



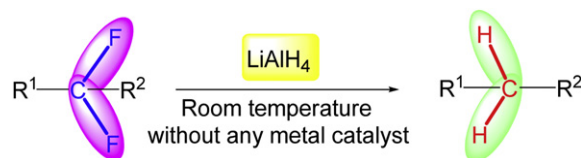
## Tetrahedron Vol. 67, Issue 2, 2011

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## ARTICLES

**Non-catalytic conversion of C–F bonds of *gem*-difluoromethylene derivatives to C–H bonds with lithium aluminum hydride under room temperature** pp 285–288

Jing-Jing Wu, Jian-Hang Cheng, Jian Zhang, Li Shen, Xu-Hong Qian, Song Cao\*

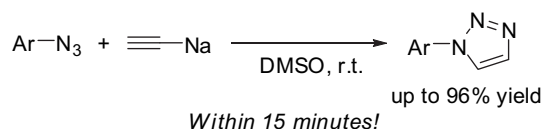


An unexpected hydrodefluorination of unactivated aliphatic C–F bonds of  $\text{CF}_2$  derivatives with  $\text{LiAlH}_4$  at room temperature without any added metal catalyst was reported. Deuterium-labeling experiments suggested that the hydrogens introduced into the products originated from  $\text{LiAlH}_4$ .



**Facile and quick synthesis of 1-monosubstituted aryl 1,2,3-triazoles: a copper-free [3+2] cycloaddition** pp 289–292

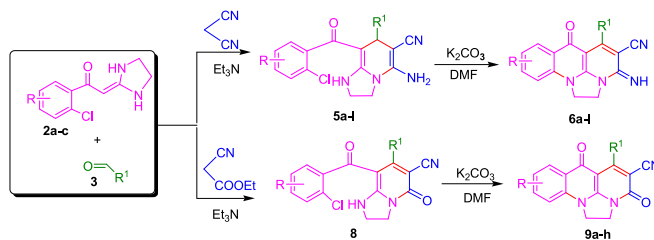
Yubo Jiang, Chunxiang Kuang\*, Qing Yang



### Application of 2-(2-chloroaryl)methyleneimidazolidines in domino and multicomponent reaction: new entries to imidazo[1,2-*a*]pyridines and benzo[*b*]imidazo[1,2,3-*ij*][1,8]naphthyridines

pp 293–302

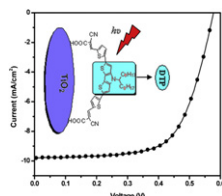
Li-Rong Wen, Cui-Yu Jiang, Ming Li\*, Li-Juan Wang



### Synthesis and applications of novel acceptor–donor–acceptor organic dyes with dithienopyrrole- and fluorene-cores for dye-sensitized solar cells

pp 303–311

Duryodhan Sahu, Harihara Padhy, Dhananjaya Patra, Jen-Fu Yin, Ying-Chan Hsu, Jiann-T'Suen Lin, Kuang-Lieh Lu, Kung-Hwa Wei, Hong-Cheu Lin\*



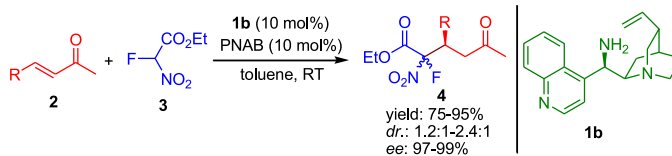
Four novel symmetrical organic dyes (**S1–S4**) configured with acceptor–donor–acceptor (A–D–A) structures containing electron donating fluorene (**S1** and **S2**) and *N*-alkyl dithieno[3,2-*b*:2',3'-*d*]pyrrole (DTP) (**S3** and **S4**) cores terminated with two anchoring cyanoacrylic acids (as electron acceptors) were synthesized and applied to the applications to dye-sensitized solar cells (DSSCs). The DSSC device based on **S2** dye showed the best photovoltaic performance with a short circuit current ( $J_{SC}$ ) of 11.91 mA/cm<sup>2</sup>, an open circuit voltage ( $V_{OC}$ ) of 0.61 V, a fill factor (FF) of 0.66, and an overall power conversion efficiency ( $\eta$ ) of 4.83%.



### Highly enantioselective synthesis of $\alpha$ -fluoro- $\alpha$ -nitro esters via organocatalyzed asymmetric Michael addition

pp 312–317

Hai-Feng Cui, Peng Li, Xiao-Wei Wang, Zhuo Chai, Ying-Quan Yang, Yue-Peng Cai, Shi-Zheng Zhu\*, Gang Zhao\*



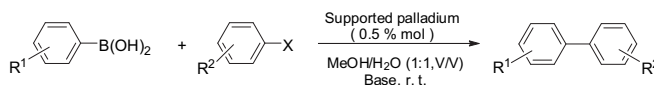
Primary amines perform as efficient organocatalysts for the asymmetric addition of  $\alpha$ -fluorinated nitroacetate to enones, giving the Michael adducts with two contiguous stereogenic centers, one of which is a fluorinated quaternary chiral center in good to excellent yields and enantioselectivities.



### Silica supported palladium-phosphine complex: recyclable catalyst for Suzuki–Miyaura cross-coupling reactions at ambient temperature

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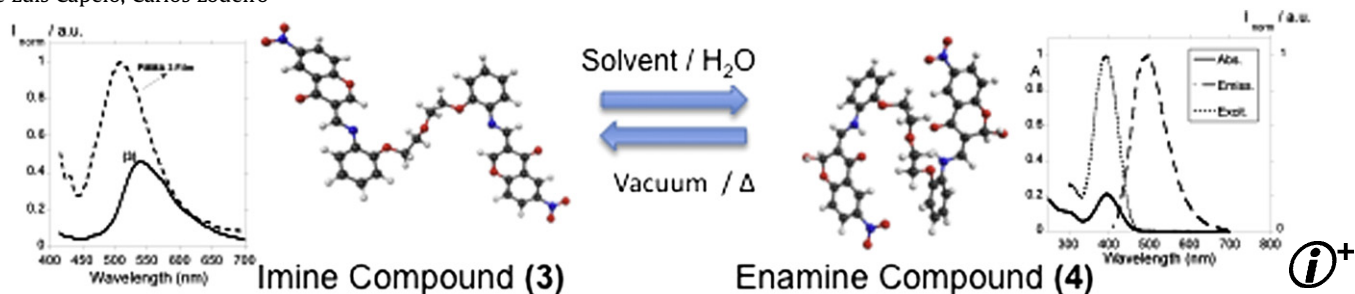
Wei Chen, Pinhua Li\*, Lei Wang\*



**Novel versatile imine–enamine chemosensor based on 6-nitro-4-oxo-4H-chromene for ion detection in solution, solid and gas-phase: synthesis, emission, computational and MALDI-TOF-MS studies**

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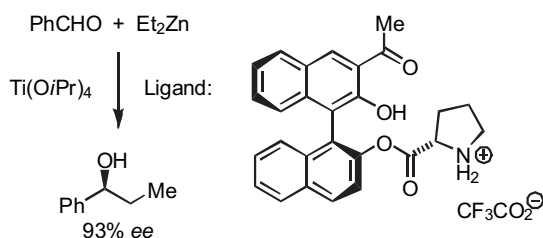
Javier Fernández-Lodeiro, Cristina Nuñez\*, Ricardo Carreira, Hugo M. Santos, Carlos Silva López, Juan Carlos Mejuto, José Luís Capelo, Carlos Lodeiro\*



**Acetyl-BINOL as mimic for chiral β-diketonates: a building block for new modular ligands**

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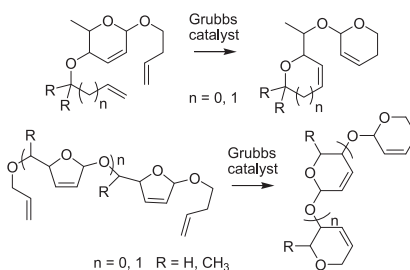
Robert von Rønn, Jens Christoffers\*



**Ring-rearrangement metathesis of substituted dihydropyrans and dihydrofurans**

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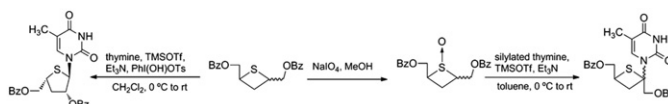
Morgan Donnard\*, Théophile Tschamber\*, Didier Le Nouën, Sandy Desrat, Karen Hinsinger, Jacques Eustache



**Synthesis of thietane nucleoside with an anomeric hydroxymethyl group**

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Naozumi Nishizono\*, Yuji Akama, Masayuki Agata, Michiyasu Sugo, Yuki Yamaguchi, Kazuaki Oda\*

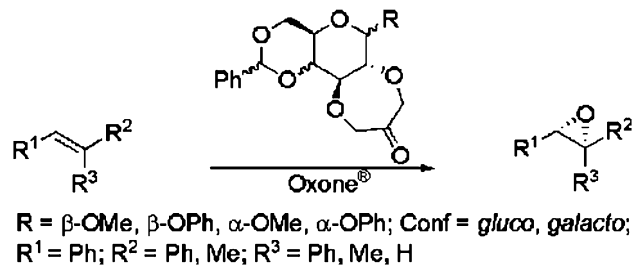


**Synthesis of new carbohydrate-derived ketones as organocatalysts in the enantioselective epoxidation of arylalkenes.**

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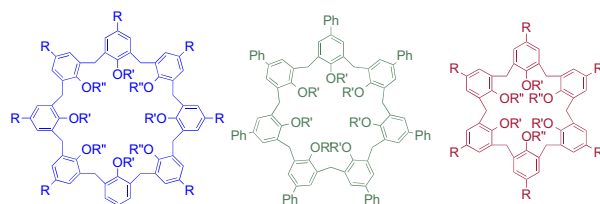
**Part 2: Chiral ketones from sugars**

José M. Vega-Pérez\*, Margarita Vega-Holm, Ignacio Periñán, Carlos Palo-Nieto, Fernando Iglesias-Guerra\*

**Synthesis and in vivo biological activity of large-ringed calixarenes against *Mycobacterium tuberculosis***

pp 373–382

Kerry J. Goodworth, Anne-Cécile Hervé, Evangelos Stavropoulos, Gwénaëlle Hervé, Isabel Casades, Alison M. Hill, Gordon G. Weingarten, Ricardo E. Tascon, M. Joseph Colston, Helen C. Hailes\*

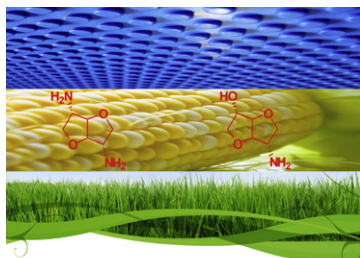


R is <sup>t</sup>Bu, <sup>o</sup>Oct, Ph, SO<sub>3</sub>H; R' and R'' are H, (CH<sub>2</sub>)<sub>3</sub>CN, Ac, (CH<sub>2</sub>CH<sub>2</sub>O)<sub>3</sub>OMe, (CH<sub>2</sub>CH<sub>2</sub>O)<sub>n</sub>H  
 A range of anti-TB properties have been established *in vivo*

**Chiral building blocks from biomass: 2,5-diamino-2,5-dideoxy-1,4-3,6-dianhydroiditol**

pp 383–389

Shanmugam Thiyagarajan, Linda Gootjes, Willem Vogelzang, Jing Wu, Jacco van Haveren, Daan S. van Es\*

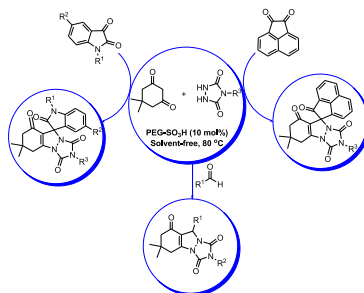


This manuscript describes a dramatically improved synthetic route towards 2,5-diamino-2,5-dideoxy-1,4-3,6-dianhydroiditol and 2-amino-2-deoxy-1,4-3,6-dianhydroiditol. These highly interesting bio-based chiral building blocks are presently the subject of several investigations with regard to high performance bio-based polymers, such as polyamides and polyurethanes.

**Highly efficient synthesis of triazolol[1,2-*a*]indazole-triones and novel spiro triazolol[1,2-*a*]indazole-tetraones under solvent-free conditions**

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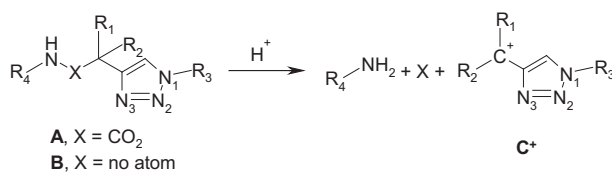
Alireza Hasaninejad\*, Abdolkarim Zare\*, Mohsen Shekouhy



**Novel triazolyl derivatives for acidic release of amines**

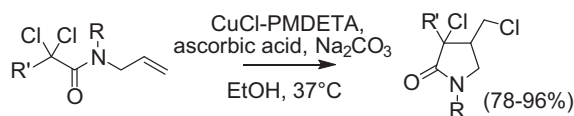
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Regis Delatouche, Martine Mondon, Adrià Gil, Gilles Frapper, Christian Bachmann, Philippe Bertrand\*

**A green way to  $\gamma$ -lactams through a copper catalyzed ARGET-ATRC in ethanol and in the presence of ascorbic acid**

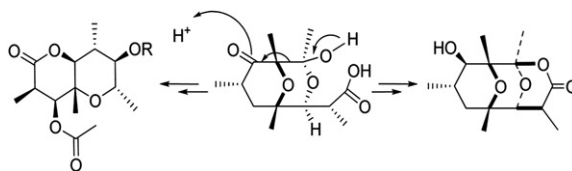
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Roberto Casolari, Fulvia Felluga, Vincenzo Frenna, Franco Ghelfi\*, Ugo M. Pagnoni, Andrew F. Parsons, Domenico Spinelli

**Botrylactone: new interest in an old molecule—review of its absolute configuration and related compounds**

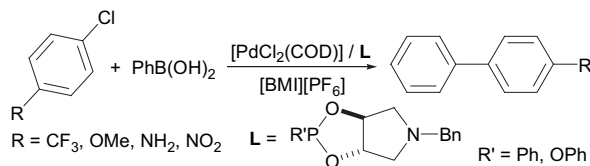
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Javier Moraga, Cristina Pinedo, Rosa Durán-Patrón, Isidro G. Collado, Rosario Hernández-Galán\*

**New bicyclic phosphorous ligands: synthesis, structure and catalytic applications in ionic liquids**

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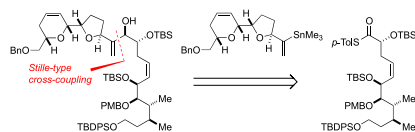
Martha V. Escárcega-Bobadilla, Emmanuelle Teuma, Anna M. Masdeu-Bultó\*, Montserrat Gómez\*



**Synthetic studies on goniodomine A: convergent assembly of the C15–C36 segment via palladium-catalyzed organostannane–thioester coupling**

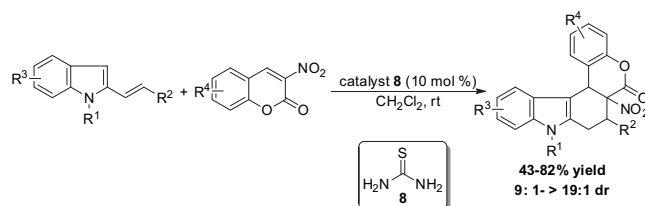
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Tomoyuki Saito, Haruhiko Fuwa, Makoto Sasaki\*


**Brønsted acid catalyzed Diels–Alder reactions of 2-vinylindoles and 3-nitrocoumarins: an expedient synthesis of coumarin-fused tetrahydrocarbazoles**

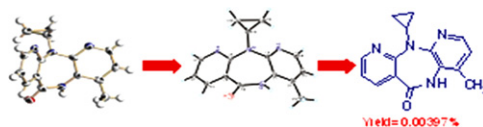
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Fen Tan, Fang Li, Xiao-Xiao Zhang, Xu-Fan Wang, Hong-Gang Cheng, Jia-Rong Chen\*, Wen-Jing Xiao\*


**Isolation of optically active nevirapine, a dipyridodiazepinone metabolite from the seeds of *Cleome viscosa***

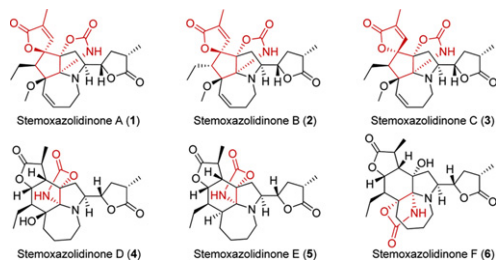
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Sunil K. Chattopadhyay\*, Arnab Chatterjee, Sudeep Tandon, Prakas R. Maulik, Ruchir Kant


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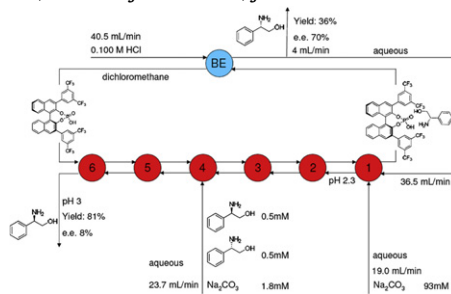
Yukio Hitotsuyanagi, Maho Hikita, Gou Uemura, Haruhiko Fukaya, Koichi Takeya\*



**Enantioselective liquid–liquid extraction of (*R,S*)-phenylglycinol using a bisnaphthyl phosphoric acid derivative as chiral extractant**

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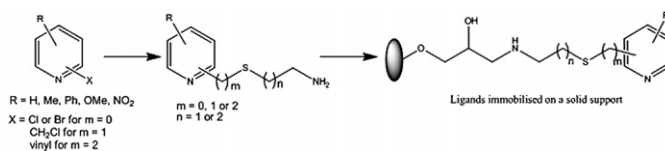
Boelo Schuur, Bastiaan J.V. Verkuijl, Jeroen Bokhove, Adriaan J. Minnaard, Johannes G. de Vries\*, Hero J. Heeres\*, Ben L. Feringa\*



**Synthesis of *N*-heterocyclic ligands for use in affinity and mixed mode chromatography**

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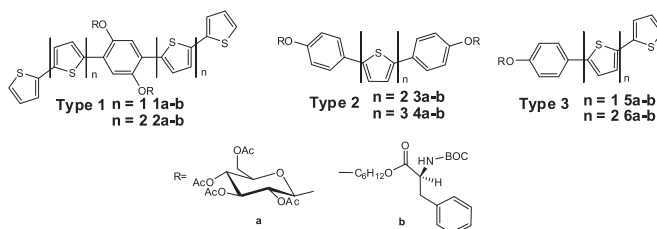
Simon J. Mountford, Eva M. Campi, Andrea J. Robinson, Milton T.W. Hearn\*



**Synthesis of *D*-glucose and *L*-phenylalanine substituted phenylene–thiophene oligomers**

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Omar Hassan Omar, Francesco Babudri, Gianluca M. Farinola\*, Francesco Naso, Alessandra Operamolla, Adriana Pedone



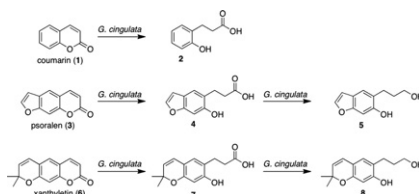
A versatile synthetic approach to several phenylene–thiophene oligomers decorated with peracetylated  $\beta$ -*D*-glucose or *N*-BOC protected *L*-phenylalanine as chiral substituents is reported.



**Microbial reduction of coumarin, psoralen, and xanthyletin by *Glomerella cingulata***

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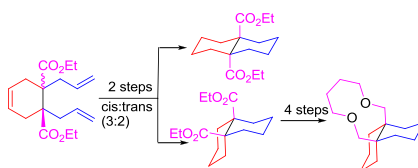
Shinsuke Marumoto, Mitsuo Miyazawa\*



**Synthetic approach to *cis* and *trans*-decalins via Diels–Alder reaction and ring-closing metathesis as key steps: further extension to dioxapropellane derivative by ring-closing metathesis**

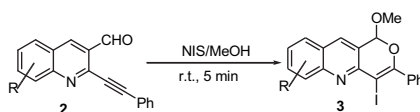
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Sambasivarao Kotha\*, Arjun S. Chavan, Mirtunjay Kumar Dipak


**Base-free NIS promoted electrophilic cyclization of alkynes: an efficient synthesis of iodo substituted pyrano[4,3-*b*]-quinolines**

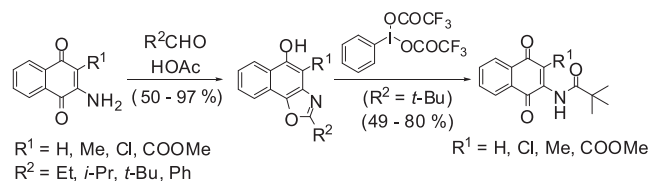
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Bhawana Singh, Atish Chandra, Seema Singh, Radhey M. Singh\*


**Unexpected reaction of 2-amino-1,4-naphthoquinone with aldehydes: new synthesis of naphtho[2,1-*d*]oxazole compounds**

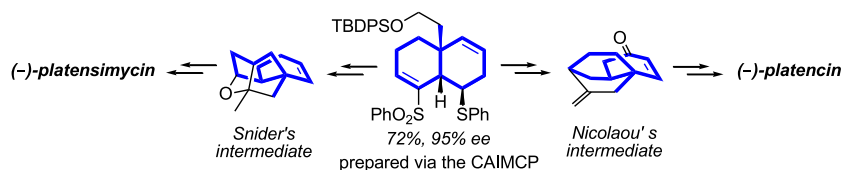
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Sam Van Aeken, Jurgen Deblander, Johan De Houwer, Timothy Mosselmans, Kourousch Abbaspour Tehrani\*


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Sho Hirai, Masahisa Nakada\*

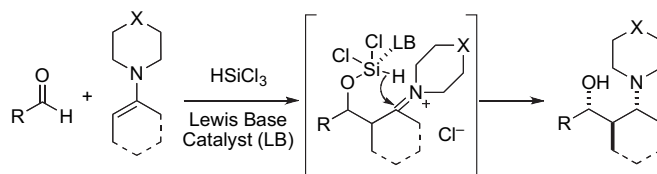




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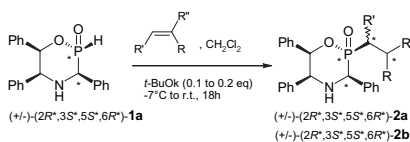
Takeru Kashiwagi, Shunsuke Kotani, Masaharu Sugiura\*, Makoto Nakajima\*



**Diastereoselective Michael addition of 2H-2-oxo-1,4,2-oxaza phosphinanes to olefins**

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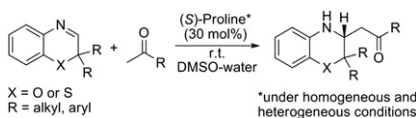
Jérôme Monbrun, Bénédicte Dayde, Henri-Jean Cristau, Jean-Noël Volle, David Virieux\*, Jean-Luc Pirat\*



**Homo- and heterogeneous organocatalysis: enantioselective Mannich addition of ketones to endocyclic carbon–nitrogen double bonds**

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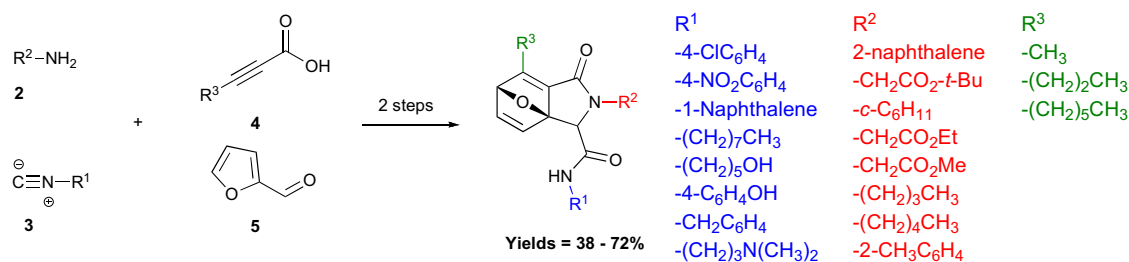
Knut Schulz, Lars Ratjen, Jürgen Martens\*



**An Ugi-intramolecular Diels–Alder route to highly substituted tetrahydroepoxyisoindole carboxamides**

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Christopher P. Gordon, Kelly A. Young, Mark J. Robertson, Timothy A. Hill, Adam McCluskey\*




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$\gamma$ -Lactams were prepared from *N*-allyl- $\alpha$ -polychloroamides through a green route, using a copper catalyzed ARGET-ATRC in ethanol and exploiting the reducing feature of ascorbic acid to limit, at a low level, the amount of catalyst.

Details can be found in Tetrahedron, **2011**, 67, 408–416.

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\*Corresponding author

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