HL **ISSN: 2231 – 3087(print) / 2230 – 9632 (Online)**
http://heteroletters.org **Vol. 3: (1), 2013, 2-7**

Graphical Abstract

Heterocyclic Letters 3: iss.-1, (2013), 9 - 16

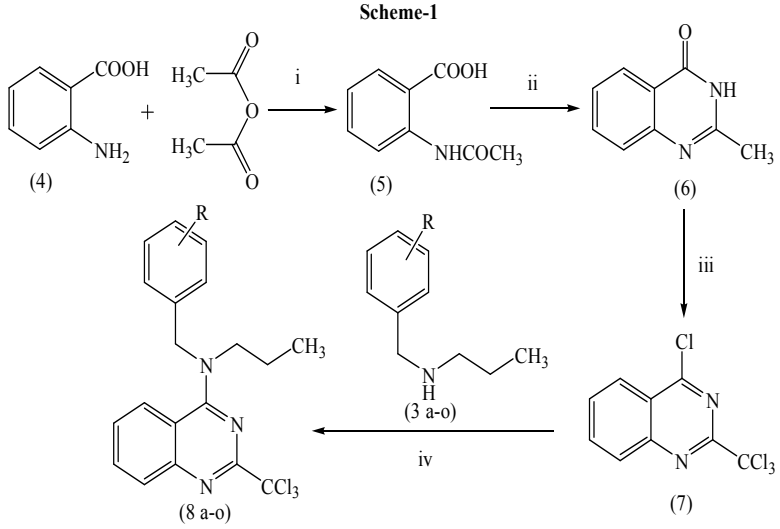
Synthesis and Biological evaluation of novel n-(substituted benzyl)-n-propyl-2-(trichloromethyl) quinazolin-4-amine derivatives as cytotoxic agents.

Maneesh Kumar Srivastav, N.Srinivasulu, S. M. Shantakumar*

Department of Pharmaceutical Chemistry, V. L. College of Pharmacy, Raichur-584103, Karnataka, India.

The synthesis and Cytotoxicity activity of 2-trichloro-4-substituted quinazoline derivatives has been reported. The synthesized compounds have been characterized by IR, HNMR and MASS spectral analysis.

Scheme-1



Reaction conditions and reagents: (i) reflux, 4 h, 85%; (ii) formamide, reflux, 5 h, 81%; (iii) $POCl_3$, PCl_5, reflux, 6 h, 47%; (iv) dry ethanol, reflux, 15-18 h, 58-79%.

8: R= a:H; b:2-NO_2; c:3-NO_3; d:2-Cl; e:3-Cl; f:4-Cl; g:2-F; h:4-F; i:2-OH; j:3-OH; k:4-OH; l:4-CH_3; m:4-OCH_3; n:4-C_2H_5; o:4-OC_2H_5.

Heterocyclic Letters 3: iss.-1, (2013), 17 - 23

SYNTHESIS AND BIOLOGICAL STUDIES OF OXADIAZOLO-THIADIAZINES.

Vijay V Dabholkar*, Prem Naik, Abhishek Karekar and Navnath Shinde.

Organic Research Laboratory, Department of Chemistry,
KC College, Churchgate, Mumbai-400 020.
E-mail: vijaydabholkar@gmail.com
prem.naik007@gmail.com

Equimolar mixture of substituted triazole **(1)** and substituted aromatic aldehyde were refluxed in presence of alcoholic KOH to yield 4-substitutedbanzylideneamino-5-substituted-4H-1,2,4-triazole-3-thiol **(2)**, which cyclized to 2H,3H,4H,2-Carbethoxy, 3-substituted, Phenyl,5-substituted-[1,2,4]-triazole [3,4-b] [1,3,4] thiadiazine **(3)** using ethylchloro acetate and K_2CO_3. **(3)** undergoes nucleophilic addition reaction with hydrazine hydrate to form carbohydrazide 2H,3H,4H,2-Carboxy hydrazino, 3-substituted Phenyl, 5-substituted-[1,2,4]-triazole [3,4-b] [1,3,4] thiadiazine **(4),** which further on reaction with Carbon disulfide to achieved 2H,3H,4H-[2-5'-mercapto 1'-3'-4'-oxadiazol]-2'yl-3-substituted, Phenyl,5-substituted-[1,2,4]-triazole [3,4-b] [1,3,4] thiadiazine **(5)**.The structures of the compounds were confirmed by elemental as well as spectral techniques like IR, NMR. Representative samples were investigated for their antibacterial activities against gram positive and gram negative bacteria's and they showed promising activity.

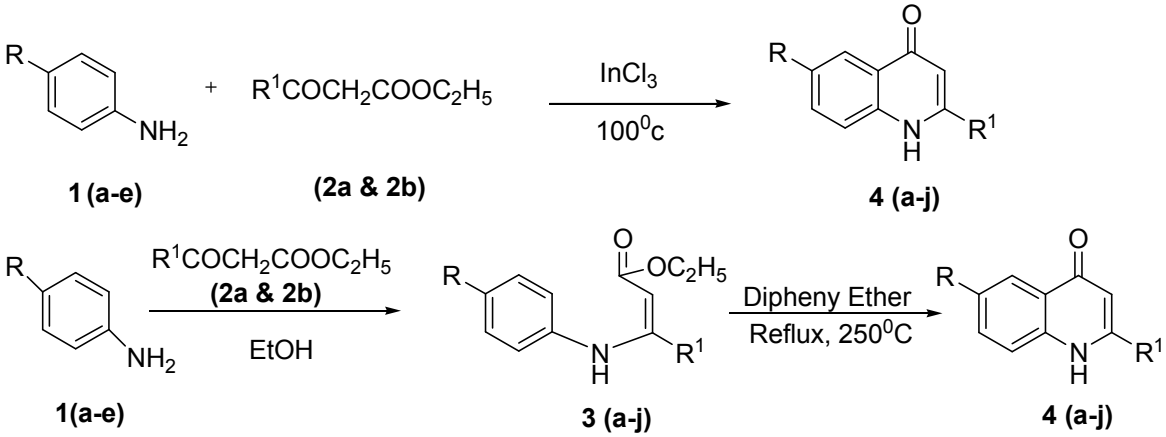
Heterocyclic Letters 3: iss.-1, (2013), 25 - 29

$InCl_3$-MEDIATED, SOLVENT FREE CONRAD-LIMPACH REACTION: FACILE AND EFFICIENT ONE POT METHOD FOR THE SYNTHESIS OF QUINOLONES

Raja S.Bhupathi*, B.RamaDevi & P.K.Dubey

Department of Chemistry, Jawaharlal Nehru Technological University Hyderabad College of Engineering, Kukatpally, Hyderabad, (A.P.) India -500 085.
Email: rs.bhupathi@gmail.com

A facile and efficient one pot method for the synthesis of 4-quinolones is described. 2-Alkyl and 2-aryl-4-quinolones **4 (a-j)** were synthesized in high yields employing Indium (III) chloride via Conrad-Limpach reaction of substituted amines **1 (a-j)** with β-ketoesters **2a & 2b** under solvent-free conditions at 100^0C without isolating the intermediary enamines **3 (a-j)**. The catalyst $InCl_3$ could be recovered and reused.



Heterocyclic Letters 3: iss.-1, (2013), 31- 36

Synthesis and Antimicrobial Evaluation of Some Heterocyclic Sulfonamide Derivatives

Shrinivas S. Kottawar, Santosh V. Goswami, Wamanrao N. Jadhav, Sudhakar R. Bhusare*

Department of Chemistry, Dnyanopasak College, Parbhani-431 401, MS, India
E-mail: bhusare71@yahoo.com

A facile and efficient method for synthesizing sulfonamides was developed using a catalytic amount of molecular iodine in excellent yields. The method showed a generality for substrates including less nucleophilic and sterically hindered heterocyclic amines. The remarkable selectivity under mild and neutral conditions of this commercially available inexpensive catalyst is an attractive feature of this method. In *vitro* antimicrobial activity was evaluated against the two pathogenic bacterial strains, *Escherishia coli,* and *Staphylococcus aureus* and two fungal strains, *Rhizopus oryzae* and *Candida albicans*. The compounds have shown moderate to good activity.

Heterocyclic Letters 3: iss.-1, (2013), 37 - 40

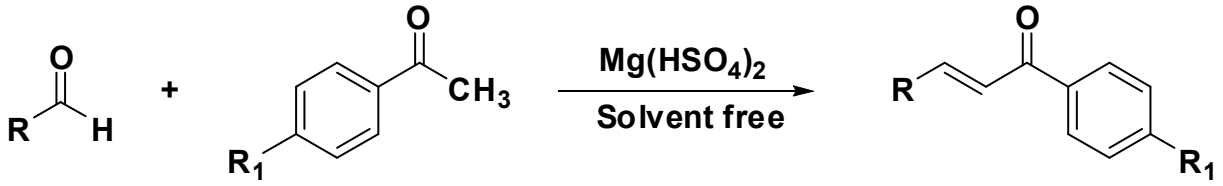
Synthesis of chalcones by a Claisen – Schmidt reaction using Magnesium Hydrogen Sulphate as a catalyst under solvent – free condition

Jayapal. Maleraju, and N.Y. Sreedhar

Department of Chemistry, S.V. University, Tirupati - 517 502
Email;mrjayapal007@gmail.com

Abstract:-

Cross aldol condensations of ketones with aromatic aldehydes are carried out efficiently in the presence of magnesium hydrogen sulfate under solvent – free conditions in good to excellent yield without the occurrence of any self – condensation.



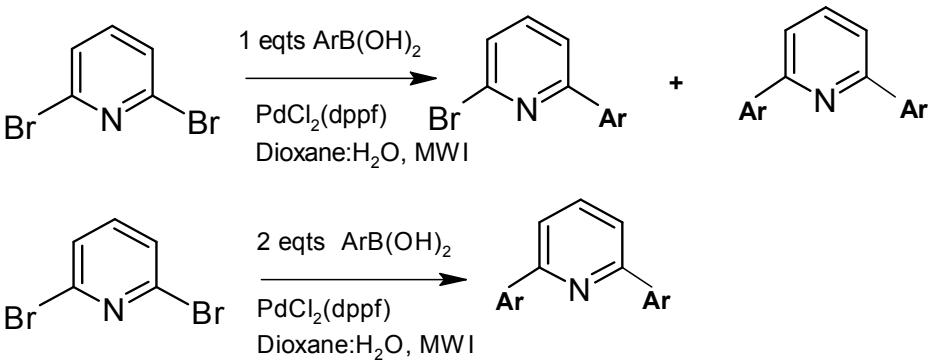
synthesis of chalcones.

Heterocyclic Letters 3: iss.-1, (2013), 41 - 48

Microwave Promoted Suzuki Couplings of 2,6-Dibromo Pyridine With Aryl Boronic Acids : Synthesis of Mono And Diaryl Pyridines

Hemasri Y[a], Mallikarjun[b], Jayaprakash Rao Y[b]*,

a. A.V.P.G.Centre Gaganmahal(affiliated to O.U), Hyderabad, India 500029
b. University College of Science, Saifabad,Osmania University, Hyderabad, India 500004 yjpr_19@yahoo.com (Jayaprakash Rao Y)

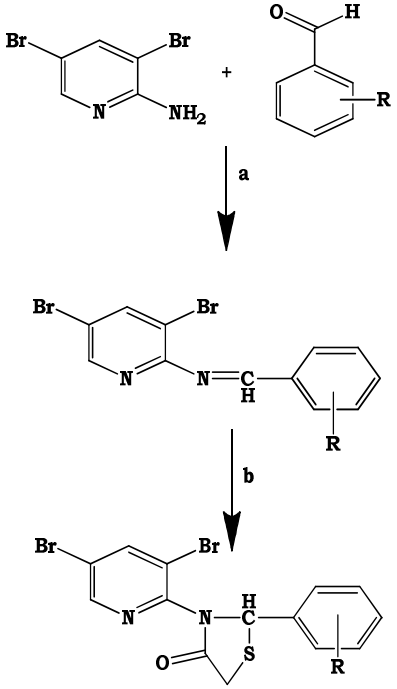


Heterocyclic Letters 3: iss.-1, (2013), 49 - 56

SYNTHESIS, CHARACTERIZATION AND ANTIMICROBIAL EVALUATION OF PYRIDINE BASED THIAZOLIDINONES

K. K. Kodari*[#]*, O. P. Chourasia.
Heterocyclic Research Laboratory, Department of Chemistry,
Dr. H. S. Gour Central University, Sagar, M.P, India-470003.
Tel: +91-7582264989, E-mail: keerthikodari@gmail.com

The successfully synthesized **3-(3,5-dibromopyridin-2-yl)-2-phenylthiazolidin-4-one** has been reported and conformed by IR, NMR, Elemental analysis. Further these synthesized thiazolidinone derivatives have been screened for their biological activity.



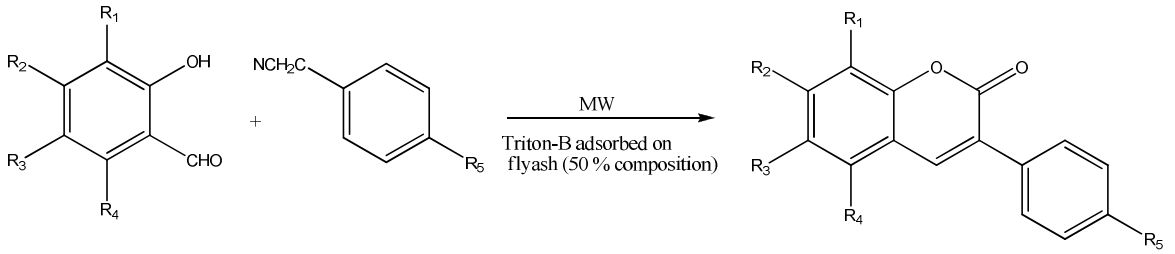
Reaction conditions: a) Ar-CHO, b) Thioglycolic acid, Zinc chloride.

Heterocyclic Letters 3: iss.-1, (2013), 57 - 60

MICROWAVE ASSISTED SYNTHESIS OF 3-PHENYLCOUMARINS UNDER SOLVENT FREE CONDITIONS USING TRITON-B ADSORBED ON FLYASH AS SOLID SUPPORT

Ashish Kumar, Sharda Goel and Vijender Goel*

Department of Chemistry, Maharshi Dayanand University, Rohtak-124001, India.
E-mail: ashishkaushik1j@gmail.com



R_1 = H; R_2 = H, OCH_3; R_3 = H, Cl, Br, CH_3; R_4 = H, OCH_3; R_5 = H, OCH_3

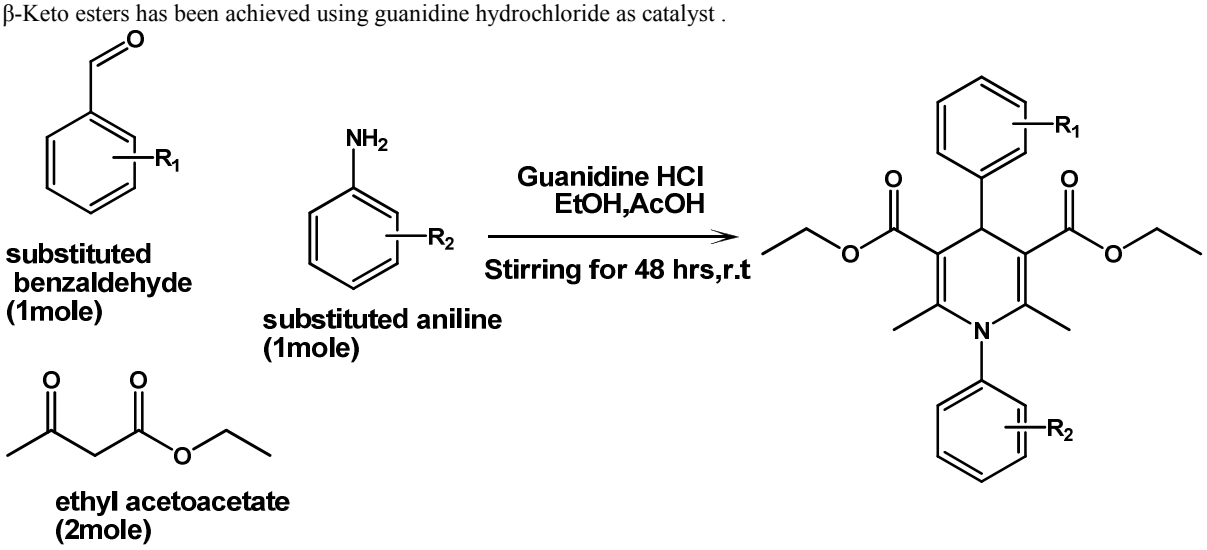
Heterocyclic Letters 3: iss.-1, (2013), 61 - 68

Synthesis,Docking and Biological Evaluation of 1,4–dihydropyridine derivatives

Sonali R. Deshmane*,Deepak K. Landge, Rohan V.Bamane, Trupti S.Chitre

Department of Medicinal Chemistry, AISSMS College of Pharmacy, Near RTO,Kennedy Road, Pune 411 001, Maharashtra, India.
E mail:snehalideshmane@gmail.com

A facile one pot synthesis of 1,4-dihydropyridine derivatives from the condensation of aromatic aldehydes, aromatic aniline, acetic acid and β-Keto esters has been achieved using guanidine hydrochloride as catalyst .



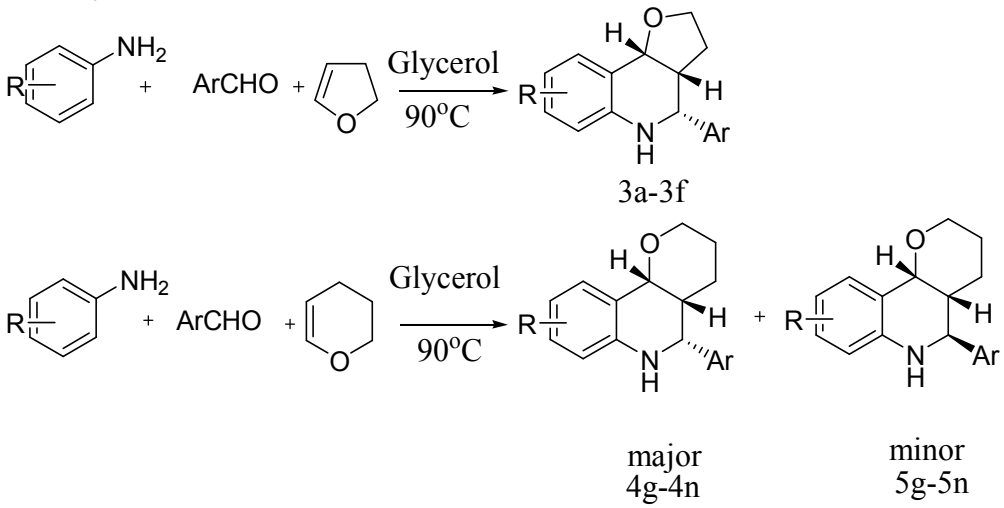
Heterocyclic Letters 3: iss.-1, (2013), 69 - 74

Catalyst-free synthesis of furano- and pyranoquinolines by using glycerol as recyclable solvent

Jaishree L.Somwanshi,* N.D.Shinde, Mazhar Faruqui

Department of Chemistry , Shri Madhavrao Patil College, Murum, 413 605, India
email : jayshri.somwanshi@rediffmail.com

The synthesis of furano- and pyranoquinolines in the presence of glycerol as green solvent was described. This method offers significant advantages such as mild reaction conditions, no catalyst, high conversions, cleaner reaction profiles, recyclability of the solvent and excellent yields.



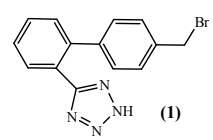
Heterocyclic Letters 3: iss.-1, (2013), 75 - 80

SYNTHESIS AND MICROBIAL EVALUATION of NOVEL TETRAZOLO-TRIAZOLE DERIVATIVES

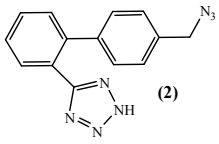
Vijay V Dabholkar*, Navnath Shinde, Abhishekh Karekar and Prem Naik.

Organic Research Laboratory, Department of Chemistry,
KC College, Churchgate, Mumbai-400 020.
E-mail: vijaydabholkar@gmail.com
navnath1983@gmail.com

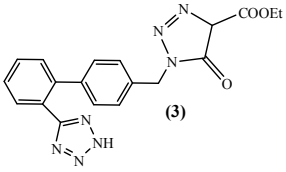
Abstract:
5-(4'-Bromomethyl-1, 1'-biphenyl-2-yl) -1H-tetrazole **(1)** was converted into its azide derivative using sodium azide **(2)**, which on further treatment with malonitrile, diethyl malonate, ethyl acetoacetate and isopropyl acetoacetate to yielded the respective tetrazole-triazole derivatives. The structures of the synthesized compounds were confirmed by Physico-chemical test and spectral techniques, representative samples were screened for their antimicrobial activity against gram positive and gram negative bacteria.



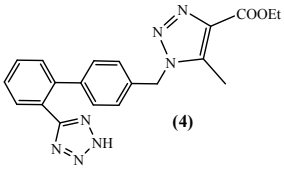
(1)



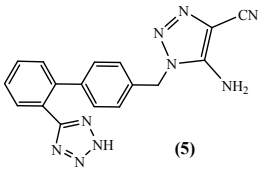
(2)



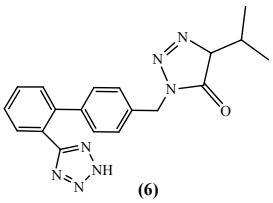
(3)



(4)



(5)



(6)

REVIEWS

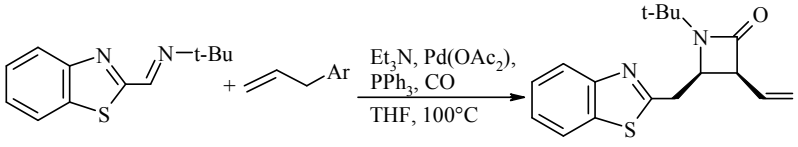
Heterocyclic Letters 3: iss.-1, (2013), 81 - 109

SYNTHESIS OF β-LACTAM AND THEIR REACTIVITY

N.A.A. El-Kanzi*[a,b]

a- Chemistry Department, Faculty of Science, Aswan University, Aswan, Egypt.
b- Chemistry Department, Faculty of Science, Al-Jouf University, Sakaka, Al Jouf
E-mail:nadiaelkanzi88@yahoo.com

Luigino Troisi et al., 2008[7] have been reported that, N-alkyl-4-aryl-3-vinyl-2-azetidinones, (E)-arylidenalkyl amines, **(26)** have been synthetized following a palladium-catalyzed [2+2] cycloaddition with allyl bromide under Copressure (300-400psi), in THF and $Pd(OAc)_2/PPh_3$ as the catalyst system, in the presence of triethylamine.



(25) **(26)**