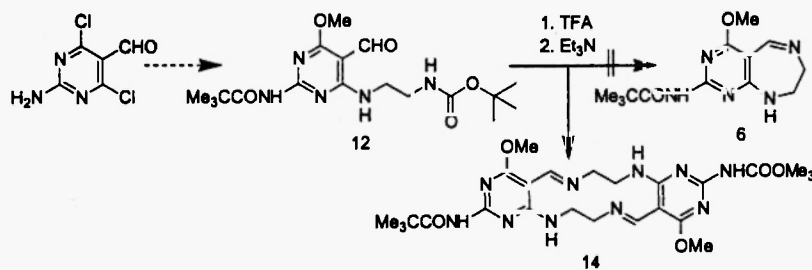


## Graphical Abstracts

### AN UNEXPECTED DIMER FORMATION FROM A 4-(2-AMINOETHYLAMINO)-5- FORMYLPYRIMIDINE INTERMEDIATE

Heterocycl. Commun. 8 (2002) 419-422

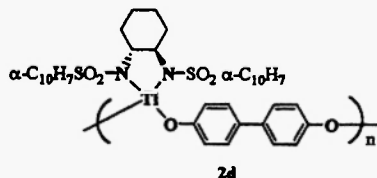
Daniel P. Parker, Susan A. Hughes, Daniel L. Parker, and Partha S. Ray\*  
Department of Chemistry, State University of West Georgia, Carrollton, GA 30118, USA



### SYNTHESES OF CHIRAL SOLID CATALYSTS AND APPLICATION TO ENANTIOSELECTIVE ADDITION OF DIETHYLZINC TO BENZALDEHYDE

T. Nagasawa, H. Miyata, N. Kudo, M. Nakatani, K. Ito,  
and Y. Ohba

A chiral solid catalyst **2d** as a heterogeneous Lewis acid was prepared from titanium tetraisopropoxide, (R,R)-(+)-1,2-bis(naphthalenesulfonamido)cyclohexane and 4,4'-biphenol. It has been found to promote the enantioselective addition of diethylzinc to benzaldehyde and is a reusable catalyst.

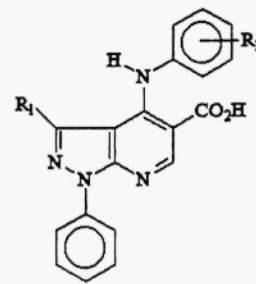


Heterocycl. Commun. 8 (2002) 427-432

### SYNTHESIS AND BIOLOGICAL EVALUATION OF 1*H*- PYRAZOLO[3,4-*b*]PYRIDINE-5-CARBOXYLIC ACIDS AGAINST VACCINIA VIRUS

Alexandre R. Azevedo, Vitor F. Ferreira, Heloisa de Mello, Luiz R. Leão-Ferreira, Alfredo V. Jabor, Izabel C.P.P. Frugulhetti, Helena S. Pereira, Nissin Moussatché, Alice M. Rolim Bernardino\*. Universidade Federal Fluminense, Instituto de Química, Departamento de Química Orgânica, Outeiro de S. João Batista, s/n°, Centro, Niterói, CEP 24020-150, Rio de Janeiro, Brazil

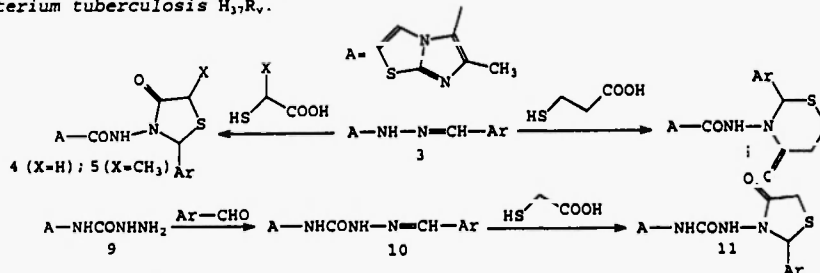
Several new 3-phenyl and 3-alkyl-1*H*-pyrazolo[3,4-*b*]pyridine derivatives (**3a-e**) were prepared and evaluated against Vaccinia virus on BSC-40 cells. The derivatives **3a**, **3b** and **3d** showed an inhibitory activity above 90% at 30  $\mu$ M, 40  $\mu$ M and 50  $\mu$ M concentrations.



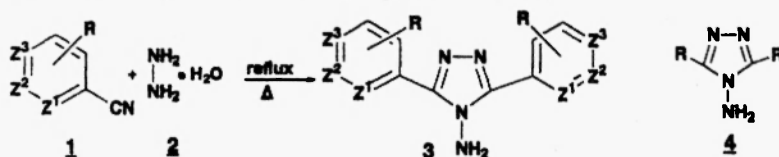
## FUSED HETEROCYCLES : SYNTHESIS OF SOME NEW IMIDAZOTHIAZOLES

Nesrin Cesur <sup>a,\*</sup>, Zafer Cesur <sup>a</sup>, Handan Guner <sup>b</sup>, and B. Ozden Kasimođulları <sup>a</sup><sup>a</sup> Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Istanbul, 34452 Beyazıt, Istanbul, Turkey<sup>b</sup> Pharmacy of Cerrahpaşa Faculty of Medicine, University of Istanbul, 34303 Cerrahpaşa, Istanbul, Turkey

Reaction of aldehyde-hydrazones or semicarbazones bearing an imidazo[2,1-b][1,3]thiazole ring system with mercaptoalkanoic acids were investigated. Antimycobacterial activities of compounds thus obtained were evaluated against *Mycobacterium tuberculosis* H<sub>37</sub>R<sub>v</sub>.



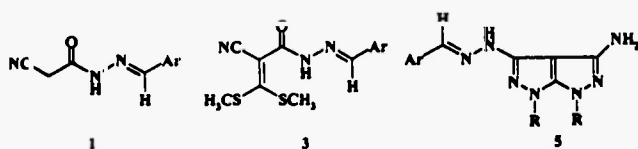
## A FACILE AND SOLVENT-FREE SYNTHESIS OF 3,5-DISUBSTITUTED-4-AMINO-1,2,4-TRIAZOLES BY REACTIONS OF AROMATIC NITRILES WITH HYDRAZINE

Yukio Ikemi, <sup>a</sup> Naoto Hayaashi, <sup>a</sup> Akikazu Kakehi <sup>b</sup> and Kiyoei Matsumoto, <sup>a\*</sup><sup>a</sup> Graduate School of Human and Environmental Studies, Kyoto University, Kyoto 606-8501, Japan<sup>b</sup> Faculty of Engineering, Shinshu University, Nagano 380-8553, Japan

**Abstract :** A variety of 3, 5-disubstituted-4-amino-1,2,4-triazoles **3** and **4** were prepared by reactions of aromatic nitriles with hydrazine monohydrate **2**. The structure of 3,5-diphenyl-4-amino-1,2,4-triazole was established by an X-ray analysis.

A CONVENIENT SYNTHESIS OF PYRAZOLO[3,4-c]PYRAZOLES USING SOME NOVEL  $\alpha$ -CYANOKETENE DITHIOACETALSGalal H. Elgamsi <sup>a\*</sup>, Ahmed H. Elghandour <sup>b</sup>, Hossay A. Ali <sup>b</sup>, Ahmed M. Hussain <sup>b</sup><sup>a</sup> Chemistry Department, Faculty of Science, Helwan University, Ain-Helwan, Cairo, Egypt<sup>b</sup> Chemistry Department, Faculty of Science, Cairo University (Bani-Suef Branch), Bani-Suef, Egypt.

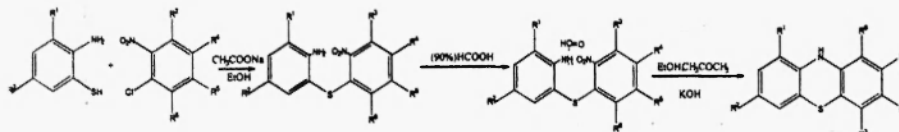
**Abstract:** A novel synthesis of pyrazolo[3,4-c]pyrazoles **5** utilizing the novel  $\alpha$ -cyanoketene dithioacetals **3** has been discussed.



## SYNTHESIS OF 1- AND 3-CHLORO-PHENOTHIAZINES

Gulshan Kumar, Vandana Gupta, D.C. Gautam and R.R. Gupta\*  
 Department of Chemistry, University of Rajasthan, Jaipur-302004, India.  
 E-mail: rrg\_vg@yahoo.co.in; dr\_vandana27@yahoo.co.in

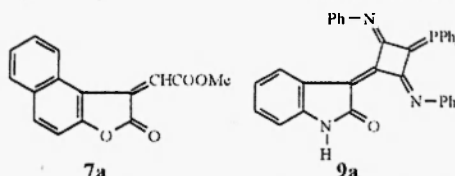
Synthesis of 1/3-chlorophenothiazines is reported by Smiles rearrangement



NOVEL SYNTHESIS OF PHOSPHORANYLIDENE-CYCLOBUTYLIDENE DERIVATIVES FROM THE REACTION OF N-PHENYLIMINO-VINYLLIDENE, 2-OXO-VINYLLIDIENE- AND 2-THIOXOVINYLLIDENE TRIPHENYLPHOSPHORANE WITH  $\alpha$ -DIKETONES

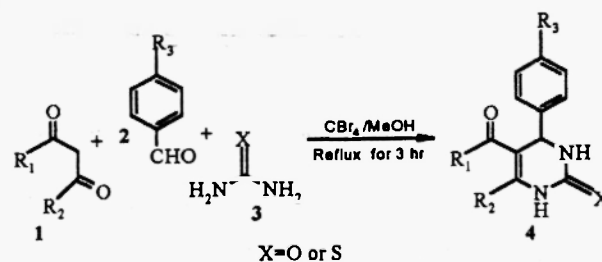
Fouad M. Soliman<sup>a\*</sup>, Khairia M. Khalil<sup>b</sup>, Medhat M. Said<sup>a</sup> and Soher S. Maigali<sup>a</sup>.

a) Department of Pesticide Chemistry; b) Department of Natural Products National Research Centre, Dokki, Cairo, Egypt.



The synthesis of phosphoranylidene-cyclobutylidene derivatives from the reaction of active and stabilized phosphonium ylides with  $\alpha$ -diketones is reported.

Synthesis of Dihydropyrimidinones:  
 An Improved Conditions for the Biginelli Reaction



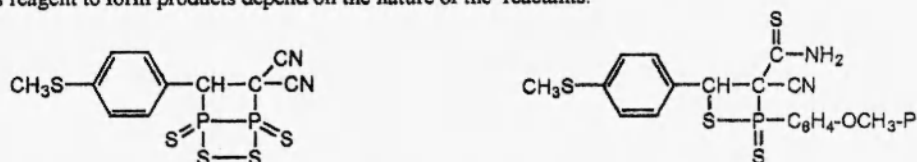
A. Vijender Reddy, V. L. Niranjan Reddy,  
 K. Ravinder and Y. Venkateswarlu\*.

### The Behaviour of Arylidene malononitriles Towards Certain Thiating Phosphorus Reagents

Naglaa M. Abd El-Rahman

Department of Pesticide Chemistry, National Research Centre, Dokki, Cairo 12622, Egypt

Arylidene malononitriles react with certain thiating phosphorus reagents, namely, phosphorus pentasulfide and Lawesson's reagent to form products depend on the nature of the reactants.

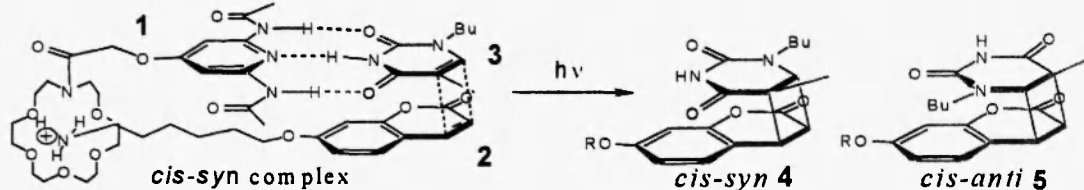


### STEREO- AND REGIOSELECTIVE PHOTOCYCLOADDITION OF COUMARIN AND THYMINE DERIVATIVES USING MOLECULAR RECOGNITION CATALYST

Osamu Murai, Hisafumi Ikeda and Yushin Nakamura\*

Department of Biological Science & Technology, Tokyo University of Science, 278-8510 Noda, Chiba, Japan.

The photocycloaddition of 2 and 3 in the presence of 1 in acetonitrile predominantly afforded *cis-syn* crossadduct 4 and the reaction in the absence of 1 afforded the opposite result.

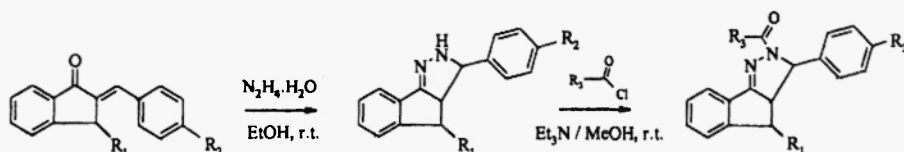


### STEREOSPECIFIC SYNTHESIS OF 2-ACYL-4-ALKYL-3-ARYL-2,3,3a,4-TETRAHYDROINDENO[1,2-c]PYRAZOLES

Belsem Trimeche<sup>1</sup>, Rafik Gharbi<sup>1</sup>, Zine Mighri<sup>1\*</sup> and Marie-Thérèse Martin<sup>2</sup>

<sup>1</sup>Laboratoire de Chimie des Substances Naturelles et de Synthèse Organique, Faculté des Sciences de Monastir - 5000, Monastir, Tunisia.

<sup>2</sup>Institut de Chimie des Substances Naturelles, CNRS, 91190 Gif-sur-Yvette, France

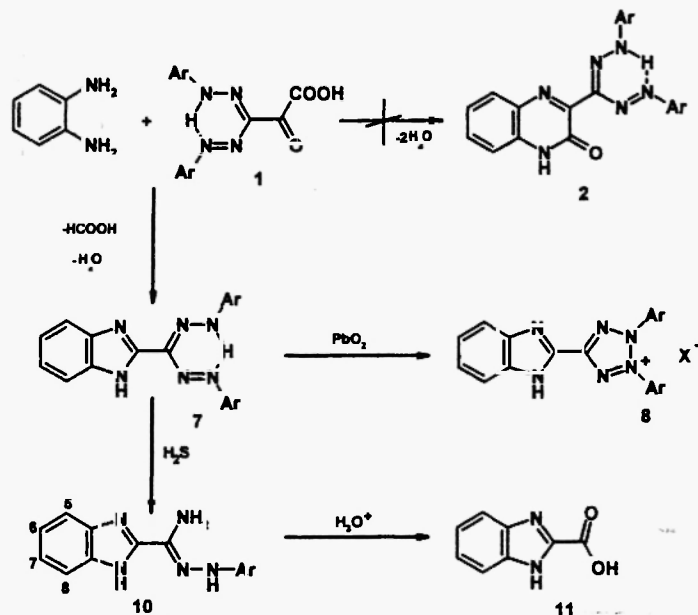


**An anomalous course of the condensation of 1,5-diaryl-3-formazyl glyoxylic acids with *o*-phenylenediamine. A simple synthesis of some benzimidazole-2-carboxamidarylhydrazones.**

Iveta Wiedermannová<sup>a</sup>, Jan Slouka<sup>a</sup>, Karel Lemr<sup>b</sup>

<sup>a</sup>Department of Organic Chemistry, Palacky University, Tř. Svobody 8, 771 46 Olomouc, Czech Republic, E-mail: wiedermannova@prfnw.upol.cz

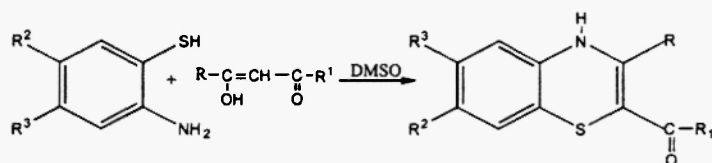
<sup>b</sup>Department of Analytical Chemistry, Palacky University, Tř. Svobody 8, 771 46 Olomouc, Czech Republic



**ONE POT SYNTHESIS OF 7-METHOXY/6-SULFONYL-4H-1,4-BENZOTHAZINES**

Kalpna Gupta, Vandana Gupta, Rajni Gupta and M.Kumar \*  
Department of Chemistry, University of Rajasthan, Jaipur – 302004, India

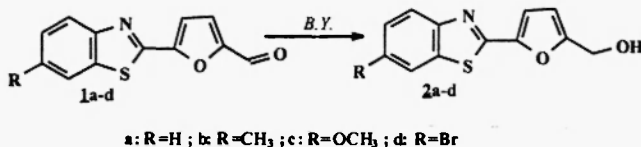
Synthesis of 6-sulfonyl/7-methoxy-4H-1,4-benzothiazines is reported by the condensation and oxidative cyclization of substituted 2-aminobenzenethiols with  $\beta$ -diketones in the presence of DMSO.



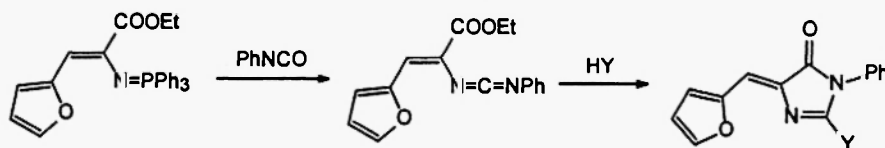
**BIOORGANIC SYNTHESIS OF SOME (5-BENZOTHIAZOL-2-YL-FURAN-2-YL)-METHANOLS IN CELL CATALYSIS USING *SACCHAROMYCES CEREVISIAE***

Florin-Dan Irimie\*, Csaba Paizs, Cornelia Majdik, Monica -Ioana Toşa, Radu Misca, Radu Silaghi-Dumitrescu, "Babeş-Bolyai" University, Faculty of Chemistry and Chemical Engineering, Arany Janos 11, 3400 Cluj-Napoca, ROMANIA

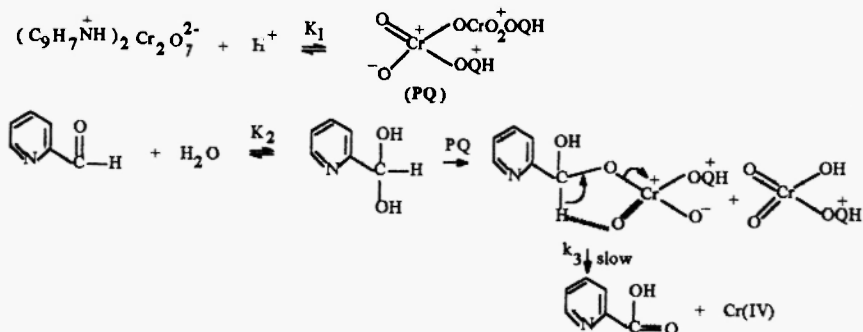
Four 6 substituted (5-benzothiazol-2-yl-furan-2-yl)-methanols were obtained from the corresponding carbaldehyde derivatives using baker's yeast as reducing agent. The structures have been confirmed by mass, infrared and <sup>1</sup>H-NMR spectrometry as well by elemental analysis.


**A SOLUTION-PHASE PARALLEL SYNTHESIS OF 2-AMINO-5-FURFURYLIDENE-4H-IMIDAZOLIN-4-ONES**

Ming-Wu Ding\*, Shang-Jun Yang, Yong Sun, Zhao-Jie Liu, Xiao-Peng Liu  
Institute of Organic Synthesis, Central China Normal University,  
Wuhan, 430079, P. R. China


**Oxidation of Heterocyclic Aldehydes by Quinolinium Dichromate : A Kinetic Study**

Girya S. Chaubey, Simi Das and Mahendra K. Mahanti\*  
Department of Chemistry  
North-Eastern Hill University  
Shillong 793022, India



**SIMPLE ONE-STEP SYNTHESSES OF HETEROCYCLIC SYSTEMS  
FROM 2-PHENYL-4-THIENYLMETHYLIDENE-5(4H)-OXAZOL-  
ONE. H.M.F. Madkour**

Synthetic Org. Chem. Lab., Chem. Dept., Faculty of Science, Ain Shams University, Abbasiya, Cairo, Egypt.

Reaction of 2-phenyl-4-thienylmethylidene-5(4H)-oxazolone **1a** with  $\text{AlCl}_3$  in inert solvent lead to thieno[3,2-c]pyridine **11** and cyclopentadieno[b]thiophene **12**.