Graphical Abstracts

Heterocycl. Commun. **6** (2000) 199-208

DESIGN AND SYNTHESIS OF A NEW CLASS OF PYRROLOBENZIMIDAZOLE BASED AGENTS TO TARGET HUMAN TUMOR HELICASES

Yennam Satyanarayana and J.William Lown*
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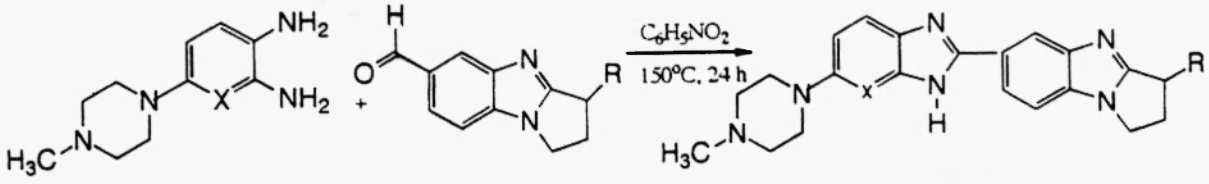
The syntheses of pyrrolobenzimidazole based Hoechst 33258 analogues were carried out in conjunction with a design to explore the potential for selective inhibition of human tumor helicases.

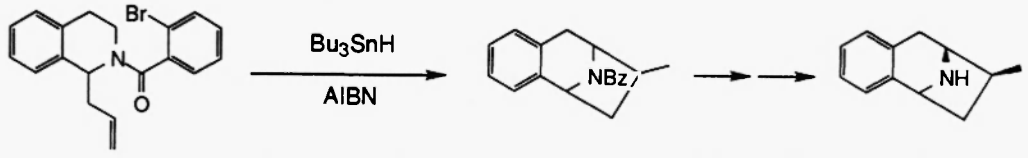


Heterocycl. Commun. **6** (2000) 209-210

Free-radical Cyclization of 2-(o-Bromobenzoyl)-1-(2-propenyl)-1,2,3,4-tetrahydroisoquinoline: Synthesis of 7-Methyl-6,7,8,9-tetrahydro-5*H*-benzocyclohepten-5,8-Imine

John B. Bremner,[1]* Alicia A. Monteith[1] and Reginald J. Smith[2]

[1]University of Wollongong, Wollongong, NSW, Australia, 2522
[2]Phytex Australia Pty Ltd, Sydney, NSW, Australia, 2156



Heterocycl. Commun. **6** (2000) 211-214

SYNTHESIS AND ANTIMICROBIAL ACTIVITY OF UNNATURAL (–)-ANTIMYCIN A3 AND ITS ANALOG

Hitoshi Kondo, Takayuki Oritani and Hiromasa Kiyota*

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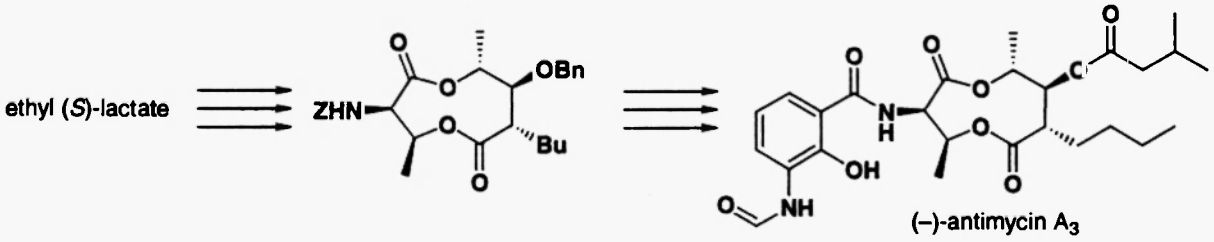
1-1 Tsutsumidori-Amamiya, Aoba-ku, Sendai 981-8555 Japan

Unnatural enantiomer of a dilactone antibiotic (–)-antimycin A_3 and its deformylamidodehydroxy analog were synthesized using chelation controlled alkylation as a key step. (–)-Antimycin A_3 and its analog hardly showed antimicrobial activity compared with natural antimycin A complex. The formal synthesis of natural (+)-antimycin A_3 is also achieved.



Heterocycl. Commun. 6 (2000) 215-218

APPROACH OF PYRROLO[4,3,2-*de*] QUINOLINE ALKALOID STRUCTURE.

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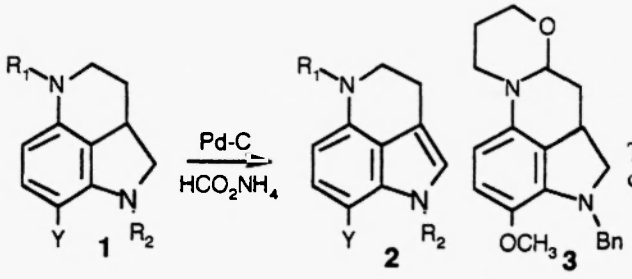
1- UPRESA 6013-Laboratoire de Chimie Therapeutique, Faculte de Pharmacie, 51, rue Cognacq-Jay, 51100 Reims-France. 2-Laboratoire de Chimie Therapeutique, Faculte de Pharmacie, 8, Avenue Rockefeller, 69373 Lyon Cedex 08 - France - e-mail : roland.barret@rockefeller-univ.lyon1.fr



The synthesis of **2** and **3**, synthetic precursors of damirones and haematopodin is described

Heterocycl. Commun. 6 (2000) 219-224

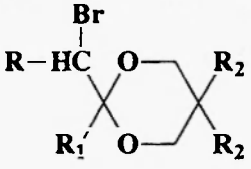
SYNTHESIS AND STEREOCHEMISTRY OF SOME NEW CHIRAL BROMINATED 1,3 DIOXANE DERIVATIVES

Crina Socaci[a], Ion Grosu[a], Gerard Ple[b], Heinz W. Zwanziger[c], Eugen Mesaros[a], Dragos Marginean[a], Sorin Mager[a]

[a]Babes-Bolyai University, Cluj-Napoca, România; [b]Universite de Rouen et IRCOF, Mont Saint-Aignan, France

[c]Fachhochschule Merseburg, Merseburg, Germany

The synthesis and the stereochemistry of new brominated chiral 1,3-dioxanes are reported



R=Me, Ph
R_1=H, Ph
R_2=Me, COOEt

Heterocycl. Commun. 5 (1999) 225-230

Synthesis and NMR Spectroscopic Studies of Novel N-Acetyl-3-Hydrazonoalkyl Tetramic Acids

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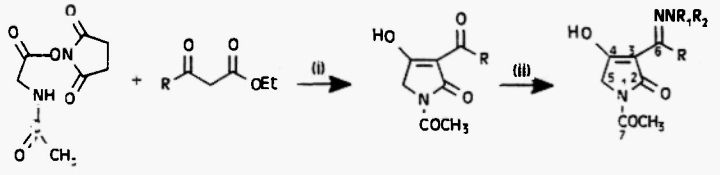
[a] *Laboratory of Organic Chemistry, Department of Chemical Engineering, National Technical University of Athens, Zografou Campus, 157 73 Athens, Greece.*

[b] *Laboratory of Inorganic Chemistry, Department of Chemistry, University of Athens, Greece.*



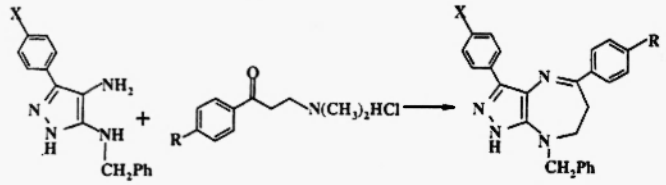
Heterocycl. Commun. **6** (2000) 231-238

Synthesis of New 1-Benzyl-4,6-diaryl-2,3-dihydropyrazolo[3,4-b][1,4]diazepines

Braulio Insuasty[1]*, Ricaurte Rodriguez[1], Jairo Quiroga[1], Rodrigo Abonía[1], Claudio Saitz[2a] and Carolina Jullian[2b].

[1]Grupo de Investigación de Compuestos Heterocíclicos, Departamento de Química, Universidad del Valle, A. A. 25360, Cali, Colombia.
[2a]Departamento de Química Orgánica y Fisicoquímica, [b]CEPEDEQ, Facultad de Ciencias Químicas y Farmaceuticas, Universidad de Chile, Casilla 233, Santiago 1 - Chile

The reaction of 4-amino-3-aryl-5-benzylaminopyrazoles (**1a,b**) with 3-dimethylaminopropiophenones (**2**) in ethanol gave 1-benzyl-4,6-diaryl-2,3-dihydropyrazolo[3,4-b][1,4]diazepines (**3a-h**). The structure elucidation of the products is based on detailed nmr analysis (^{1}H, ^{13}C and DEPT).



1a,b **2** **3a-h**

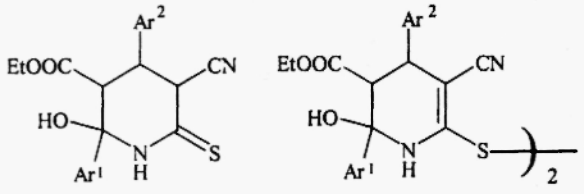
Heterocycl. Commun. **6** (2000) 239-244

SYNTHESIS, DEHYDRATION AND OXIDATION OF 3-CYANO-4,6-DIARYL-5-ETHOXYCARBONYL-6-HYDROXYPIPERIDINE-2-THIONES

A.Krauze*, G.Duburs

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

Convenient methods of synthesis of stable 3-cyano-6-hydroxypiperidine-2-thiones and 2,2'-bis-(6-hydroxy-1,4,5,6-tetrahydropyridyl)disulfides were elaborated by the unsymmetrical condensation of ethyl 4-nitrobenzoylacetate, an aromatic aldehyde and cyanothioacetamide in the presence of piperidine with subsequent acidification or oxydation with iodine.



Ar^1 = 4-NO$_2$C$_6$H$_4$;

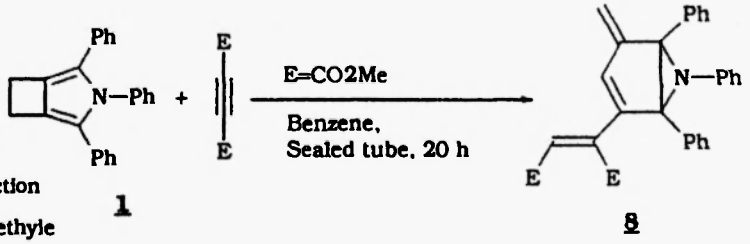
Ar^2 = Ph, 4-NO$_2$C$_6$H$_4$

Heterocycl. Commun. 6 (2000) 245-248

AN EXTREMELY UNUSUAL REACTION OF 2,3,4-TRIPHENYL-3-AZABICYCLO-[3.2.0] HEPTA-1,4-DIENE WITH DIMETHYL ACETYLENEDICARBOXYLATE

Kiyoshi Matsumoto,*[a] Sadahiro Goto,[a] Mitsuo Toda,[b] and Akikazu Kakehi*[c]
a Graduate School of Human and Environmental Studies, Kyoto University, Kyoto 606-8501, Japan
b Faculty of Engineering, Shizuoka University, Hamamatsu 432-8561, Japan
c Faculty of Engineering, Shinshu University, Nagano 380-8 5 53, Japan

2, 3, 4-Triphenyl-3-azabicyclo[3.2.0]hepta-1,4-diene underwent, in a sealed tube, an extremely novel reaction with dimethyl acetylenedicarboxylate to give 6-phenyl-2-[(Z)-1,2-bis(methoxycarbonyl)-vinyl]-4-methylene-1,5-diphenyl-6-azabicyclo[3.1.0]hex-2-ene **8**, in addition to the azepine **3**. The structure was established by an X-ray analysis.



1 **8**

Heterocycl. Commun. 6 (2000) 249-252

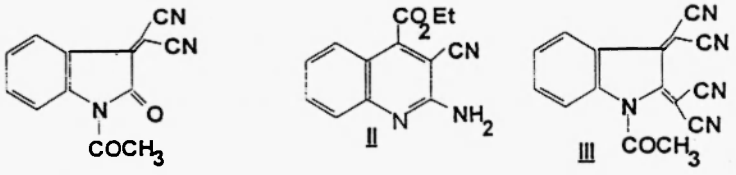
REACTION OF 1-ACETYL-3-DICYANOMETHYLENE-1,3 - DIHYDRO-2H- INDOL- 2-ONE WITH SOME NUCLEOPHILIC REAGENTS : SYNTHESIS OF SOME INDOL AND QUINOLINE DERIVATIVES .

Moustafa F. Aly[a)], Aly H. Atta[b)*] and Mansour I. Younes[a)]

a) Chemistry Department , Faculty of Science , South Valley University , Qena , Egypt .

b) Chemistry Department , Faculty of Education at Suez , Suez Canal University , Suez , Egypt

Reaction of 1-acetyl-3-dicyanomethylene-1,3-dihydro-2H-indol-2-one (I) with some active methylenes and amines was studied . Malononitrile with(I) gave (II) or (III) depending on the reaction condition. With cyanoacetamide we obtained a mixture of (V)and(VI)



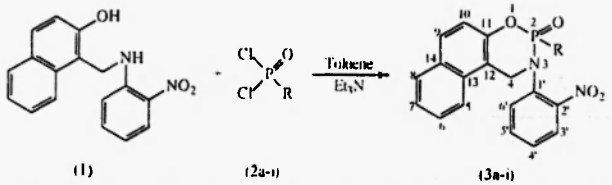
I II III

Heterocycl. Commun. 6 (2000) 253-258

SYNTHESIS OF 2-SUBSTITUTED-2,3-DIHYDRO-3-(2-NITROPHENYL)-1*H*-NAPHTH[1,2-e][1,3,2] OXAZAPHOSPHORINE 2-OXIDES

M. Venugopal[a], C. Devendranath Reddy*[a], C. Naga Raju[a] and K.D.Berlin[b]
[a]Department of Chemistry, Sri Venkateswara University, Tirupati - 517 502, India
[b]Department of Chemistry, Oklahoma State University, Stillwater, OK 74078, USA

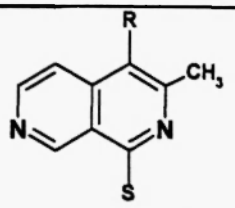
The compounds 3a-i were synthesized by reacting 1-(2-nitroanilinomethyl)-2naphthol (1) with arylphosphorodichloridates (2a-h) and O-2-chloroethyl phosphoryl chlorie (2i) in presence of triethylamine in dry toluene-tetrahydrofuran mixture.



(1) (2a-i) (3a-i)

Heterocycl. Commun. **6** (2000) 259-264

A METHOD FOR THE SYNTHESIS OF 3-METHYL-2,7-NAPHTHYRIDINE DERIVATIVES



Eugen Barbu and Flavian Cuiban

Organic Chemistry Department, University of Ploieşti, Bd.Bucureşti 39, Ploieşti 2000, Romania

A synthetic route to 3-methyl-2,7-naphthyridine derivatives, used for pharmacological studies, is reported.

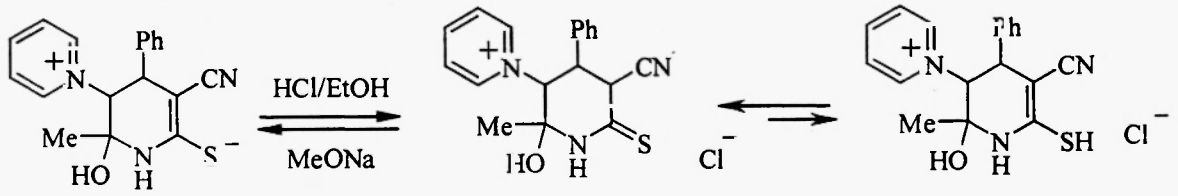
Heterocycl. Commun. **6** (2000) 265-270

SYNTHESIS AND PROPERTIES OF 4,5-trans-4-ARYL-3-CYANO-6-HYDROXY-6-METHYL-5-PYRIDINIO -1,4,5,6-TETRAHYDROPYRIDINE-2-THIOLATES

Aivars Krauze*, Gunārs Duburs

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

Stable 4,5-trans-4-Aryl-3-cyano-6-hydroxy-6-methyl-5-pyridinio-1,4,5,6-tetrahydropyridine-2-thiolates and corresponding hydrogenated 6-hydroxy-6-methyl-4-phenyl-5-pyridiniopyridine-2-thione chlorides were obtained. Their dehydration and dehydrogenation were studied.



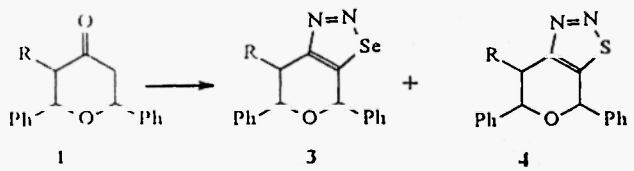
Heterocycl. Commun. **6** (2000) 271-274

SYNTHESIS OF 5,7-DIPHENYL(-4-ALKYL)TRIHYDRO PYRANO[3,4-d] [1,2,3]SELENADIAZOLES AND 5,7-DIPHENYL (-4-ALKYL) TRIHYDROPYRANO [3,4-d] [1,2,3]THIADIAZOLES

D. Bhaskar Reddy*, A. Somasekhar Reddy V. Padmavathi and N. Chandrasekhar Babu

Department of Chemistry, S.V.University, Tirupati - 517 502, India.

The synthesis of title compounds has been described.



1 3 4

Heterocycl. Commun. **6** (2000) 275-282

SYNTHESIS OF 5-CYANO-4,7-DIHYDROPYRAZOLO[3,4-b]PYRIDIN-4-ONES AND 5-CYANOPYRAZOLO[3,4-b]PYRIDIN-4-ONES IN ONE-STEP BY THE REACTION OF 5-AMINOPYRAZOLONE WITH BENZALDEHYDE AND BENZOYLACETONITRILE IN ETHANOL AND BY MICROWAVE RADIATION IN DRY MEDIA.

Jairo Quiroga*, Silvia Cruz, Braulio Insuasty and Rodrigo Abonia
Grupo de Investigación de Compuestos Heterocíclicos, Departamento de Quimica, Universidad del Valle, A. A. 25360, Cali – Colombia