*

**Stereoselective formal synthesis of (–)-mesembrane by intramolecular condensation of chiral amide and 1,3-cyclohexanedione moiety**

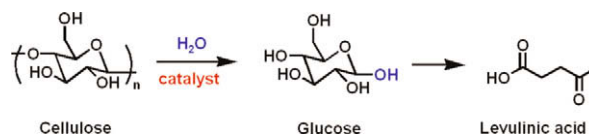
pp 2354–2355

Le Anh Tuan, Guncheol Kim\*

**Conversion of cellulose to glucose and levulinic acid via solid-supported acid catalysis**

pp 2356–2358

Jessica Hegner, Kyle C. Pereira, Brenton DeBoef\*, Brett L. Lucht\*

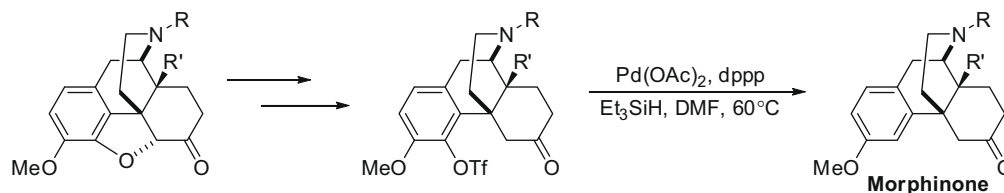


Cellulose is hydrolyzed to glucose, which is further converted to levulinic acid in the presence of surface-supported Brønsted and Lewis acid catalysts. Nafion catalysts, in particular, have the potential to be recycled or applied to a continuous flow reactor for the synthesis of these biofuel precursors.

**Rapid access to morphinones: removal of 4,5-ether bridge with Pd-catalyzed triflate reduction**

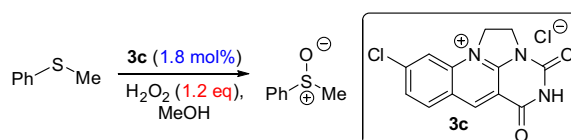
pp 2359–2361

Christopher D. Hupp, John L. Neumeyer\*

**Chemoselective sulfide oxidation mediated by bridged flavinium organocatalysts**

pp 2362–2365

Barrie J. Marsh, David R. Carbery\*

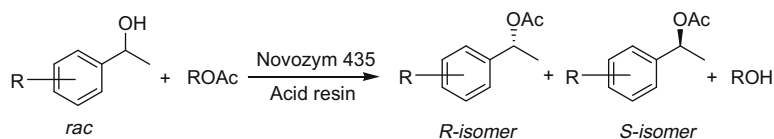


The chemoselective oxidation of sulfides to sulfoxides, catalysed by bridged, tetracyclic flavinium catalysts is presented. The flavinium catalysts are easily prepared via a telescoped three-step process. A range of sulfoxides is accessed in excellent yield and chemoselectivity.

**Highly efficient dynamic kinetic resolution of secondary aromatic alcohols with low-cost and easily available acid resins as racemization catalysts**

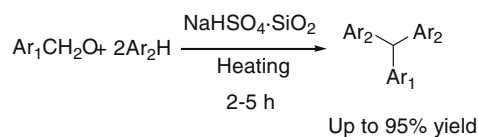
pp 2366–2369

Yongmei Cheng, Gang Xu, Jianping Wu, Chensheng Zhang, Lirong Yang\*

**Efficient synthesis of triarylmethanes via bisarylation of aryl aldehydes with arenes catalyzed by silica gel-supported sodium hydrogen sulfate**

pp 2370–2373

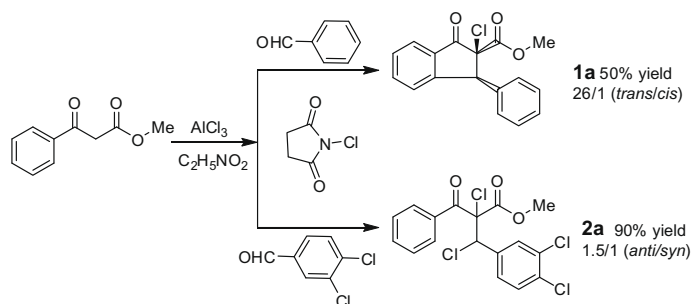
Yixin Leng, Fang Chen, Li Zuo\*, Wenhui Duan\*



Lewis acid-catalyzed one-pot sequential reaction for the synthesis of  $\alpha$ -halogenated  $\beta$ -keto esters

pp 2374–2377

Han-Feng Cui, Ke-Yan Dong, Jing Nie, Yan Zheng, Jun-An Ma\*



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+ Supplementary data available via ScienceDirect

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