

## Graphical Abstract

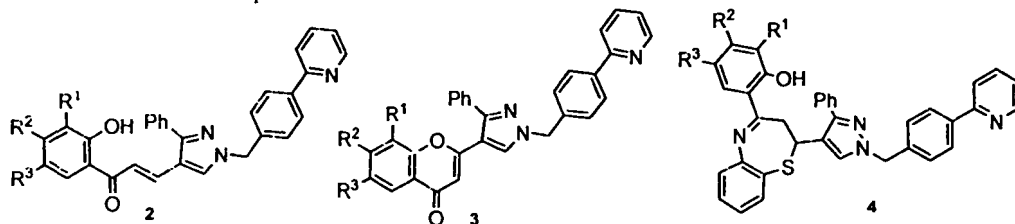
Heterocycl. Commun.3 (2009) 159-166

### Synthesis and antimicrobial screening of some chromones and thiazepines by conventional and microwave irradiation.

Sunil G. Jagadhani, Sharad N. Shelke and Bhausaheb K. Karale\*

P.G. Department of Chemistry, S. S. G. M. College, Kopargaon, Dist-Ahmednagar- 423 601, India.

Synthesis of chromones and benzothiazepines from substituted chalcones is described.



Heterocycl. Commun.3 (2009) 167-172

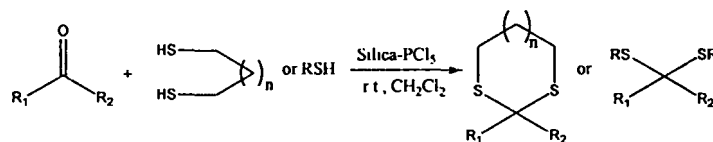
### Silica-PCl<sub>5</sub>: A Novel Heterogenous System For Simple And Efficient Chemoselective Protection Of Carbonyl Compounds

Lokesh Kumar Pandey, Uma Pathak, Rekha Tank, Avik Mazumder

Synthetic Chemistry Division,

Defence Research & Development Establishment, Gwalior- 474 002, India

Fax: (0091)751-2341148, E-mail: sc\_drde@rediffmail.com



Heterocycl. Commun. 3 (2009) 173-180

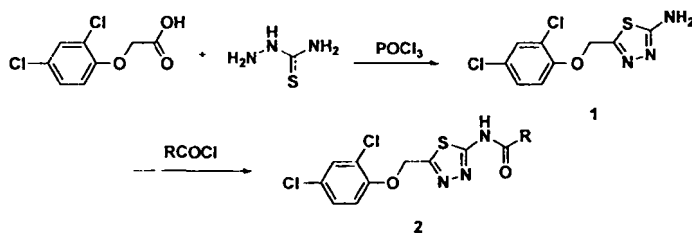
### Synthesis and fungicidal activities of n-(5-((2,4-dichlorophenoxy)methyl)-1,3,4-thiadiazol-2-yl)-Substituted-amide

Shan-Mei Xiao

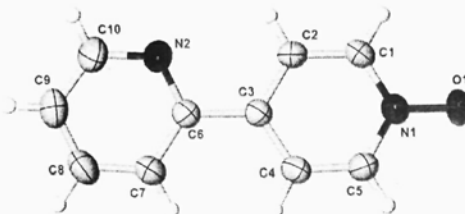
College of Materials Science and Chemical Engineering, Jinhua College of Profession and Technology, Zhejiang, 321017, China

Email: xiaoshanmei@gmail.com

Reaction of 2-amino-5-((2,4-dichlorophenoxy)methyl)-1,3,4-thiadiazole with substituted acyl chloride yielded amide 2a-j in good yield. The chemical structures of all compounds were established by <sup>1</sup>H NMR, FTIR, MS and elemental analysis, and some of these compounds were investigated for fungicidal activity. The bioassay results indicated that some of these compound exhibit moderate fungicidal activities.



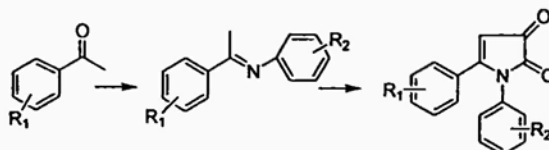
R = cyclopropan-yl, 2,4-dichloro-Ph, furan, butanyl, 2-chloro-methyl, 4-methoxy-Ph ethyl, propanyl, 2-methyl-Ph, 2-methoxy-Ph, 2-fluoro-Ph, 4-fluoro-Ph, 4-nitro-Ph

**Synthesis of bipyridine-*N*-oxides and bipyridine-*N,N'*-dioxides**S.E. McKay <sup>a\*</sup>, R.W. Lashlee III<sup>a</sup>, L.W. Maina<sup>a</sup>, K.A. Wheeler<sup>b</sup>, A.B. Brown<sup>c</sup>,<sup>a</sup>Department of Biochemistry, Chemistry & Physics, University of Central Missouri, Warrensburg, MO, USA,<sup>b</sup>Department of Chemistry, Eastern Illinois University, Charleston, Illinois, USA,<sup>c</sup>Department of Chemistry, Florida Institute of Technology, Melbourne, FL, USA.

Dimethyldioxirane (DMD) was used to synthesize heterocyclic aromatic *N*-oxides enabling the product isolation and reaction solutions to be free of potentially dangerous peroxide intermediates.

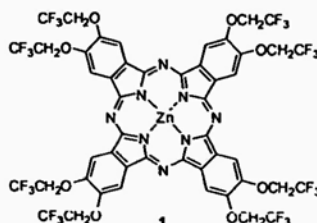
**Synthesis of novel 1,5-diaryl-1*H*-pyrrole-2,3-diones**Zong-ying Liu,<sup>a,b</sup> Zhuo-rong Li,<sup>b</sup> Ying-xin Li,<sup>b</sup> Gui-Fang Wang,<sup>b</sup> Jian-Dong Jiang<sup>b</sup> and David W. Boykin<sup>a,\*</sup><sup>a</sup>Department of Chemistry, Georgia State University, Atlanta, GA 30302 - 4098, USA<sup>b</sup>Institute of Medicinal Biotechnology, Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing 100050, People's Republic of China

A two-step synthesis of nine novel 1,5-diaryl-1*H*-pyrrole-2,3-diones from acetophenones and anilines is reported.

**Synthesis And Spectroscopic Investigations Of Trifluoroethoxy Semi-Coated Zinc(II) Phthalocyanine**Daisuke Sukeguchi, Hideyuki Yoshiyama, Norio Shibata,<sup>\*</sup> Shuichi Nakamura, Toru Takeshi<sup>\*</sup>

Department of Frontier Materials, Graduate School of Engineering, Nagoya Institute of Technology, Gokiso, Showa-ku, Nagoya, 466 8555, Japan.

Trifluoroethoxy semi-coated zinc(II) phthalocyanine **1** has been synthesized and characterized. The aggregation state of **1** was investigated by UV-vis and steady-state fluorescence spectra. The fluoroethoxy Pc **1** was found to stay non-aggregation independent of concentrations in dioxane. With our expectation, the strong emission was observed in line with the absorption spectra of **1**.

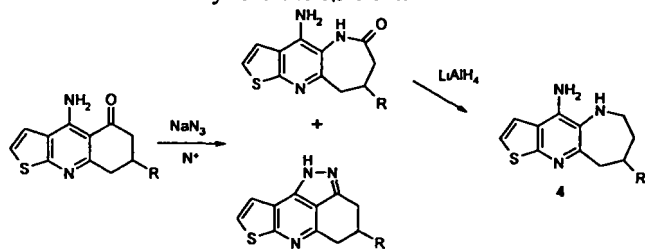


### Synthesis Of 6,7,8,9-Tetrahydro-5*H*-1-Thia-5,10-Diaza-Cyclohepta[*F*]Inden-4-Ylamine Derivatives

Yang-Heon Song\*, Byeoung Sun Joe and Han Mi Lee

Department of Chemistry, Mokwon University, Daejeon 302-729, South Korea.  
E-mail: yhsong@mokwon.ac.kr

Several new 6,7,8,9-tetrahydro-5*H*-1-thia-5,10-diazacyclohepta[*f*]inden-4-ylamine derivatives **4** were synthesized in good yield by starting from 2-aminothiophene-3-carbonitrile and 5-substituted cyclohexane-1,3-dione.

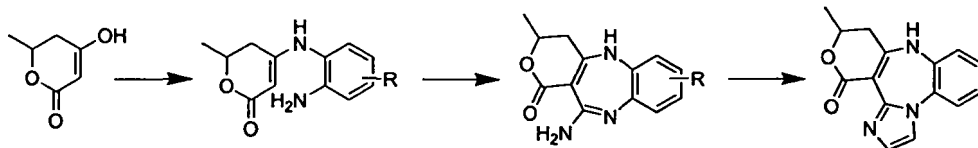


### Synthesis of tetracyclic pyrano[4,3-*b*]-6*H*-imidazo[1,2-*a*][1,5]benzodiazepines

L. Hammal, Y. Bentarzi, B. Nedjar-Kolli and P. Hoffmann

<sup>1</sup>Houari Boumediene University, Algiers, Algeria. E-mail: bellara\_kollidz@yahoo.fr

<sup>2</sup>Paul Sabatier University, Toulouse, France. E-mail: hoffmann@cict.fr



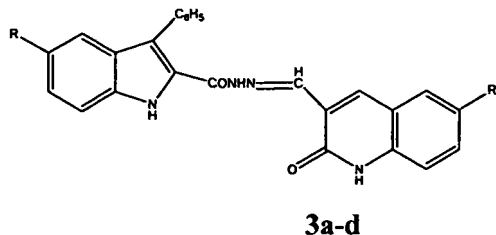
A synthetic route to tetracyclic pyrano[4,3-*b*]-imidazo[1,2-*a*][1,5]benzodiazepines is described, involving the cyclization using cyanogen bromide of enaminones, obtained from reaction of pyrone or tetronic acid with *o*-phenylenediamine derivatives, and subsequent treatment with 2-chloroethanol.

### Synthesis And Anti-Microbial Activity Of Some New 5-Substituted -*N*<sup>1</sup>-[(1*E*)-(2-Hydroxyquinolin-3-*Yl*)Methylene]-3-Phenyl-1*H*-Indole-2-Carbohyrdrzide Derivatives

Basavarajaiah S. M and Mruthyunjayaswamy B. H. M\*

Department of Studies and Research in Chemistry, Gulbarga University, Gulbarga-585106,  
Karnataka, INDIA.  
e-mail: bhmmmswamy53@rediffmail.com

**5a-d**, **6a-d**, **7a-d** and **8a-d** were prepared by 5-substituted -*N*<sup>1</sup>-[(1*E*)-(2-hydroxyquinolin-3-*yl*)methylene]-3-phenyl-1*H*-indole-2-carbohyrdrzide **3a-d**.

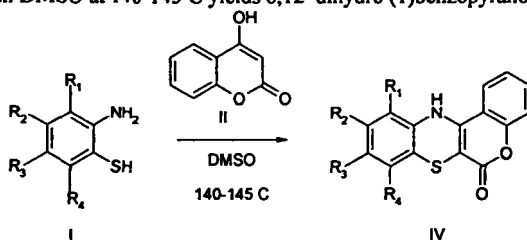


**An efficient synthesis of novel 6,12-dihydro (1)benzopyrano[3,4-b][1,4]benzothiazin-6-one**

Archana Gupta and Vandana Gupta

Department of Chemistry,  
University of Rajasthan, Jaipur, India  
E-mail: [gupta\\_archana18@yahoo.com](mailto:gupta_archana18@yahoo.com)

The condensation and oxidative cyclization of substituted 2-amino benzenethiols (I; 3,6-dimethyl- / 3,6-dichloro-/3,5-dichloro-/3,4-dichloro-) and 4-hydroxycoumarin (II) in DMSO at 140-145 C yields 6,12-dihydro (1)benzopyrano[3,4-b][1,4]benzothiazin-6-one(III).

**Highly Stereoselective  $\beta$ -Lactam Synthesis Via The Staudinger Reaction Using Polyaromatic Imines**

Debashish Bandyopadhyay, Monica Xavier and Bimal K. Banik\*

Department of Chemistry, The University of Texas-Pan American, 1250 West University Drive, Edinburg, Texas 78541; E-mail: [banik@panam.edu](mailto:banik@panam.edu)

