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Tetrahedron Letters

Tetrahedron Letters Vol. 49, No. 23, 2008

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COMMUNICATIONS

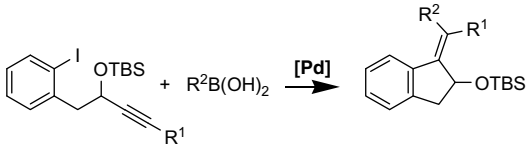
Mechanistic study on benzylic oxidations catalyzed by bismuth(III) salts: X-ray structures of two bismuth–picolinate complexes pp 3709–3712

Emmanuel Callens, Andrew J. Burton, Andrew J. P. White, Anthony G. M. Barrett *

Further studies on benzylic oxidation reactions catalyzed using bismuth(III) salts are consistent with the reaction proceeding via a radical mechanism. Additionally, X-ray structures of two bismuth–picolinate complexes, which may be involved in the catalytic cycle, are reported.

Synthesis of 1-arylidene-2,3-dihydro-1*H*-inden-2-ols through a tandem carbopalladation/Suzuki–Miyaura sequence pp 3713–3715

Estelle Marchal, Jean-François Cupif, Philippe Uriac, Pierre van de Weghe *



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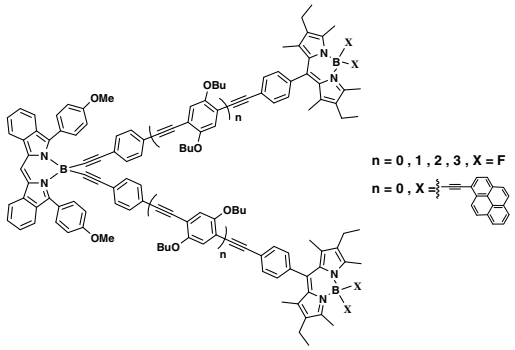
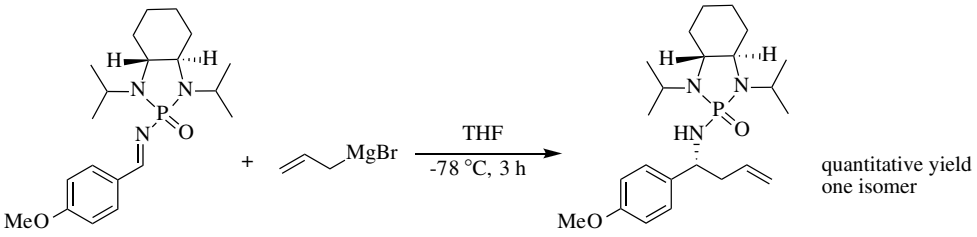
Alexandre Haefele, Gilles Ulrich, Pascal Retailleau, Raymond Ziessel *



Chiral *N*-phosphonyl imine chemistry: asymmetric 1,2-additions of allylmagnesium bromides **pp 3722–3724**
Adiseshu Kattuboina, Parminder Kaur, Thao Nguyen, Guigen Li *



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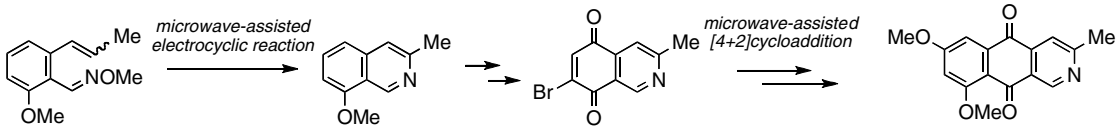
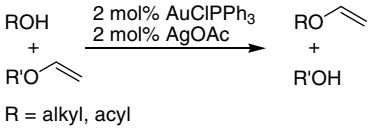
Novel synthesis of the 2-azaanthraquinone alkaloid, scorpinone, based on two microwave-assisted pericyclic reactions **pp 3725–3728**
Tominari Choshi *, Teppei Kumemura, Junko Nobuhiro, Satoshi Hibino *



Au(I) complexes-catalyzed transfer vinylation of alcohols and carboxylic acids **pp 3729–3732**
Aki Nakamura, Makoto Tokunaga *



Au(I) complexes-catalyzed transfer vinylation of alcohols and carboxylic acids has been achieved.

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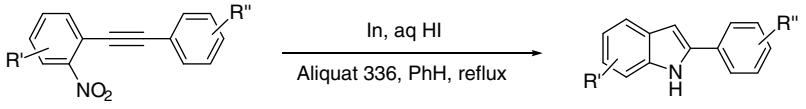

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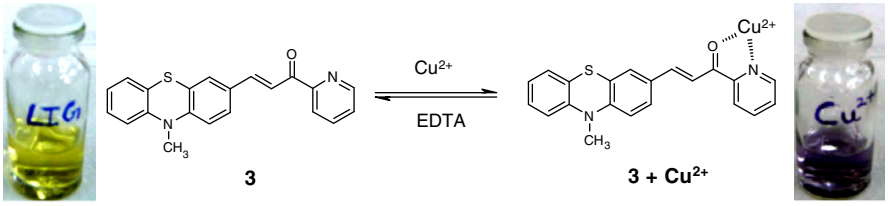

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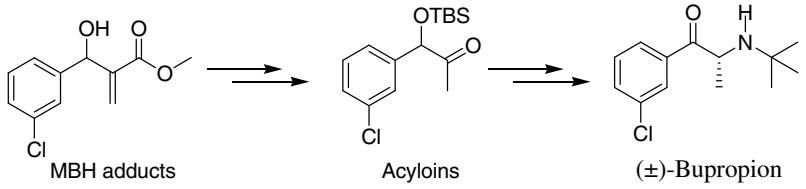

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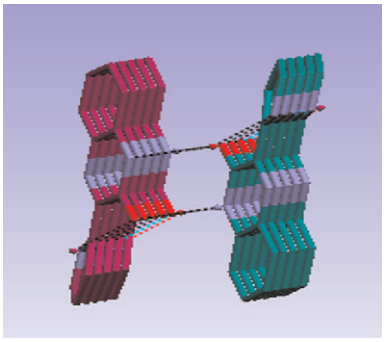
Efficient synthesis and solid state analysis of 3-(1*H*-pyrrol-2-yl)quinoxalin-2(1*H*)-one and 2-(1*H*-pyrrol-2-yl)-1*H*-benzo[*d*]imidazole from pyrrolo-2-ylglyoxyl acid **pp 3749–3751**
Florence Szydlo, Bruno Andrioletti *, Eric Rose, Carine Duhayon

The condensation between 2-oxo-2-(1*H*-pyrrol-2-yl)acetic acid and 1,2-phenylene diamines affords unprecedented, biologically relevant pyrrolo-benzimidazole and pyrrolo-quinoxalines.



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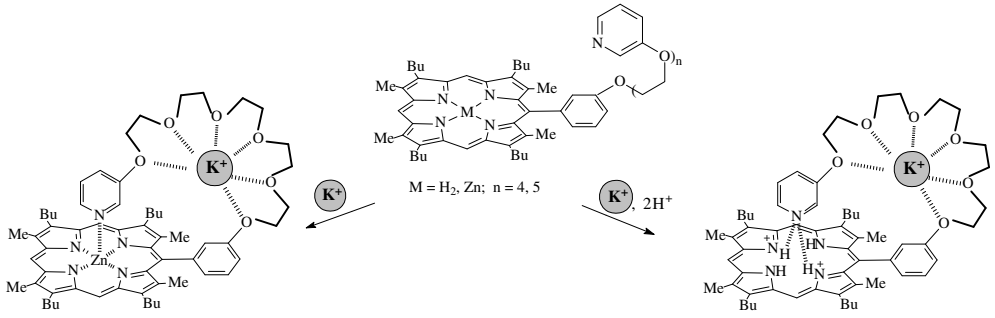
Nugzar Zh. Mamardashvili *, Olga V. Maltseva, Yulia B. Ivanova, Galina M. Mamardashvili



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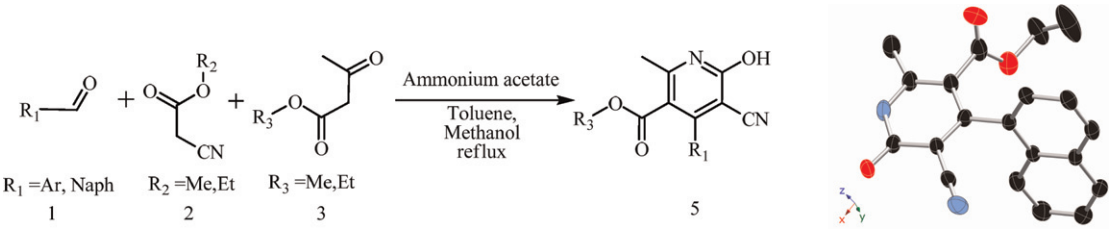
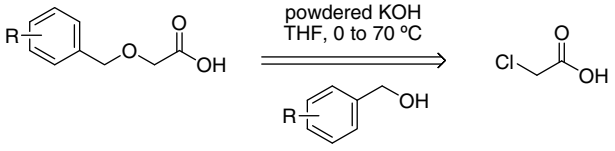
Yongchang Zhou *, Tatsuro Kijima, Shunsuke Kuwahara, Masataka Watanabe, Taeko Izumi



Practical preparation of benzyloxyacetic acids pp 3762–3765
Kathleen Linn *, Jeffrey T. Kuethe *, Zhihui Peng, Nobuyoshi Yasuda



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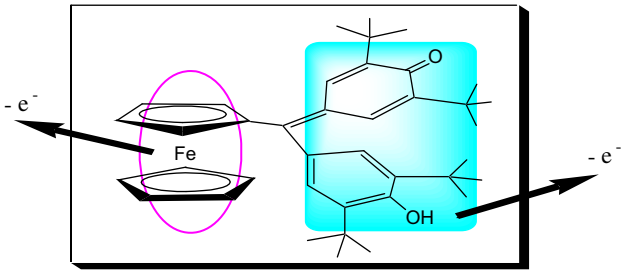
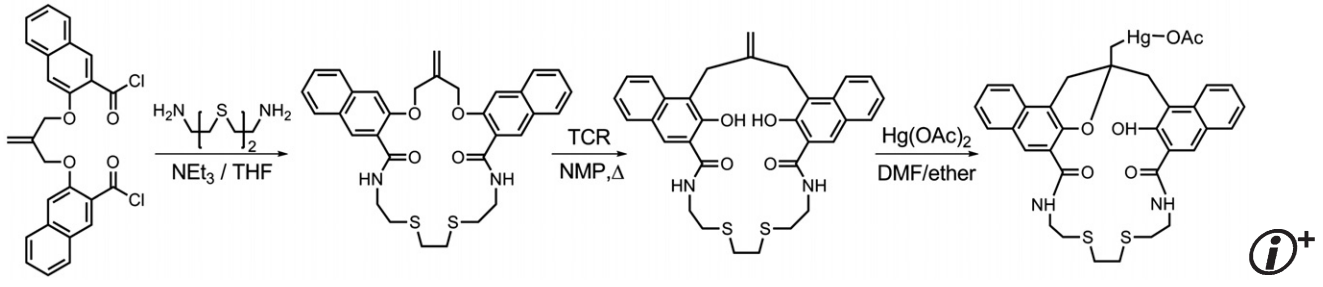
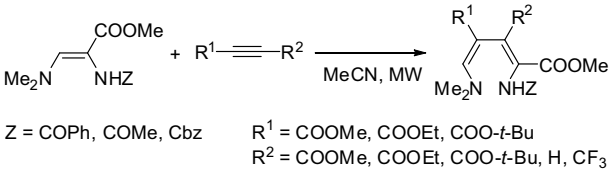


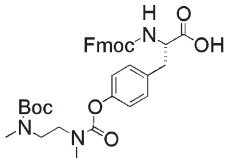
Novel sulfur-containing amidecrownophanes: synthesis via tandem Claisen rearrangement and an unpredicted mercuration pp 3770–3774
Joobeom Seo, Shim Sung Lee *, Wei-Tao Gong, Kazuhisa Hiratani *



Regiospecific [2+2] cycloadditions of electron-poor acetylenes to (*Z*)-2-acylamino-3-dimethylaminopropenoates: synthesis of highly functionalised buta-1,3-dienes **pp 3775–3778**
Uroš Uršič, Uroš Grošelj, Anton Meden, Jurij Svete, Branko Stanovnik *

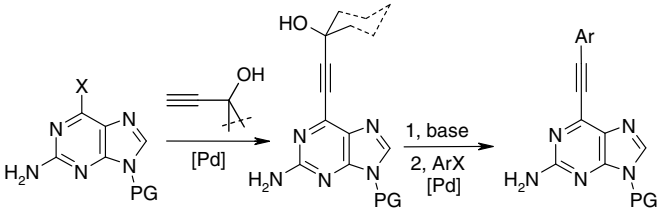


A carbamoyl-protective group for tyrosine that facilitates purification of hydrophobic synthetic peptides **pp 3779–3781**
Karolina Wahlström, Ove Planstedt, Anders Undén *



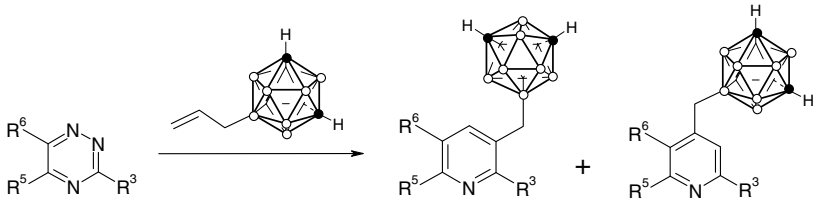
A new side chain-protective group for tyrosine in Fmoc solid-phase peptide synthesis is reported which increases the solubility of synthetic peptides during the purification step. After purification, the protective group is cleaved in an intramolecular cyclization reaction at slightly alkaline pH.

Synthesis of 6-ethynylpurine derivatives **pp 3782–3784**
András Nagy, András Kotschy *

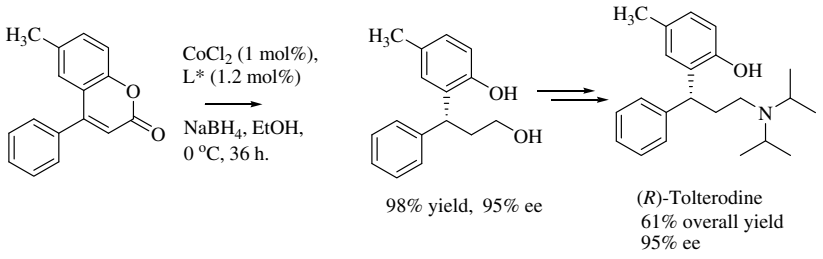


The synthesis of a series of 6-(arylethynyl)purines is described utilizing a sequential Sonogashira-coupling approach.

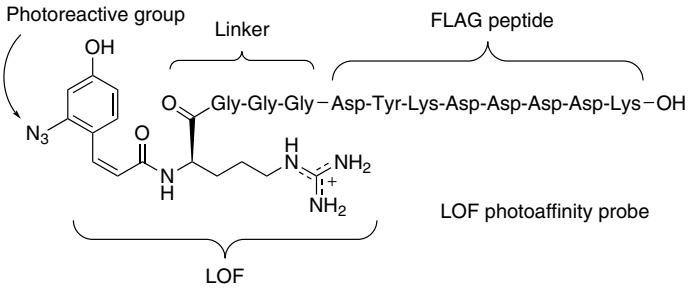
9-Allyl-1,7-dicarbadodecaborane as a dienophile in aza Diels–Alder reactions of 1,2,4-triazines: synthesis of pyridines bearing a carborane cage **pp 3785–3789**
Anton M. Prokhorov *, Pavel A. Slepukhin, Vladimir L. Rusinov, Valery N. Kalinin, Dmitry N. Kozhevnikov



Co-catalyzed mild and chemoselective reduction of phenyl esters with $NaBH_4$: a practical synthesis of (*R*)-tolterodine pp 3790–3793
Arun R. Jagdale, Arumugam Sudalai *

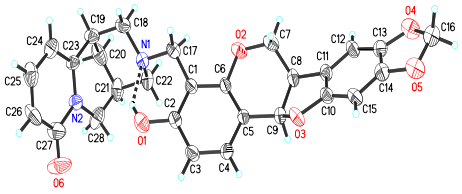


Synthesis of photoaffinity probe based on the leaf-opening factor from genus *Albizzia* pp 3794–3796
Masahiro Okada, Akira Matsubara, Minoru Ueda *



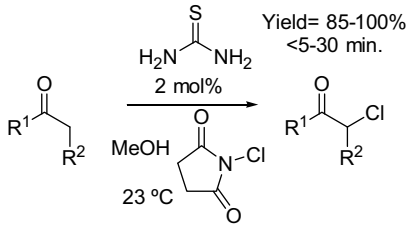
Tonkinensines A and B, two novel alkaloids from *Sophora tonkinensis* pp 3797–3801
Xing-Nuo Li, Zhi-Qiang Lu, Song Qin, Hai-Xia Yan, Min Yang, Shu-Hong Guan, Xuan Liu, Hui-Ming Hua, Li-Jun Wu, De-An Guo *

Tonkinensines **A** (**1**) and **B** (**2**), two novel cytisine-type alkaloids that feature the skeleton with a linkage to pterocarpan, were isolated from the roots of *Sophora tonkinensis*. Their structures and absolute configurations were elucidated by spectroscopic methods, especially X-ray crystal diffraction and CD spectral analysis. The proposed biosynthetic pathway was also discussed. Both **1** and **2** were tested in HeLa and MDA-MB-231 tumor cell lines, and compound **2** showed moderate cytotoxic activity.

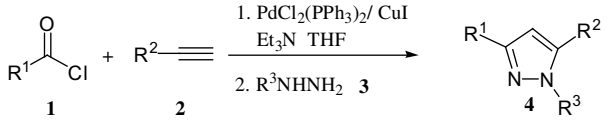


Tonkinensine B (**2**)

Thiourea catalysis of NCS in the synthesis of α-chloroketones pp 3802–3804
Yujiang Mei, Paul A. Bentley *, Juan Du

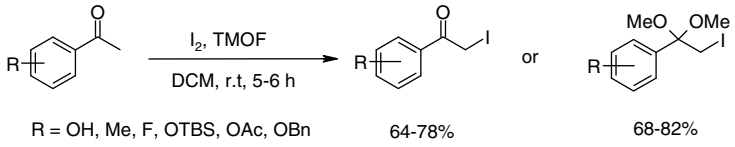


One-pot three-component synthesis of pyrazoles through a tandem coupling-cyclocondensation sequence **pp 3805–3809**
Hai-Ling Liu, Huan-Feng Jiang *, Min Zhang, Wen-Juan Yao, Qiu-Hua Zhu, Zhou Tang

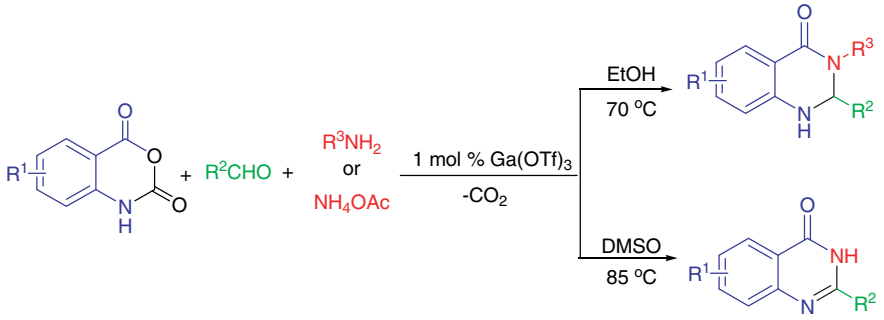


An efficient and general one-pot procedure for the synthesis of pyrazoles from chlorides, terminal alkynes and hydrazines was described via a coupling and cyclocondensation sequence. Acid chlorides coupled with terminal alkynes to give α,β-unsaturated ynones, and in situ converted into pyrazoles by the cycloaddition of hydrazine. The desired pyrazoles were obtained with 15–85% isolated yields.

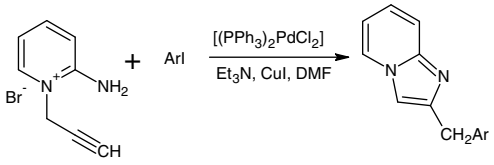
Facile synthesis of α-iodo carbonyl compounds and α-iodo dimethyl ketals using molecular iodine and trimethylorthoformate **pp 3810–3813**
J. S. Yadav *, G. Kondaji, M. Shiva Ram Reddy, P. Srihari



Gallium(III) triflate-catalyzed one-pot selective synthesis of 2,3-dihydroquinazolin-4(1*H*)-ones and quinazolin-4(3*H*)-ones **pp 3814–3818**
Jiuxi Chen, Dengze Wu, Fei He, Miaochang Liu, Huayue Wu *, Jinchang Ding, Weike Su *

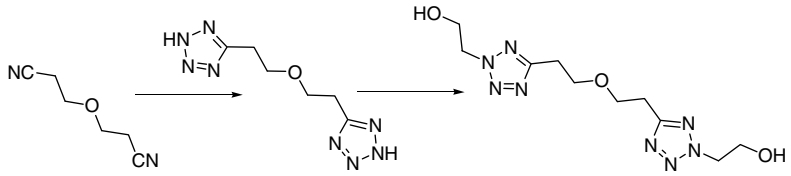


Pd–Cu catalyzed heterocyclization during Sonogashira coupling: synthesis of 2-benzylimidazo[1,2-*a*]pyridine **pp 3819–3822**
Mohammad Bakherad *, Hossein Nasr-Isfahani, Ali Keivanloo, Nesa Doostmohammadi



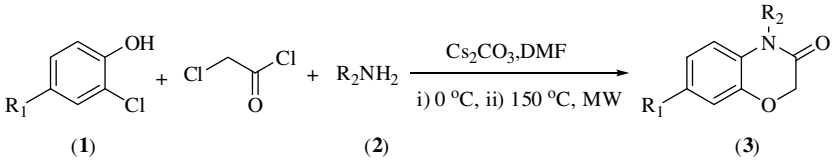
The reaction of 2-amino-1-(2-propynyl)pyridinium bromide with various iodobenzenes, catalyzed by Pd–Cu, leads to the formation of 2-benzylimidazo[1,2-*a*]pyridines.

Synthesis of multifunctional hydroxyethyl tetrazoles **pp 3823–3826**
Andrew Chafin *, David J. Irvin *, Mark H. Mason, Susan L. Mason



A series of di-, tri-, and tetra-tetrazoloalkanes were synthesized from the corresponding nitrile and sodium azide. These were alkylated to give hydroxy terminated chains for possible use as high energy oligomers.

Microwave-assisted one-pot synthesis of benzo[*b*][1,4]oxazin-3(4*H*)-ones via Smiles rearrangement **pp 3827–3830**
Hua Zuo, Lijuan Meng, Manjunath Ghate, Kyu-Hyeon Hwang, Yong Kweon Cho, S. Chandrasekhar, Ch. Raji Reddy, Dong-Soo Shin *



(**1**) (**2**) (**3**)

R_1= Cl, Br, F
R_2= alkyl, aryl

OTHER CONTENT

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*Corresponding author
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