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Graphical Abstract

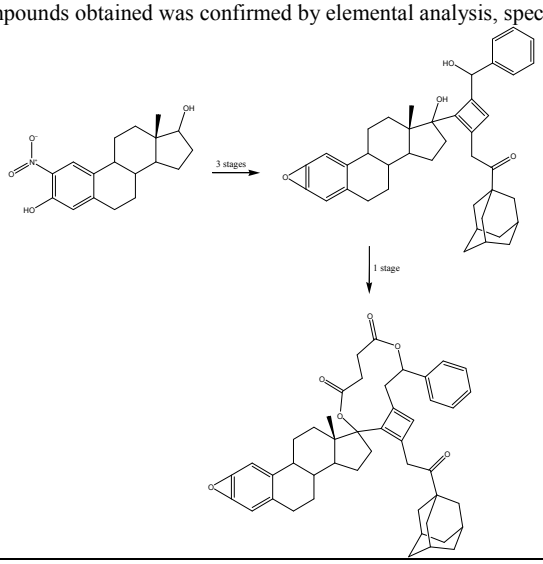
Heterocyclic Letters 9: iss.-3 (2019), 213-223

Design and synthesis of two adamantanyl-2-oxosteroid-dione derivatives using some chemical tools

[1]Rosas-Nexticapa Marcela. [2]Figueroa-Valverde Lauro*, [3]Díaz-Cedillo Francisco, [1]Mateu-Armad Maria Virginia,[2]López-Ramos Maria*,[2]Hau-Heredia Lenin, [2]Pool-Gómez Eduardo, [2]Cauich-Carrillo Regina, [2]Alfonso-Jiménez Alondra, [2]Cabrera-Tuz Jhair, [2]Borges-Ballote Yaritza.

[1]Facultad de Nutrición, Universidad Veracruzana, Médicos y Odontologos s/n C.P. 91010, Unidad del Bosque Xalapa Veracruz, México.
[2]Laboratory of Pharmaco-Chemistry, Faculty of Chemical Biological Sciences, UniversityAutonomous of Campeche, Av. Agustín Melgar s/n, Col Buenavista C.P. 24039 Campeche, Camp., México.
[3]Escuela Nacional de Ciencias Biológicas del Instituto Politécnico Nacional. Prol. Carpio y Plan de Ayala s/n Col. Santo Tomas, México, D.F. C.P. 11340.
**E-mail: lfiguero@uacam.mx; lauro_1999@yahoo.com*

In this study is reported a straightforward route for synthesis two adamantanyl-2-oxosteroid-dione derivatives using some strategies. The structure of the compounds obtained was confirmed by elemental analysis, spectroscopy and spectrometry data.



Heterocyclic Letters 9: iss.-3 (2019), 225-233

Transformation of heterocyclic dye methylene blue zno nano particle catalyst

Ram Babu Pachwarya[a], R.C.Meena[b] AL. Ramanathan[c]

a. Motilal Nehru College, University of Delhi, New Delhi, India
b.Department of Chemistry JNV University Jodhpur, Rajasthan India
c.School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, India
Email: applicationrbp@gmail.com

The transformation of heterocyclic Methylene Blue Dye by ZnO nano particles successfully in small time interval. We also observed the effect of different operating condition on rate of transformation-lamp light intensity, temperature, catalyst, pH. it has found that ZnO is capable to transform MB dye molecules inot simpler form like CO_2, NO_x etc. and we can recover 99.9 % transparent water in 3 hour duration. We can reuse same catalyst many times.

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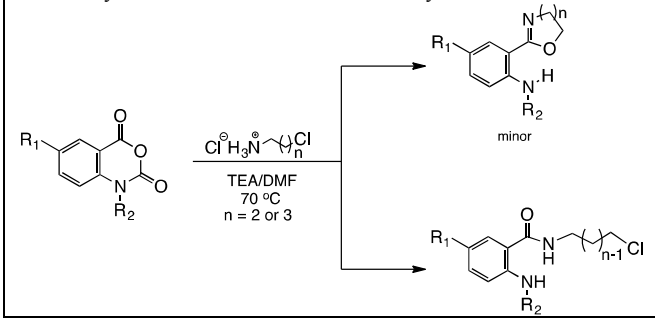
Heterocyclic Letters 9: iss.-3 (2019), 235-238

The Preparationof ω-Chloroalkylanthranilamides from Substituted Isatoic Anhydrides

Michael Rosana and David A. Hunt*

Department of Chemistry, The College of New Jersey,2000 Pennington Road,
Ewing, NJ 08628
e-mail: hunt@tcnj.edu

Reaction of substituted isatoic anhydrides with ω-chloropropyl- and butylamines provides ω-chloropropyl- and ω-chlorobutylanthranilamides in low-moderate yields with little to no discernable cyclization by-product.



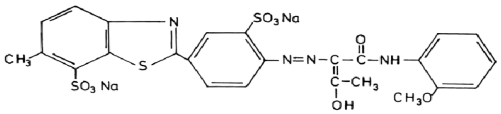
Heterocyclic Letters 9: iss.-3 (2019), 239-245

Degradation of heterocyclic azo dyes direct yellowy 27 using methylene blue immobilized resin dowex-11

Ram Babu Pachwarya

Motilal Nehru College, University of Delhi, New Delhi, India 11002
Email: applicationrbp@gmail.com

Photocatalytic degradation of heterocyclic azo dye direct yellow 27 -DY 27 by MBIRDOWEX-11.



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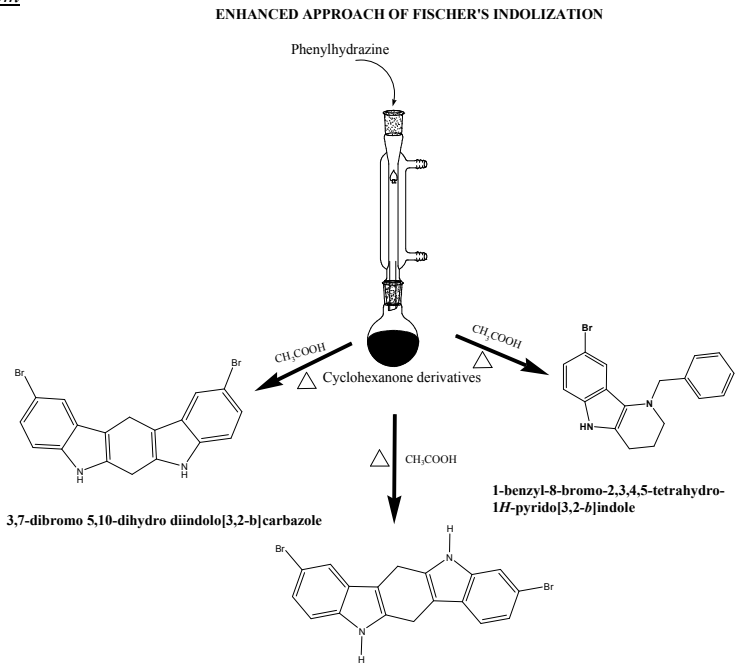
Heterocyclic Letters 9: iss.-3 (2019), 247-253

Enhanced fischer's synthesis of bromo derivatives of bridged carbazole and antibacterial evaluation

S. Guhanathan*, M. Sathiya and A. Nithiya

PG & Research Department of Chemistry,
Muthurangam Government Arts College,
Vellore-632002
Email: sai_gugan@yahoo.com



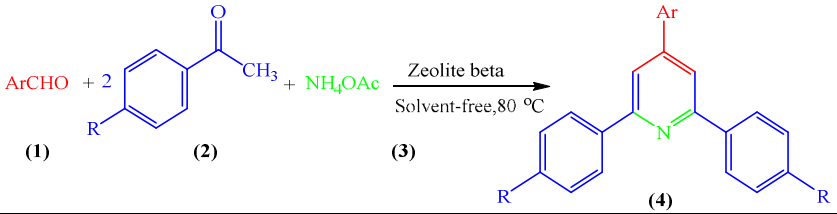
Heterocyclic Letters 9: iss.-3 (2019), 255-264

Zeolite beta: An efficient catalyst for the preparation of 2,4,6-triarylpyridines under solvent-free condition

S. F. Hojati*, S.Ghavidel and M. Moosavifar

Department of chemistry, Hakim Sabzevari University, Sabzevar, 96179-76487, Iran
E-mail: sf.hojati@hsu.ac.ir, hojatee@yahoo.com

An efficient procedure for the synthesis of 2,4,6-triarylpyridines by one-pot multi-component condensation of aldehydes, acetophenones and ammoniumeacetate in the presence of zeolite beta,has been described.



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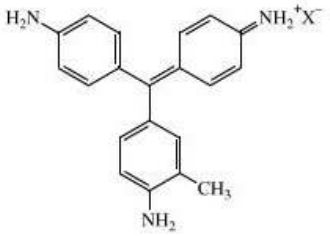
Heterocyclic Letters 9: iss.-3 (2019), 265-272

Degradation Of MCIBV 14: Using Heterocyclic Dye Based Photocatalyst Methylene Blue Immobilized Resin Dowex 11 and Tio_2 Nano Particles Mixture 1:1

Ram Babu Pachwarya [a], Madhur Mohan Ranga[b], AL Ramanathan

a. Motilal Nehru College, University of Delhi, BJM New Delhi, India,
b. Department of Environmental Science, Sarguja University, Ambikapur Sarguja, C.G.,India
c. School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, india

Degradation of MCIBV 14 by MBIRD 11 and TiO_2 - 1:1. catalysts,



Magenta C.I. Basic Voilet 14

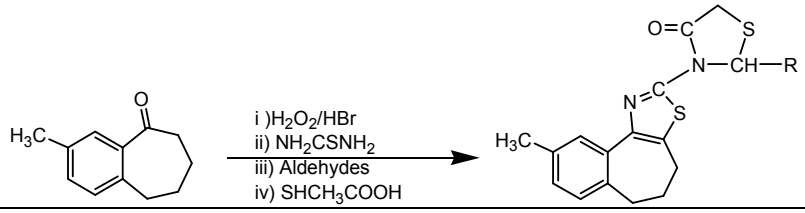
Heterocyclic Letters 9: iss.-3 (2019), 273-277

Synthesis of 2-(4-methoxy-phenyl)-3-(9-methyl-5,6-dihydro-4h-3-thia-1-aza-benzo[e]azulen-2-yl)-thiazolidin-4-oneand derivatives from benzosuberones

Srinivas Bathini and Sadhvik.B

srizanta bio lab, research and development, dammiguda, hyderabad, telangana, 500048, india.
Corresponding author, e-mail:drbathinis@gmail.com

Reaction of 2-methyl-6,7,8,9-tetrahydrobenzocyclohepten-5-one (**1**) with hydrogen bromide and hydrogen peroxide gave 6-bromo-2-methyl-6,7,8,9-tetrahydrobenzocyclohepten-5-one (**2**). The compound **2** on cycloaddition with thiourea gave 5,6-dihydro-4*h*-benzo[6,7]cycloheptane[d][2,3]thiazol-2-amine (**3**). Compound **3**, when treated with various aromatic aldehydes in absolute ethanol and a few drops of glacial acetic acid, resulted the corresponding enamine derivatives **4a-f**. Compounds **4a-f** on cyclocondensation with thioglycolic acid in the presence of anhydrous zinc chloride resulting in the formation of thiazolidinone ring systems **5a-f**.



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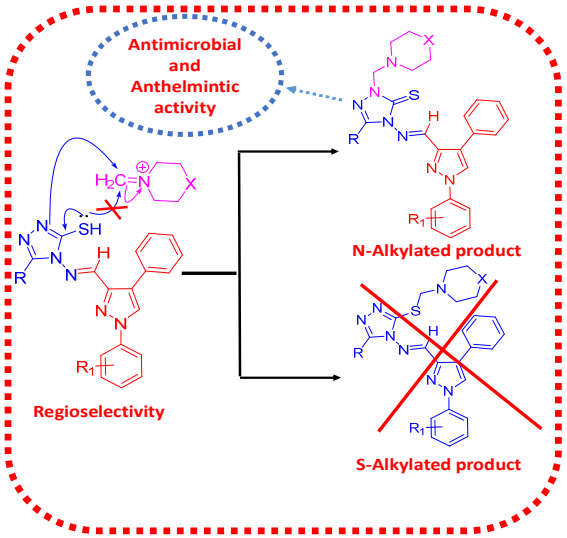
Heterocyclic Letters 9: iss.-3 (2019), 279-288

Regioselective Reaction : Synthesis of 1, 2, 4-Triazole based Mannich bases and their biological activity

Abdul Rahiman M[1]*, Kalluraya. B[2]. Yogesh S.H[1]. Manju. N[2]. Asma[2] and Suresha M.G[3].

[1]*Department of PG Studies in Chemistry, Government Science College, Hassan-573201, Karnataka India.*
[2]*Department of Studies in Chemistry, Mangalore University, Mangalagangothri-574199, Karnataka, India.*
[3]*Department of Microbiology, Government Science College, Hassan-573201, Karnataka India.*
**e-mail: Email: bkalluraya@gmail.com*

The regioselective synthesis of novel series of 4[(3-substituted-1H-pyrazol-4-yl)methyleneamino]-5-substituted-2-[(4-methylpiperzine-1-yl)methyl]-2H-1,2,4-triazole-3(4H)-thiones (**4a-l**) by the aminomethylation of 4-(3-substituted-1H-pyrazol-3-yl)methyleneamino-5-substituted-4H-1,2,4-triazole-3-thiols (**3a-f**) with formaldehyde and substituted piperzine has been described.

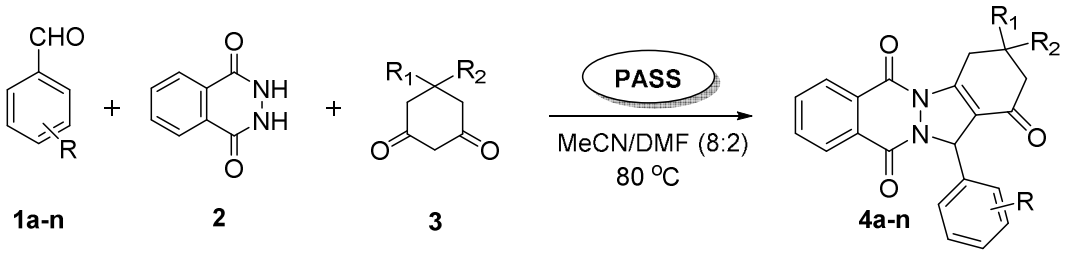


Heterocyclic Letters 9: iss.-3 (2019), 289-294

Polyaniline sulfate salt catalyzed one-pot three-component synthesis of 2*H*-indazolo[2,1-*b*]phthalazine-triones

K. R. VIJAYAPAL REDDY and T. V. D. PRASAD RAO*

An alternative route has been developed for the synthesis of 2H indazolo [2,1-b]pthalazinetrivone derivatives using 2.4 Wt% of poly aniline sulfate salt as a recyclable catalyst by one pot three component condensation reaction of benzaldehydespthalhydrazide and 5,5 dimethyl – 1,3 –cyclohexanedione in good to excellent yields.



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Heterocyclic Letters 9: iss.-3 (2019), 295-301

A mild, environmentally friendly method for reduction of aromatic nitro compounds using tetrabutylammonium fluoride and polymethylhydrosiloxane

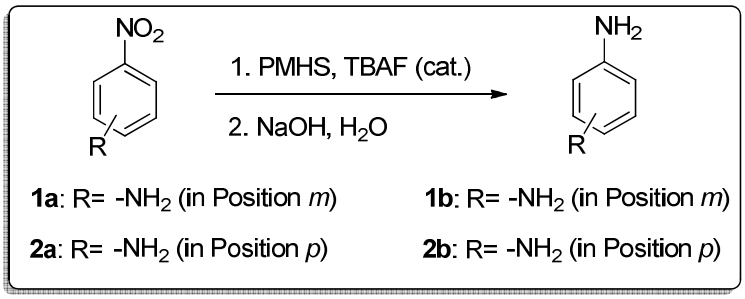
Mohammed Elahbib Drid,[1] Lakhdar Sekhri,[1] Oum Elkheir Rahim[2]

[1]*Lab. Dynamic Interactions and Reactivity of Systems, Process Engineering Department, Faculty of Applied Sciences, University Kasdi Merbah, Ouargla 30000, Algeria.*

[2]*Electrochemical Laboratory, Chemistry Department, Faculty of mathematics and Matter sciences, University Kasdi Merbah, Ouargla 30000, Algeria.*

**Corresponding author: E-mail: sekhril@yahoo.f*

A mild, environmentally friendly method for reduction of aromatic nitro compounds to the corresponding ami nes is reported, using polymethylhydrosiloxane, PMHS, in the presence of catalytic tetrabutylammonium fluoride, TBAF. A range of aromatic nitro compounds such as **(***m*-Nitroaniline **1a** and *p*-Nitroaniline **2a)** have been converted efficiently to the corresponding aromatic amines: 1,3-diaminobenzene **(1b)**, and 1,4diaminobenzene **(2b)** with > 61% yield.



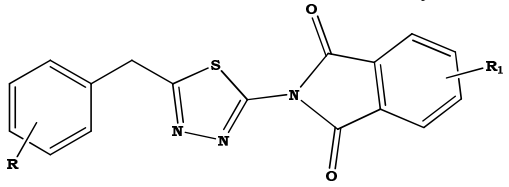
Heterocyclic Letters 9: iss.-3 (2019), 303-308

Synthesis and biological evaluation of novel isoindoline 1,3-dione derivatives

Vijay V. Dabholkar* and Udawant Dinesh#

Organic Research Laboratory, Department of Chemistry,
**K.C. College, Churchgate, Mumbai-400 020*
#Guru Nanak College, G.T.B Nagar, Mumbai - 400037, INDIA.
E-mail: vijaydabholkar@gmail.com
dins1323@gmail.com

A new series of Isoindoline 1,3-dione **(5)** have been synthesized by the reaction of reaction of 2-amino-5-(substituted)-benzyl-1,3,4-thiadiazole **(3)** with substituted phthalic anhydride **(4)** under solvent free conditions and the structures of the compounds have been confirmed by IR and NMR. Representative compounds were screened for their anti-microbial activity against gram-negative bacteria, *E coli* and *P.aeruginosa* and gram-positive bacteria, *S aureus*, and *C diphtheriae* using disc diffusion method. Some of these compounds have been found to exhibit excellent antibacterial activity.



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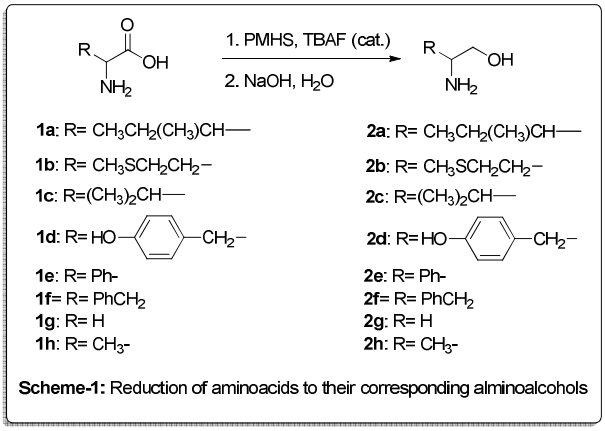
Heterocyclic Letters 9: iss.-3 (2019), 309-319

A Convenient procedure for the reduction of α-aminoacids and amides using tetrabutylammonium fluoride and polymethylhydrosiloxane

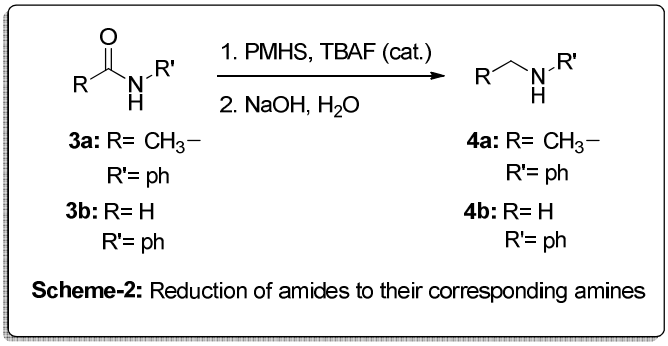
Mohammed Elahbib Drid,[1,2] Lakhdar Sekhri,[1*] Oum Elkheir Rahim,[2] Abdelkader Elhadj Sayed,[1] Ahmed Tabchouche[1]

[1]Lab. Dynamic Interactions and Reactivity of Systems, Process Engineering Department, Faculty of Applied Sciences, University Kasdi Merbah, Ouargla 30000, Algeria.
[2]Electrochemical Laboratory, Chemistry Department, Faculty of mathematics and Matter sciences, University Kasdi Merbah, Ouargla 30000, Algeria E-mail: sekhril@yahoo.f

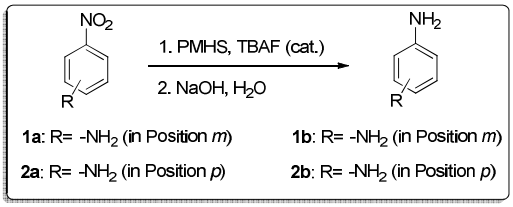
A range of α-aminoacids **(1a-1h)** have been converted efficiently to the corresponding β-aminoalcohols: 2-amino-3-methylpentan-1-ol (isoleucinol) **(2a)**, 2-amino-4-(methylthio)butan-1-ol (methioninol) **(2b)**, 2-amino-3-methylbutan-1-ol (valinol) **(2c)**, 2-amino-3-(4'-hydroxyphenyl) propan-1-ol (tyrosinol) **(2d),** 2-amino-3-phenylethan-1-ol (phenylglycinol) **(2e)**, 2-amino-3-phenylpropan-1-ol (phenylalaninol) **(2f),** 2-aminoethan-1-ol (glycinol) **(2g),** and 2-aminopropanol-1-ol (alaninol) **(2h)**, with polymethylhydrosiloxane, PMHS, in the presence of catalytic tetrabutylammonium fluoride, TBAF with > 61% yield. Carboxylic acids and their derivatives such as amides **(3a** and **3b)** have also been reduced to the corresponding amines: N-ethylaniline **(4a)** and N-methylaniline **(4b)** with polymethylhydrosiloxane, PMHS, in the presence of catalytic tetrabutylammonium fluoride, TBAF with > 74% yield.



Scheme-1: Reduction of aminoacids to their corresponding alminoalcohols



Scheme-2: Reduction of amides to their corresponding amines



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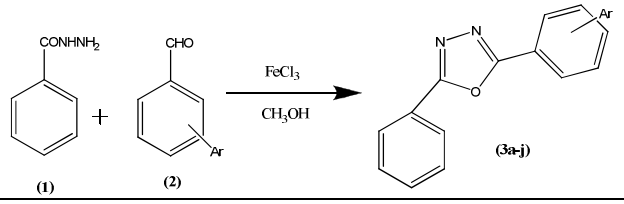
Heterocyclic Letters 9: iss.-3 (2019), 321-325

Synthesis and antioxidant activity of novel 1,3,4-oxadiazole derivatives

Hemanth Kumar, M.Vijay Kumar, B.C.Revanasiddappa*

**Department of Pharmaceutical Chemistry, NGSM Institute of Pharmaceutical Sciences of Nitte (Deemed to be University), Paneer, Deralakatte, Mangalore-575 018,Karnataka, India*
Email: revan@nitte.edu.in

A novel series of 1,3,4-oxadiazoles were synthesized by reacting aromatic aldehydes and benzhydrazide using ferric chloride as catalyst. All the title compounds were tested for antioxidant activity



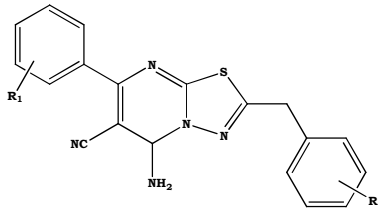
Heterocyclic Letters 9: iss.-3 (2019), 327-332

One pot synthesis and biological evaluation of novel fused thiadiazolo-pyrimidine derivatives

Vijay V. Dabholkar* and Udawant Dinesh#

Organic Research Laboratory, Department of Chemistry,
**K.C. College, Churchgate, Mumbai-400 020,*
#*Guru Nanak College, G.T.B Nagar, Mumbai - 400037, INDIA.*
E-mail: vijaydabholkar@gmail.com
dins1323@gmail.com

One pot synthesis of 5-amino-7-(substituted-phenyl)-2-(substituted-bezyl)-5-H-[1,3,4]-thiadiazolo [3,2-a]pyrimidine-6-carbonitrile **(6)** was achieved by the reaction of 2-amino-5-(substituted)-benzyl-1,3,4-thiadiazole **(3)**, aromatic aldehyde **(4)** and malononitrile **(5)**. The contents were refluxed in presence of triethylamine as a catalyst and ethanol as a solvent. The structures of the compounds have been confirmed by IR and NMR. Representative compounds were screened for their anti-microbial activity against gram-negative bacteria, *E coli* and *P.aeruginosa* and gram-positive bacteria, *S aureus*, and *C diphtheriae* using disc diffusion method. Some of these compounds have been found to exhibit excellent antibacterial activity.



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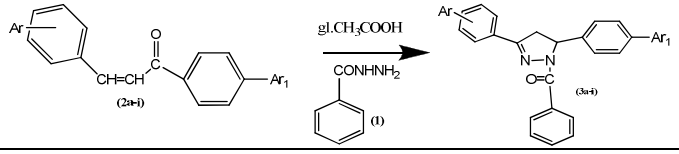
Heterocyclic Letters 9: iss.-3 (2019), 333-337

Synthesis and in-vitro anti-inflammatory activity of Pyrazoline derivatives

Chaitra R Shetty , M.Vijay Kumar*, K.Chaitra, Ashwini, B. C.Revanasiddappa

**department of pharmaceutical chemistry, ngsm institute of pharmaceutical Sciences of nitte (deemed to be university), paneer, deralakatte, Mangalore-575 018,karnataka, india*
Email: vijaym24520@gmail.com

In the present work a new series of pyrazoline derivatives were synthesized by reacting chalcones and benzhydrazide. All the new compounds were established by spectral data and the title compounds were evaluated for *in-vitro* anti-inflammatory activity.



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Boron Tribromide Catalysed Facile and Efficient Synthesis of 2,3-Disubstituted Quinazolinone Derivatives

Chikkanti Jaganmohan[a,b], Vinti SP.Rao[a], Shiva Prakash.P[a], Vinay Kumar K.P[a] , Sandeep Mohanty[a], Jaydeep Kumar[a], Venkateswara Rao B[b] and Akula Raghunadh[a]

[a]Dr. Reddy's Laboratories Limited, API Plant, IDA Bollaram, Hyderabad, India; [b]Department of Organic Chemistry & Chemistry of Foods, Drugs and Water Analysis, Andhra University, Visakhapatnam, Andhra Pradesh, India;
****Corresponding Author E-mail:-** chikkanti2018jagan@gmail.com*

A Simple, convenient synthetic protocols have been developed for the synthesis of of 2,3-disubstituted Quinazolinone derivatives using Borontribromide as efficient catalyst. This reaction proceeds under mild conditions. This method was found to be better method giving high yields. The present method shows some advantages such as short reaction times and enhanced selectivity. The chemical Structures of the Compounds are confirmed by ^{1}H NMR & ^{13}C NMR, Mass spectral data.