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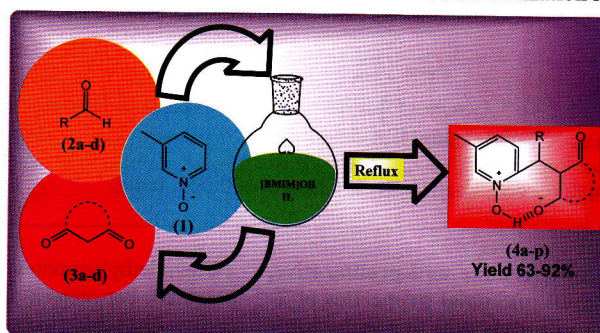
MARCH 2023

CONTENTS

Papers

185 Green synthesis of 5-methylpyridinium derivatives by C2-functionalization of pyridine-1-oxide derivatives and their antibacterial activity

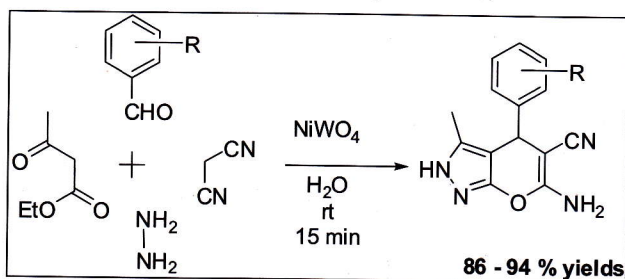
An innovative green economic route has been developed for one pot multicomponent synthesis of 5-methylpyridinium derivatives by the reaction of 3-methylpyridine-1-oxide, aromatic aldehyde and β -ketoester catalysed by different ionic liquids (ILs), [BMIM][OH], [BMIM][Cl], [BMIM][Ac] in good to excellent yields. A relative study reinforced that [BMIM][OH] is the best IL for this C2-functionalization reaction.



Surbhi Dhadda, Prakash G Goswami, Kalpana Yadav, Anjali Guleria, Dinesh K Jangid* & Chandra L Khandelwal
Centre of Advanced Studies, Department of Chemistry, University of Rajasthan, Jaipur 302 004, India

186 NiWO₄ catalyzed expeditious synthesis of pyranopyrazoles

Medicinally important pyranopyrazoles have been synthesized using methods having environment friendly features such as energy efficiency, aqueous medium, no hazardous solvent, no chromatography, in addition to the short reaction time, catalyst reusability and substrate tolerance without affecting yield.

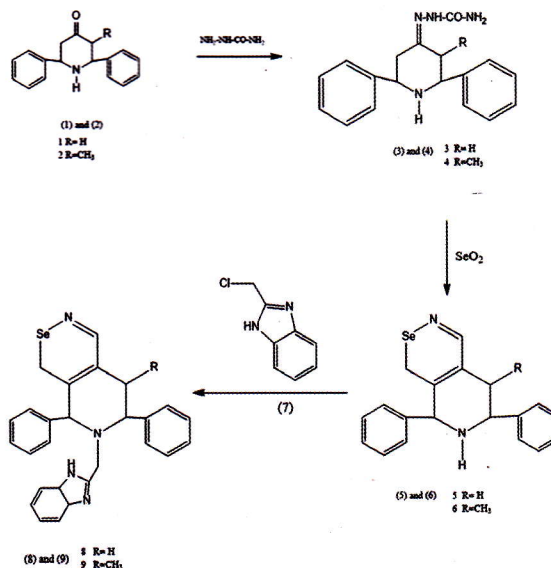


Mesira Godinho, Lalitprabha N Salgaonkar, Tushar S Anvekar*, Teotone Vaz & Hari K Kadam*

Department of Chemistry, St. Xavier's College, Mapusa, Goa 403 507, India
School of Chemical Sciences, Goa University, Taleigao Plateau, Goa 403 206, India

202 **Anti-inflammatory, analgesic and antitubercular activity of 4,6-diphenyl-4,5,6,7-tetrahydro-3-seleno-1,2,5-triazo-indene derivatives**

Synthesis of new quinazolinone-based Mannich bases in good yields via a three-step procedure is reported. The bio-assay results show that some synthesized bases exhibited weak to moderate cytotoxic activity against SKLu-1 and MCF-7 cell lines.

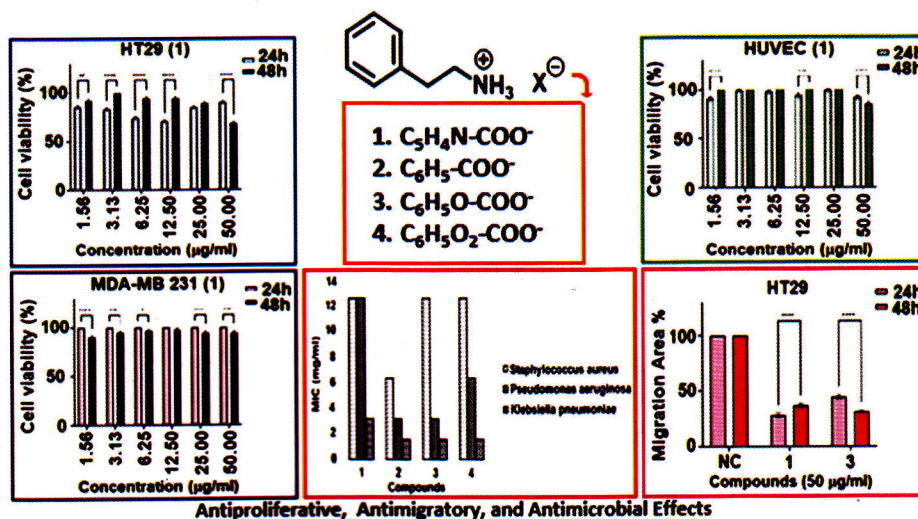


S Balasubramanian & N Jayalakshmi*

Department of Chemistry, Presidency College, Chennai 600 005, India

207 **A novel approach to determine anti-proliferative, anti-migratory and anti-microbial properties of 2-phenylethylammonium carboxylate molecular salts**

2-Phenylethylammonium (PEA) salt derivatives have been prepared between 2-phenylethylamine with various aromatic carboxylic acids (nicotinic, benzoic, salicylic, and γ -resorcylic) and confirmed by spectroscopic analyses.

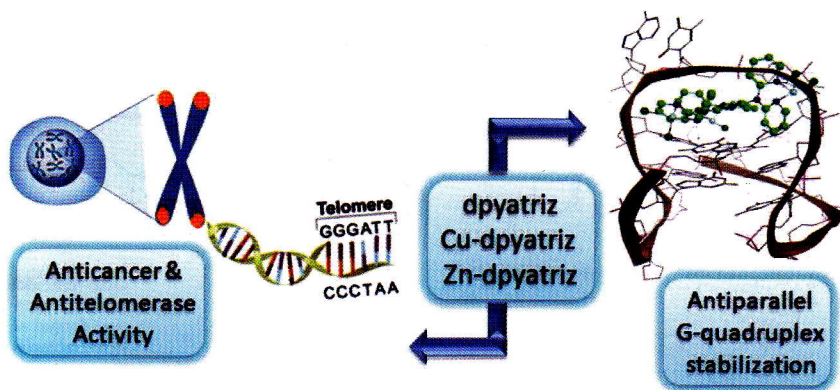


Hüseyin Akbaş*, Seçil Erden Tayhan & Sema Bilgin

Tokat Gaziosmanpaşa University, Science and Arts Faculty, Department of Chemistry, Tokat, Turkey

Interaction of dpyatriz and Cu/Zn-dpyatriz complexes with human telomere DNA: The role of G-quadruplex formation and its effect on antitumor and antitelomerase activity

The dpyatriz, Cu-dpyatriz and Zn-dpyatriz compounds induce and stabilize antiparallel G-quadruplex conformations in telomeric sequences, resulting in efficient antitelomerase and anticancer activity *in vitro*.

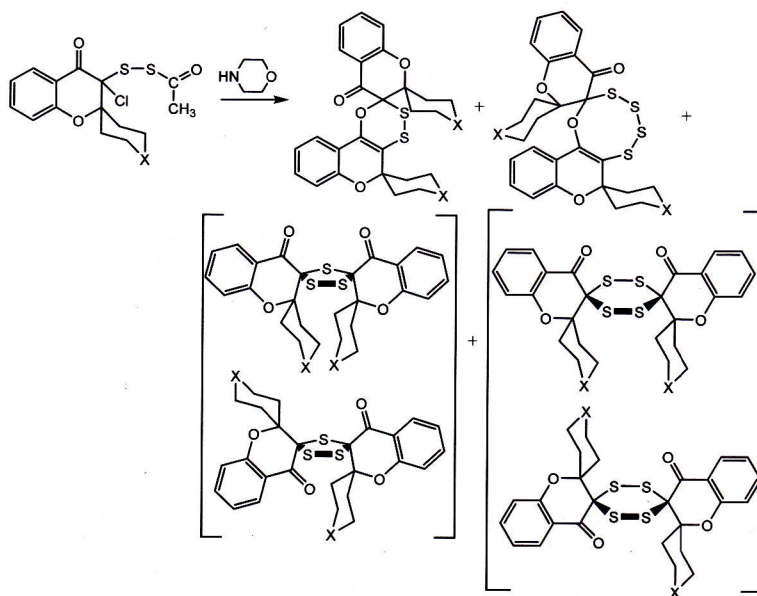


Duraisamy Renuga, Palanisamy Uma Maheswari* & K M Meera Sheriffa Begum

Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli 620 015, India

Chemical studies of chromanone-thiadiazole, pyridazine and thiosulfin hybrid

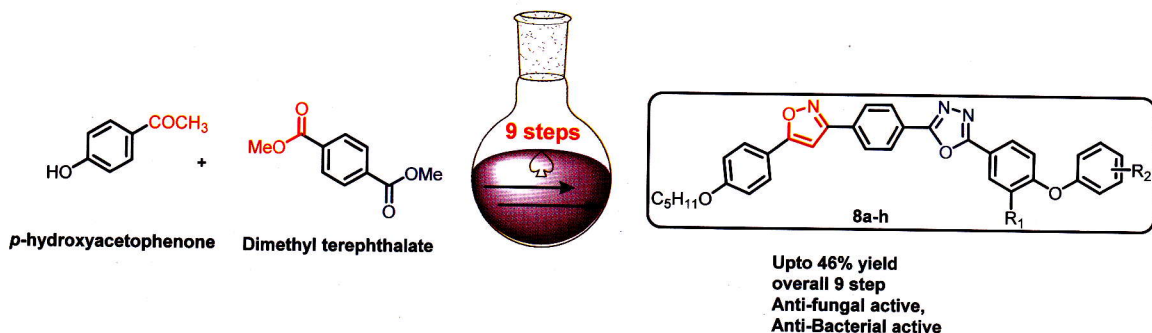
A spiro[chroman-3,2'-[1,3,4]-thiadiazole]-4-one,3', aspiro [chroman-3,2'- piprazine]-4-one, and a mixture of 1,3,4-oxadithiins, 1,3,4,5,6-oxatetrathiocins, 1,2,4-trithiolanes, 1,2,4,5-tetrathiiins derivatives were synthesized.



Mohamed I Hegab*, Hala E M Tolan, Farouk A Gad & Farouk M E Abdel-Megeid

Photochemistry Department, National Research Centre, Dokki, 12622 Giza, Egypt

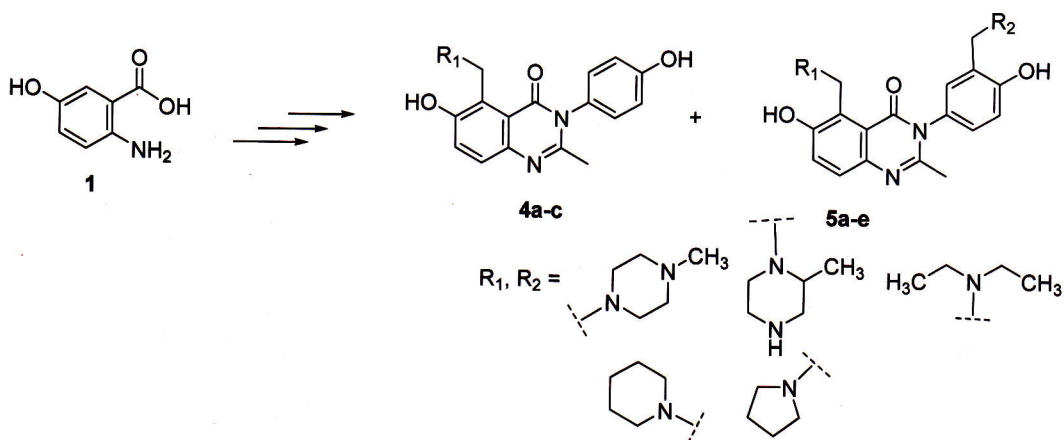
- 237 **Synthesis and characterization of bioactive isoxazole and 1,3,4-oxadiazole heterocycle containing scaffolds** Linear synthesis of a biheterocyclic framework having anti-fungal and anti-bacterial activity in good overall yield.



Kaushik Joshi* Anil Mahida & Jayant Rathod

Department of Chemistry, D K V Arts and Science College, Jamnagar 361 008, Gujarat, India

- 244 **New quinazolinone-based Mannich bases: Synthesis and *in vitro* cytotoxic evaluation** **bases:** New quinazolinone-based Mannich bases **4a-c** and **5a-e** have been synthesized in good yields *via* a three-step procedure, starting from 6-hydroxyanthranilic acid **1**. The research suggests that the presence of the Mannich group in the phenyl ring has more beneficial effect on the cytotoxic activity than in the quinazolinone nucleus.

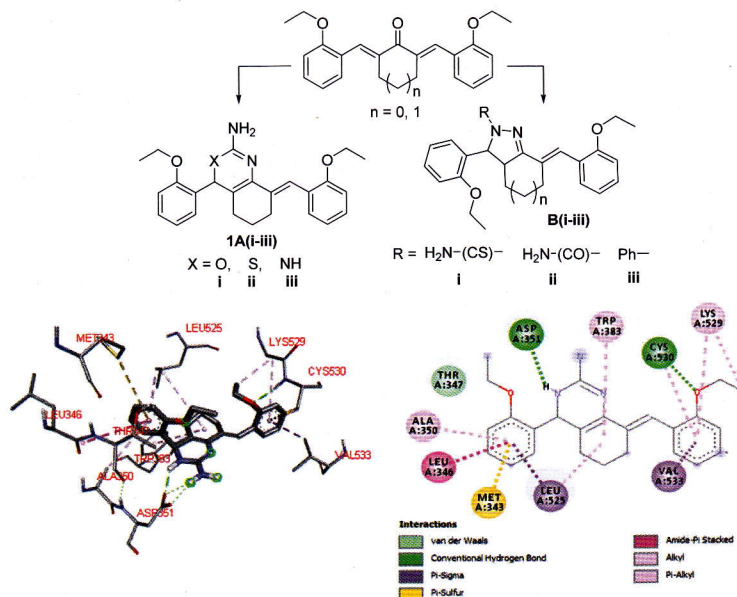


Nguyen Van Minh, Nguyen Thi Phuong Thao, Nguyen Pham Duy Linh & Tran Khac Vu*

School of Chemical Engineering, Hanoi University of Science and Technology No 1, Dai Co Viet, Hai Ba Trung, Ha Noi, Viet Nam

251 Synthesis, characterization, cytotoxicity evaluation and molecular docking study of new bis-chalcone, fused-pyrimidine and fused-pyrazoline derivatives

It involves synthesis of new bis-chalcone compounds and further cyclization into fused-pyrimidine and fused-pyrazoline that tested for cytotoxicity activity against breast cancer cell lines (MCF-7 & MD-MB-231) and molecular docking study with 3ERT protein.

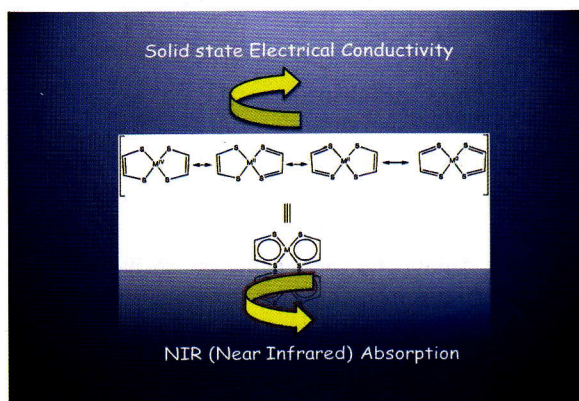


Bazri Izwan Bakar, Mohammad Murwih Alidmat, Melati Khairuddean*, Wan Nuaralia Asyikin Wan Ibrahim, Kwan Wai Mun, Nik Nur Syazni Nik Mohammad Kamal & Mustahimah Muhammad

School of Chemical Sciences, University Sains Malaysia, 11800 Penang, Malaysia

265 Synthesis, electrical conductivity and NIR absorption of some metal dithiolene complexes: Some recent developments

From the very beginning of this research work on metal dithiolene chemistry, at early 1960's, it naturally attracts researchers. In this present endeavour we have discussed the summery of research from near past to upcoming future exclusively based on solid state electrical conductivity and Near infrared (NIR) absorption study of metal dithiolene complexes.



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