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Graphical Abstract

Heterocyclic Letters 8: iss.-1 (2018), 19-25

A quick one-pot synthesis of spiroindoline derivatives using 1,3-dibromo-5,5-dimethylhydantoin

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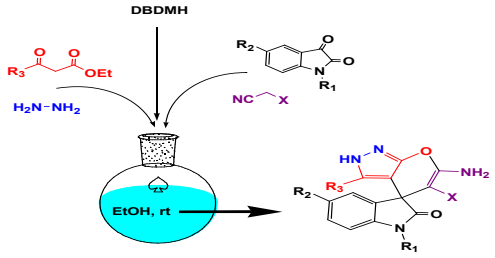
E-mai: sf.hojati@hsu.ac.ir, hojatee@yahoo.com

A novel multi-component reaction for synthesis of spiro[indoline3,4′-pyrano[2,3-c]pyrazole] derivatives is reported herein. 1,3-Dibromo-5,5-dimethylhydantoin is found to catalyze efficiently the four-component one-pot condensation of isatin, malononitrile, ethyl acetoacetate and hydrazine hydrate to afford a wide range of spiro[indoline3,4′-pyrano[2,3-c]pyrazole] derivativesin good yields. The use of a 1,3-Dibromo-5,5-dimethylhydantoin catalyst makes this method simple, convenient, and cost-effective



Heterocyclic Letters 8: iss.-1 (2018), 27-33

Fe_3O_4@GO-Pr-SO_3H as an efficient and recyclable catalyst for the synthesis of pyridine dicarbonitriles

Ahmad Nakhaei[1]*, Hossein Nakhaei[2]*

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In this research work, fast and green synthesis of Pyridine Dicarbonitriles by the one-pot multicomponent reaction of thiophenols, malononitrile, and aryl aldehydes in the presence of Fe_3O_4@GO-Pr-SO_3H (FGOSA) as catalyst in ethanol at reflux situation has been reported.

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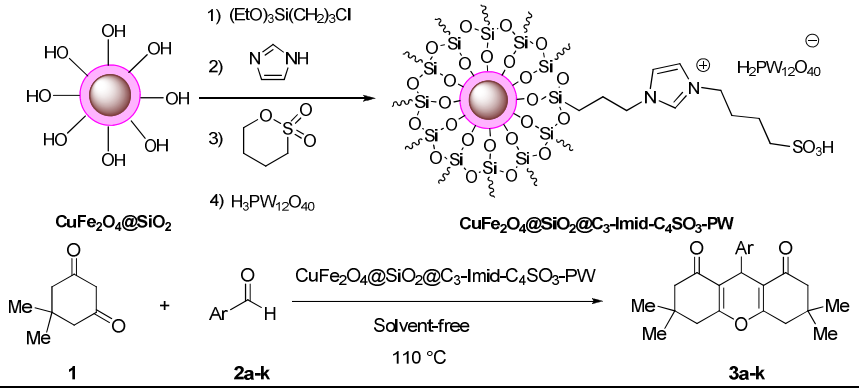
Heterocyclic Letters 8: iss.-1 (2018), 35-42

Evaluation of catalytic activity of newly prepared cufe$_2$o$_4$@sio$_2$@c$_3$-imid-c$_4$so$_3$-pw magnetic nanoparticles in the synthesis of 1,8-dioxo-octahydroxanthenes under solvent-free conditions

Nasrinsadat Hosseininasab[1], Abolghasem Davoodnia[1,*], Faramarz Rostami-Charati[2], Amir Khojastehnezhad[3], Niloofar Tavakoli-Hoseini[3]

[1] *Department of Chemistry, Mashhad Branch, Islamic Azad University, Mashhad, Ir*
[2] *Department of Chemistry, Faculty of Science, Gonbad Kavous University, Gonbad, Iran*
[3] *Young Researchers and Elite Club, Mashhad Branch, Islamic Azad University, Mashhad, Iran*

Catalytic activity of newly prepared $CuFe_2O_4@SiO_2@C_3$-Imid-C_4SO_3-PW magnetic nanoparticles, is studied in the synthesis of 1,8-dioxo-octahydroxanthenes by the reaction of dimedone with aromatic aldehydes. The reactions occur under solvent-free conditions and the process is operative with various aromatic aldehydes, giving the corresponding products in high yields over short reaction times. In addition, the magnetic nanocatalyst could be easily recovered from the reaction mixture by a magnet and reused several times.



Heterocyclic Letters 8: iss.-1 (2018), 43-47

Highly efficient synthesis of aryldipyrromethanes in presence of brønsted acidic ionic liquids

Amit Kumar Rawat*

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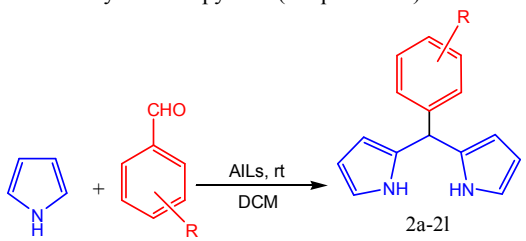
Highly efficient and selective synthesis of aryldipyrromethanes in presence of Brønsted acidic ionic liquids in dichloromethane is reported by the condensations of aromatic aldehydes with pyrrole (2 equivalents) of at room temperature.



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Synthesis and evaluation of chalcones carrying 1,2,3 triazole moiety for antibacterial and antioxidant activity

Aminath Rajeena C.H,[a,*] Suresh P. Nayak,[a] Ganesh G,[a] Vinuta Kamat,[a] B. C Revanasiddappa,[b] and Hemanth Kumar-[b]

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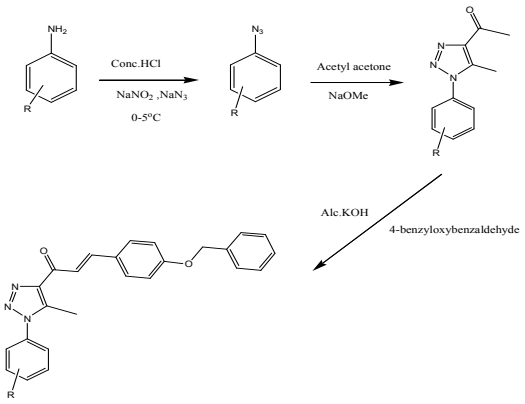
Synthesis of series of substituted chalcones by treating 4-benzyloxy benzaldehyde with different triazole ketone derivatives starting from aniline using a conventional base catalyzed Claisen-Schmidt condensation reaction and their antibacterial and antioxidant studies.



Heterocyclic Letters 8: iss.-1 (2018), 61-68

Synthesis of a novel series of Piperaquine derivatives

Satyanarayana G V[a], Vijaya Bhasker G[a], Laxminarayana E*[b] and Thirumala Chary M[a]

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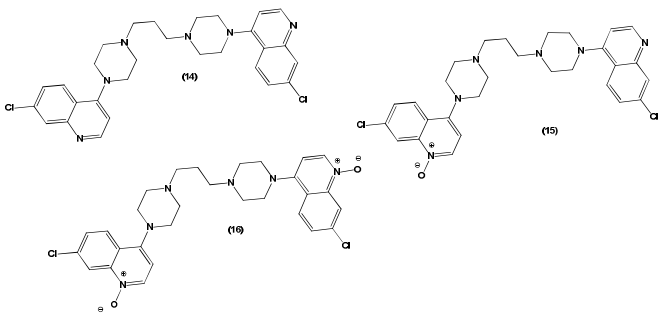
[b]*Sreenidhi Institute of Science and Technology (Autonomous), Ghatkesaer, Hyderabad-501 301 (Telangana) India* Email: elxnkits@yahoo.co.in



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Synthesis and biological study of some novel bis-oxadiazoles, bis-triazoles and bis- Thiadiazoles.

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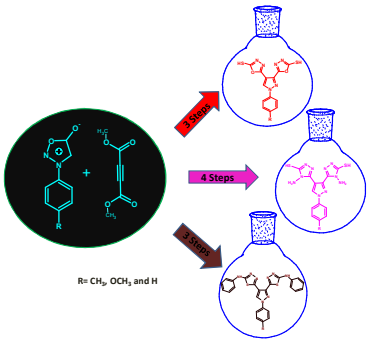
A series of 5,5'-(1-(aryl)-1h-pyrazole-3,4-diyl)bis-(5-mercapto-1,3,4-oxadiazole) **(5a-c),** 5,5'-(1-(aryl)-1h-pyrazole-3,4-diyl)bis-(4-amino-3-mercapto-1,2,4-triazole) **(6a-c)** and 5,5'-(1-(aryl)-1h-pyrazole-3,4-diyl)bis-(2-phenylamino-1,3,4-thiadiazole) derivatives **(7a-c)** were synthesized by employing substituted sydnone as the precursor. The structures of the newly synthesized compounds were confirmed by [1]h-nmr, ir, lcms and elemental analysis. Some of the synthesized compounds exhibited excellent antibacterial and antioxidant activity.



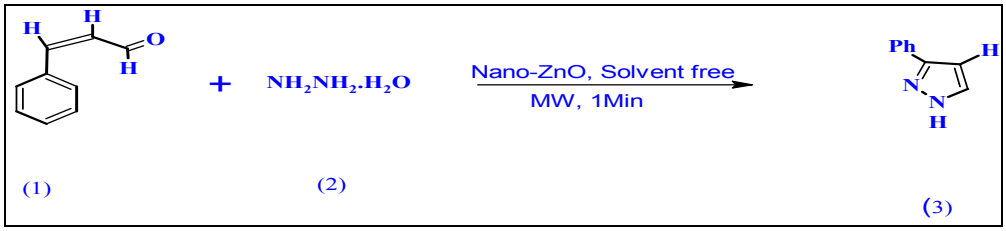
Heterocyclic Letters 8: iss.-1 (2018), 79-83

An efficient nano-catalysed synthesis, characterization & study of fluorescence property of substituted pyrazole.

Ganesh N Yallappa[1*], D. Nagaraja[1] & U. Chandrashekhar[2]

[1,1]department of pg studies in chemistry,* govt. *Science college, chitradurga-577501, vtu-rrc-belgaum, karnataka, india.*
[2] department of chemistry, university bdt college of engineering, visvesvarayya technological university, davangere-577002, karnataka, india.
** corresponding author: email-ganesh n yallappa- gindi.ny1988@gmail.com.*
Tel: +91 9980113450.

An α,β-unsaturated aldehyde, as starting material, was prepared by claisen-schmidt condensation (by using strong basic reagent).the prepared substrate material cinnamaldehyde treated with hydrazine hydrate in the presence of zno nano-catalyst under microwave assisted solvent-free conditions to afford the substituted pyrazole.



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Heterocyclic systems containing bridgehead nitrogen atom : Synthesis and antimicrobial, antifungal activity of *cis*-8, 8a -dihydropyrazolo [3',4' : 4,5] thiazolo[2,3-*b*]-*s*-triazolo[3,4-*b*] [1,3,4]thiadiazole

Anju Rathee Ahlawat

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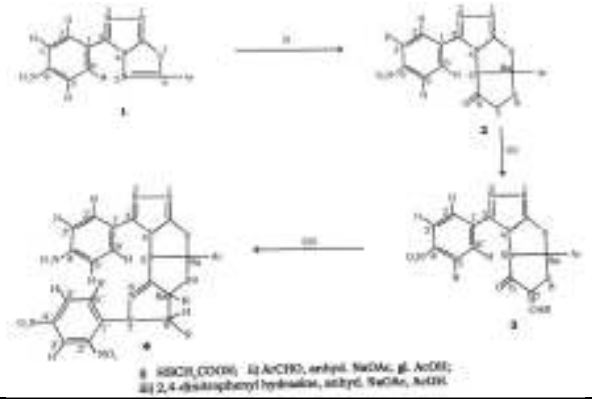
A facile synthesis of 9a-aryl-7,8-diaryl-3-(*p*-nitrophenyl)-*cis*-8,8a-dihydropyrazolo[3',4' :4,5]thiazolo[2,3-*b*]-*s*-triazolo[3,4-*b*][1,3,4] thiadiazole **4** has been achieved. Condensation of 3-(*p*-nitrophenyl)-6-aryl-*s*-triazolo[3,4-*b*][1,3,4] thiadiazole **1** with thioglycollic acid yield 8a-aryl-3-(*p*-nitrophenyl)-thiazolo [2, 3-*b*]-*s*-triazolo [3,4-*b*] [1,3,4]-thiadiazol-6(7*H*)-one **2.** The thiazolidinones **2** on reaction with *p*-chlorobenzaldehyde yield 7-*p*-chlorobenzylidene-8a-aryl-3-(*p*-nitrophenyl)-thiazolo[2,3-*b*]-s-triazolo[3,4-*b*][1,3,4]-thiadiazol-6(7*H*)-one **3.** Condensation of **3** with 2, 4- dinitrophenylhydrazine hydrate furnish **4.** The antibacterial and antifungal activity of some of the compounds have also been evaluated.



Heterocyclic Letters 8: iss.-1 (2018), 91-93

Microwave assisted synthesis of 2-((3,5-dimethyl-1*h*-pyrrol-2-yl)diazenyl)-3h-imidazo[4,5-b]pyridine

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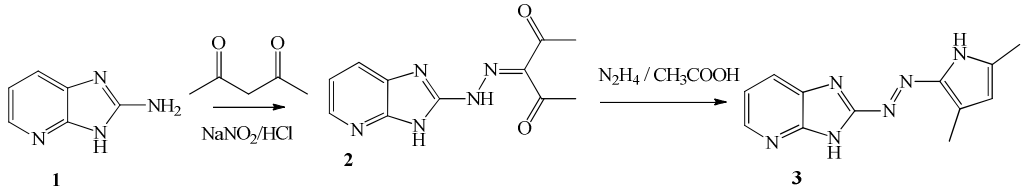
A simple and clear approach was developed for the synthesis of 2-((3,5-dimethyl-1h-pyrrol-2-yl)diazenyl)-3h-imidazo[4,5-b]pyridine. The compounds were characterized by ir, nmr and mass spectral analyses.



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Heterocyclic Letters 8: iss.-1 (2018), 95-104

Synthesis, Characterization and Biological Evaluation of Some New Acridine Derivatives

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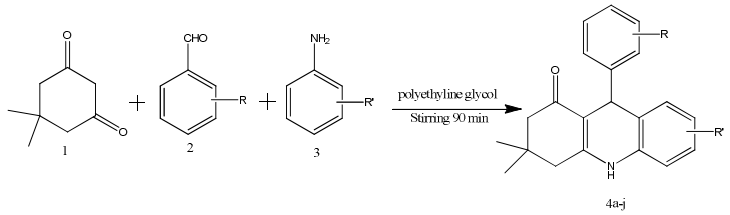
A simple, efficient and cost-effective method for the synthesis of 3, 4-dihydro-3, 3-dimethyl-9-phenylacridine-1*(2H, 9H,10H)*-one by a one-pot three component cyclo condensation of dimedone, substituted aldehydes and substituted aniline in the presence of polyethylene glycol has been developed in present work. 10 novel 3, 4-dihydro-3, 3-dimethyl-9-phenylacridine-1*(2H, 9H, 10H)*-one derivatives have been synthesized. The chemical structures were assigned by means of spectral analysis such as FT-IR, ^{1}H NMR, MS etc. Synthesized compounds were screened for in vitro antibacterial and antifungal activity against *S. aureus, E. coli, P. Aeruginosa,B. Subtilis, Protease vulgaris, Klebsieallapneumonia,Candidaalbicans*and *Candida krusei*respectively. In antifungal activity, compounds-10 showed more potent activity against *Candida albicans*and*Candida krusei.*



1 = Dimedone

2 = Substituted aldehyde

3 = Substituted aniline

4 = Substituted acridine derivative

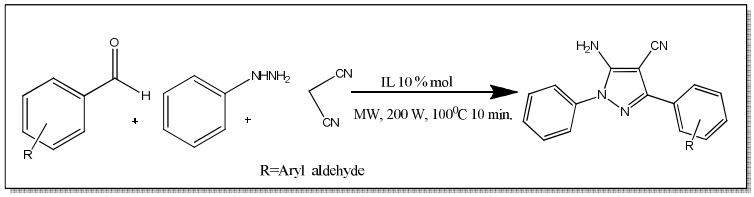
Heterocyclic Letters 8: iss.-1 (2018), 105-110

Ionic liquid catalysed one pot synthesis of highly substituted pyrazoles promoted by microwave irradiation

Sachin R. Kolsepatil[1], Nayana V. Pahade[1], Satish U. Deshmukh[2], Prashant D. Netankar[3], Dinesh L. Lingampalle[1]*

"[1]Department of chemistry, Vivekanand College, Samarth Nagar, Aurangabad, Maharashtra, India."
"[2]Deogiri College, Aurangabad, Maharashtra, India."
"[3]Maulana Azad College, Aurangabad, Maharashtra. India."
Email:- lingampalle@vivekanandcollege.edu.in

A cost effective, eco-friendly procedure for one pot synthesis of highly substituted pyrazole has been developed by aromatic aldehyde, malononitrile, and phenyl hydrazine in Ionic liquid under microwave irradiation. This method provides several advantages such as simple, clean, reduced reaction time, easy workup, simple procedure and reduced environmental consequences.



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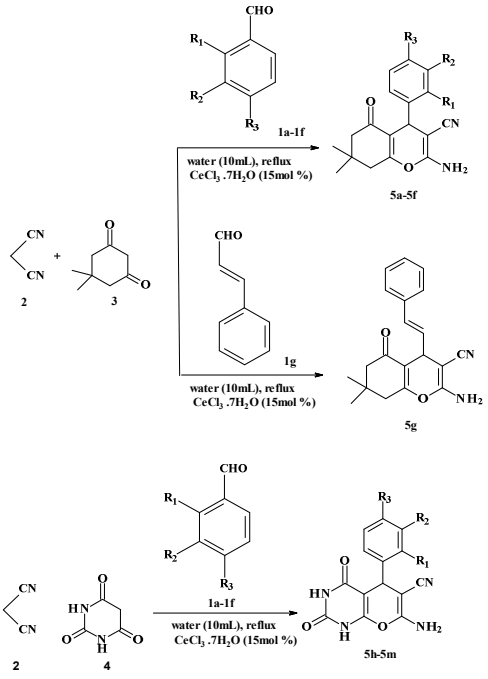
A facile synthesis of tetrahydrobenzo[b]pyrans and pyrano [2,3-d] pyrimidine diones in water using Cerium chloride heptahydrate as catalyst

Deepak Kumar,[a] Gomathi Shridhar,[b] Savita Ladage,[c] and Lakshmy Ravishankar[d*]

[a]*National Initiative on Undergraduate Science (NIUS) Chemistry programme fellow, Homi Bhabha Centre for Science Education, Mankhurd, Mumbai-400088, INDIA.*
[b]*Department of Chemistry, V. K.Krishna Menon College of Commerce & S.S.Dighe College of Science, Bhandup (E), Mumbai - 400042, INDIA.*
[c]*Homi Bhabha Centre for Science Education (TIFR), Mankhurd, Mumbai-400088, INDIA.*
[d]*Department of Chemistry, K.E.T's V.G. Vaze College of Arts, Science and Commerce, Mithagar Road, Mulund- (E), Mumbai-400081, INDIA.*
** Corresponding Author Email: lakshravi@yahoo.com*

A series of tetrahydrobenzo[b]pyrans and pyrano [2,3-d] pyrimidine diones were synthesised in water using Cerium chloride heptahydrate ($CeCl_3.7H_2O$), a water tolerant Lewis acid with low toxicity, as a catalyst.



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DESIGN, SYNTHESIS AND CHARACTERIZATION OF NOVEL DERIVATIVES OF APIXABAN AS AN INHIBITOR OF BLOOD COAGULATION

AMRESH BAITHA*, AJAY G, KARTHIK K AND VIJAY V DABHOLKAR

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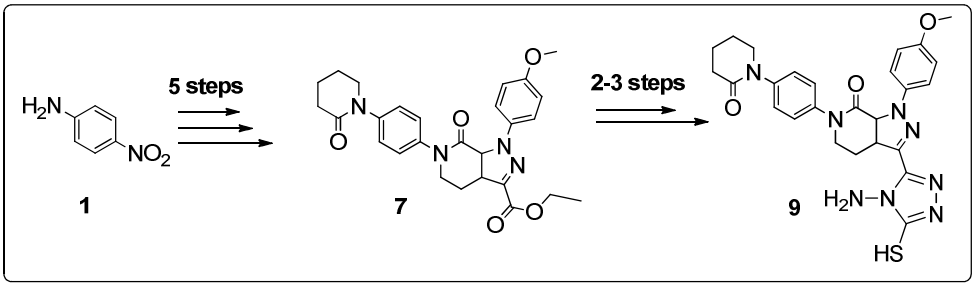
amreshkumar112@gmail.com

The design and synthesis of a novel class of apixaban derivatives possessing the oxadiazole moiety, 1,2,4-triazole moiety and pyrazole moiety. All the synthesized compounds were obtained in better yields and by simple procedure. The newly synthesized compounds have been characterized by IR, ^{1}H NMR, ^{13}C NMR and mass spectral data.



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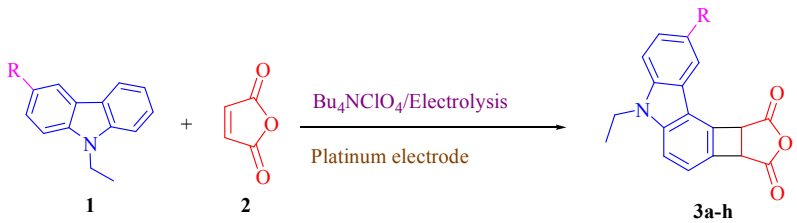
A green electrochemical approach for synthesis oxa-bicyclocarbazole-1,3-dione derivatives

Narendra Kumar, Laxmi Kant Sharma, Abhishek Upadhayay, Rahul Dubey, R.K.P. Singh*

Electrochemical Laboratory of Green Synthesis,
Department of Chemistry, University of Allahabad, 211002 India.
E-mail:rkp.singh@rediffmail.com, (R.K.P.Singh); Tel :+91 9335179483

A novel one-pot synthesis of oxa-bicyclocarbazole-1,3-dione derivative by electro-induced condensation of various carbazole and maleic anhydride is reported. Constant current electrolysis was carried out in the presence of Bu_4NClO_4 as supporting electrolyte. Clean synthesis, atom economy, mild reaction condition are the feature of electrochemical reaction.



R = H, CH_3, OCH_3, CH_2CH_3, Ph, OPh, OCH_2CH_3, NO_2

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Clean Synthesis And Antimicrobial Interpretation Of Azo (Dipyrano) And Bis- Chalcones Derivatives From N-Phenyl Pyrrolidine-2, 5-Dione And N-Phenyl Piperidine-2, 6-Dione

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Dr. D.Y. Patil Knowledge City, Charoli (Bk), Lohegaon, Pune-412105Maharashtra, India.
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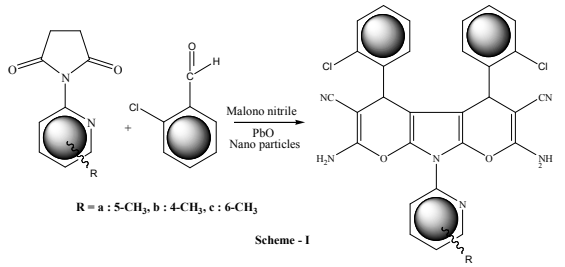
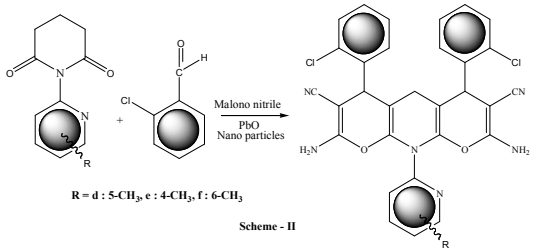
The solvent-free synthesis of Azo (Dipyrano) derivatives was carried out with the help of PbO nanoparticles. They have been employed as an efficient catalyst (yields 81–91%) at room temperature using green chemistry and clean approach. PbO nanoparticles were established to be highly efficient,renewable and eco-friendly heterogeneous catalyst. PbO nanoparticles were prepared by hydro-thermal method.In the same mannera simple eco-friendly microwave instigated solvent free synthesis of bis-chalcones was carried out by the reaction of 1-(3-chlorophenyl)ethan-1-one with different substituted N-phenylpyrrolidine-2,5-dione orN-phenyl piperidine-2,6-dione in presence of neutral corundum(yields 85–90%). All the derivatives were characterized and interpreted for antimicrobial potencies.



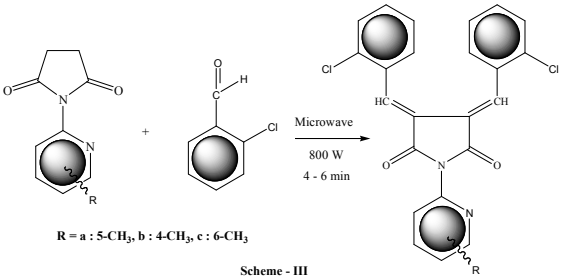
R = a : 5-CH_3, b : 4-CH_3, c : 6-CH_3

Scheme - I



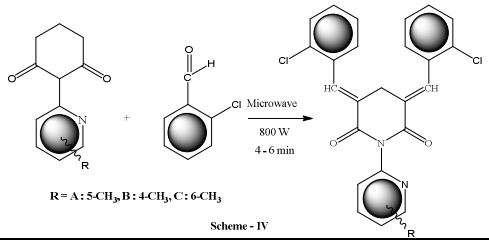
R = d : 5-CH_3, e : 4-CH_3, f : 6-CH_3

Scheme - II



R = a : 5-CH_3, b : 4-CH_3, c : 6-CH_3

Scheme - III



R = A : 5-CH_3, B : 4-CH_3, C : 6-CH_3

Scheme - IV

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Heterocyclic Letters 8: iss.-1 (2018), 145-154

Synthesis, characterization and biological evolution of various novel heterocyclic compounds of hydantoin and piperazine

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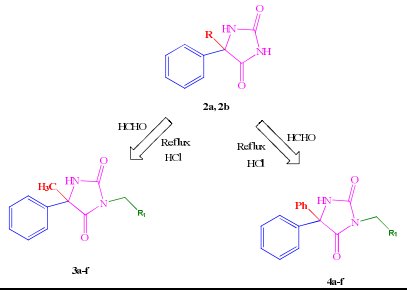
Veer Narmad South Gujarat University, Surat, Gujarat, India
**E-mail: priyank2905@yahoo.in*

In the present work novel 3,5-substituted imidazolidine-2,4-dione **(3a-f)** and **(4a-f)** via Mannich reaction between piperazine derivatives and hydantoin derivatives **(2a and 2b).** Preliminary examination of target compounds as pharmacological active antimicrobial agent have been carried out by using standard method. Some of the compounds serving as a lead potent for future study.



Heterocyclic Letters 8: iss.-1 (2018), 155-158

Synthesis and Antimicrobial activity of some Pyrozolidine Derivatives

S. S. Yadav*

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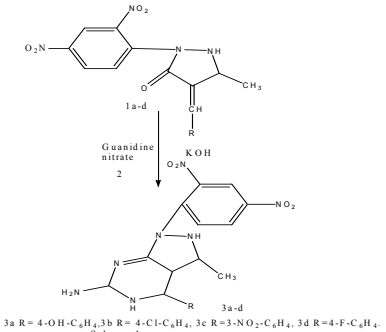
Pyrazolidine derivatives (3a-d) were synthesized by reacting the chalcones (1a-d) with Guanidine nitrate (2) in presence of potassium hydroxide in ethanol. These derivatives were screened for their antimicrobial activity against different microorganism. The structures of synthesized compounds were established on the basis of elemental analysis IR, ^{1}HNMR, Mass and ^{13}CNMR spectra. Pyrazolidine derivatives are well established in the literature as important biologically active heterocyclic compounds .



Scheme-1
Synthesis of pyrazolidine derivatives

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Design,synthesis and structural elucidation of some novel heterocyclic molecules derived from thieno [2, 3-*d*] pyrimidine nucleus

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[2]*Faculty of Chemistry, IIIT-R.K.VALLEY, RGUKT-A.P., Kadapa (Dist), Andhrapradesh, INDIA.*
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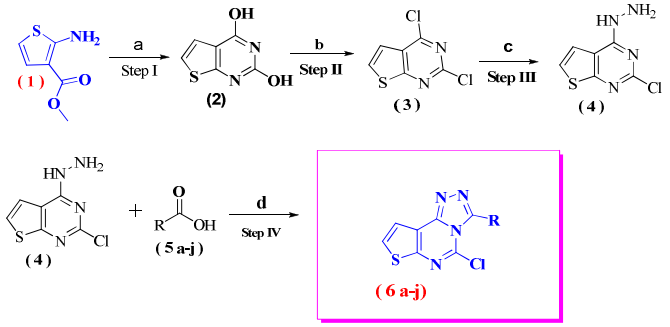
Several new thieno[2,3-*d*]Pyrimidine derivatives 3-Substituted phenyl-5-(thiophen-2-yl)thieno[3,2-e][1,2,4]triazolo[4,3-c]pyrimidine 6(a-j), were synthesized starting from thieno[2,3-*d*]pyrimidine-2,4-diol (1). The characterization of the newly synthesized compounds was Established by IR, ^{1}H NMR, ^{13}C NMR and Mass Spectral analysis.

Synthetic Scheme



Heterocyclic Letters 8: iss.-1 (2018), 171-175

Synthesis Characterization and biological evaluation of N,1-diphenyl-1H-indole-3-carboxamide

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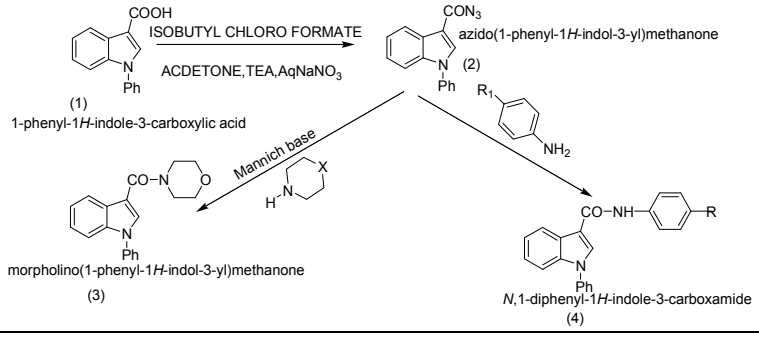
Mannich base synthesis of N,1-diphenyl-1H-indole-3-carboxamide were synthesized by the condensation of azido(1-phenyl-1H-indol-3-yl)methanone with substituted aniline .The structure of these newly synthesized compounds were characterized by ^{1}H NMR,^{13}CNMR ,Mass ,IR, and elemental analysis.



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Another successful application of newly prepared nano cufe$_2$o$_4$@sio$_2$-op$_2$o$_5$h as highly efficient magnetically recyclable catalyst for fast synthesis of 14-aryl-14*h*-dibenzo[*a*,*j*]xanthenes

Farzaneh Tajfirooz[1], Abolghasem Davoodnia[1,*], Mehdi Pordel[1], Mahmoud Ebrahimi[1], and Amir Khojastehnezhad[2]

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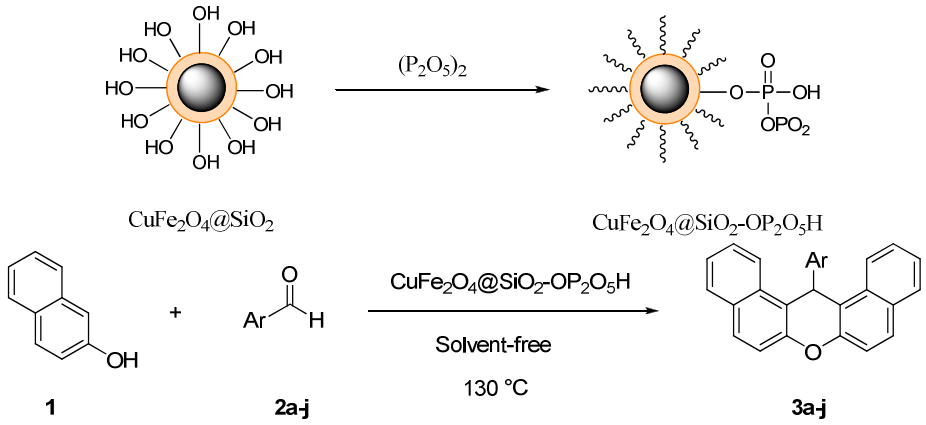
[2] *Young Researchers and Elite Club, Mashhad Branch, Islamic Azad University, Mashhad, Iran*

The newly prepared nano $CuFe_2O_4@SiO_2$-OP_2O_5H was shown to be a highly efficient solid acid catalyst for the cyclocondensation reaction of *β*-naphthol and aryl aldehydes under solvent-free conditions, giving rise to 14-aryl-14*H*-dibenzo[*a*,*j*]xanthenes. The methodology presented here has the merits of environmentally friendly, easy work-up, high yields, short reaction times, and the absence of any volatile and hazardous organic solvents. Moreover, the catalyst could be easily recovered from the reaction mixture by magnetic decantation and reused several times without substantial reduction in catalytic activity.



Heterocyclic Letters 8: iss.-1 (2018), 185-189

Potentiometric study of binary complexes of transition metal ion Cu^{+2} with Scihff base ligands

Sanjivani Sonar[a], Sayujjata Vaidya[b], Mangal Bagal[b] and T.K. Chondhekar[c]*

[a]*Pimpari Chinchwad College of Engineering, Pune*
[b]*Vivekanand Arts Sardar Dalipsing Commerce and Science College, Aurangabad*
[c]*Department of Chemistry, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad*
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A new Schiff base ligand synthesized from sulphonamide salicylaldehyde and substituted salicylaldehyde and characterized by elemental analysis, IR spectra, M.P, TLC. The stability constants of Sciff base ligand complexes with transition metal ion Cu^{+2} were determined pH metrically. The stability constants of Schiff base ligands and metals have been calculated

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2-amino-6-(4‴′-methoxyphenyl)-2- hydroxy-6-{[(3′-Difluoromethoxy)-5′-(3″-methyl)-4″-(2‴,2‴,2‴-trifluoroethoxy)pyridine -2″-yl]methoxyphenyl}-4H-pyran-3-carbonitriles.(3a)

Sandip P. Kakadiya, Dr.Dipak M.Purohit*

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ChemistryDepartment,
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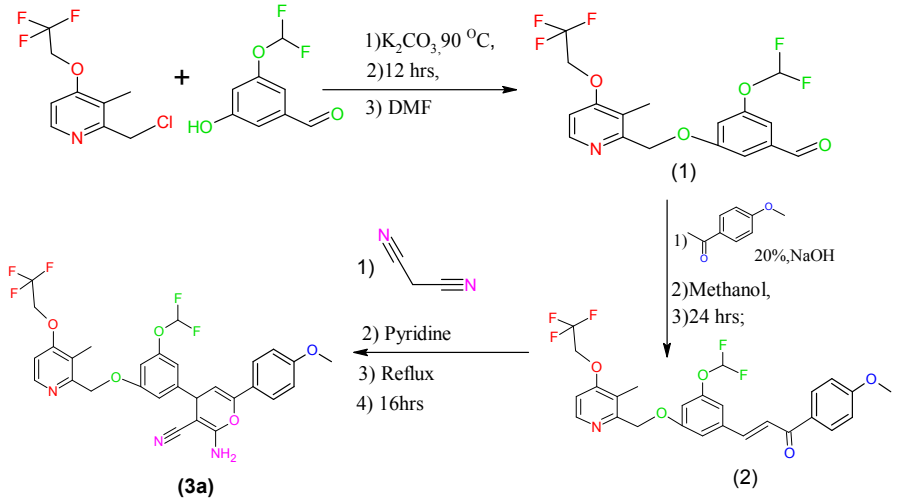
2-amino-6-aryl-4-{[(3′-difluoromethoxy)-5′-(3″-methyl)-4″-(2‴,2‴,2‴-trifluoroethoxy)pyridin-2″-yl]methoxyphenyl}-4H-pyran-3-carbonitriles(3a-3k) have been synthesized by the condensation (E)-3-{[(3′-Difluoromethoxy)-5′-(3″-methyl)-4″-(2‴,2‴,2‴-trifluoroethoxy)pyridin-2″-yl] methoxy phenyl}-1-aryl-prop-2-ene-1-ones with malano nitrile in pyridine.The products (3a-3k) were assigned by IR, ^{1}HNMR, Mass spectral data, TLC and element analysis.



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Heterocyclic Letters 8: iss.-1 (2018), 197-203

Synthesis, Spectral Characterization And Antimicrobial Evaluation Of Novel Pyrimidobenzimidazole Derivatives

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[1]Department of Chemistry, Changu Kana Thakur Arts, Commerce & Science College, New Panvel, Maharashtra
[2]Department of Botany, G. M. Momin Women's College, Bhiwandi, Maharashtra
[3] K L E College of Science & Commerce, Kalamboli, Maharashtra
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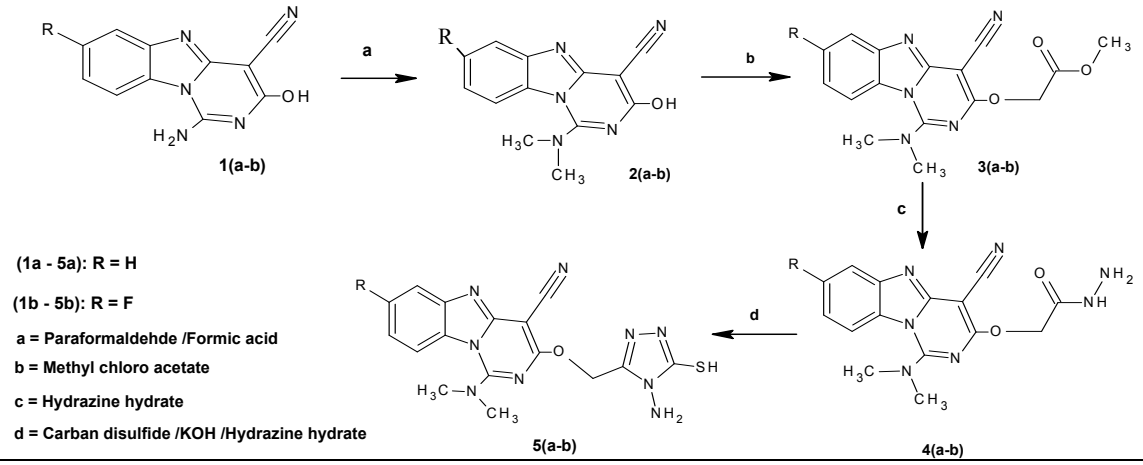
Pyrimidobenzimidazole derivatives were synthesized, by reaction of 2/-amino-5/-cyano-4/-hydroxy pyrimido[1,2-a]benzimidazole **1(a-b)** with paraformaldehyde in formic acid to give **2(a-b)** which upon further reaction with methyl chloroacetate in presence of anhydrous potassium carbonate in acetone gave **3(a-b)** which on condensation with hydrazine hydrazide gave compounds **4(a-b)** which on further treatment with carbon disulfide in absolute ethanol in presence of potassium hydroxide formed potassium dithiocarbazate salt which when refluxed with hydrazine hydrate gave **5(a-b).** These compounds were evaluated for their antimicrobial and antifungal activities which showed promising results. The structure of all synthesized compounds was confirmed by IR, ^{1}HNMR, mass spectral data and elemental analysis.

Synthetic Scheme



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One pot, three-component, environmentally friendly synthesis of novel 1,4-dioxo-3,4-dihydrophthalazin-2(1H)-yl)- 4-heteroyl -4H-pyrans

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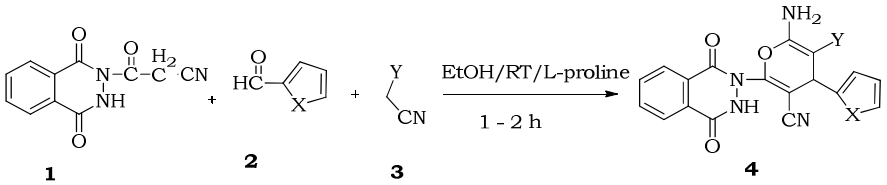
2. GVK Bio sciences PVT LTD, Survay no. 125 (part), 126, IDA, Mallapur, Hyderabad-500076, India.
3. Integrated Product Development, Innovation Plaza, Dr. Reddy's Laboratories Ltd., Bachupalli, Qutubullapur, R. R. Dist., 500072, Andhra Pradesh, India.*
4. Department of Organic Chemistry, Foods, Drugs, and Water, Andhra University, Visakhapatnam, 530003, India.*



1 2 3 4

X = S , O , NH Y = CN, $COOC_2H_5$

Heterocyclic Letters 8: iss.-1 (2018), 213-220

An efficient One Pot Synthesis of 2-Amino-4*H*-benzo [*b*] Pyran Catalyzed by Tetrabutyl Ammonium Hydrogen Sulphate in Aqueous media

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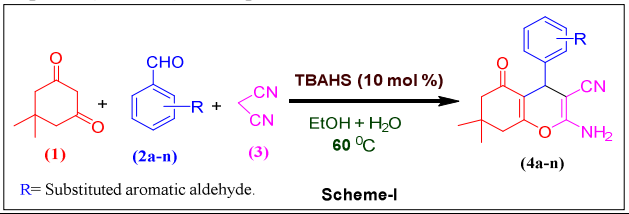
1. P. G. Department of Chemistry, Dayanand Science College, Latur (M.S.) India.
2. Department of Chemistry, D. A. B. N. Arts and Science College, Chikhali, Affiliated to Shivaji University, Kolhapur (M.S.) India.
.3. P. G. Department of Chemistry, Yeshwant Mahavidyalaya, Nanded (M.S.) India.
Email: vijaynbhosale77@gmail.com

A green, efficient and environmentally bengin procedure has been developed for the synthesis of Tetrahydro benzo [*b*] pyran derivatives from one-pot three component condensation reactions of Aromatic aldehyde, malononitrile and dimedone in tetrabutyl ammonium hydrogen sulphate (TBAHS) and aqueous ethanol.



Scheme-I

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Synthesis and screening of some novel 1-((5-phenyl-1,3,4- oxadiazol-2-yl)methyl)-3-((piperazin-1-yl)methyl)-1H-indazole

S.Muralikrishna

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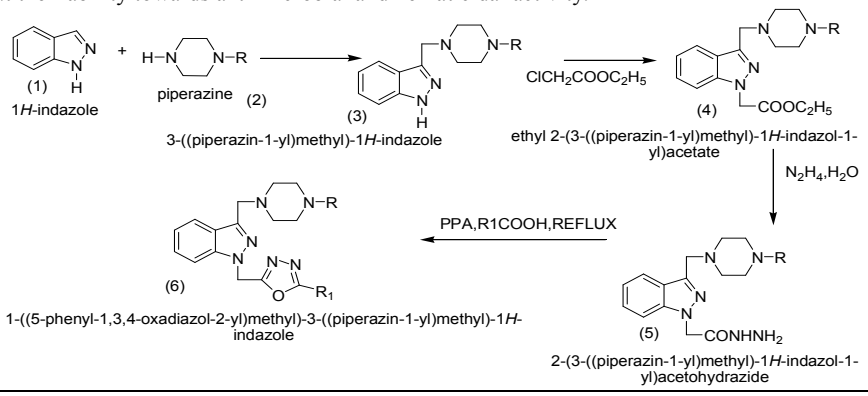
A series of some novel 2-[5-(substituted phenyl)-[1,3,4]oxadiazol containing 1H-indazole moiety were synthesized by using of indazole with mannich base on reaction to give 3-(piperazin-1-yl)methyl)- 1H-indazole which is turned into Ethyl 2-(3-piperazin-1-yl)methyl)- 1H-indazole-1-yl)acetate.The reaction with hydrazinehydrate in ethanol solvent under reflux. The subsequent treatment of 2-(3-((piperazin-1-yl)methyl)- 1H-indazole-1-yl)acetohydrazide, with an appropriate aromatic carboxylic acid in presence of polyphosparic acid under reflux afforded the title compounds. The chemical structures of the newly synthesized compounds were elucidated by their IR, *1*H NMR and Mass spectral data analysis. Further the compounds are used to find out their ability towards anti microbial and nematicidal activity.



Heterocyclic Letters 8: iss.-1 (2018), 229-240

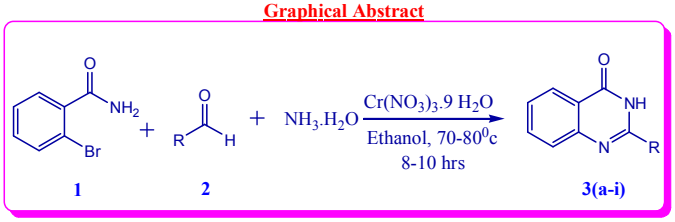
One-pot synthesis of 2-substituted quinazolinones by coupling of 2-bromo benzamide, benzaldehyde and ammonia catalysed by cr(no$_3$)$_3$.9h$_2$o

M. Hari Krishna, P. Thriveni *

Department of Chemistry, Vikrama Simhapuri University, Nellore-524001, A.P., India.

A series of 2-substituted quinazolinone derivatives have been synthesized in excellent yields by one-pot reaction using 2-bromobenzamide, benzaldehyde, ammonia. The desired products were isolated in moderate to excellent yields in the presence of $Cr(NO_3)_3.\ 9H_2O$. All the products were identified by spectral (^{1}H NMR, ^{13}C NMR and mass) and analytical data.

Graphical Abstract



Scheme 1: Synthesis of 2-substituted Quinazolinone derivatives

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PERSPECTIVE

Heterocyclic Letters 8: iss.-1 (2018), 241-247

Expeditious Green Synthesis of Versatile Organic Compounds by Diverse Methods

Bimal Krishna Banik[*^]

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Syntheses of organic compounds under green chemistry conditions are described.