

Graphical abstracts

Recent advances in the synthesis of piperidones and piperidines

Tetrahedron 59 (2003) 2953

Philip M. Weintraub, Jeffrey S. Sabol,* John M. Kane and David R. Borchering

Aventis Inc., P.O. Box 6800, Routes 202-206, Bridgewater, NJ 08807-0800, USA

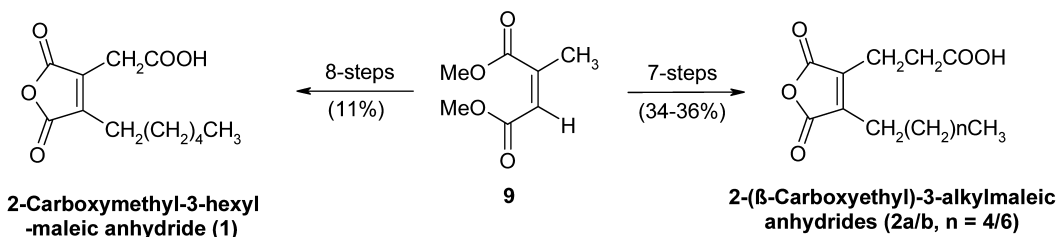
This report highlights recent methodologies that have been used to synthesize piperidones and piperidines, with a focus on the literature from mid-1999 to late-2002. The review is organized by bond formation or processes leading to the heterocyclic ring, and a variety of applications are presented.

A facile access to natural and unnatural dialkylsubstituted maleic anhydrides

Tetrahedron 59 (2003) 2991

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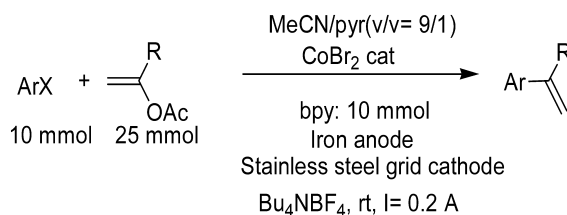


Cobalt-catalyzed electrochemical vinylation of aryl halides using vinylic acetates

Tetrahedron 59 (2003) 2999

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Synthesis and biological activity of $\alpha,\beta,\gamma,\delta$ -unsaturated aldehydes from diatoms

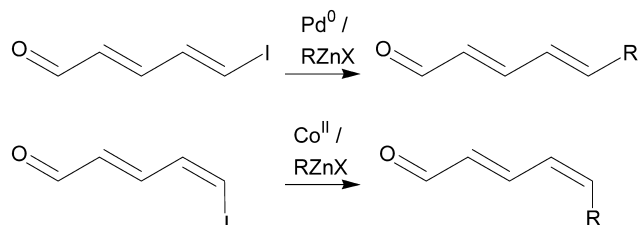
Tetrahedron 59 (2003) 3003

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A short and universal synthesis of $\alpha,\beta,\gamma,\delta$ -unsaturated aldehydes and their biological activity as inhibitors of sea urchin egg cleavage is reported.

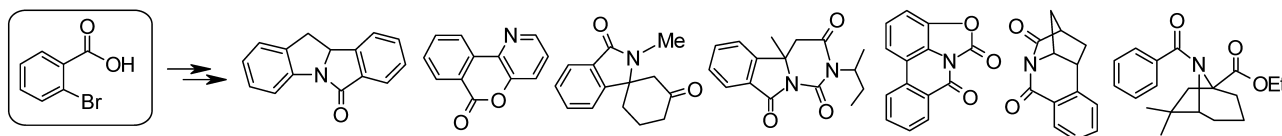


Free radical reactions for heterocycle synthesis. Part 6: 2-Bromobenzoic acids as building blocks in the construction of nitrogen heterocycles

Wei Zhang* and Georgia Pugh

Lead Discovery, DuPont Crop Protection, Stine-Haskell Research Center, Newark, DE 19714, USA

A general method for *N*-heterocycles by intramolecular free radical cyclization of 2-bromobenzoic acid derivatives is introduced.

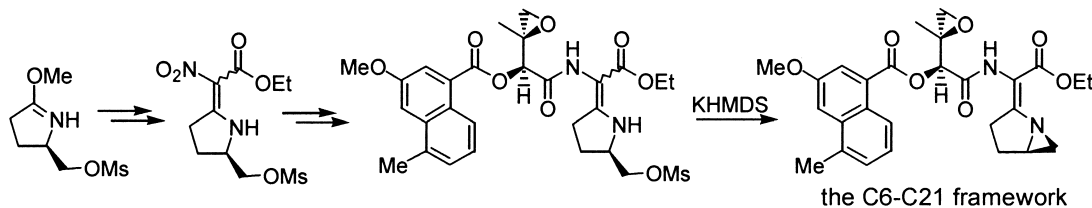


Tetrahedron 59 (2003) 3009

Synthetic studies of carzinophilin. Part 1: Synthesis of 2-methylidene-1-azabicyclo[3.1.0]hexane systems related to carzinophilin

Masaru Hashimoto,* Miyoko Matsumoto and Shiro Terashima*

Sagami Chemical Research Center, 2743-1, Hayakawa, Ayase, Kanagawa 252-1193, Japan

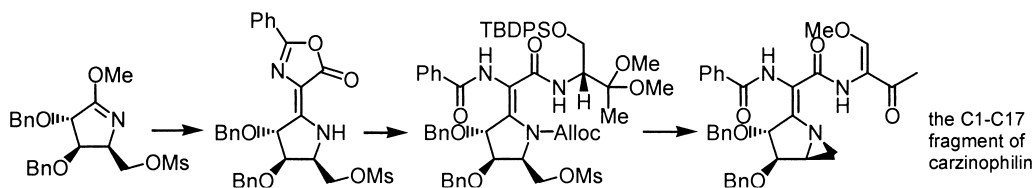


Tetrahedron 59 (2003) 3019

Synthetic studies of carzinophilin. Part 2: Synthesis of 3,4-dibenzyloxy-2-methylidene-1-azabicyclo[3.1.0]hexane systems corresponding to the C1-C17 fragment of carzinophilin

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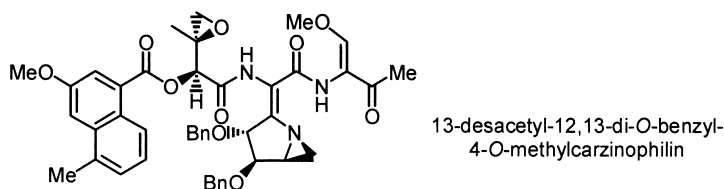


Tetrahedron 59 (2003) 3041

Synthetic studies of carzinophilin. Part 3: Synthetic approach toward carzinophilin and successful synthesis of 13-*O*-desacetyl-12,13-di-*O*-benzyl-4-*O*-methylcarzinophilin

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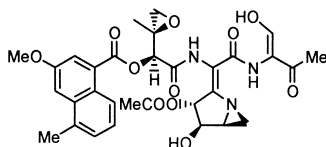


Tetrahedron 59 (2003) 3063

Synthetic studies of carzinophilin. Part 4: Chemical and biological properties of carzinophilin analogues

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Tetrahedron 59 (2003) 3089

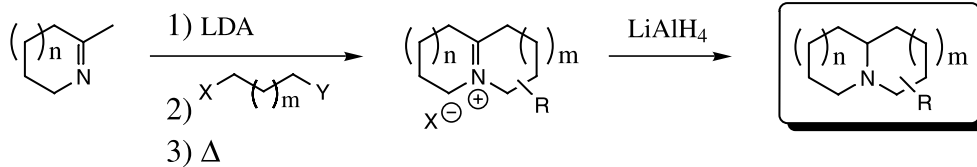


Novel synthesis of indolizidines and quinolizidines

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Tetrahedron 59 (2003) 3099



Syntheses and spectroscopic properties of energy transfer systems based on squaraines

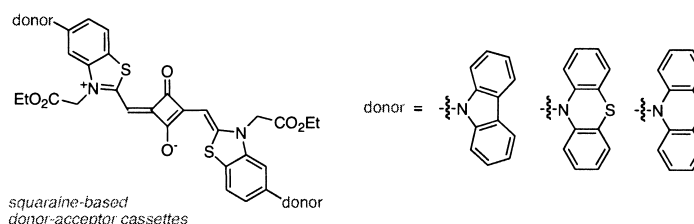
Guan-Sheng Jiao,^a Aurore Loudet,^a Hong Boon Lee,^a Stanislav Kalinin,^b Lennart B.-Å. Johansson^b and Kevin Burgess^{a,*}

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Tetrahedron 59 (2003) 3109



Quantitative characterization of the global electrophilicity pattern of some reagents involved in 1,3-dipolar cycloaddition reactions

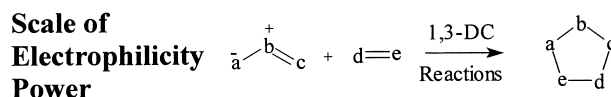
Patricia Pérez,^{a,*} Luis R. Domingo,^{b,*} M. José Aurell^b and Renato Contreras^c

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Tetrahedron 59 (2003) 3117



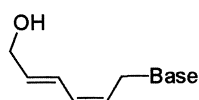
An efficient synthesis of dienic nucleoside analogues via a Mitsunobu reaction

Tetrahedron 59 (2003) 3127

Cécile Hubert,^a Christian Alexandre,^{a,*} Anne-Marie Aubertin^b and François Huet^{a,*}

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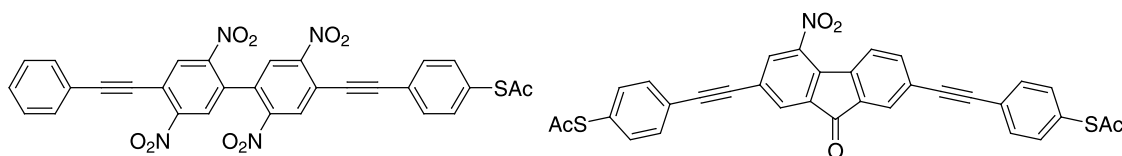


Biphenyl- and fluorenyl-based potential molecular electronic devices

Tetrahedron 59 (2003) 3131

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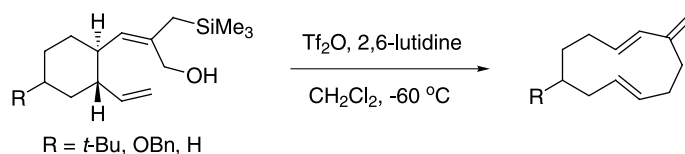


Synthesis of eleven-membered carbocycles via a homo-Cope type of five-carbon ring expansion reaction utilized β -(hydroxymethyl)allylsilane

Tetrahedron 59 (2003) 3157

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R = *t*-Bu, OBn, H

The synthesis of *R*-3-alkoxy-1-(1'-hydroxyethyl)-4-methoxy-2-(1''-propenyl)benzenes utilizing Corey–Bakshi–Shibata asymmetric reductions

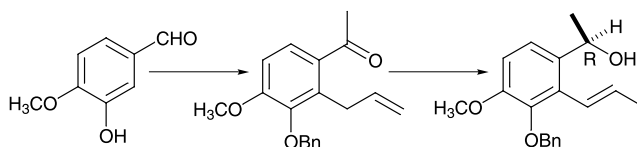
Tetrahedron 59 (2003) 3175

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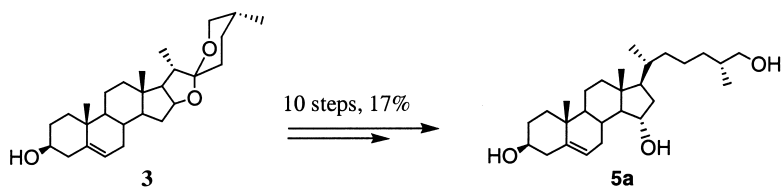


Synthesis of the aglycone of 26-*O*-deacetyl pavoninin-5

John R. Williams,* Deping Chai, James D. Bloxton, II, Hua Gong
and William R. Solvibile

Department of Chemistry, Temple University, Philadelphia, PA 19122-2585, USA

The aglycone of 26-*O*-deacetyl pavoninin-5, (25*R*)-cholest-5-en-3 β ,15 α ,26-triol, **5a**, was synthesized in 10 steps in 17% overall yield from diosgenin, **3**.



Tetrahedron 59 (2003) 3183