



## Tetrahedron Vol. 66, Issue 47, 2010

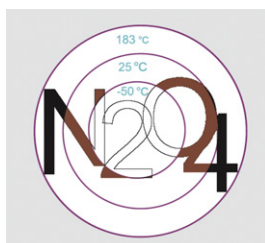
## Contents

## REPORT

**Advances in the application of N<sub>2</sub>O<sub>4</sub>/NO<sub>2</sub> in organic reactions**

pp 9077–9106

Morteza Shiri\*, Mohammad Ali Zolfigol\*, Hendrik Gerhardus Kruger, Zahra Tanbakouchian



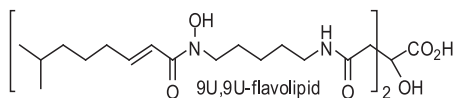
Application of N<sub>2</sub>O<sub>4</sub> and its complexes in organic transformations has been reviewed. The report contains 386 references. The picture shows the colour of N<sub>2</sub>O<sub>4</sub> in the marked temperature.

## ARTICLES

**Synthesis and biological activities of flavolipids**

pp 9107–9112

Samiul M. Ahad, Alison L. Ange, Robert B. Bates\*, Bonnie L. Bell, Adria A. Bodour, Bryan R. Bourne, Cristina G. Contreras, Emily L. Goldberg, A.A. Leslie Gunatilaka, Sheryl King, Albert K. Lee, Rebecca L. Low, Raina M. Maier, Kathryn M. Marlor, Marilyn T. Marron, Ryan C. Scolnik, Matthew J. Streeter, Malgorzata Strelczuk, Long N. Trinh, Vu K. Truong, Sage P. Vissering, Megan C. Weick, Maria T. Williams



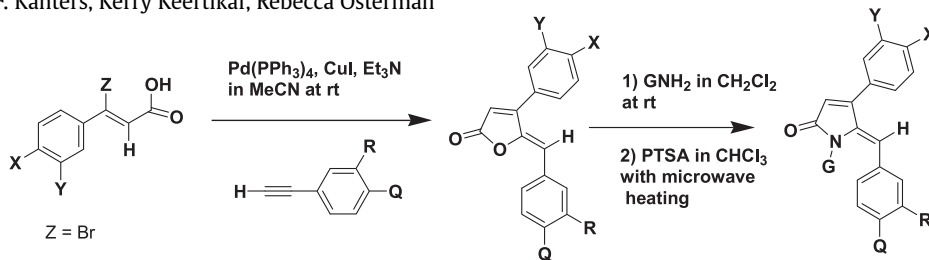
Several flavolipids were synthesized. In addition to their iron-scavenging activity, they were found to inhibit cancer cell migration.



**The application of (Z)-3-aryl-3-haloenoic acids to the synthesis of (Z)-5-benzylidene-4-arylpyrrol-2(5H)-ones**

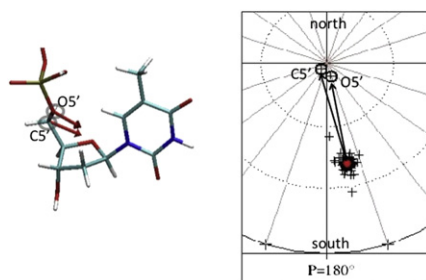
pp 9113–9122

John T. Gupton\*, Nakul Telang, Edith J. Banner, Emily J. Kluball, Kayleigh E. Hall, Kara L. Finzel, Xin Jia, Spencer R. Bates, R. Scott Welden, Benjamin C. Giglio, James E. Eaton, Peter J. Barelli, Lauren T. Firich, John A. Stafford, Matthew B. Coppock, Eric F. Worrall, Rene P.F. Kanters, Kerry Keertikar, Rebecca Osterman

**Atomic-scale determination of DNA conformational response to strained furanose: a static mode approach**

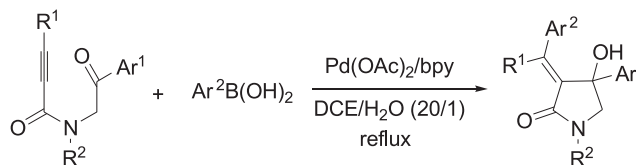
pp 9123–9128

Marie Brut\*, Alain Estève, Georges Landa, Ahmed Dkhissi, Guillaume Renvez, Mehdi Djafari Rouhani, David Gauchard

**Pd(II)-catalyzed annulation of N-benzyl-N-arylmethyl-2-alkynamides with arylboronic acids: an efficient synthesis of highly substituted  $\alpha$ -alkylidene- $\beta$ -hydroxy- $\gamma$ -lactams**

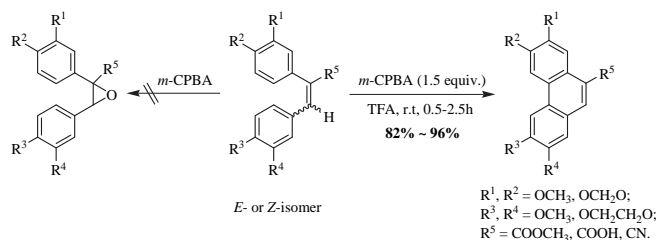
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Huan Wang, Xiuling Han\*, Xiyan Lu\*

**m-CPBA/TFA: an efficient nonmetallic reagent for oxidative coupling of 1,2-diarylethylenes**

pp 9135–9140

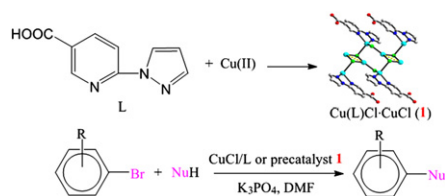
Kailiang Wang, Yanna Hu, Meng Wu, Zheng Li, Zhihui Liu, Bo Su, Ao Yu, Yu Liu, Qingmin Wang\*



**Efficient N-arylation catalyzed by a copper(I) pyrazolyl-nicotinic acid system**

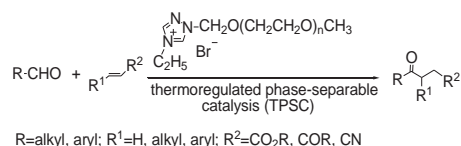
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Hai-Yang Liu, Zhen-Tao Yu\*, Yong-Jun Yuan, Tao Yu, Zhi-Gang Zou

**Synthesis of thermoregulated phase-separable triazolium ionic liquids catalysts and application for Stetter reaction**

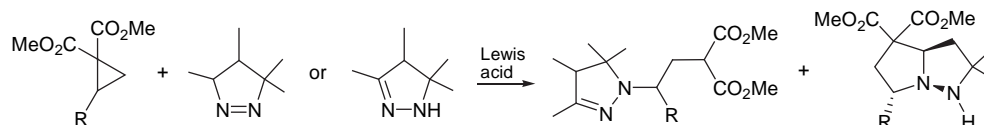
pp 9145–9150

Feng-li Yu, Rui-li Zhang, Cong-xia Xie\*, Shi-tao Yu

**Lewis acid catalyzed reactions of donor–acceptor cyclopropanes with 1- and 2-pyrazolines: formation of substituted 2-pyrazolines and 1,2-diazabicyclo[3.3.0]octanes**

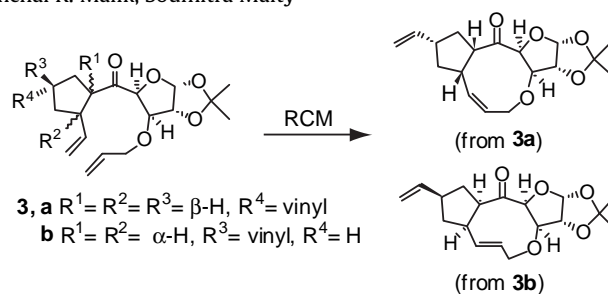
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Yury V. Tomilov\*, Roman A. Novikov, Oleg M. Nefedov

**Effect of ring fusion stereochemistry on double bond geometry. Unexpected formation of nine-membered cyclic ether with E-configured double bond through RCM**

pp 9159–9164

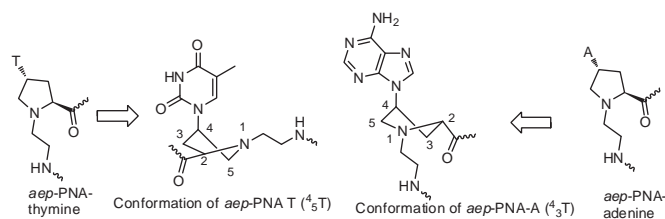
Subrata Ghosh\*, Md. Firoj Hossain, Chanchal K. Malik, Soumitra Maity



**Base dependent pyrrolidine ring pucker in *aep*-PNA monomers: NMR and PSEUROT analysis**

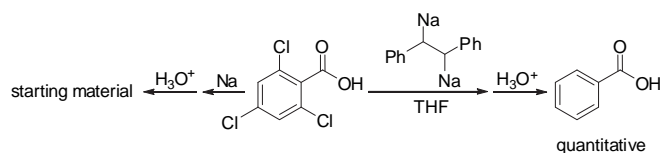
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Nagendra K. Sharma\*, Krishna N. Ganesh

**Active-sodium-promoted reductive cleavage of halogenated benzoic acids**

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Ugo Azzena\*, Giovanna Dettori, Sarah Mocci, Luisa Pisano, Giovanni Cerioni, Francesca Mocci

**Improved synthesis of phenylethylamine derivatives by Negishi cross-coupling reactions**

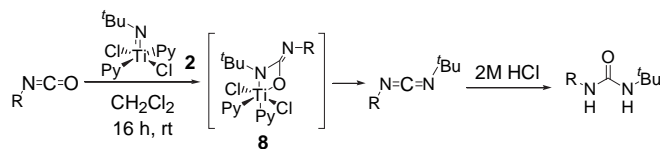
pp 9175–9181

Craig M.L. Goddard, Ahmad Reza Massah, Richard F.W. Jackson\*

**The efficient synthesis of carbodiimides using a titanium imido complex**

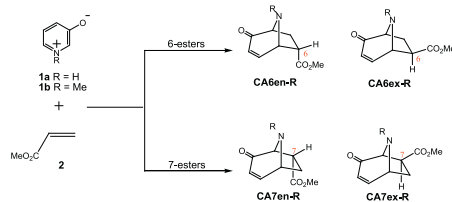
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James C. Anderson\*, Rafael Bou-Moreno



**The 1,3-dipolar cycloaddition of 1*H*-pyridinium-3-olate and 1-methylpyridinium-3-olate with methyl acrylate: a density functional theory study** pp 9187–9193

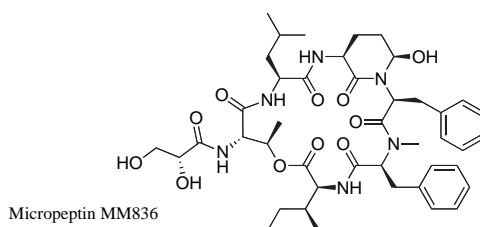
Lydia Rhyman, Hassan H. Abdallah, Sabina Jhaumeer-Laulloo, Luis R. Domingo, John A. Joule, Ponnadurai Ramasami\*



**Eight novel serine proteases inhibitors from a water bloom of the cyanobacterium *Microcystis* sp.**

Ella Zafrir-Ilan, Shmuel Carmeli\*

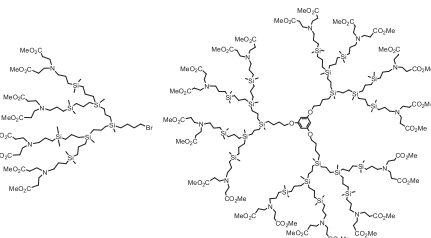
pp 9194–9202



**Synthesis of carbosilane dendrons and dendrimers derived from 1,3,5-trihydroxybenzene**

Javier Sánchez-Nieves, Paula Ortega, M. Ángeles Muñoz-Fernández, Rafael Gómez\*, F. Javier de la Mata\*

pp 9203–9213



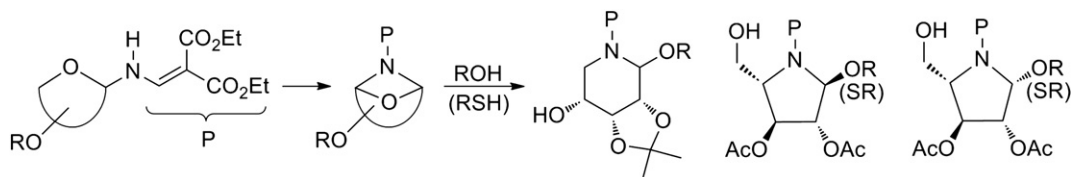
Carbosilane dendrons with a C–Br bond at the focal point and with several peripheral functional groups have been synthesized and used as precursors of spherical dendrimers by coupling with 1,3,5-(HO)<sub>3</sub>C<sub>6</sub>H<sub>3</sub>.



**The use of anhydroiminocyclitols as glycosyl donors in glycosidation reactions**

José Fuentes\*, Nader R. Al Bujuq, Manuel Angulo, Consolación Gasch

pp 9214–9222



### Anion sensing properties of new colorimetric chemosensors based on macrocyclic ligands bearing three nitrophenylurea groups

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Anxela Aldrey, Cristina Núñez, Verónica García, Rufina Bastida, Carlos Lodeiro\*, Alejandro Macías\*



### Synthesis of a cytosine/epibatidine hybrid: a radical approach

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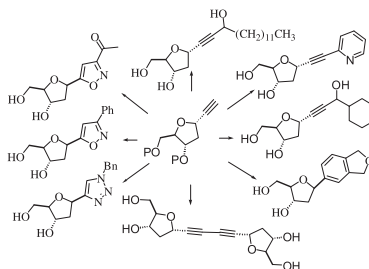
Nicolas Houllier, Marie-Claire Lasne, Ronan Bureau, Pierre Lestage, Jacques Rouden\*



### Alkynyl-2-deoxy-D-ribose, a *cornucopia* for the generation of families of C-nucleosides

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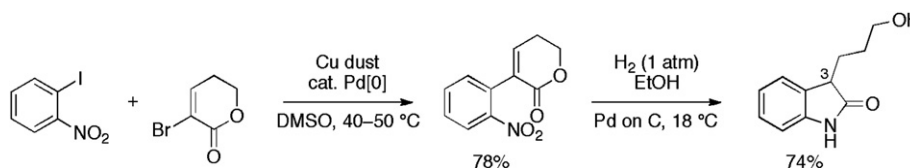
Mauro F.A. Adamo\*, Roberto Pergoli, Maria Moccia



### A Pd[0]-catalyzed Ullmann cross-coupling/reductive cyclization approach to C-3 mono-alkylated oxindoles and related compounds

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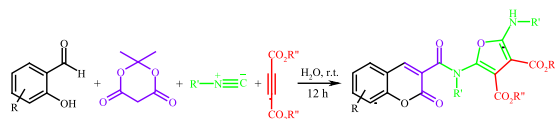
Martin G. Banwell\*, Matthew T. Jones, David T.J. Loong, David W. Lupton, David M. Pinkerton, Jayanta K. Ray, Anthony C. Willis



**Synthesis of 2-(alkylamino)-5-[alkyl[(2-oxo-2H-chromen-3-yl)carbonyl]amino]-3,4-furandicarboxylates using a multi-component reaction in water**

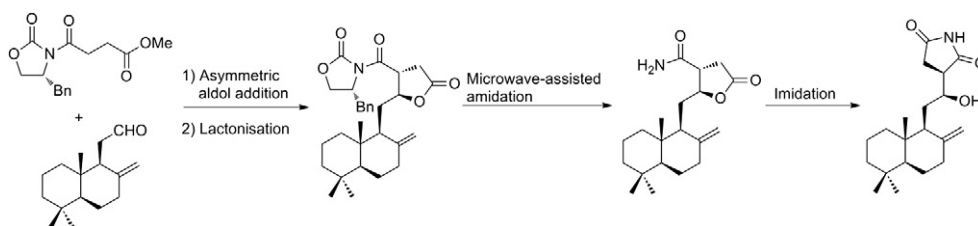
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Mehdi Adib\*, Ehsan Sheikhi, Azadeh Kavooosi, Hamid Reza Bijanzadeh

**A fast and straightforward route towards the synthesis of the lissoclimide class of anti-tumour agents**

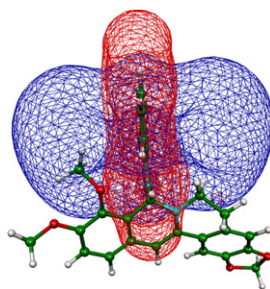
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Tuan Minh Nguyen, Nguyen Quang Vu, Jean-Jacques Youte, Jacelyn Lau, Angie Cheong, Ying San Ho, Benjamin S.W. Tan, Kanagasundaram Yoganathan, Mark S. Butler, Christina L.L. Chai\*

**Structural study of 8-azole derivatives of protoberberine alkaloids: experimental and quantum chemical approach**

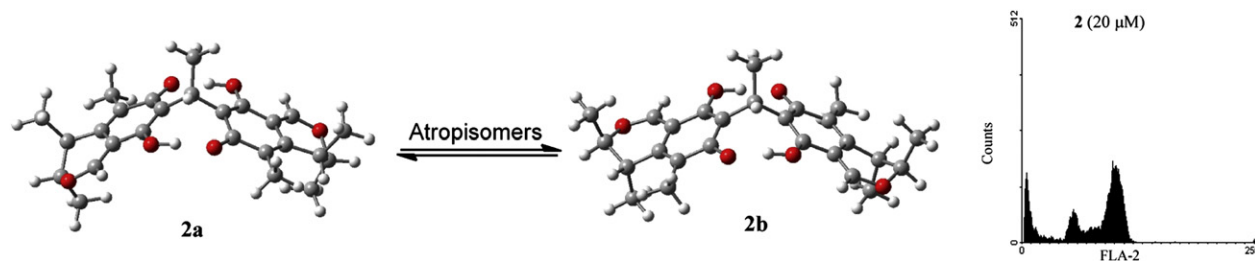
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Lukáš Maier, Tomáš Šolomek, Matej Pipiška, Zdeněk Kríž, Marek Nečas, Radek Marek\*

**Novel carbon-bridged citrinin dimers from a volcano ash-derived fungus *Penicillium citrinum* and their cytotoxic and cell cycle arrest activities**

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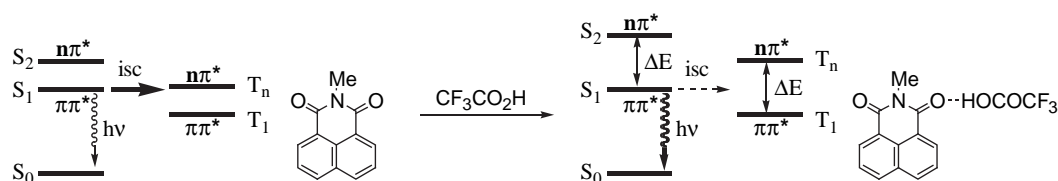
Lin Du, Dehai Li, Guojian Zhang, Tianjiao Zhu, Jing Ai, Qianqun Gu\*



## Effect of addition of trifluoroacetic acid on the photophysical properties and photoreactions of aromatic imides

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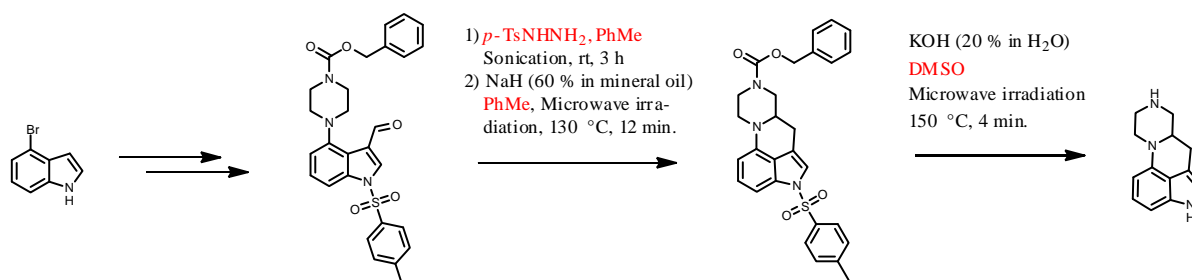
Kazuhiko Matsubayashi, Hideo Shiratori, Yasuo Kubo\*



## Syntheses of aza-analogous iso-ergoline scaffolds using carbene mediated C–H insertion

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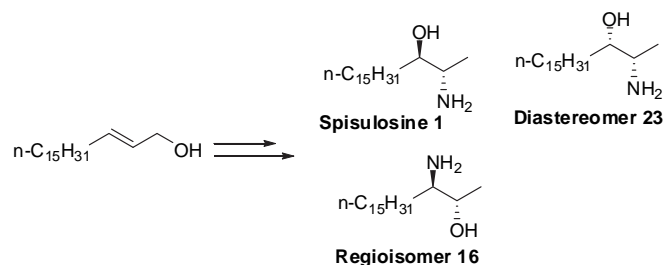
Niels Krogsgaard-Larsen, Mikael Begtrup, Karla Frydenvang, Jan Kehler\*



## Asymmetric total syntheses of spisulosine, its diastereo- and regio-isomers

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Subal Kumar Dinda, Sajal Kumar Das, Gautam Panda\*



\*Corresponding author

Supplementary data available via ScienceDirect



**COVER**

(-)-Cytisine and (-)-epibatidine, are reference ligands for nicotinic cholinergic receptors (nAChRs). Two molecules combining the main structural characteristics of both products were synthesized by means of an unprecedented radical cyclization. Each displayed a remarkable affinity for  $\alpha_4\beta_2$  nAChR subtypes that was corroborated by molecular modeling. The image background features a schematic representation of a chimera symbolizing the hybrid nature of the new products.

Details can be found in Tetrahedron, **2010**, 66, 9231–9241.

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