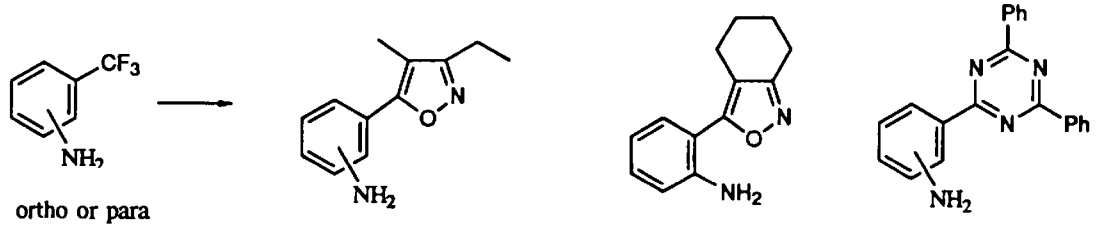
Heterocycl. Commun. 1 (1995) 331-334

AN ANIONICALLY ACTIVATED TRIFLUOROMETHYL GROUP AS A NOVEL SYNTHON FOR ISOXAZOLES AND 1,3,5-TRIAZINES

Lucjan Strekowski,* Shou-Yuan Lin, Johnny Nguyen,
Naomi P. Redmore, J. Christian Mason, and Alexander S. Kiselyov
Department of Chemistry, Center of Biotech-Drug Design/LBCS,
Georgia State University, Atlanta, Georgia 30303, USA



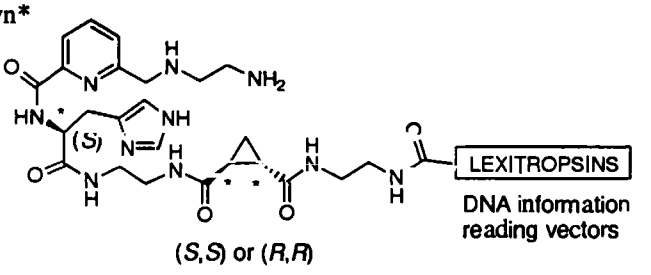
Heterocycl. Commun. 1 (1995) 335-339

SYNTHESIS OF DESIGNED BLEOMYCIN MODELS WITH DIFFERENT DNA RECOGNITION SITES

Liren Huang, James C. Quada, Jr. and J. William Lown*

Department of Chemistry, University of Alberta,
Edmonton, Alberta, T6G 2G2 Canada

The design and synthesis of functional models for bleomycin,where lexitropsins with various DNA sequence selectivities are incorporated as DNA recognition sites, are described.

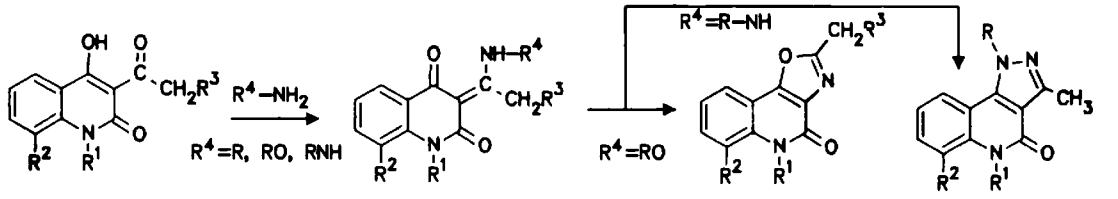


Heterocycl. Commun. 1 (1995) 341-352

REACTIONS OF 3-ACYL-4-HYDROXY-2(1H)-QUINOLONES WITH NITROGEN BASES

Thomas KAPPE, Rudolf AIGNER, Monika JÖBSTL, Peter HOHENGASSNER and Wolfgang STADLBAUER
Institute of Organic Chemistry, Karl-Franzens-University of Graz, Heinrichstraße 28, A-8010 GRAZ (Austria)

3-Acyl-4-hydroxy-2-quinolones react with amines to 3-aminomethylene quinolinediones. With hydroxylamine the corresponding oximes are obtained, which cyclize via a thermic Beckmann rearrangement to oxazolo[5,4-c]quinolones. The oxazoles ringopen to 3-acylamino-4-hydroxyquinolones. Hydrazones of 3-acyl-4-hydroxy-2-quinolones cyclize to pyrazolo[4,3-c]quinolones or give mixtures with the dimeric azino-diethylidenequinolones.

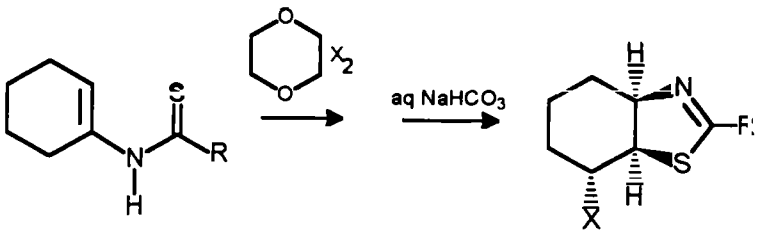


Heterocycl. Commun. 1 (1995) 353-364

HIGHLY DIASTEREOSELECTIVE HETEROCYCLISATION OF N-(2-CYCLOHEXENYL)-SUBSTITUTED THIOAMIDES, THIOUREAS AND DITHIOCARBAMATES TO Δ^2-THIAZOLINE DERIVATIVES

Tadeusz S. Jagodziński,[1] Jacek G. Sosnicki[1], Mirosława Krolikowska[2]
1. Department of Organic Chemistry, Technical University, 71-065 Szczecin, Aleja Piastow 42, Poland
2. Institute of Chemical Technology and Engineering , Technical University, 60-695 Poznan, Pl. M.Skłodowskiej - Curie 2, Poland

N-(2-cyclohexenyl)-substituted thioamides, thioureas and dithiocarbamates were cyclised with the bromine-dioxane complex or iodine. The configuration of products has been determined with the aid of 1D and 2D-NMR spectra. Stereochemistry of the heterocyclisation was discussed.

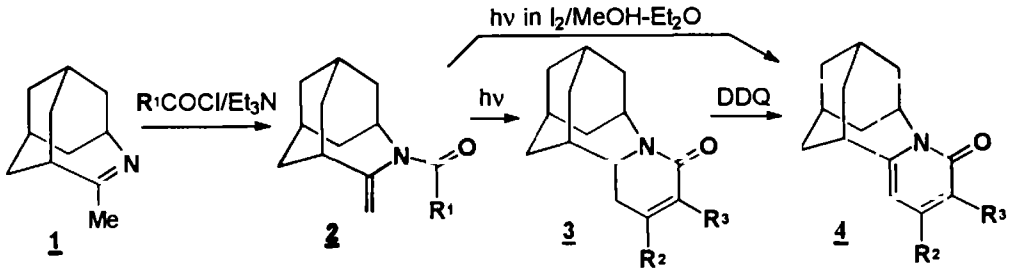


Heterocycl. Commun. 1 (1995) 365-373

PHOTOCYCLIZATION REACTION OF 5-METHYLENE-4-ACRYLOYL- AND -AROYL-4-AZATRICYCLO-[4.3.1.13,8]UNDECANES (4-AZAHOMOADAMANTANES) UNDER OXIDATIVE CONDITIONS AND A CONFORMATIONAL STUDY OF THE ACRYLOYL ENAMIDE

Shoji Eguchi,*[,a] Ichiro Ogura,[a] and Yukimasa Terada[b]
[a] Institute of Applied Organic Chemistry, Faculty of Engineering, Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-01, Japan
[b] Department of Pharmacy, Meijo University, Yagotoyama 150, Tenpaku-ku, Nagoya 468, Japan

Synthesis of various 2 and their photocyclization study as a synthetic method of 3 and 4 are reported.



Heterocycl. Commun. 1 (1995) 375-380

^{13}C-NMR SPECTRAL DATA FOR SUBSTITUTED THIENO[2,3-*b*]- AND THIENO[3,2-*b*]PYRIDINES AND THE CORRELATION OF IPSO SUBSTITUENT CHEMICAL SHIFTS

LeRoy H. Klemm* and John N. Louris
Department of Chemistry, University of Oregon, Eugene, OR 97403-1253, USA

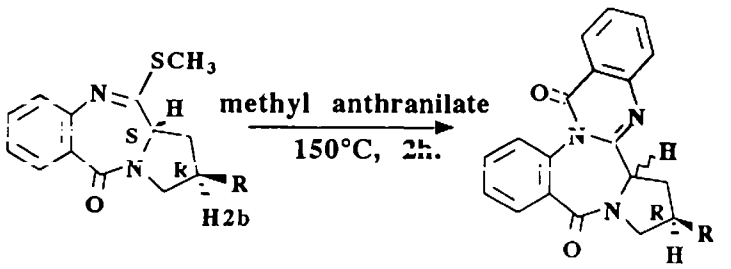
^{13}C NMR chemical shifts for the two thienopyridine parents and 44 monosubstituted derivatives are given. Ipso substituent chemical shifts for positions 2-, 3-, α-, β-, and γ- give linear plots versus the benzene system.

Heterocycl. Commun. 1 (1995) 381-386

SYNTHESIS OF A NEW PENTACYCLIC SYSTEM : PYRROLO[2,1-*c*]QUINAZOLINO[3,2-*a*][1,4]BENZODIAZEPINES: ELUCIDATION OF STRUCTURES.

Marie-Paule Foloppe,[a] Sylvain Rault,[a] Stephen Neidle,[b] Ronan Bureau[a] and Max Robba[a]*
[a] Centre d'Etudes et de Recherche sur le Medicament de Normandie,U.F.R. des Sciences Pharmaceutiques 1, rue Vaubenard 14032 CAEN, France [b] CRC Biomolecular Structure Unit, The Institute of Cancer Research Sutton, Surrey SM2 5NG, U.K.

The first synthesis of title compounds is described and their structures have been elucidated by NMR and X-ray crystallographic analysis.

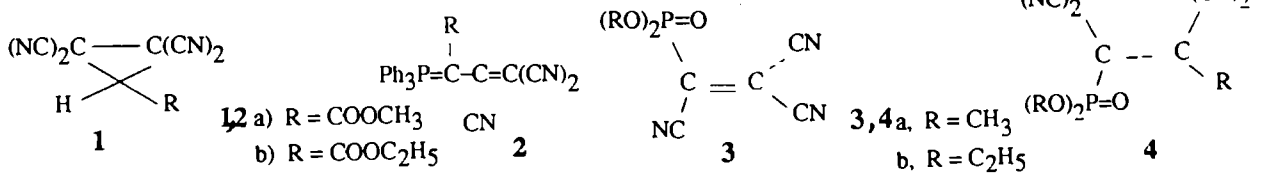


Heterocycl. Commun. 1 (1995) 387-393

REACTIONS OF TETRACYANOETHYLENE WITH TER- AND PENTAVALENT PHOSPHORUS REAGENTS

Wafaa M. Abdou and Neven A. F. Ganoub
National Research Centre, Dokki, Cairo, Egypt.

The entitled compound has been, thoroughly, studied with phosphonium ylides, dialkyl phosphonates and trialkyl phosphites whereas the adducts **1-4** were isolated and identified.



Heterocycl. Commun. 1 (1995) 395-402

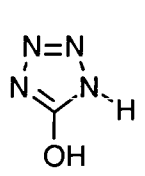
MOLECULAR ORBITAL STUDY OF THE FRAGMENTATION MECHANISM ON 5-HYDROXYTETRAZOLE

Kunio Waki[a],Teruo Kurihara[b*], Shigeo Arai[b], and Yoshitada Koyama[b]

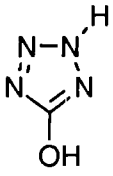
a Department of Applied Chemistry, Faculty of Engineering, Toyo University, Kawagoe-shi, Saitama 350, JAPAN

b Department of Chemistry, Faculty of Science, Josai University, Sakado-shi, Saitama 350-02, JAPAN

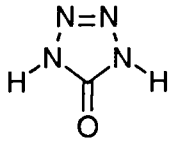
The tautomerism of 5-hydroxytetrazole **4** is discussed on the basis of its fragmentation patterns and molecular orbital calculations by means of the MNDO and PM3 methods.



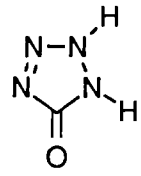
4a



4b



4c



4d

Heterocycl. Commun. 1 (1995) 403-410

SYNTHESIS OF 1-METHYL-2-HYDROXYIMINOMETHYL-ARYL-PYRIDINIUM SALTS WITH POTENTIAL AS ACETYL-CHOLINESTERASE REACTIVATORS

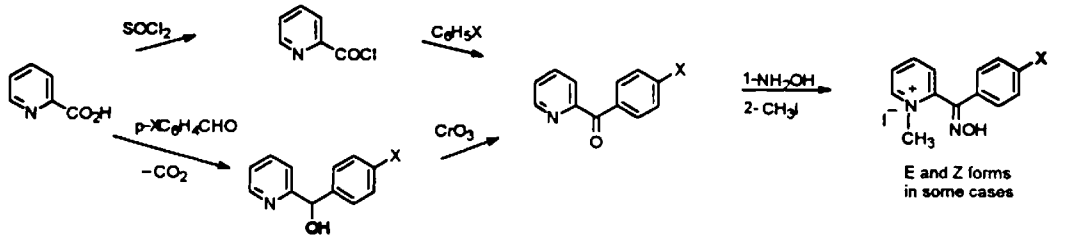
Ivone Carvalho[a,b] and Joseph Miller[a,c*]

[a]Universidade de São Paulo, Faculdade de Ciências Farmacêuticas, Cidade Universitária, 05508-900, São Paulo-SP., Brasil.

[b]Universidade de São Paulo, Faculdade de Ciências Farmacêuticas de Ribeirão Preto, Campus Universitário, Monte Alegre, 14040-903, RibeiraoPreto-SP., Brasil.

[c]Universidade Federal da Paraíba, Laboratório de Tecnologia Farmacêutica e Departamento de Quimíca, Campus I, Caixa Postal 5009, 58051-970, João Pessoa, PB., Brasil.

New potential antidotes of poisoning by organo-phosphorus compounds.



Heterocycl. Commun. 1 (1995) 411-419

ON THE SYNTHESES OF SOME TRITHIENYL METHANES AND TRITHIENYLMETHYL CARBENIUM IONS

Marcel Temciuc, Anna-Britta Hörnfeldt and Salo Gronowitz*
Organic Chemistry 1, Chemical Center, Lund University, Box 124, S-221 00 Lund,Sweden

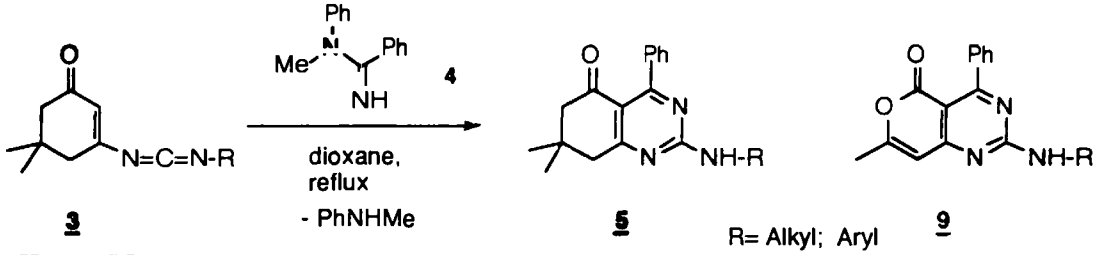
Several methods for the preparation of tris(thienyl)methanes and trithienylmethyl carbenium ions have been modified. The scope of the reaction of 2,5-dialkyl-3-thienyllithium derivatives with alkyl carbonates and methyl chloroformate for the preparation of tris(thienyl)carbinols has been studied. Tris(thienyl)carbenium ions were conveniently prepared through the reaction of tris(thienyl)-methanes with trityl perchlorate in anhydrous dichloromethane.

Heterocycl. Commun. 1 (1995) 421-426

PYRIMIDINE-RING FORMATION BY THE REACTION OF CONJUGATED CARBODIIMIDES WITH AN AMIDINE

Yuji Isomura, Shintaro Yamasaki, Hiroshi Okada, and Michihiko Noguchi*
Department of Applied Chemistry, Faculty of Engineering, Yamaguchi University, Tokiwadai, Ube 755, Japan

Fused pyrimidine derivatives 5 and 9 were formed in moderate yields by the reaction of conjugated carbodiimides with an amidine 4.



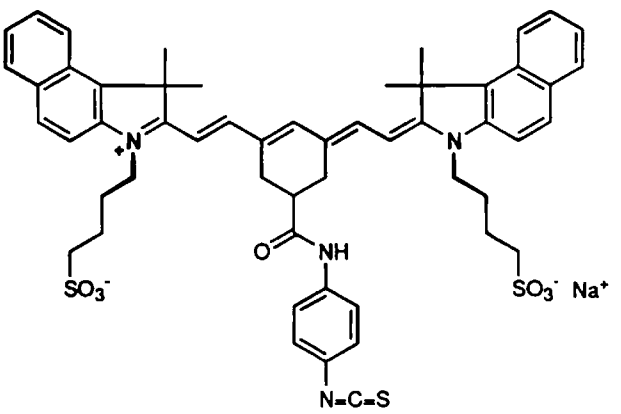
Heterocycl. Commun. 1 (1995) 427-430

A NOVEL NEAR-INFRARED CYANINE DYE FOR BIOANALYTICAL APPLICATIONS

Malgorzata Lipowska, Gabor Patonay, and Lucjan Strekowski,*
Department of Chemistry, Georgia State University, Atlanta, Georgia 30303, USA

Absorption: λ_{max}^{MeOH} 785 nm (ε 152000)

Fluorescence: λ_{em}^{MeOH} 811 nm

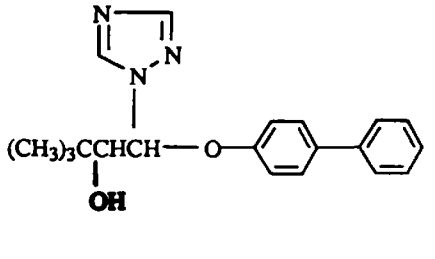


Heterocycl. Commun. 1 (1995) 431-444

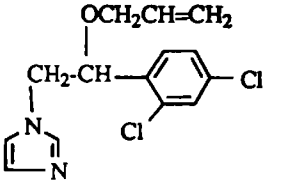
HPLC DETERMINATION OF THE FUNGICIDES BITERTANOL, IMAZALIL, AND THIABENDAZOLE IN BANANA

Noboru Motohashi[1], Hideo Nagashima[2] and Roger Meyer[3]
[1]Department of Medicinal Chemistry, Meiji College of Pharmacy, 1-22-1 Yato-cho, Tanashi-shi Tokyo 188, Japan, [2]Setagaya-ku Research Laboratory of Public Health, M. K. Earth Building 1-11-18 Setagaya Setagaya-ku, Tokyo 154, Japan, [3]Allergan Pharmaceuticals, 2525 Dupont Drive, Irvine, California 92715, USA

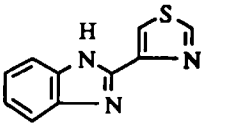
The determination of bitertanol, imazalil, and thiabendazole was investigated with isocratic reversed-phase high-performance liquid chromatography. The practical quantitative limit of bitertanol, imazalil, and thiabendazole was 0.01mg/kg. The recoveries were about 80%.



Bitertanol



Imazalil



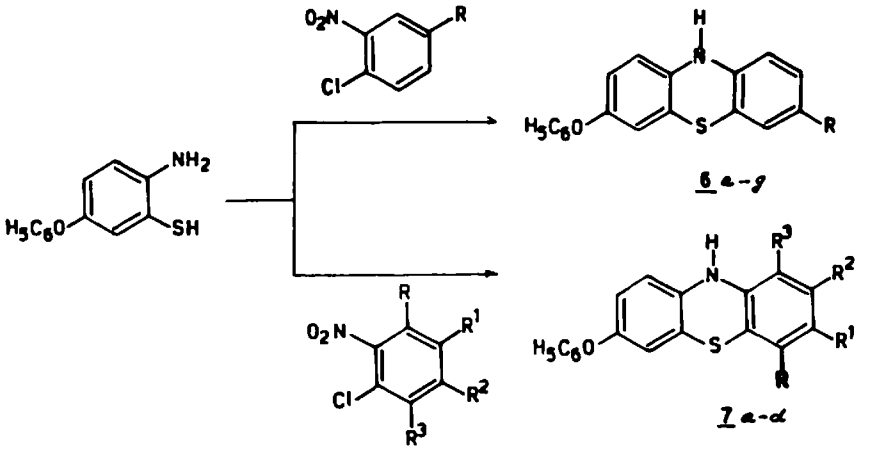
Thiabendazole

Heterocycl. Commun. 1 (1995) 445-450

SYNTHESIS OF 7-PHENOXYPHENOTHIAZINES BY SMILES REARRANGEMENT

Mahmoud A. Al-abdalla, Mukesh Jain and R.R. Gupta*
Department of Chemistry, University of Rajasthan, Jaipur-302004, India.

Synthesis of the title compounds by Smiles rearrangement has been reported



Heterocycl. Commun. 1 (1995) 451-454

ASYMMETRIC SYNTHESES OF UROTHION MODEL COMPOUNDS, 2-[(1*R*)-1,2-DIHYDROXYETHYL]THIENO[2,3-b]QUINOXALINE AND 2-[(1*S*)-1,2-DIHYDROXYETHYL]-THIENO[2,3-b]QUINOXALINE

Nobuhiro Kuboyama, Atsushi Sakurai, Yuji Hashimoto, and Yasuaki Okumura
Department of Chemistry, Faculty of Science, Shizuoka University, Ohya, Shizuoka 422, Japan

Asymmetric syntheses of the title compounds **2a** and **2b** were performed. Their CD spectral analysis supported that the 1-position of urothion (**1**) has *R*-configuration, which is identical with that of molybdopterin.