

Indian Journal of Chemistry

Sect. B: Organic Chemistry including Medicinal Chemistry

VOL. 53B

NUMBER 2

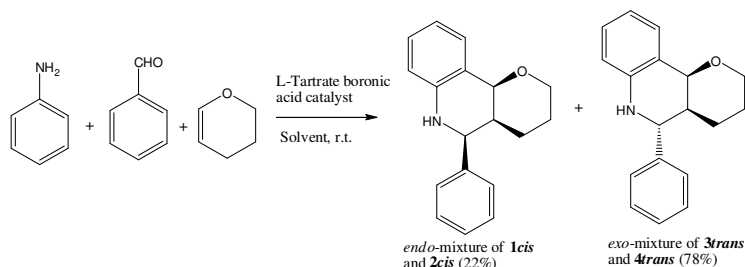
February 2014

CONTENTS

Papers

- 193** **Synthesis of pyranoquinolines via imino Diels-Alder reaction: Comparison of antibacterial efficacy of chirally separated individual diastereomers**

An attempt to separate the four diastereomers formed during pyranoquinoline synthesis via imino Diels-Alder reaction mediated by chiral catalyst has been carried out. The comparison of the antibacterial efficacy of the respective individual diastereomers is also revealed.

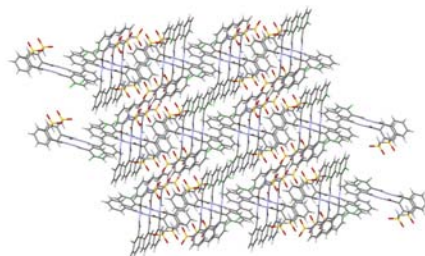


Ramu Dhanapal, Paramasivan T Perumal* & Radhakrishnan Sridhar

Organic Chemistry Division, CSIR-Central Leather Research Institute, Adyar, Chennai 600 020, India

- 200** **Microwave synthesis, crystal structure and spectroscopic investigations of 2-[(2E)-(2-chlorobenzylidene) hydrazine] carbonyl benzenesulfonamide and 2-[(2E)-2-[4-(dimethylamino) benzylidene] hydrazine] carbonyl benzenesulfonamide**

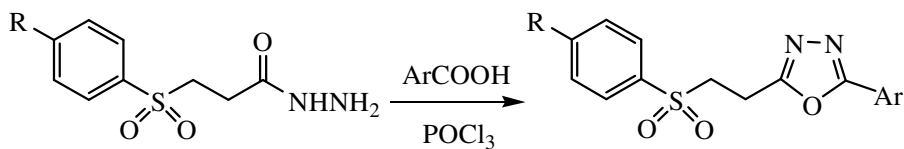
The compounds 2-[(2E)-(2-chlorobenzylidene) hydrazine] carbonyl benzenesulfonamide **5a** and 2-[(2E)-2-[4-(dimethylamino)benzylidene] hydrazine] carbonyl benzenesulfonamide **5b** have been synthesized by microwave heating and characterized by NMR, FT-IR and single crystal X-ray crystallography techniques. They have been obtained in higher yields in lesser reaction times through microwave irradiation. The delocalizations as well as the presence of the intra-molecular hydrogen bonding in **5a** and **5b** lead to the planarity of the benzene rings. There are π - π stacking interactions among the adjacent aromatic systems in both the compounds.



G Thiyagarajan, Ashutosh Pandey*, Peter Mayer & A Thamaraiichelvan

Department of Chemistry, Motilal Nehru National Institute of Technology, Allahabad 211 004, India

- 208 **Synthesis and biological evaluation of some new 2,5-disubstituted 1,3,4-oxadiazoles from 3-(arylsulfonyl) propanehydrazides**

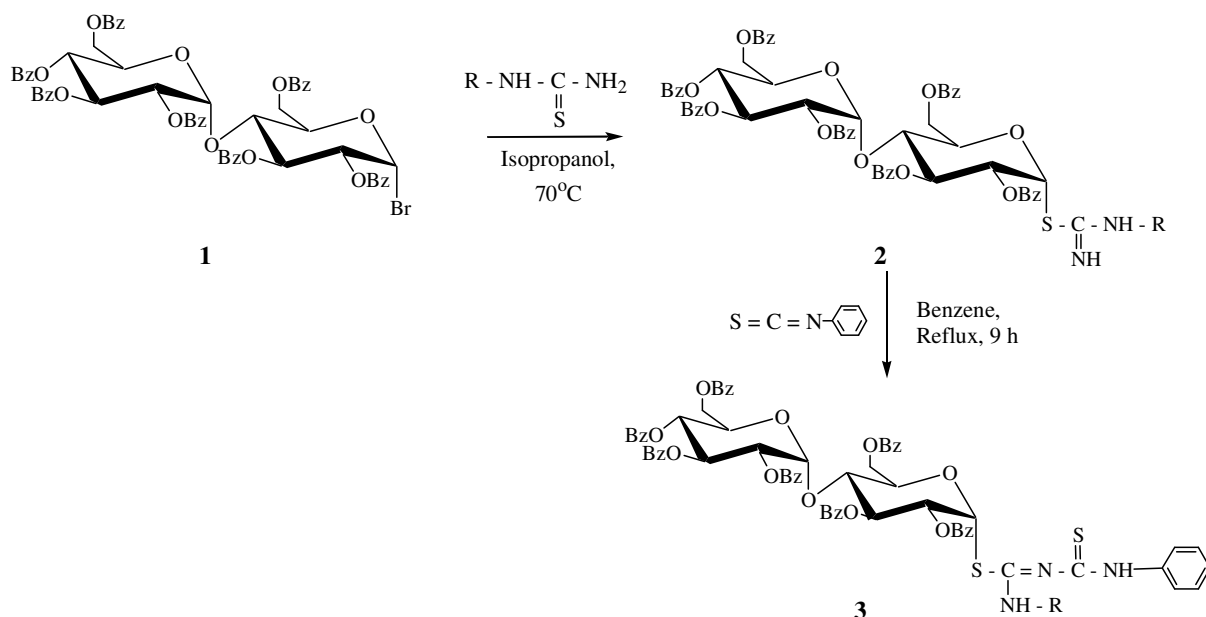


L Vinay Kumar, P Jagan Naik, M Naveen, T Chandrasekhar, A Babul Reddy, N Penchalaiah & G Narayana Swamy*

Department of Chemistry, Sri Krishnadevaraya University, Anantapur 515 003, India

- 212 **Synthesis of some biologically important per-*O*-benzoyl maltosyl isothiocarbamides and isodithiobiurets as antibacterial and antifungal agents**

Several *S*-hepta-*O*-benzoyl maltosyl-1-arylisothiocarb-amides **2a-f** have been synthesized by interaction of hepta-*O*-benzoyl maltosyl bromide **1** with aryl thiocarb- amides. *S*-Hepta-*O*-benzoyl maltosyl-1-aryl-5-phenyl-2,4 isodithiobiurets **3a-f** have been synthesized by the interaction of *S*-hepta-*O*-benzoyl maltosyl-1-arylisothiocarbamides **2a-f** with phenyl isothiocyanate. *In-vitro* antimicrobial activity of all the synthesized thiomalto-sides has been evaluated against several human pathogens.

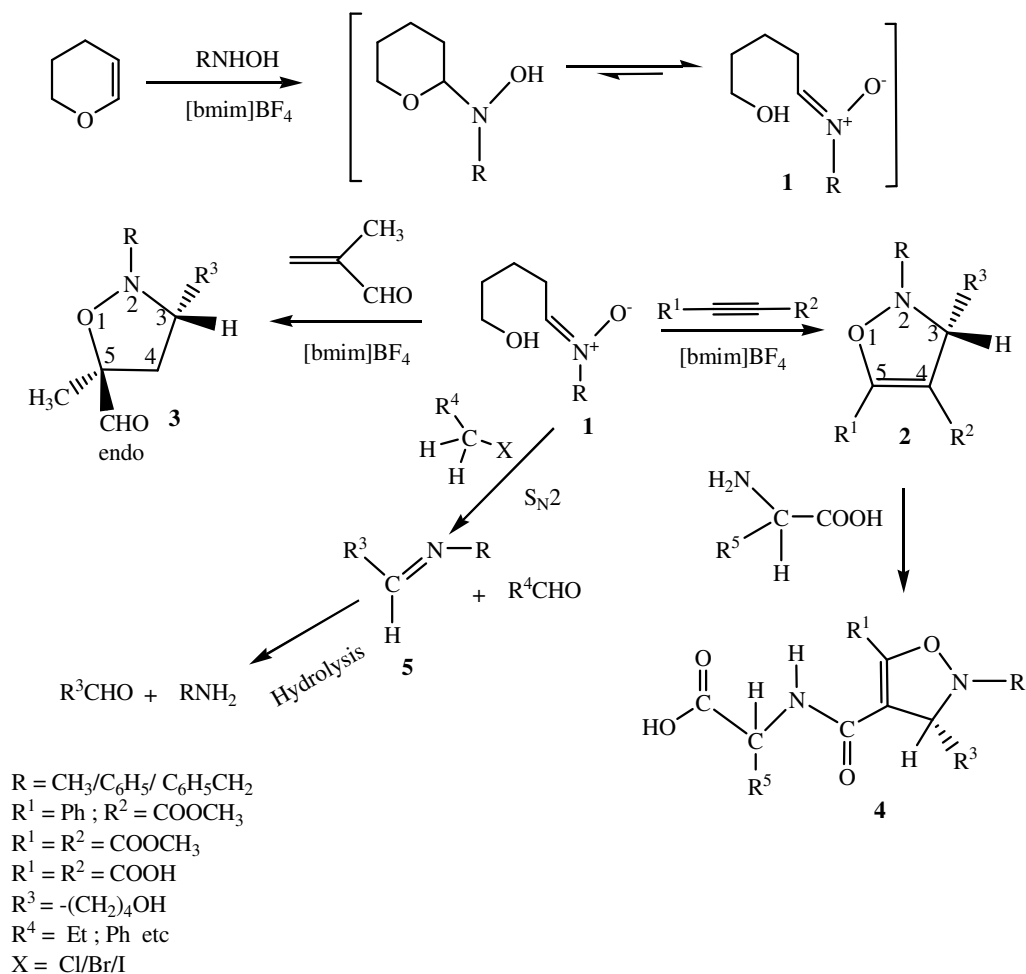


Usha W Karhe & Shirish P Deshmukh*

P. G. Department of Chemistry, Shri Shivaji College, Akola 444 001, India

218 Synthesis of some novel class of isoxazoline and isoxazolidine derivatives in ionic liquid via 1,3-dipolar cycloaddition reaction of dihydropyran derived nitrones and their antimicrobial activities

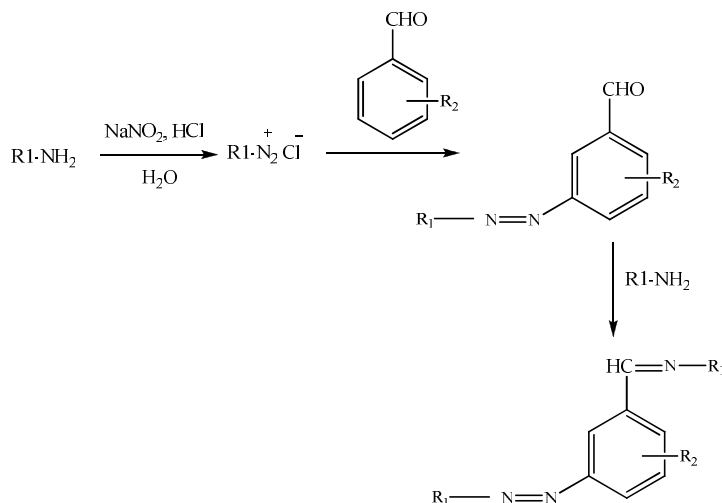
1,3-Dipolar cycloaddition of dihydropyran derived nitrones synthesized from 2,3-dihydro-4*H*-pyran and various hydroxylamines, with electron deficient alkynes have been found to have significant rate acceleration and improved yields of isoxazolines in 1-butyl-3-methylimidazolium based ionic liquids while with enals exclusively endo isoxazolidines are obtained with high selectivity. Synthetic potentiality of the novel isoxazolines and nitrones have been also tested successfully in peptide and aldehyde synthesis. All the novel isoxazoline and isoxazolidine derivatives have been screened for antimicrobial activities and found to be active.



Bhaskar Chakraborty*, Amallesh Samanta, Chiran Devi Sharma & Nasima Khatun

Organic Chemistry Laboratory, Sikkim Government College, Gangtok 737 102, India

- 227** **Synthesis, antibacterial and antifungal activities of some new azo anils containing pyrazole moiety** A series of new azo anils containing pyrazole moiety has been synthesized using conventional and microwave irradiation methods and are screened for microbial activity against some bacteria and fungi.

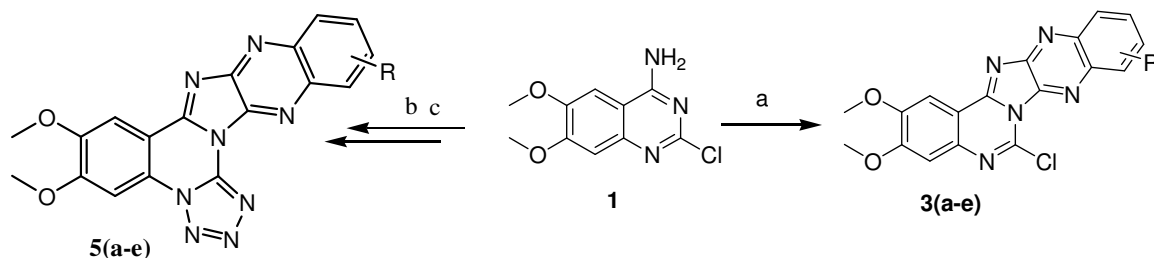


S Sharma*, Jasvir Kaur, Sandeep Kaur & Poonam Sharma

Department of Plant Breeding & Genetics, Punjab Agricultural University, Ludhiana 141 004, India

Notes

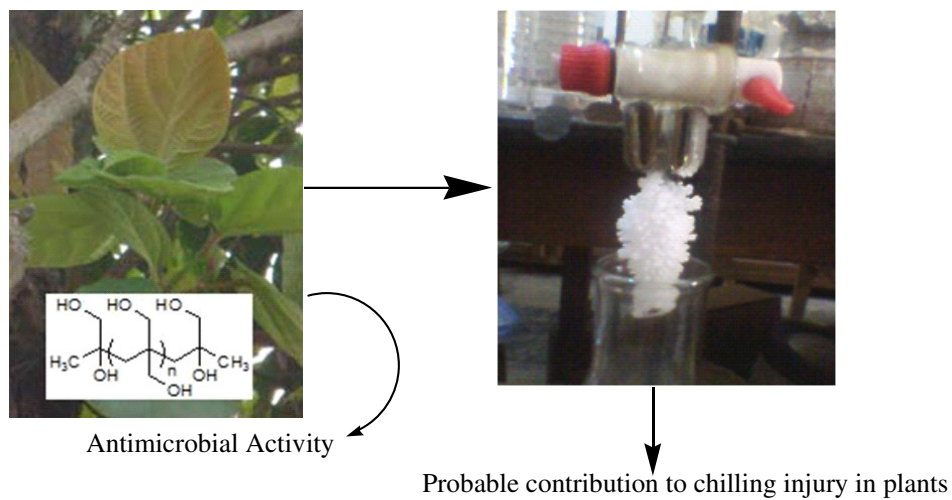
- 238** **Synthesis of some new tetrazolo[1,5-*a*]quinazolino-[2,3-*c*] imidazo[4,5-*b*]quinoxaline derivatives as antimicrobial agents** Treatment of 6,7-dimethoxy-2-chloroquinazolin-4-amine **1** and 7,8-dimethoxy tetrazolo-[1,15-*a*]-quinazolin-5-ylamine **4** with 2,3-dichloroquinoxaline **2a-e** in glacial acetic acid /DMF afford corresponding substituted 6,7-dimethoxy-2-chloroquinazolin [3,4-*c*]-imidazo-[4,5-*b*]-quinoxalines **3a-e** and 7,8-dimethoxy tetrazolo[1,5-*a*] quinazolin[2,3-*c*]-imidazo[4,5-*b*]quinoxalines **5a-e**. The synthesized compounds have been evaluated for their antibacterial and antifungal activity.



Srinivas B, Prasanna B* & Ravinder M

Research Center, Department of Chemistry, Chaitanya Post Graduate College (Autonomous), Hanamkonda, Warangal 506 001, India

-
- 243 Isolation, identification and study of some properties of a bioactive biopolymer which crystallizes at low temperature from *Ficus pomifera* Wall.



Sujata D Wangkheirakpam, Wangkheirakpam Radhapiyari Devi, Chingakham B Singh, Dini Ahanthem & Warjeet S Laitonjam*

Chemistry Department, Manipur University, Canchipur 795 003, India

Authors for correspondence are indicated by (*)
