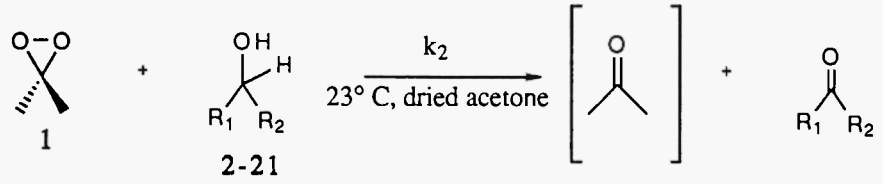
Graphical Abstracts

Heterocycl. Commun. **4** (1998) 201-204

OXIDATION OF SECONDARY ALIPHATIC ALCOHOLS BY DIMETHYLDIOXIRANE: KINETICS AND SELECTIVITY

Mark A. Cunningham, P.C. Vasquez, Paul J. Franklin and A.L. Baumstark,* Department of Chemistry, Center of Biotechnology and Drug Design, Georgia State University, Atlanta, GA 30303-3083, USA

The oxidation of acyclic (**2-10**) and cyclic (**11-21**) secondary aliphatic alcohols by dimethyldioxirane in acetone at 23 °C produced the corresponding ketones in very good to excellent yields. Kinetic data (k_2's) were found to be similar for the acyclic series except for the most hindered compounds. The k_2's for the cyclic series were found to vary with ring size and to be generally larger than those for the acyclic cases.



Heterocycl. Commun. **4** (1998) 205-208

A CONVENIENT AND EFFICIENT SYNTHESIS OF BENZOTRIAZOLES AND BENZISOXAZOLINES USING A NEW HYPERVALENT IODINE-BENZYNE PRECURSOR

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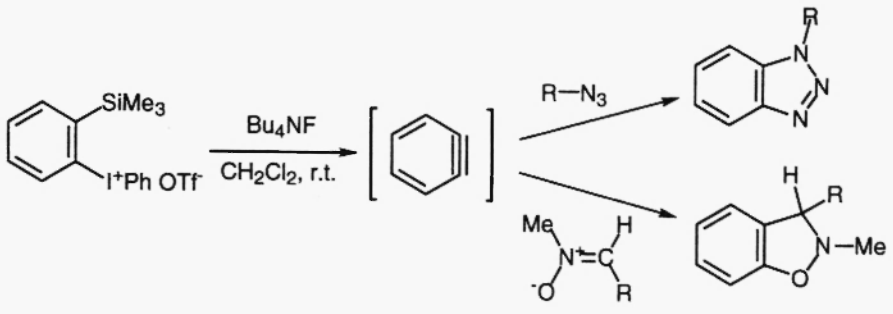
Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, Hakozaki, Fukuoka 812-8581, Japan



Heterocycl. Commun. 4 (1998) 209-216

On the synthesis of mesoionic 1,3,4-thiadiazolíum-2-aminide and precursors

Marcelo M. Britto[1], Carlos A. Montanari1*, Claudio L. Donnici1 and Quézia B. Cass2
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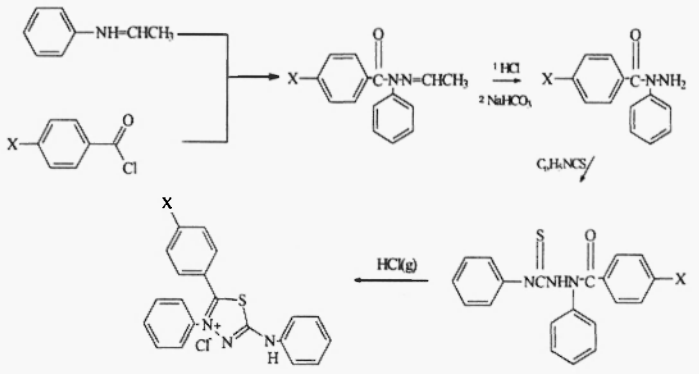
2Departamento de Química - Universidade Federal de São Carlos - São Carlos - SP - Brazil



Heterocycl. Commun. 4 (1998) 217-226

SYNTHESIS OF CROWN ETHERS EMBODIED ADAMANTANE AND HOMOADAMANTANE SKELETONS

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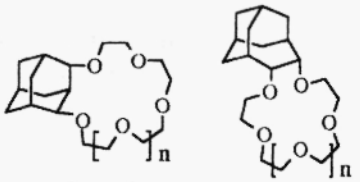
Department of Molecular Design and Engineering, Graduate School of Engineering, Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-8603, JAPAN

Adamantano[2,4]-16-crown-5 and -19-crown-6 ethers (**5**, **6**), and homoadamantano[4,5]-15-crown-5 and -18-crown-6 ethers (**11**, **12**) have been prepared and their some cation binding properties have been discussed based on the solvent extraction and PM3 calculation results.



5, n = 1
6, n = 2

11, n = 1
12, n = 2

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New Heterocyclic analogues of pyridocarbazoles from azidoacrylates

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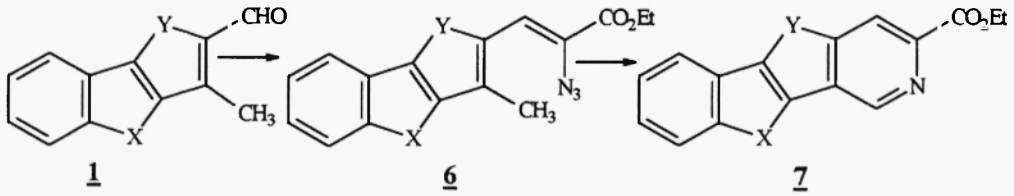
b) Centre Universitaire de Luxembourg, 162A Avenue de la Faïencerie, L-1511 Luxembourg

Analogues of isoellipticine 7 were synthesized starting from aldehydes 1, via azidoacrylates 6.



Azidoacrylates

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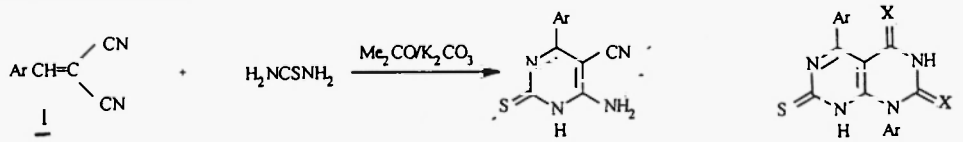
SYNTHESIS OF PYRIMIDO [4,5-d] PYRIMIDINETHIONE DERIVATIVES AS BIOCIDAL AGENTS

Mohamed Abdel - Megid
Department of Chemistry, Faculty of Education Ain-Shams University, Roxy, Cairo, Egypt.

Several new pyrimido [4,5-d] pyrimidinethiones have been synthesized from β-arylidene malononitriles with thiourea followed by cyclocondensation with nitrogen and oxygen compounds. And they were tested for antibacteral in the comparition with antibiotics.



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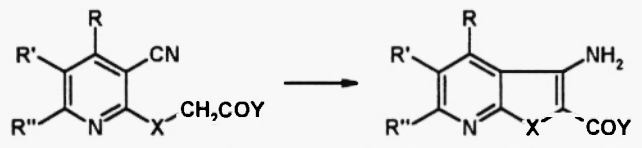
THE INVESTIGATION OF PYRROLO-, THIENO- AND FURO[2,3-b]PYRIDINE SYNTHESIS BASED ON THORPE-ZIEGLER REACTION.

Mikhail Yu. Yakovlev, Alexander V. Kadushkin, Natalya P. Solov'eva, Vladimir G. Granik*
Center for Drug Chemistry, Moscow, 119815, Russian Federation

Synthesis of pyrrolo-, thieno- and furo[2,3-b]pyridines was studied under basic reaction conditions. Significant role of base catalysis as well as substituent effects in these reactions are reported.



Where:
R=H, NMe_2; R'=H, NO_2, NH_2, COOEt;
R''=H, Me, X=S, N(Me), O;
Y=OEt, NHPh, Ph.

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REACTIONS OF DIBROMOCARBENE GENERATED FROM BROMOFORM WITH VINYLPYRIDINES UNDER PHASE TRANSFER CATALYSIS CONDITIONS

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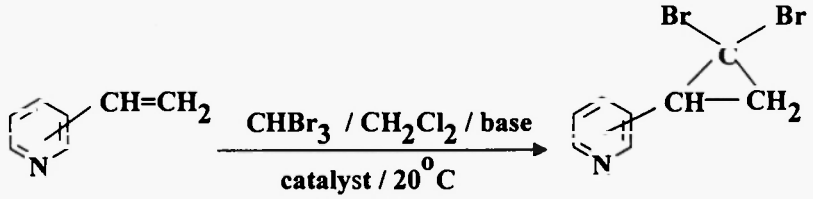
Latvian Institute of Organic Synthesis, 21 Aizkraukles str., Riga,
LV - 1006, Latvia



1 - 3 **4 - 6**

Phase transfer catalytic reactions of 2-vinylpyridine (**1**) with dibromocarbene generated from bromoform in the system liquid / liquid and liquid / solid were studied. The PTC system 50% aq. KOH / TEBA / CH_2Cl_2 was found to be most active and was used for preparative synthesis of vinylpyridine dibromocarbene adducts (**4 - 6**).

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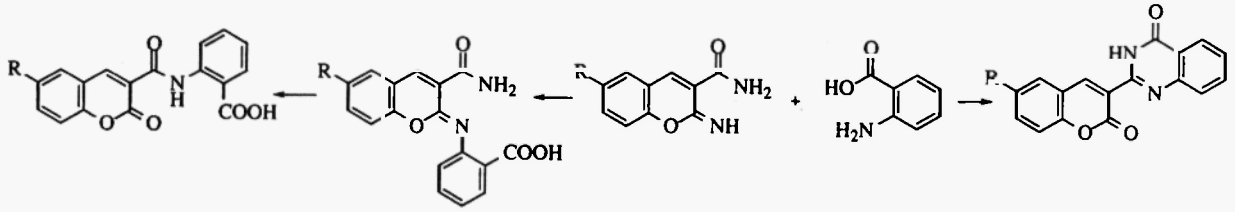
REARRANGEMENTS OF 2-IMINO-2H-1-BENZOPYRAN-3-CARBOXAMIDES UNDER ACTION OF ANTHRANILIC ACID AS *N*-NUCLEOPHILE

Yaroslav V. Bilokin (Belokon),*† Sergey N. Kovalenko, Igor E. Bylov, and Valentin P. Chernykh
Department of Organic Chemistry, Ukrainian Academy of Pharmacy, Kharkov 310002, UKRAINE



New rearrangements of 2-imino-2H-1-benzopyran-3-carboxamides under action of anthranilic acid as *N*-nucleophile have been revealed. These rearrangements have provided new methods for synthesis of 2-(2-oxo-2H-1-benzopyran-2-yl)-3H-quinazolin-4-ones and 2-oxo-2H-1-benzopyran-3-(*N*-2-carboxyphenyl)-carboxamides.

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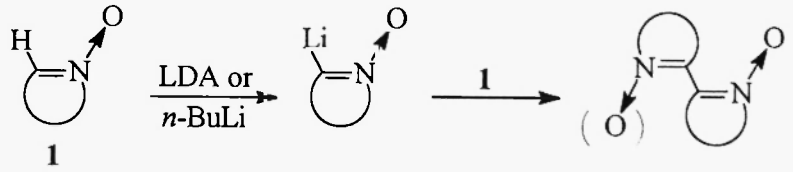
DIPOLE-STABILIZED CARBANIONS IN SERIES OF CYCLIC ALDONITRONES. PART I. ALDONITRONES METALLATION AND DIMERIZATION IN LDA AND *n*-BuLi SOLUTIONS.

Maxim A. Voinov*, Igor A. Grigor'ev and Leonid B. Volodarsky
Institute of Organic Chemistry, Ave. akad. Lavrent'eva 9, 630090 Novosibirsk, Russia.

Cyclic aldonitrones of pyrroline, 3-imidazoline and 2*H*-imidazole series metallation can be used as a method of their activation towards electrophilic reagents.



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THE PHOTOREARRANGEMENT OF SOME 4-ARYLAZOPYRAZOLIN-5-ONE DERIVATIVES.

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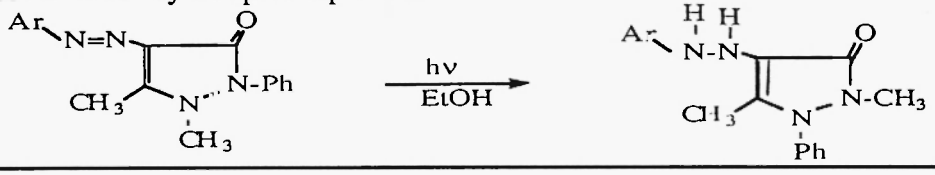
(1) Photochemistry Dept., National Research Center, Dokki, Egypt. (2) Chemistry Dept., Faculty of Science, Cairo University, Giza, Egypt.

Photorearrangement and reduction of some 4-arylazopyrazolin-5-one derivatives by the use of high pressure mercury lamp is reported.

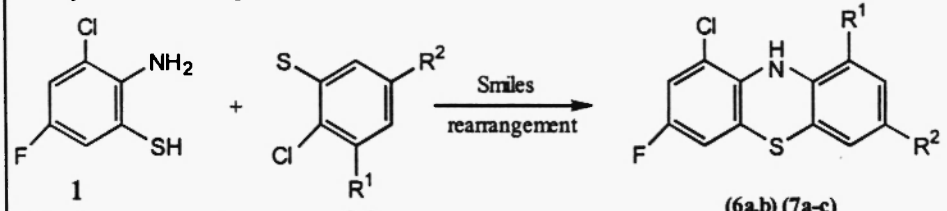


Heterocycl. Commun. 4 (1998) 277-280

SYNTHESIS OF FLUOROPHENOTHIAZINES BY SMILES REARRANGEMENT

M.Y. HAMADI, RAJNI GUPTA AND R.R. GUPTA*
Department of Chemistry, University of Rajasthan, Jaipur-302004, INDIA

Synthesis of fluorophenothiazines by Smiles rearrangement is reported. The spectral data of the synthesized compounds are also included.



$R^1 = NO_2$, Cl or H
$R^2 = NO_2$, Cl, H or COOH