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Aayushi International Interdisciplinary Research Journal (AIIRJ)

Peer Reviewed And Indexed Journal

ISSN 2349-638x

Impact Factor 7.331

Website :- www.aiirjournal.com

Theme of Special Issue

Recent Innovations in Science And Technology (RIST-2022)

April 2022 (Special Issue No.109)

A Climate Change : Center of Attention

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Abstract

The rise in CO_2 and Green houses gases (GHGs) originated from fossil fuels emissions and deforestation is only due to human activity. Intergovernmental Panel on Climate Change (IPCC) has measurable scientific evidences in its fourth report on climate change (2007) and they have become clearly accepted universally. Climate change is commonly understood to be one of the drivers of extinction, affecting biodiversity in nearly every corner of the planet. Climate change is one of the major problems and placed in the queue of other hazardous influence which disturbs the earth balance. The rise in average temperature is only one indicator of broader changes also translating into extreme temperatures, drought, flooding, storms, rising sea levels, impacts on food production, and infectious diseases. Although the scientific community has been aware of the link between greenhouse gases (GHGs) and climate change for many years, world leaders have been slow to react and implement measures to mitigate the risks. New research initiatives should focus on collecting high-quality, long-term data on climate-related health outcomes with the dual purpose of understanding current climate–health associations and predicting future scenarios. The global warming issue and challenge has focused on the lightening of greenhouse gases based on international environmental conventions such as IPCC and Kyoto Protocol. The warm effect of global warming affects not only ecological systems but also human life, it has become an important issue both nationally and internationally so need to study.

Keywords : Climate change, health, global warming, Climate Variability

Introduction

Present time climate change concluding both global warming and its consequences on Earth's weather patterns. There have been previous circumstances of climate change, but the rapid changes in climate are rapidly moving and obviously its not due to natural causes.[1] For the years that the international community has engaged on climate change, it has the UN Framework Convention on Climate Change (FCCC)[2] and its Kyoto Protocol,[3] to show for it. The emission reduction commitments made under these agreements are inadequate [4] and inadequately implemented.[5] Instead, they are caused by the emission of greenhouse gases, mostly carbon dioxide (CO_2) and methane. Burning fossil fuels for energy use creates most of these emissions. Agriculture, steelmaking, cement production, and forest loss are additional sources.[6] Greenhouse gases are transparent to sunlight, allowing it through to heat the Earth's surface. When the Earth emits that heat as infrared radiation the gases absorb it, trapping the heat near the Earth's surface. As the planet heats up it causes changes like the loss of sunlight-reflecting snow cover, amplifying global warming.[7] Due to its effect the earth temperature rises twice as fast as global temperature resulted into the area of deserts increases so the heat waves and wildfires occurs more common .[8] There is now convincing scientific evidence that human activity is altering the global climate (IPCC 2007). Although questions remains about the timing and impact of climate change, it is already clear that there are risks of significant adverse consequences.[9] Although low- and middle-income countries are responsible for only a small percentage of global greenhouse gas emissions, the adverse health effects associated with climate change will likely fall disproportionately on their populations. This inequity will further exacerbate global health disparities. High-risk areas include those already experiencing a scarcity of resources, environmental degradation, high rates of infectious disease, weak infrastructure, and overpopulation .[10-13] In particular, tropical regions will experience significant changes in human–pathogen relationships because of climate change.[14] Changing temperatures and precipitation patterns linked to climate change will further affect health by changing the ecology of various vector-borne diseases, such as malaria, dengue, chikungunya, Japanese encephalitis, kala-azar, and filariasis. [15-16]

"TO STUDY THE MOLAR REFRACTIVITIES AND POLARIZABILITY CONSTANTS OF AMOXYCILLIN, LOPERAMIDE AND LORAZEPAM IN METHANOL AND ACETONE MEDIA AT 29oC."

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Abstract:
Refractive indices, densities, molar refractivities and molar polarizability constants Amoxicillin,Loperamide and Lorazepam have been studied in Methanol and Acetone at 29oC (±0.1oC) temperature and at different concentrations(0.63 x 10-3 to 10.00 x 10-3 M).Molar refraction for the above system was calculated theoretically. Experimental data and theoretical values of molar refraction were compared from these observations. The value of molar refractivity (R) and molar polarizability (?) are found to be decrease the concentration of solute.

Keywords: Molar refraction, Refractive indices, polarizability constants, Abb's refractometer

Introduction

Refractive index is one of the most important additive properties of liquid. When a ray of light passes from one medium to another, it suffers refraction that is a change of direction. If it passed from less dense to denser medium then there is a change in direction of refraction and also angle of refraction changes and ultimately the refractive index changed. The refractive index is the ratio of the viscocity of light in vacuum to that in the medium and it depends upon the temperature and wave length of light.The result obtained during this investigation directly through light on the dipole association of ligand intermolecuar attraction between solution and solvent, dielectric constant of medium, polarizability and mutual compensation of dipole. These results are much more useful for transmission, stability activity and effect of drug hence, this study is essential.

Sangita Sharma et.al.[1]has been studied density and refractive index of binary liquid mixture Eucalyptol with Hydrocarbon at different temperature. Oswal et.al.[2] have studied dielectric constants and refractive indices of binary mixtures of ethyl acetate with toluene ethyl benzene, o-xylene , p-xylene and p-dioxane. Oswal et. al.[3] have been studied refractivity properties of some homologous series such as n-ethanoates , methyl alkanoates, ethyl alkanoates etc. were measured in the temperature range 298.15 to 333.15 oK . Sonar et. al.[4] have been studied refractivity of some heterocyclic compounds at 303oK.Ubarhande et.al.[5] have been studied refractive index of 1,3 diaryl carbamides in different percentage of binary liquid mixture. A.M. Kshirsagar et.al.[6] have been studied refractometry of S-trizinothiocarbamides

National Conference on New Trends in Green Chemistry and Environmental Science
In Association with International Journal of Scientific Research in Science and Technology
Volume 9 | Issue 8 | Print ISSN: 2395-6011 | Online ISSN: 2395-602X (www.ijsrst.com)

A Review on Biological Activities of Schiff bases and their Metal Complexes

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ABSTRACT

Metal complexes are plays crucial role in chemical sciences and widely used for industrial applications. They are also exhibit a broad range of biological activities including antifungal, antibacterial, anticancer and anti-inflammatory. Generally metal complexes are synthesized using ligands, here literature survey reveals that Schiff base is one of the bioactive key intermediates used for generation of metal complexes. Schiff bases were synthesized by condensation of amino compound with carbonyl compounds and have displayed several biological activities. Additionally Schiff bases are used for industrial application and exhibit several biological activity. In recent days efforts are directed towards the development of a new chemotherapeutic Schiff bases and their metal complexes.

Keywords: Complex, schiff base, metal, biological activites.

I. INTRODUCTION

The chemistry of the carbon-nitrogen double bond plays a vital role in the progresses of chemical science[1]. Azomethine group (-C=N-) containing compounds typically known as Schiff bases. Schiff bases form a significant class of compounds in medicinal and pharmaceutical chemistry with several biological applications that include antibacterial[2-6], antifungal[3-6], antitumor[7,8] , anticonvulsant[9], anti HIV[10] and anti-inflammatory[11] activities. Another important role of Schiff base structure is in transmination[12].

Conventionally Schiff bases have been prepared by refluxing mixture of the amines and the carbonyl compounds in organic solvent for example, ethanol or methanol[13]. The conventional method has been modified to obtain high yields of the Schiff bases by using aprotic non-polar solvents[14, 15], azotropic removal of water in a Dean-Stark apparatus, trace of acid[16] and or by adding suitable dehydrating agents[17,18].

Schiff bases is one of the bioactive key intermediate and have been studied extensively as a class of ligands[19-21] and are known to coordinate with metal ions through the azomethine nitrogen atom. Schiff base complexes related to synthetic and natural oxygen carriers[22]. Metal complexes make these compounds effective as stereo specific catalysts towards oxidation, reduction, hydrolysis, biological activity and other transformations of organic and inorganic chemistry[23]. Moreover, the incorporation of transition metal into Schiff bases enhances the biological activity of the ligand and decreases the cytotoxic effects of both the metal ion and ligand on the

16. Evaluation of Ground Water Samples in Sailu City Parbhani District

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Abstract

A studies of fifteen groundwater samples from diffrent sites in sailu was carried out. The water quality parameter like temperature, pH,electrical conductivity, total dissolved solids (TDS), total alkalinity (TA), total hardness (TH), chloride(Cl-),Calcium (Ca2+), Magnesium (Mg2+), and dissolved oxygen (DO) were studuied and out come of the results were discussed.

Key words: A studies, ground water, Sailu.

INTRODUCTION

Sailu is considered to be the oldest and religious city in parbhani district of Marathwada region in Maharashtra, Sailu city is situated near Dudhana river. A Femous Temple of "Keshavraj Babasaheb Maharaj" is situated in middle of sailu city. Who was Guru of Shirdis Sai baba.

The residents of Sailu tehsil usually use water form bore-well for drinking and domestic purposes.There is a huge variation in the concentration of dirrent species due to factors like depth, diffrent land, under groundwater conditions, rain condition s etc. The present work attempts to evaluate the quality of groundwater in sailu Tehsil of Parbhani district for potability.

Material and Methods

In the Present study thirty groundwater (borewell. samples were collected from diffrent sites of Sailu tehsil in brown glass bottles with necessary. Precautions and preserved as per the recommended procedures[1].

All the chemicals used were of AR grade, glass ware used were of ' A' grade.Double distilled water was used through out the work to prepare standard solution[2]

RESEARCH JOURNEY International Multidisciplinary E-Research Journal | ISSN- 2348-7143
Impact Factor - (SJIF) – 6.261, (CIF) - 3.452, (GIF) –0.676 Issue 168(A) | March 2019 | UGC Approved No. 40705

"A simple and efficient, Silica Supported synthesis of substituted 1,3,4 thiadiazole derivative under microwave irradiation"

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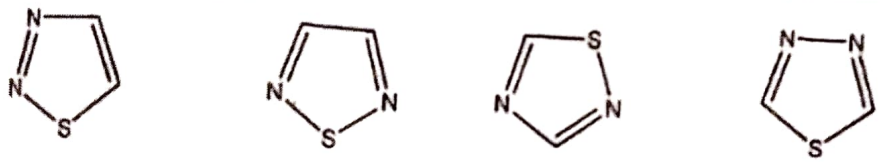
Abstract: A simple and efficient procedure is described, using silica-supported for the synthesis of 1,3,4 thiadiazole derivatives by one-pot reaction of substituted aromatic carboxylic acid and thiosemicabazide in the presence of phosphorus oxychloride as a catalyst under Microwave irradiation. The synthesis compound was characterized by ^{1}H NMR, IR, and mass spectroscopic techniques. The present approach offers the advantages such as short reaction time, simplicity of the workup procedure, low cost and mild reaction condition.

Keywords: 1,3,4 thiadazole, thiosemicarbazide, Silica supported, Microwave irradiation.

Introduction: The importance of heterocyclic compounds has long been recognized in the field of synthetic organic chemistry. It is well known that number of heterocyclic compounds containing nitrogen and sulphur exhibit a wide variety of biological activities. Thiadiazole is a 5-membered ring system containing hydrogen-binding domain, sulfur atom, and two-electron donor nitrogen system. They occur in four isomeric forms in the nature viz. 1,2,3-thiadiazole; 1,2,5-thiadiazole; 1,2,4-thiadiazole; and 1,3,4 thiadiazole (fig-1).

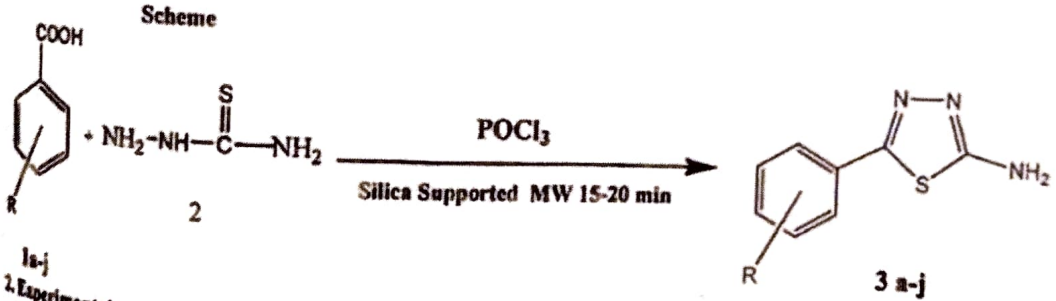


1,2,3-thiadiazole 1,2,5-thiadiazole 1,2,5-thiadiazole 1,3,4-thiadiazole

Fig.1

1,3,4-thiadiazole are an important class of heterocyclic compounds with broad spectrum of biological activities such as antibacterial[1-4], antimicrobial[5], antifungal[6] anti-inflammatory[7], anti-mycobacterial[8], anticancer[9], anticonvulsant[10,11],lipoxygenase inhibitory[12] and ant proliferative activity[13]. Silica supported as an environmental friendly and economical catalyst has been attracting in organic synthesis.

Scheme



2 3 a-j

Ia-j

2. Experimental

General: All the chemical and reagents used were of analytical grade and the completion of reaction and purity of the synthesized compounds were checked by ascending TLC on precoated silica-gel plates. Melting points of the compounds were determined in open capillary tube by digital Melting Point Apparatus and were uncorrected.

2.1General procedure for one spot Synthesis of 5-phenyl substituted 1,3,4-thiadiazol-2-amine

The mixture of substituted aromatic carboxylic acid (0.01mole), thiosemicarbazide (0.01mole), Silica oxide and 5 ml of phosphorus oxychloride were added and heat at 110°C for 6-7 Hrs. Progress the reaction was monitored on TLC. After completion of reaction the reaction mixture was cool to room temperature and poured in ice-cold water, neutralized by saturated KOH. Then filter, dried and recrystalised from Ethanol.

2.2 Synthesis of 5-phenyl substituted 1, 3,4-thiadiazol-2-amine 3(a-j) under microwave

Available online at www.elixirpublishers.com (Elixir International Journal)

Applied Chemistry

Elixir Appl. Chem. 144 (2019) 54181-54182

Elixir ISSN: 2229-712X

Pharmacophore Analysis for Anti-Malarial Activity of Pyrido[1,2- A] Benzimidazoles

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ARTICLE INFO

Article history:

Received 29 May 2020;

Received in revised form:

30 June 2020;

Accepted: 10 July 2020;

Keywords

Anti-malarial,

Pyrido[1,2-a]Benzimidazole,

Pharmacophore Modeling.

ABSTRACT

The present work is an attempt to identify key structural features that govern the anti-malarial activity of Pyrido[1,2-a]benzimidazoles using pharmacophoric analysis. The work is based on a dataset of fifty-six molecules comprising diverse derivatives of Pyrido[1,2-a]benzimidazole. The structures were drawn, optimized and aligned using standard protocol. The final model was developed using aligned molecules. The analysis reveals that the anti-malarial activity of Pyrido[1,2-a]benzimidazoles is related with features. The analysis points out that in future modifications these features should be retained.

Introduction

Malarial is a deadly and vector borne disease with high economic burden on developing countries from Asia, Africa and South America. It is still a major cause of mortality in many countries[1-4]. Even though, treatments are available to control this fatal disease, but emergence of resistance against existing drugs like Chloroquine, etc. is an issue which should be addressed in time. The process of developing a new drug is a long and costly process[1-4]. To speed up this process, modern techniques like Pharmacophore modeling, molecular docking, etc. could be used. These methods are cheaper and time saving[2-4].

Recently, Singh *et al.*[1] Synthesized and screened a good number of Pyrido[1,2-a]benzimidazole derivatives. The results showed that Pyrido[1,2-a]benzimidazole could be used as a core to develop new drug for malaria. Even though, structure activity relationships were discussed by them, no attempt was executed to develop a pharmacophore model. A pharmacophore model will be useful to get idea about common features as well as features responsible for change in activity profile of Pyrido[1,2-a]benzimidazoles. Therefore, in the present work, we have performed pharmacophoric analysis to achieve this goal.

Experimental methodology[5-11]:

Dataset selection: The dataset comprises fifty-six derivatives of Pyrido[1,2-a]benzimidazole[1]. The presence of substituents at different positions ensures the covering of broad chemical space. The activity against *NF54* cell lines reported as IC50 has been used for the present work. The five most and least active molecules have been presented in Table 1.

Structure generation, Optimization and Alignment:

The SMILES notations provided by Singh et al. were used to generate 3D-structures for all the molecules using OpenBabel. The 3D-structures were then optimized using MMFF94 force filed using OpenBabel. The optimized structures were then aligned using Open3DAlign. The aligned structures were used for generation of final pharmacophore model using pyMOl and its plugin 'LIQUID'[5-6].

Table 1. Five most and least active molecules used in the present work.

Compound ID	SMILES notation	NF54 IC50
1	ClC1=CC(N=C2N3C(NCCNCC)=CC(C4=CC=C(C(F)(F)F)C=C4)=C2C#N)=C3C=C1Cl	0.02
2	ClC1=CC(N=C2N3C(NCCNCC)=CC(C4=CC=C(C(F)(F)F)C=C4)=C2C#N)=C3C=C1	0.03
3	ClC1=CC2=C(N=C3N2C(NCCNCC)=CC(C4=CC=C(C(F)(F)F)C=C4)=C3C#N)C(Cl)=C1	0.03
4	OC(CC1)CN1CCNC2=CC(C3=CC=C(C(F)(F)F)C=C3)=C(C#N)C(N42)=NCS=C4C=CC=CS	0.04
5	ClC1=C(Cl)C=C(N=C2N3C(NC4CCN(C)CC4)=CC(C5=CC=C(C(F)(F)F)C=C5)=C2C#N)C3=C1	0.05
6	O=S(CCC1NC2=CC(C3=CC=C(C(F)(F)F)C=C3)=C(C#N)C4=NCS=CC=CC=CSN42)(CC1)=O	7.81
7	OC(C1)CCN1C2=CC(C3=CC=C(C(F)(F)F)C=C3)=C(C#N)C4=NCS=CC=CC=CSN42	8.48
8	O=S(NCCNC1=CC(C2=CC=C(C(F)(F)F)C=C2)=C(C#N)C(N31)=NC4=C3C=CC=C4)(C)=O	8.1
9	O=C(C)NCCNC1=CC(C2=CC=C(C(F)(F)F)C=C2)=C(C#N)C(N31)=NC4=C3C=CC=C4	
10	OC(C1)CN1C2=CC(C3=CC=C(C(F)(F)F)C=C3)=C(C#N)C4=NCS=CC=CC=CSN42	

Results and Discussions

The present pharmacophoric analysis led to generation of a pharmacophore model. For the sake of convenience and understanding, the pharmacophore models are molecule number 1 and 10 have been presented as representatives in figure 1 and 2.

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Study of Physico-Chemical Parameter of Soil Analysis

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Abstract:

The soil is a mixture of solid, water and gases and also a mixture of minerals, organic matter, gases, liquid and other macro or microorganisms and it performs four important functions.

The basic of the status of soil we decide requirement of fertilizer to increase the fertility of the soil. This work examines the principal physical and chemical attributes that can serve as indicators of a change in soil quality under particular agro-climatic condition. You will find that different soil can vary greatly in their composition. Proposed indicator including soil depth to a root restricting layer, water holding capacity, organic matter, N, PH, K, Cl, electrical conductivity, moisture content. We also confirmed the justification for selecting these key attributes, their measurement, critical limit for monitoring change in solid productivity and soil quality and crop growth in that soil.

Keywords:
Fertility,pH, organic carbon

Introduction:

Soil is a complex collection of Organic and Inorganic matter. Soil is called the Skin of the Earth[1] and interfaces with the lithosphere, the hydrosphere, the atmosphere, and the biosphere.[2] The term pedolith, used commonly to refer to the soil, literally translates ground stone. Soil consists of a solid phase of minerals (the soil matrix) and organic matter, as well as a porous phase that holds gases (the soil atmosphere) and water (the soil solution).[3][4][5] Accordingly, soils are often treated as a three-state system of solids, liquids, and gases.[6]

Physically, soils are composed of mineral and organic particles of varying size. The particles are arranged in a matrix that results in about 50 per-cent pore space, which is occupied by water and air. This produces a three-phase system of solids, liquids, and gases. Essentially, all uses of soils are greatly affected by certain physical properties. [7]

Experymental:

Fundamental Soil forming Processes on the besis of

Humification

Eluviation

Illuviation

Horizonation

An experiment was conducted by Sridevi et al. To study the effect of sole and conjunctive application of urea, straw and Glycidia on physical and chemical properties of dry land alfisol and they observed that the application of nitrogen through straw area and glycidia relatively increased to organic carbon and more availability of P and K.[8]

Yadav et al. Conducted a field experiment on soil to show the effect of integrated nitrogen management on forage on soil, nitrogen available and amount of microbials in the soil and observed that application of 100% N through organic manure significantle increases the available nitrogen content and microbial count as compared to 100% N through chemical

Asian Journal of Chemistry; Vol. 31, No. 5 (2019), 993-996

ASIAN JOURNAL OF CHEMISTRY

https://doi.org/10.14233/ajchem.2019.21716

Microwave Assisted Synthesis of 1,5-Benzothiazepines Using Greener Reaction Medium

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Received: 19 September 2018; *Accepted*: 29 November 2018; *Published online*: 28 March 2019; AJC-19318

An efficient and eco-friendly synthesis of 1,5-benzothiazepines has been developed by the reaction of various 2-propen-1-ones with 2-aminothiophenol using microwave irradiation in greener reaction medium, glycerol. The clean reaction conditions, shorter reaction time, high yields and non-toxic, biodegradable reaction medium manufactured from renewable sources are unique features of this method.

Keywords: 1,5-Benzothiazepines, Chalcone, Glycerol, Microwave, Green synthesis.

INTRODUCTION

1,5-Benzothiazepines scaffold is a useful structural moiety in medicinal chemistry and has broad application in the drug development. 1,5-Benzothiazepine nuclei exhibits a number of biological properties, *e.g.*, anticonvulsant [1], calcium(II) channel antagonist [2], antianginal [3], anti-HIV [4], V_2 arginine vasoperssion receptor antagonist [5], antimicrobial [6] and anticancer [7]. The first molecule of 1,5-benzothiazepine used clinically was diltizem, followed by clentiazem, for their cardiovascular action. Some of the 1,5-benzothiazepine derivatives were also used clinically for CNS disorders which includes thiazesim and quetiapine fumarate.

Conventionally 1,5-benzothiazepines have been synthesized by condensing 2-propene-1-ones with *o*-aminothiophenol in organic solvent using acid or base catalyst like acetic acid, TFA [8,9], HCl [10], pyridine and piperidine [11]. The conventional synthetic routes has been modified to obtain high yields of the 1,5-benzothiazepines using solid supports [12]. Sharma *et al.* [13] have been synthesized 1,5-benzothiazepine using fluoroboric acid adsorbed on silica-gel (HBF_4-SiO_2) as a new heterogeneous catalyst. Khatik *et al.* [14] reported cyclocondensation of chalcones with *o*-aminothiophenol in the presence of magnesium perchlorate was carried in anhydrous DCE for 45 min under N_2 atmosphere. Recently 1,5-benzothiazepine moiety have been prepared by using gallium(III) triflate [15]. Environmentally benign synthetic routes have been receiving considerable attention and some solvent-free protocols [16,17] and use of greener medium have also been developed. Water mediated and nano-crystalline Al_2O_3 catalyzed at 110 °C for 12 h. has shown to be greener method for 1,5-benzothiazepines [18]. Enhance rate, formation of 1,5-benzothiazepines using non-conventional energy like microwave and ultrasound irradiation has also been reported [19,20].

However, many of these methods suffer from several drawbacks such as use of high boiling solvent (DMF, Toluene and DMSO) that is difficult to recover, use of corrosive and hazardous reagent like HCl gas, TFA, pyridine and piperidine, high cost metal catalyst, *etc.* In this context, more attention is found to be directed on the use of non-volatile organic solvents as an alternative medium like water, super critical liquid and ionic liquids. Water is the first solvent of choice, regarding the greener medium yet the negligible solubility of many organic compounds in water limits its application, super critical liquid CO_2 have also been reported as green solvent, but their high critical properties still limits their practical use and ionic liquid have been reported as recyclable environmentally bengin reaction media. However, ionic liquids are non-biodegradable and their production is also associated with use of high amount of hazardous and volatile organic solvents.

Organic reactions in glycerol have attracted increasing interest currently because of environmental issues. Recently,

NCICST 20..
National Conference on Innovations & Challenges in Science & Technology
In Association with International Journal of Scientific Research in Science and Technology
Volume 9 Issue 15 Print ISSN: 2395-6011 Online ISSN: 2395-602X (www.ijsrst.com)

Synthesis, Characterization and Antimicrobial Screening of Some Selected 3D Transition Metal (Fe(iii), Co(ii), Ni(ii), Cu(ii) & Zn(ii)) Complexes Derived from (12e)-N-((6-Chloro-4-Oxo-4h-Chromen-3-Yl) Methylene)-4-Methyl-1,2,3,-Thiadiazole-5-Carbohydrazide

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ABSTRACT

A novel Schiff base (12E)-N-((6-chloro-4-oxo-4H-chromen-3-yl)methylene)-4-methyl-1,2,3,-thiadiazole-5-carbohydrazide obtained by the condensation of 6-chloro-4-oxo-4H-chromene-3-carbaldehyde and 4-Methyl-1,2,3,-thiadiazole-5-carbohydrazide and and the synthesized schiff base was characterized by various analytical technique such as I.R., 1H-NMR, 13C-NMR and. Further it used for the complexation with different transition metal ions such as Fe (III), Co(II), Ni (II), Cu(II) and Zn (II) by using molar ratio of metal to ligand as 1: 2. The prepared metal complexes were identified with the help of FT-IR, elemental analysis, and TGA methods. The spectral data reveal that the ligand acts as bidentate, tridentate in ML complexes. The effect of these metal complexes on bacterial and fungal species was studied and compared with those of free ligand. The results of antimicrobial studies show enhanced activity in comparison to the free ligand.

Keywords: NO,ONO donor Schiff base; Fe(III),Co(II), Ni(II), Cu(II) and Zn(II) complexes; spectroscopic analysis; antimicrobial activity.

I. INTRODUCTION

Chromone hydrazones are extremely promising ligands in coordination chemistry [1]. They are also important in catalysis and in medicine as antimicrobial, antioxidant and anticancer agents [2]. Metal complexes of hydrazone ligands have been widely studied over earlier periods.Variety of hydrazones which can be prepared by condensation of different kinds of hydrazides and carbonyl compounds, hydrazones derived from chromone compounds have been the center of attraction for numerous workers in current scenario. The chromone moiety execute as the vital constituent in lots of pharmacophores of biological active molecules of synthetic as well as natural origin and many of them have useful medicinal applications .

International Journal of Universal Print
ISSN: 2454-7263 ID: ACTRA 2018 042 Published Mar. 2018
Volume No. 04, Issue No.05, Copyright © Universal Print
Web: www.universalprint.org , Email: ijup@universalprint.org
Title Key: Study β and A coefficient of some Heterocyclic ...

Study β and A coefficient of some Heterocyclic Drugs at 29°C in Methanol-Water and Acetone-Water mixtures Viscometrically

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Abstract: The basic principle of viscosity measurement is to study the interactions between solute and solvent. The viscometric measurement of heterocyclic drugs viz 1,5 dihydro-4H-pyrazolol (3,4-d) pyramidin 4-one (Ligand-1) and 4-Hydroxy-3-[1(4-nitrophenyl)-3oxobutyl]-2H-chromen-2-one (Ligand-2) were carried out at various concentrations of solvents Methanol and Acetone at 29°C. The data obtained during this investigation were used for the characterization as Structure Formers or Structure Breakers.

Key words :- β - coefficient, viscometry , viscosities and Densities.

Introduction:

The refractive index is an important additive property of molecular structure of liquid. Every liquid offers some resistance to flow. This resistance to flow is called viscosity. It is developed in liquids because of sharing effect of moving one layer of liquid past another motion of liquid can be visualized as a movement of one layer over another. A layer move quickly then second and so on. This type of flow is called laminar flow or streamlined flow. Useful information about solute-solute and solute -solvent interaction provides when the behavior of electrolytes are studied by viscometry. Many workers [1-3] have been studied these interactions in aqueous and non - aqueous solutions.

Ikhe [4]has studied the viscosity of [HBMPPI] , [AHBMPPP] , [PHNMPMPP] and captopril in 70% dioxane water mixture at different concentrations. Molecular interactions of electrolyte in binary mixture of two liquids in terms of viscosity , β - coefficient have been studied by Mehrotra et.al.[5], Das et.al.[6] , Nikam[7], Kalra et.al.[8] , Pandy et.al.[9] and Raut et.al.[10]. Gadpayle M.R.[11] have studied the β -