## **Graphical Abstract**

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## Condensation Of 1,3-Cyclohexanedione With Aromatic Aldehydes Catalyzed By Acidic Ionic Liquids

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### Synthesis Of Bis-N,N-(Substituted Aryl-2-Imino-1,3-Oxazete) Thiocarbamide

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A simple and novel method of synthesis of bis-N,N-(substituted aryl thiocarbamide) thiocarbamide 2a-e by phase transfer catalysis which on cyclisation with mercuric acetate in glacial acetic acid furnish bis-N,N-(substituted aryl-2-imino-1,3-oxazete) thiocarbamide 3a-e.

$$\begin{array}{c} R_{3} \\ R_{1} \\ R_{1} \\ R_{1} \\ \end{array}$$

$$\begin{array}{c} R_{3} \\ R_{2} \\ \end{array}$$

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$$\begin{array}{c} R_{3} \\ \end{array}$$

### Heterocycl. Commun.14 (2008) 233-236

# Asymmetric synthesis of 2-substituted 3-amino-4-cyanopyrroles via a two-step procedure consisting of a S<sub>N</sub>V reaction on ethoxymethylenemalononitrile followed by a Thorpe-Ziegler cyclization

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An asymmetric synthesis of 2-substituted 3-amino-4-cyanopyrroles 5 from a  $S_NV$  reaction of optically active  $\alpha$ -amino acid esters on ethoxymethylenemalononitrile 1 to the corresponding aminomethylenemalononitriles 3, followed by a Thorpe-Ziegler cyclization through the asymmetric induction of the lithium enolates 4, generated from 3 and LTMP as base, is described.

## Heterocycl. Commun. 14 (2008) 237-244

### Synthesis And Fluorescence Properties Of 4-Acyl Isochroman-1,3-Diones

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### Heterocycl. Commun. 14 (2008)245-250

### Synthesis Of Novel Dihydropyrazolo[1,5-C]Pyrimidin-7(3h)-One/-Thione Derivatives

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The reaction of 1-amino-5-(4-methylbenzoyl)-4-(4-methylphenyl)pyrimidin-2(1H)-one/-thione (1) with various 1,3-dicarbonyl compounds (2a-h) afforded moderate to good yields of dihydropyrazolo[1,5-c]pyrimidin-7(3H)-one/-thione derivatives (3a-h).

## Heterocycl. Commun.14 (2008) 251-255

### A Simple And Efficient Microwave Mediated Synthesis Of Novel S- Heterocyclic Aminoalkylamino Ethnane Thiols

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$$H_2N$$
 $H_2N$ 
 $H_2N$ 

n = 2, 3, 4 R = 2-pyridyl, 4-pyridyl, 2-imidazolyl, 2-pyrimidyl

### Heterocycl. Commun. 14 (2008) 257-261

# Facile And Convenient Synthesis And Characterization Of Novel Schiff Bases Involving Heterocyclic Ring Through One Pot Multicomponent Reactions Under Mild Conditions

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X -O and S

### Heterocycl. Commun.14 (2008) 263-267

## Facile Synthesis Of 3-Arylidene-1,3-Dihydroindol-2-Ones Catalyzed By Brønsted Acidic Ionic Liquids

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### Heterocycl. Commun. 14 (2008) 269-276

## Solid Support Synthesis: A New And Efficient Method For The Facile Synthesis Of Cyclic Alkylphosphonates Under Mild Conditions

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Abstract: This article describes solid support synthesis of cyclic alkylphosphonates (CAPs), in which alkyl phosphonic dichlorides were condensed with alkanediols using celite-sodium carbonate as a solid support. The reported synthetic approach has advantages over conventional synthesis in terms of shorter reaction times, high yield, and easy work-up.

Key Words: solid support; alkanediol; alkyl phosphonicdichloride; Chemical warfare agents; Chemical Weapons Convention; cyclic alkylphosphonates

$$R = CH_3, C_2H_5, iC_3H_7, n-C_3H_7$$

$$R = CH_3, C_2H_5, iC_3H_7, n-C_3H_7$$

Figure 1 Reaction scheme for the synthesis of cyclic alkylphosphonates

### Heterocycl. Commun.14 (2008) 277-288

### Interaction Between Bromine With Tt12c4 And Ht18c6 In Di And Trichloromethane Solutions

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n=1, Tetrathia-12-crown-4 (TT12C4) n=3, Hexathia-18-crown-6 (HT18C6)

macrocycle + Br<sub>2</sub> macrocycle: Br<sub>2</sub> macrocycle: TT12C4 and/or HT18C6

### Heterocycl, Commun. 14 (2008) 289-294

### Synthesis of novel methylene-bis-isoxazoles as potential fungicidal agents

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A series of novel methylene-bis-chalcones 3 was prepared by the Claisen-Schmidt condensation of 5,5'-methylene-bis-salicylaldehye 2 with various acetophenones, subsequent condensation of compound 3 with hydroxylamine hydrochloride gave the corresponding novel methylene-bis-isoxazoles 4 in good yields. Characterization of the new compounds has been done by means of IR, <sup>1</sup>H NMR, MS and elemental analyses. All the compounds have also been screened for their antifungal activity and some of them showed quite comparable activity with the standard antibiotics.

### Heterocycl. Commun.14 (2008) 295-298

### Syntheses Of Novel β-Diketone Derivatives Of Pyrazole

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Condensation of pyrazole-1-acetyl chloride  $\underline{1}$  with acetophenone derivatives  $\underline{2}$  in the presence of sodium methoxide in dry methanol led to the formation of various substituted  $\beta$ -diketones  $\underline{3}$  (a-1). The structures of these newly synthesized compounds have been established by elemental analysis and spectral studies viz. IR, <sup>1</sup>H NMR.