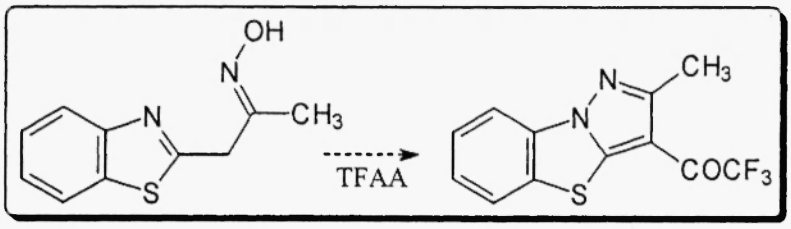
Graphical Abstracts

Heterocycl. Commun. **3** (1997) 201-206

FUSED PYRAZOLE SYNTHESIS BY N-N BOND FORMATION: THE PYRAZOLO[5,1-*b*]BENZOTHIAZOLE SYSTEM

Dallas K. Bates,* Jeffrey T. Kohrt, Heather Folk and Mingde Xia
Department of Chemistry, Michigan Technological University,
1400 Townsend Drive, Houghton, Michigan 49931

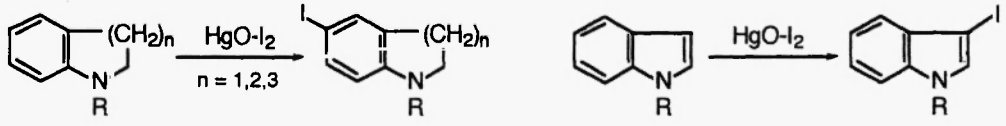


Heterocycl. Commun. **3** (1997) 207-210

IODINATION OF BENZOCYCLIC AMINES WITH MERCURY(II)OXIDE-IODINE REAGENT

Kazuhiko Orito,* Takahiro Hatakeyama, Mitsuhiro Takeo, Shiho Uchiito, Masao Tokuda, and Hiroshi Suginome,
Laboratory of Organic Synthesis, Division of Molecular Chemistry, Graduate School of Engineering, Hokkaido University, Sapporo 060, Japan

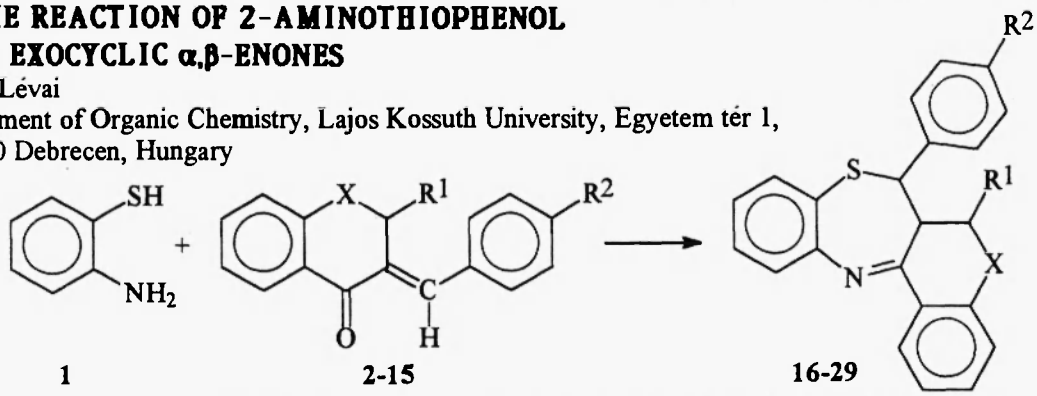
By treatment with mercury(II) oxide-iodine reagent in dichloromethane at room temperature, 5-,6- and 7-membered benzocyclic amines, such as indole, indoline, 1,2,3,4-tetrahydroquinoline and 2,3,4,5-tetrahydro-1*H*-benzazepine, were readily converted to the corresponding monoiodo compounds, regioselectively.



Heterocycl. Commun. **3** (1997) 211-216

OXAZEPINES AND THIAZEPINES 35. SYNTHESIS OF TETRACYCLIC BENZOTHIAZEPINES BY THE REACTION OF 2-AMINOTHIOPHENOL WITH EXOCYCLIC α,β-ENONES

Albert Lévai
Department of Organic Chemistry, Lajos Kossuth University, Egyetem tér 1,
H-4010 Debrecen, Hungary



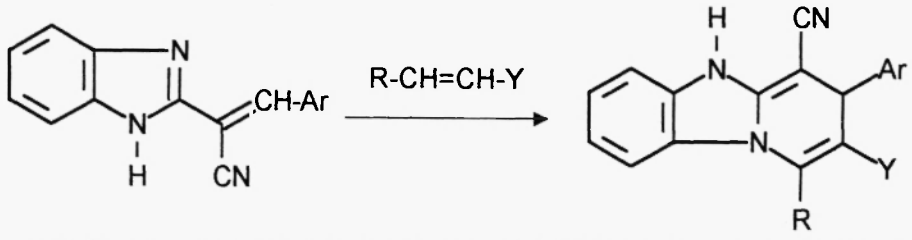
1 **2-15** **16-29**

Tetracyclic chromeno- and 1-thiochromenobenzothiazepines **16-29** have been synthesized by the reaction of 2-aminothiophenol **1** and exocyclic α,β-unsaturated ketones **2-15** in hot toluene with trifluoroacetic acid catalyst.

Heterocycl. Commun. 3 (1997) 217-221

A NOVEL SYNTHESIS OF BENZO[g]IMIDAZO[1,2-a]PYRIDINES: THE REACTIVITY OF ARYLIDINE-1H-BENZIMIDAZOLE-2-ACETONITRILE WITH ELECTRON POOR OLEFINS AND DIMETHYLACETYLENE DICARBOXYLATE UNDER MICROWAVE IRRADIATION

Ramadan Mekheimer [a], Rafat M. Shaker [a], Kamal Usef Sadek [a*] and Hans H. Otto [b]

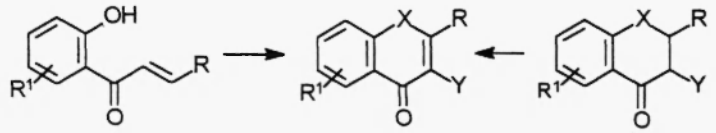


Heterocycl. Commun. 3 (1997) 223-229

DEHYDROGENATION BY IODINE/DIMETHYLSULFOXIDE SYSTEM: A GENERAL ROUTE TO SUBSTITUTED CHROMONES AND THIOCHROMONES

Tamás Patonay* [a], Jose A.S. Cavaleiro* [b], Albert Lévai [a] and Artur M.S. Silva [b], [a]Department of Organic Chemistry, Kossuth Lajos University, H-4010 Debrecen, Hungary, [b]Department of Chemistry, University of Aveiro, 3810 Aveiro, Portugal

The general synthesis of flavones, 3-substituted flavones, chromones and their thio analogues by the use of DMSO-I_2 is demonstrated.



Heterocycl. Commun. 3 (1997) 231-234

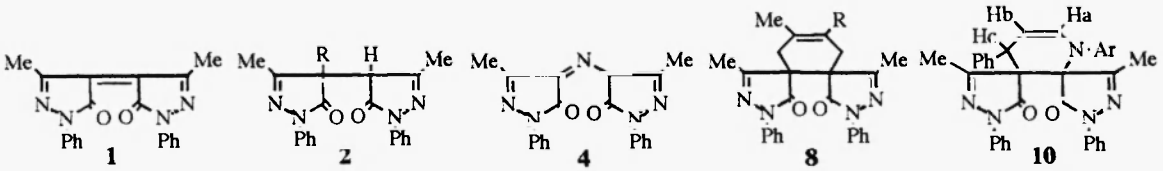
Addition and Cycloaddition Reactions with Pyrazole Blue

Moustafa F. Aly,[a*] Mansour I. Younes[a], Aly H. Atta[a], Saoud A.M. Metwally[b]

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

b. Department of Chemistry, Faculty of Science, Assiut University, Assiut, Egypt.

Pyrazole blue **1** reacts with primary aromatic amines to give the corresponding adducts **2** whereas with benzyl amine afforded rubazonic acid **4**. Compound **1** reacts with dienes to give the corresponding Diels-Alder adducts **8** and **10** respectively.

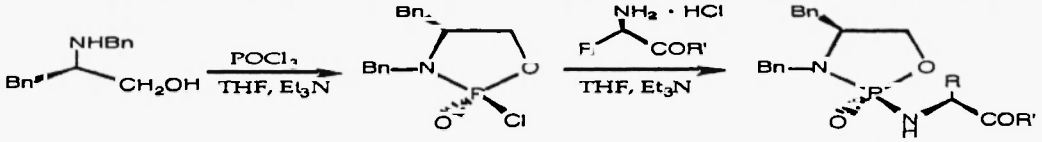


Heterocycl. Commun. 3 (1997) 235-238

DIASTEREOSELECTIVE PREPARATION AND STRUCTURE OF NOVEL CYCLOPHOSPHAMIDE DERIVATIVES OF AMINO ACIDS

Mitsuji Yamashita,* Tatsuya Usui, Naoyuki Osakabe, Tatsuo Oshikawa, and Kuniaki Seo †
Department of Materials Chemistry, Faculty of Engineering, Shizuoka University, Hamamatsu 432, Japan
† Department of Chemistry and Biochemistry, Numazu College of Technology, Numazu 410, Japan

Abstract: The reaction of amino alcohol **1** with phosphorus oxychloride afforded cyclophophamidic chloride **2A**, which was further converted into cyclophosphamides **3**. Structures of **2A** and **3** were elucidated by X-ray and ^{1}H-NMR.



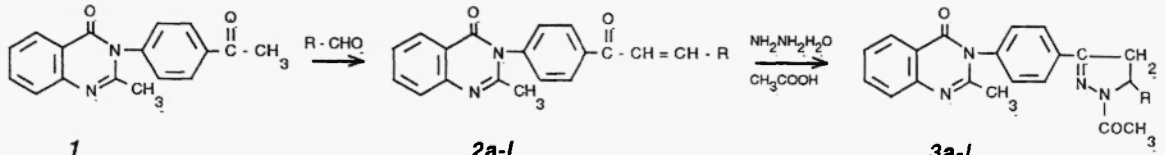
1 **2A** **3**

Heterocycl. Commun. 3 (1997) 239-244

SYNTHESIS OF SOME NOVEL PYRAZOLINES AS BIOLOGICALLY POTENT AGENTS

Haresh B. Oza, Dharti G. Joshi and Hansa H. Parekh *
Department of Chemistry, Saurashtra University,Kalawad Road, Rajkot 360 005. INDIA.

The titled compounds ***3a-l*** have been synthesised by the cyclocondensation of chalcones ***2a-l***. All the compounds were screened for their antimicrobial activity.



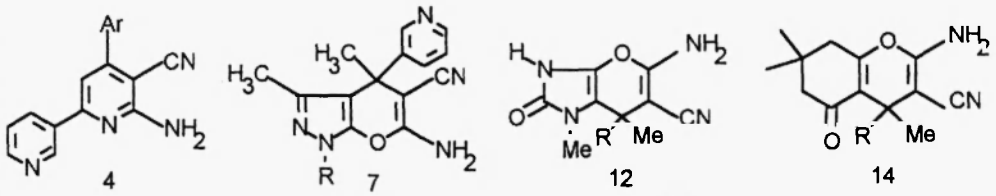
1 ***2a-l*** ***3a-l***

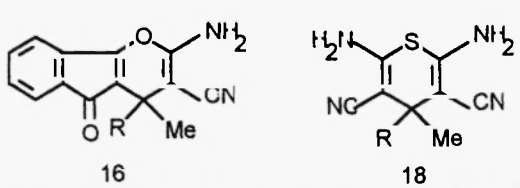
R = Aryl

Heterocycl. Commun. 3 (1997) 245-252

SYNTHESIS OF SOME HETEROCYCLIC COMPOUNDS VIA THE TERNARY CONDENSATION WITH 3-ACETYLPYRIDINE

Fathy F. Abdel-Latif, Rafat M. Shaker* and Naglaa S. Abdel-Aziz
Chemistry Department, Faculty of Science, El-Minia University, El-Minia 61519, A.R. Egypt



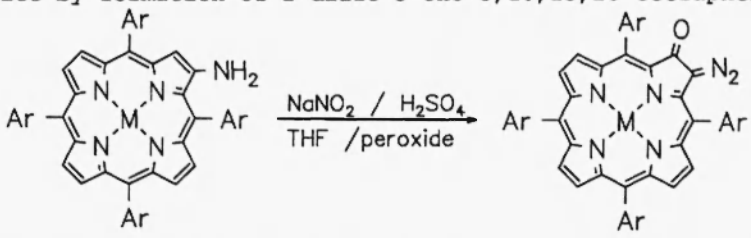


Heterocycl. Commun. 3 (1997) 253-261

SYTHESIS AND CHARACTERISATION OF NEW 2-DIAZO-3-OXO-5,10,15,20-TETRAPHENYLCHLORINS

Jose A. S. Cavaleiro,[a*] Viviana M. Gerdan,[b] Hermann K. Hombrecher,[b*] Maria G. P. M. S. Neves,[a] Artur M. S. Silva[a]
a) Department of Chemistry, University of Averiro, Portugal b) Institut für Chemie der Medizinischen Universität zu Lübeck, Germany

The copper and nickel derivatives of β-amino-5,10,15,20-tetraphenylporphyrin react with sodium nitrite by formation of 2-diazo-3-oxo-5,10,15,20-tetraphenylchlorins.

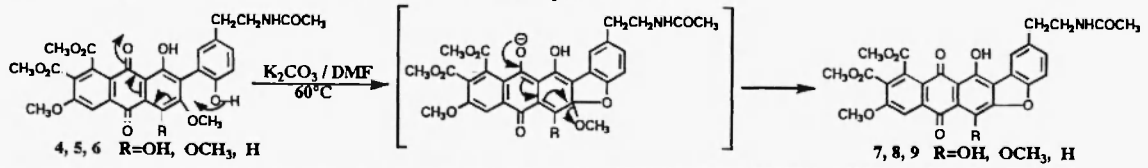


Heterocycl. Commun. 3 (1997) 263-266

SYNTHESIS OF ANTHRA[2,3-*b*]BENZOFURAN DERIVATIVES BY CYCLIZATION OF LACCAIC ACID A DERIVATIVES AND ITS REACTION MECHANISM

Dingyu Hu, Yoshihiko Shimoda, and Shin-ichi Nakatsuka*
The United Graduate School of Agricultural Science, Gifu University, Yanagido, Gifu 501-11, Japan

Cyclization conditions and reaction mechanism for transformation of laccaic acid A **1** to an anthra[2,3-*b*]benzofunan **2** were studied preparing 3-methoxy derivatives of **1**, such as **4~6**, and a new pathway for the cyclization was proposed and several related compounds **7~9** were synthesized.

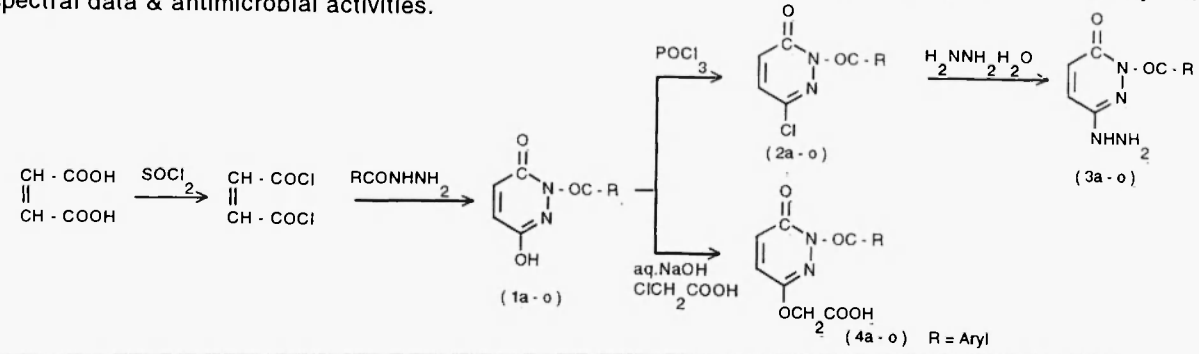


Heterocycl. Commun. 3 (1997) 267-271

NOVEL METHOD OF SYNTHESIS AND ANTIMICROBIAL EVALUATION OF 2-AROYL -6-HYDROXY/CHLORO/HYDRAZINO/CARBOXYMETHOXY-3(2H)-PYRIDAZINONES.

D.M.Purohit and V. H. Shah*
Department of Chemistry, Saurashtra University, Rajkot - 360 005. India

Maleoyl chloride on cyclocondensation with aromatic acid hydrazides yields 2-aroyl-6-hydroxy-3-(2H) pyridazinones (1a-o), compounds (1a-o) on chlorination with $POCl_3$ followed by the action of hydrazine hydrate affords (2a-o) and (3a-o). Compounds (1a-o) on reaction with monochloroaceticacid in aq. NaOH furnishes (4a-o). The constitution of the products (1 to 4) have been elucidiated by elemental analyses, spectral data & antimicrobial activities.



Heterocycl. Commun. 3 (1997) 273-278

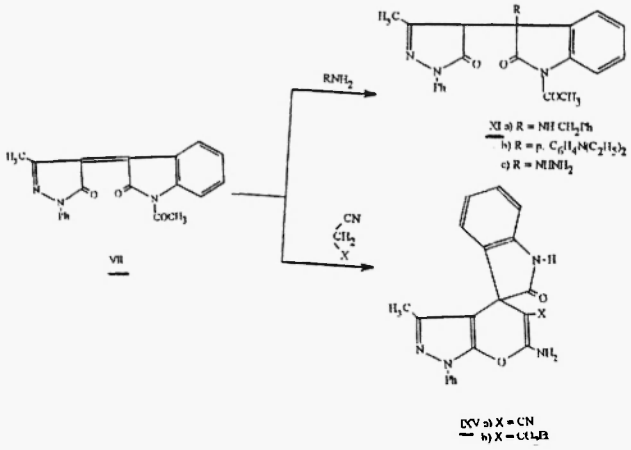
SYNTHESIS AND REACTIONS OF 1-ACETYL-3H-3(3'-METHYL-5'-OXO-1'-PHENYLPYRAZOLIDINE)-2H-INDOL-2-ONE

Mamdouh A. Hassan*, Aly H. Atta, Mansour I. Younes, Thana M. Talaat and Saoud A. Metwally[a)]

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

a) Chemistry Department, Faculty of Science, Assiut University, Assiut, Egypt.

1-Acetyl-3H-3(3'-methyl-5'oxo-1'-phenylpyrazolidine)-2H-indol-2-one **VII** is synthesized and its reactions with amines, hydrazines, and active methylenes were studied.



Heterocycl. Commun. 3 (1997) 279-284

SYNTHESIS AND SPECTRAL STUDIES OF NITROSOUREA DERIVATIVES OF 7-BROMO AND 7-CHLORO-2,3-DIHYDRO-1,4-BENZOTHIAZINES AS POSSIBLE ANTICANCER AGENTS

Dinesh Rai, Vandana Gupta and R.R. Gupta*

Department of Chemistry, University of Rajasthan, Jaipur – 302004, India

Abstract : The synthesis of nitrosourea derivatives of 7-bromo and 7-chloro-2,3-dihydro-1,4- benzothiazines by isocyanation and successive nitrosation is reported.