

## Graphical Abstract

Heterocycl. Commun.6(2009) 397-400

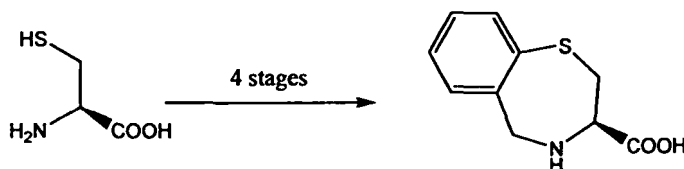
### Synthesis of a novel conformational restricted amino acid for potential use in peptide chemistry

Wei-wei WANG<sup>1</sup>, Ting YU<sup>1</sup>, Chao WANG<sup>1,2\*</sup>

<sup>1</sup>Department of Medicinal Chemistry, School of Pharmaceutical Sciences, Peking University, Beijing 100191, China

<sup>2</sup>The State Key Laboratory of Natural and Biomimetic Drugs, Peking University, Beijing 100191, China

A novel amino acid, (R)-2,3,4,5-tetrahydro-benzo-[1,4]-thiazepine-3-carboxylic acid, was synthesized using L-Cysteine and 2-fluorobenzaldehyde as starting materials to undergo five-step reactions. The desired compound may be used in peptide chemistry as a potent conformational restricted amino acid.



Heterocycl. Commun.6(2009) 401-405

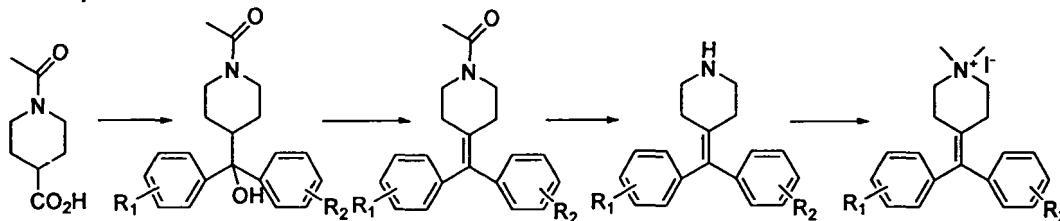
### Synthesis of novel 4-(diarylmethylene)piperidines

Zong-ying Liu,<sup>a,b</sup> Zhuo-rong Li,<sup>b</sup> Jian-dong Jiang<sup>b,\*</sup> and D W. Boykin<sup>a,\*</sup>

<sup>a</sup>Department of Chemistry, Georgia State University, Atlanta, GA 30303-3083, USA

<sup>b</sup>Institute of Medicinal Biotechnology, Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing 100050, People's Republic of China

An efficient sequence to the seven novel 4-(diarylmethylene)piperidines starting from the commercially available 1-acetylpiperidine-4-carboxylic acid is reported.

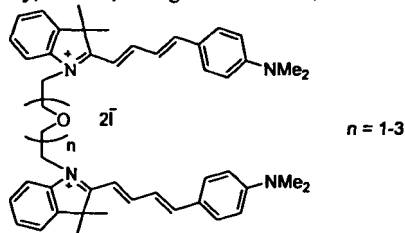


Heterocycl. Commun.6 (2009) 407-409

### Visible bis(indolium tetramethine hemicyanine) dyes with a spacer derived from oligo(ethylene glycol)

Ewa Wolinska and Lucjan Strekowski\*

Department of Chemistry, Georgia State University, Atlanta, Georgia 30302-4098, USA



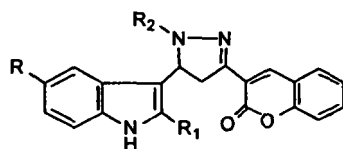
## Synthesis Of Novel Substituted Pyrazolines And Isoxazolines Containing Indole And Coumarines

Doddappa Anekal<sup>1</sup> & J.S.Biradar<sup>1,\*</sup>

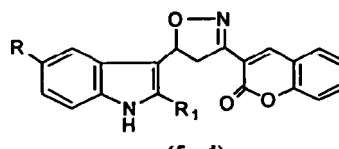
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A novel 5-(2', 5'-disubstituted 1'H-indol-3'-yl)-3-(2''H-Chromen-2''-one-3''-yl) 4,5-dihydro-1H-pyrazoles **2a-d**, 1-acetyl 5-(2', 5'-disubstituted 1'H-indol-3'-yl)-3-(2''H-Chromen-2''-one-3''-yl) 4,5-dihydro-1H-pyrazoles **3a-d**, 1-phenyl-5-(2', 5'-disubstituted 1'H-indol-3'-yl)-3-(2''H-Chromen-2''-one-3''-yl) 4,5-dihydro-1H-pyrazoles **4a-d** and 5-(2', 5'-disubstituted 1'H-indol-3'-yl)-3-(2''H-Chromen-2''-one-3''-yl) 4,5-dihydroisoxazoles **5a-d** have been prepared by the cyclocondensation of Chalcones with hydroxylaminehydrochloride, hydrazinehydrate and phenylhydrazine respectively.



(2a-d) (3a-d) (4a-d)

R= Cl, CH<sub>3</sub>, H, HR<sub>1</sub>= Ph, Ph, Ph, HR<sub>2</sub>= H, COCH<sub>3</sub>, Ph,

(5a-d)

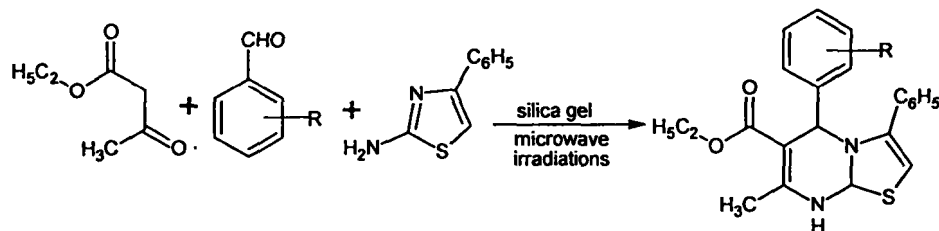
R= Cl, CH<sub>3</sub>, H, HR<sub>1</sub>= Ph, Ph, Ph, H

## Microwave-Induced One-Pot Facile Synthesis Of Thiazolo-Pyrimidines Using Silica Gel As Solid Support

Monika Bansal, Ramandeep Kaur and Balbir Kaur\*

Department of Chemistry, Punjabi University, Patiala-147 002 (Pb.), India

An efficient one-pot rapid synthesis of thiazolo-pyrimidines was carried out via Biginelli three component condensation reaction under microwave irradiations in a solvent-free media using Silica gel as solid support. The present method provides a high speed, efficient, environmentally benign modification of classical Biginelli reaction without using an expensive reagent.



R = 2-OH; 3-OH; 4-OH; 2-NO<sub>2</sub>;  
 3-NO<sub>2</sub>; 4-NO<sub>2</sub>; 4-Br; 2,4-(Cl),  
 4-OCH<sub>3</sub>; 2,3-(O-CH<sub>2</sub>-O);  
 4-OH,3-OCH<sub>3</sub>, 4-N(CH<sub>3</sub>); H

### Microwave Assisted Synthesis Of Substituted 1,2,3,4-Tetrahydro-2-Pyrimidinones And 1,2,3,4-Tetrahydro-2-Pyrimidinethiones From Quinoline Chalcones

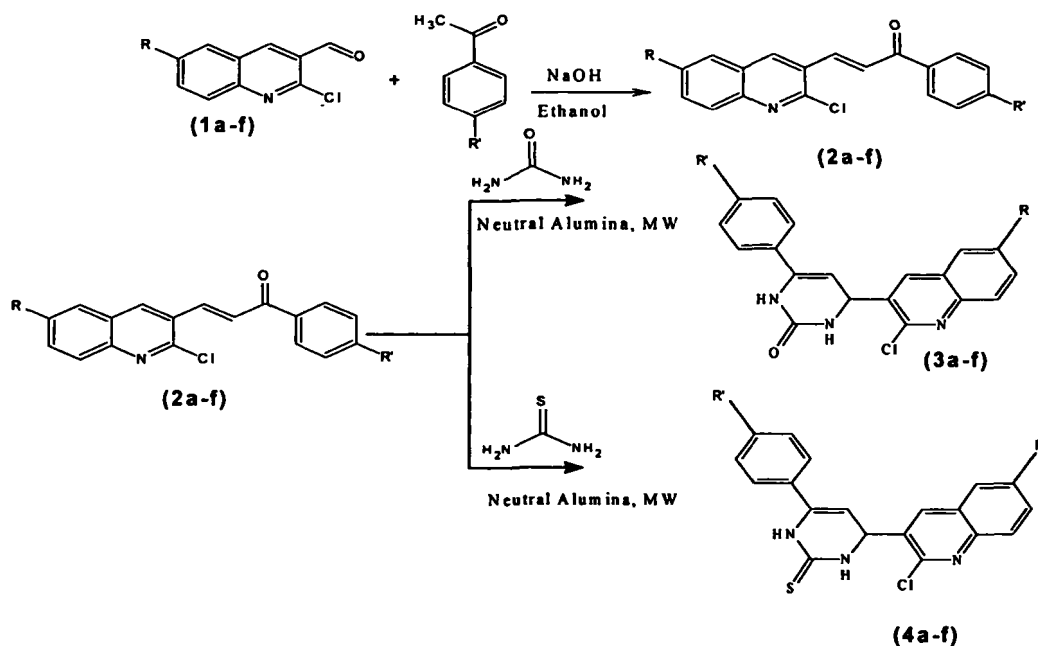
Y.Hemasri

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The synthesis of heterocyclic compounds 1,2,3,4-tetrahydro-2-pyrimidinones (**3a-f**) and 1,2,3,4-tetrahydro-2-pyrimidinethiones (**4a-f**) from quinoline chalcones under solvent free conditions using microwaves and by conventional methods are described.

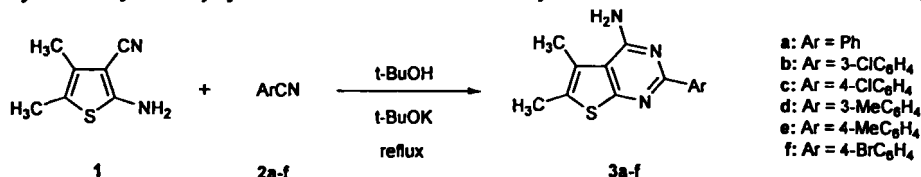


- a) R=H & R'=H      b) R=H & R'=Cl      c) R=H & R'=Br      d) R=H & R'=CH<sub>3</sub>  
 e) R=H & R'=OCH<sub>3</sub>      f) R=OCH<sub>3</sub> & R'=H

### Synthesis Of Some New Thieno[2,3-D]Pyrimidin-4-Amine Derivatives

Abolghasem Davoodnia\*, Mehdi Bakavoli, Mohammad-Reza Asadi and Niloofar Tavakoli-Hoseini

Department of Chemistry, Faculty of Sciences, Islamic Azad University, Mashhad Branch, Mashhad 91735-413, Iran.



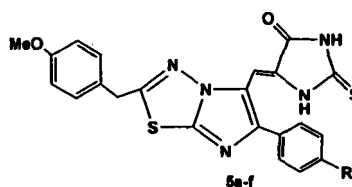
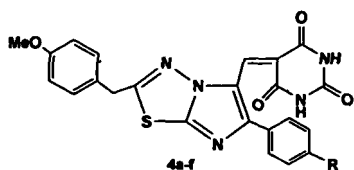
Some new thieno[2,3-d]pyrimidin-4-amines have been prepared through base-catalyzed cyclocondensation reaction of 2-amino-4,5-dimethylthiophene-3-carbonitrile with aryl nitriles.

### Synthesis and antimicrobial activity of novel barbituric acid and thiohydantoin derivatives of imidazo [2, 1-b][1, 3, 4]thiadiazoles.

Naveenkumar P. Badiger<sup>1</sup>, Nitinkumar S. Shetty<sup>2</sup>, Ravi S. Lamani<sup>3</sup>, Imtiaz Ahmed M. Khazi\*

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e-mail: [drumkorgchem@gmail.com](mailto:drumkorgchem@gmail.com)

A series 5-[6-aryl-2-(4-methoxybenzyl)imidazo[2,1-b][1,3,4]thiadiazol-5-yl-methylene]-pyrimidine-2,4,6-triones (**4a-f**) and 5-[6-aryl-2-(4-methoxybenzyl)imidazo[2,1-b][1,3,4]thiadiazol-5-yl]methylene-2-thioxoimidazolidin-4-one (**5a-f**) were synthesized from 5-formyl derivatives of 2-(4-methoxybenzyl)-6-arylimidazo[2,1-b][1,3,4]thiadiazole (**3a-f**) by the Knoevenagel condensation with barbituric acid & thiohydantoin. These newly synthesized compounds were screened for their antibacterial and antifungal activities.

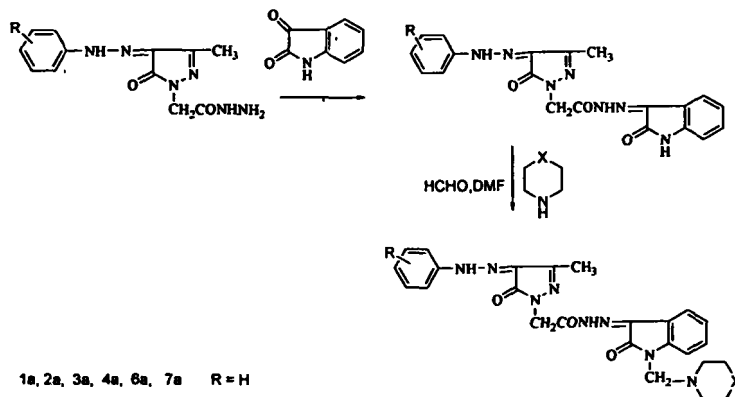


### Synthesis of novel mannich bases containing Pyrazolones and indole systems

\*L.K.Ravindranath<sup>1</sup>, K.Srikanth<sup>2</sup>, M.Dastagiri Reddy<sup>3</sup> and S.D.Ishrath Begum<sup>4</sup>

Professor in Chemistry S.K.University Anantapur, Andrapradesh, India

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1a, 2a, 3a, 4a, 6a, 7a R = H  
1b, 2b, 3b, 4b, 6b, 7b R = 4-CH<sub>3</sub>  
1c, 2c, 3c, 4c, 6c, 7c R = 4-OCH<sub>3</sub>  
1d, 2d, 3d, 4d, 6d, 7d R = 4-OC<sub>2</sub>H<sub>5</sub>  
1e, 2e, 3e, 4e, 6e, 7e R = 4-Cl  
1f, 2f, 3f, 4f, 6f, 7f R = 4-Br

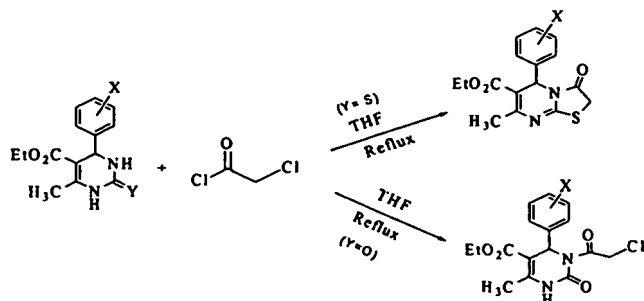
7a R=H, X=CH<sub>2</sub>  
7g R=H, X=O  
7h R=H, X=N-CH<sub>3</sub>

## An Efficient Synthesis of Some Novel Bicyclic Thiazolopyrimidine Derivatives

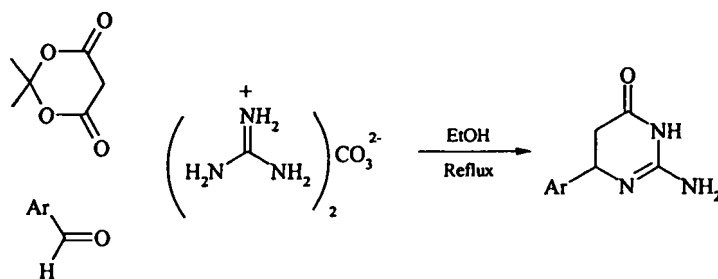
Akbar Mobinikhaledi \*, Mojgan Zendehelel, Mahdia Hamidi Nasab and Mohammad Ali Bodaghi Fard

Department of Chemistry, Faculty of Sciences, Arak University, Arak, Iran.

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## Efficient Synthesis Of 2-Amino-6-Aryl-5,6-Dihydro -3h-Pyrimidin-4-One Building Blocks Via Domino Reaction

Mahdieh Mohammadnejad,<sup>1</sup> Mehri S. Hashtroudi,<sup>2</sup> and Saeed Balalaie<sup>\*1</sup><sup>1</sup>Peptide Chemistry Research Group, K.N.Toosi University of Technology, P.O.Box 15875-4416, Fax: +98-21-2285 3650, e-mail: balalaie@kntu.ac.ir<sup>2</sup>Marine Chemistry Laboratory, Iranian National Center for Oceanography (INCO), P.O.Box 14155-4781 Tehran, Iran

**Synthesis of Macrocyclic Amides Using Manganese(III)-Based Intramolecular cyclization of *N*-( $\omega$ -Alkenyl)-3-oxobutanamides**

Yosuke Ito and Hiroshi Nishino\*

*Department of Chemistry, Graduate School of Science and Technology, Kumamoto University, Kurokami 2-39-1, Kumamoto 860-8555, Japan*

The reaction of *N*-( $\omega$ -Alkenyl)-3-oxobutanamides with manganese(III) acetate in glacial acetic acid at reflux temperature under an argon atmosphere resulted in the oxidative intramolecular radical cyclization that produced bicyclomacrocyclic amides in moderate to good yields.

