Website address: www.niscair.res.in; http://nopr.niscair.res.in

Indian Journal of Chemistry

Sect. B: Organic Chemistry including Medicinal Chemistry

VOL. 57B

NUMBER 3

March 2018

CONTENTS

Papers

Stereoselective carbon-carbon bond formation via 327 1,2-asymmetric induction by a β-substituent in the reaction of α -chloro sulfides with organozine reagents

 $R^1 = n$ -pr, n-hex, i-pr, i-but, t-but, Ph $R^2 = OTBS$, Me $R^3 = 1$ -octyne, vinyl, butyl

S Raghavan* & L Raju Chowhan

Natural Product Chemistry Division, CSIR-Indian Institute of Chemical Technology, Hyderabad 500 007, India

340 ecofriendly catalyst: P2O5/kaolin

Chemoselective synthesis of 1,1-diacetates under An efficient and chemoselective method for the preparation of acylals solvent-free condition using efficient heterogeneous from different aldehydes and acetic anhydride using kaolin supported catalyst (P2O5) under solvent-free conditions is described herein. The present protocol highlights use of an inexpensive and non-toxic catalyst support i.e., natural kaolin. Preparation of the supported catalyst is easy, the process is simple in operation, maintaining solvent free conditions, with short reaction times, high yields and affording selective protection of aldehyde in presence of ketone.

Nityanand Rai & Abha Sharma*

Department of Medicinal Chemistry, National Institute of Pharmaceutical Education and Research, Raebareli 229 010 India

345 [3,4-a] acridines with molecular docking studies

An expedient synthesis of isoxazolo- and pyrazolo- Synthesis of isoxazolo[3,4-a]acridines from 7-chloro-9-phenyl-2-(aryl-2'ylmethylene)-3,4-dihydroacridin-1(2H)-one and pyrazolo[3,4-a] acridines has been directly achieved from 3,4-dihydro acridin-1(2H)-ones by Claisen condensation with ethyl formate/sodium hydride in toluene followed by hydrazine hydrate treatment. All the synthesised compounds have been subjected to docking studies.

R Satheeshkumar, K Praveenkumar, P Shanmughavel & K J Rajendra Prasad*

Department of Chemistry, Bharathiar University, Coimbatore 641 046, India

355 Synthesis of mordant azo dyes using supported diazonium ions and Brönsted acidic ionic liquids

Pranab J Das* & Jesmin Begum

Department of Chemistry, Gauhati University, Guwahati 781 014, India

362 and/or ketones monitored by high resolution ESI+-

Metal-free and FeCl3-catalyzed synthesis of azines 9-Fluorenone azine 2a or benzophenone azine 2b have been synthesized, and 3,5-diphenyl-1H-pyrazole from hydrazones respectively, by treatment of 9-fluorenone hydrazone 1a or benzophenone hydrazone 1b with FeCl₃ Lewis acid catalyst in CHCl₃. Treatment of 1a and 1b with FeCl₃ affords the asymmetrical azine 1-(diphenylmethylene)-2-(9Hfluoren-9-ylidene)hydrazine 2c. 1,3-Diphenyl-2-propenone 3 reacts with hydrazine to produce 1-((E)-1,3-diphenylallylidene)hydrazine 3a. Under prolonged heating, 3a undergoes a cyclization to yield 3,5-diphenyl-1Hpyrazole 4. Chalcone 3 reacts with 1a or 1b to produce a mixture of 4 and 2a or 4 and 2b, respectively. The reaction of cyclohexanone 5 with hydrazine leads to the formation of 1,2-dicyclohexylidene hydrazine 6. Ketone 5 reacts with 1a or 1b to give the asymmetrical azine product 6a or 6b, respectively.

Jamal Lasri* & Ali I Ismail

3 16 0

Department of Chemistry, Rabigh College of Science and Arts, P.O. Box 344, King Abdulaziz University, Jeddah, Saudi Arabia

374 Synthesis and antioxidant, antiurease and antixanthine oxidase activities of some new benzimidazoles bearing triazole, oxadiazole, thiadiazole and imin function

Nesrin Karaali*, Nimet Baltaș & Emre Menteșe

Recep Tayyip Erdogan University, Art and Science Faculty, Department of Chemistry, 53100, Rize, Turkey

Synthesis and antimicrobial evaluation of novel 5-substituted-2-(p-tert-butylphenyl)benzoxazoles

Meryem Taşcı, Ozlem Temiz-Arpaci*, Fatma Kaynak-Onurdag & Suzan Okten

Ankara University, Faculty of Pharmacy, Department of Pharmaceutical Chemistry, 06100, Tandogan, Ankara, Turkey

390 chloro-3-phenyl-1H-indole-2-carbonyl

derivatives

Synthesis and antimicrobial activity of some 5- In the present investigation, a series of new 6-substituted-3-(5-chloroazide 3-phenyl-1'H-indole-2-yl)-3,4-dihydro-4-substituted-phenacyl-2H-1,3-benzoxazin-2-ones 7a-f have been synthesized by two methods. One method is via carbamates 6a-f and another method is directly from 5-chloro-3-phenyl-1H-indole-2-carbonyl azide 2 and chalcones 5a-f. All these compounds have been screened for their antimicrobial activities.

$$R_1$$
 CI
 R_1
 R_2
 R_2
 R_2
 R_1
 R_2
 R_1
 R_2
 R_2
 R_1
 R_2
 R_2
 R_1
 R_2
 R_1
 R_2
 R_2
 R_2
 R_1
 R_2
 R_2
 R_1
 R_2
 R_2
 R_2
 R_1
 R_2
 R_2
 R_1
 R_2
 R_2
 R_2
 R_3
 R_4
 R_4
 R_4
 R_5
 R

S M Basavarajaiah* & B H M Mruthyunjayaswamy

Department of Studies and Research in Chemistry, Gulbarga University, Gulbarga 585 106, India

Authors for correspondence are indicated by (*)