Climbers of Valsad Taluka (Gujarat) India

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Abstract- *The present research work of climbers of Valsad taluka. Total 21 families belonging 45 genera and 61 species. Cucurbitaceae, Fabaceae, Convolvulaceae are the dominant families of Climbers in Valsad taluka.The Climbers are usually annuals but some are perennials. Climbers comprise a large and important sector of ornamental horticulture and agriculture. They also play very important role in medicine, edible, and multiple purposes as well of as economic value. Lists of the Botanical names, Families, Common name, Mode of Climbing were given in present paper.*

Keywords- Valsad taluka,Climbers.

I. INTRODUCTION

Climbing plants are one of the most interesting group and these climbers contribute mainly to the attraction of our landscapes by the manner in which they climb over trees, shrubs, hedgerows or rocks. Climbers are the plants that germinate on storey and grow for part of their life by winding ground, anchoring or adhering to other plants (Jongkind and Hawthrone, 2005). They rely on other plants for mechanical support. Due to their weak stem, they attach themselves to any neighboring object by means of some special organs of attachment.

They show great diversity in their climbing mechanism depending on which they are classified as root climbers, hook climbers, tendril climbers, leaf or stem climbers or twinners. They vie with trees for both above and below ground resources significantly decreasing the growth rates retarding renewal of tree seedlings and sprout. Climbing habit is a wonderful example of measure of nature. It allocates a plant to attain maximum exposure to sunlight, water and nutrients with minimum expense in vegetation support.

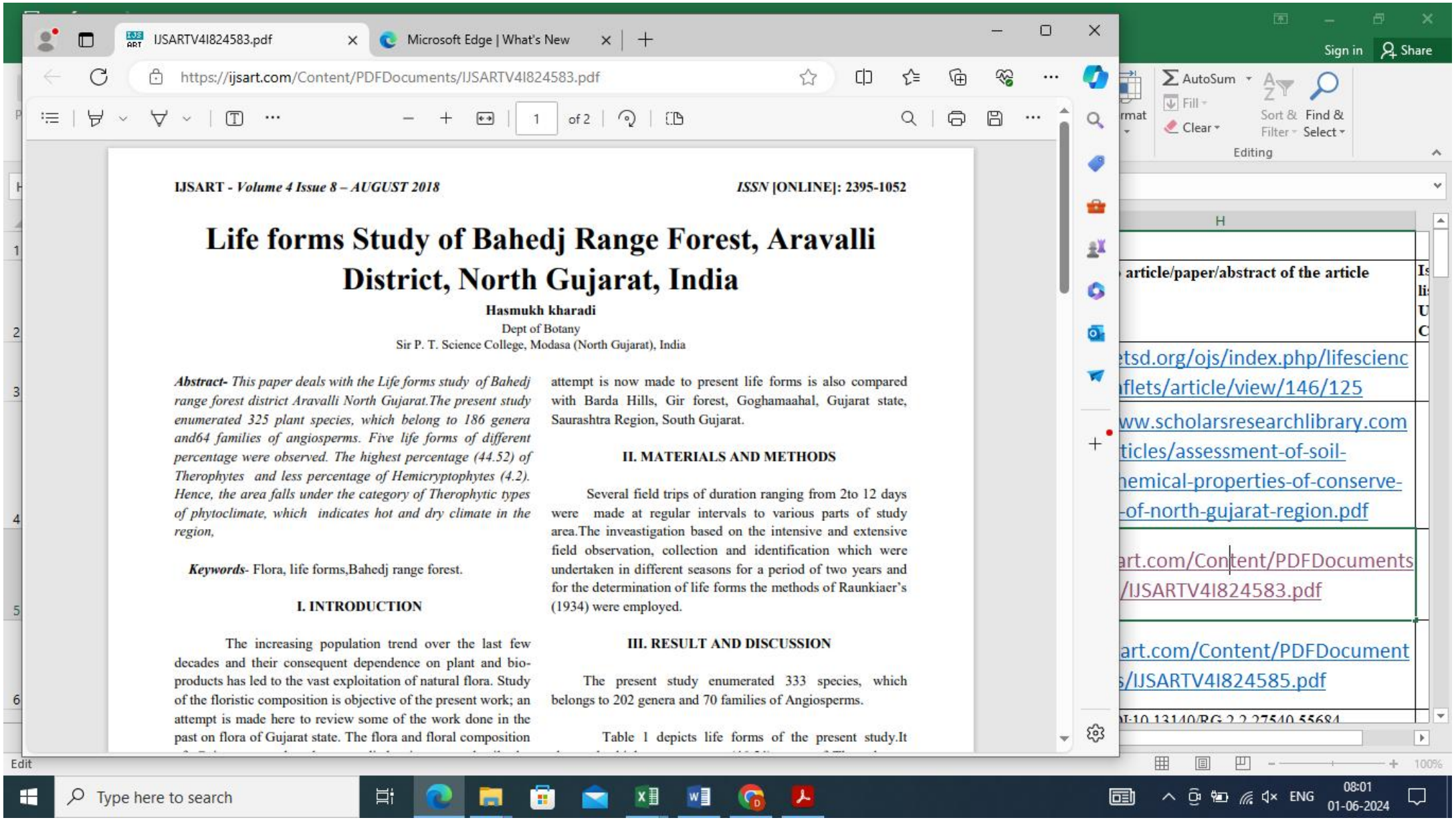
They occur in all forested ecosystem of world although high climbers play important ecological role in forest ecosystem dynamics and functioning. They add sustainability to awning closure after tree fall and help to stabilize the microclimate underneath. Climbers also form a necessary part of diet of many animals in times of shortage of flowers and fruits.

Climbers comprise a large and important sector of ornamental horticulture. Some play in very important role in medicine and agriculture. Besides, if left uncontrolled some climbers can block drain pipes, gutters on buildings while some can do serious damage to structure or tree them are adhering to. In spite of many roles climbers play in ecosystem, as medicines in horticulture and agriculture. Not much attention has been paid to them, only a few studies are carried out on climbers.

Valsad taluka is most famous for its natural looking mountains such as Parnera hills and Dungari hills. Parnera is home to the very scenenic and beautiful mountains (triangle shape) two useful rivers Auranga and Parnadi are associated with the Valsad taluka. The Arabian Sea locate in the west side of Valsad taluka.

It is a region which has become hub for mango and Chikoo farming and processing. It also has a very strong network of rice cultivation, dairy and seasonal vegetable producing and marketing.

In India. Pandey et a1(2005) studied many climbers in their study of medicinal flora of Gujarat while 81 climbers were recorded by M.S.Jangid and Sharma(2011) in Taluka Modasa district Sabarkantha of Gujarat. Shah G.L(1978) published the flora of Gujarat. Bhatt M.P (1987) A contribution to the Flora of Navsari area with Special reference. Patel R.M (1971) The Flora of Bulsar and its environs. More P.G.(1972) A contribution to the Flora of Parnera hills, Pardi and Udwada areas in south Gujarat. Reddy A.S (1987) Flora of Dharampur Forest. V.H.Rao(2012) A Floristic and Ethanobotanical survey of Kaparada(Hilly) and Umbergaon(Coastal) Talukas of Valsad district. More P.G.(1972) A contribution to the Flora of Parnera hills, Pardi and Udwada areas in south Gujarat. Bor and Raizada(1954) published a book 'some beautiful Indian climbers and Shrubs' with a series of papers appeared in the Journal of Bombay Natural History Society. No comprehensive work is available for climbers in the study area. Therefore, the objective of the present study was to document the climbers of Valsad(Gujarat).



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Life forms Study of Bahedj Range Forest, Aravalli District, North Gujarat, India

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Abstract- *This paper deals with the Life forms study of Bahedj range forest district Aravalli North Gujarat.The present study enumerated 325 plant species, which belong to 186 genera and64 families of angiosperms. Five life forms of different percentage were observed. The highest percentage (44.52) of Therophytes and less percentage of Hemicryptophytes (4.2). Hence, the area falls under the category of Therophytic types of phytoclimate, which indicates hot and dry climate in the region,*

Keywords- Flora, life forms,Bahedj range forest.

I. INTRODUCTION

The increasing population trend over the last few decades and their consequent dependence on plant and bio-products has led to the vast exploitation of natural flora. Study of the floristic composition is objective of the present work; an attempt is made here to review some of the work done in the past on flora of Gujarat state. The flora and floral composition attempt is now made to present life forms is also compared with Barda Hills, Gir forest, Goghamaahal, Gujarat state, Saurashtra Region, South Gujarat.

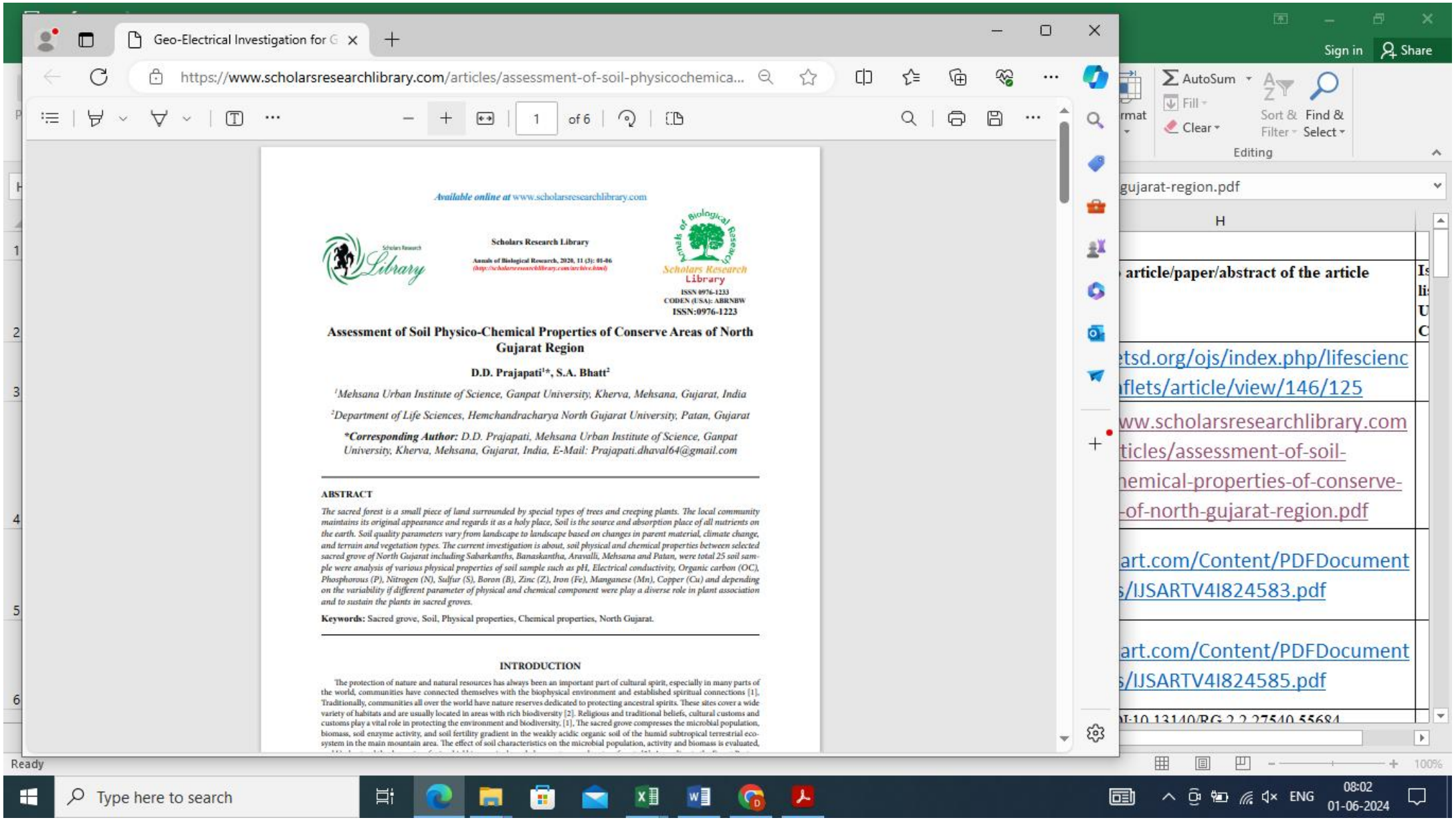
II. MATERIALS AND METHODS

Several field trips of duration ranging from 2to 12 days were made at regular intervals to various parts of study area.The inveastigation based on the intensive and extensive field observation, collection and identification which were undertaken in different seasons for a period of two years and for the determination of life forms the methods of Raunkiaer's (1934) were employed.

III. RESULT AND DISCUSSION

The present study enumerated 333 species, which belongs to 202 genera and 70 families of Angiosperms.

Table 1 depicts life forms of the present study.It



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Assessment of Soil Physico-Chemical Properties of Conserve Areas of North Gujarat Region

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ABSTRACT

The sacred forest is a small piece of land surrounded by special types of trees and creeping plants. The local community maintains its original appearance and regards it as a holy place, Soil is the source and absorption place of all nutrients on the earth. Soil quality parameters vary from landscape to landscape based on changes in parent material, climate change, and terrain and vegetation types. The current investigation is about, soil physical and chemical properties between selected sacred grove of North Gujarat including Sabarkanths, Banaskantha, Aravalli, Mehsana and Patan, were total 25 soil sample were analysis of various physical properties of soil sample such as pH, Electrical conductivity, Organic carbon (OC), Phosphorous (P), Nitrogen (N), Sulfur (S), Boron (B), Zinc (Z), Iron (Fe), Manganese (Mn), Copper (Cu) and depending on the variability if different parameter of physical and chemical component were play a diverse role in plant association and to sustain the plants in sacred groves.

Keywords: Sacred grove, Soil, Physical properties, Chemical properties, North Gujarat.

INTRODUCTION

The protection of nature and natural resources has always been an important part of cultural spirit, especially in many parts of the world, communities have connected themselves with the biophysical environment and established spiritual connections [1]. Traditionally, communities all over the world have nature reserves dedicated to protecting ancestral spirits. These sites cover a wide variety of habitats and are usually located in areas with rich biodiversity [2]. Religious and traditional beliefs, cultural customs and customs play a vital role in protecting the environment and biodiversity. [1]. The sacred grove compresses the microbial population, biomass, soil enzyme activity, and soil fertility gradient in the weakly acidic organic soil of the humid subtropical terrestrial ecosystem in the main mountain area. The effect of soil characteristics on the microbial population, activity and biomass is evaluated,

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Life forms Study of Bahedj Range Forest, Aravalli District, North Gujarat, India

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Abstract- *This paper deals with the Life forms study of Bahedj range forest district Aravalli North Gujarat.The present study enumerated 325 plant species, which belong to 186 genera and64 families of angiosperms. Five life forms of different percentage were observed. The highest percentage (44.52) of Therophytes and less percentage of Hemicryptophytes (4.2). Hence, the area falls under the category of Therophytic types of phytoclimate, which indicates hot and dry climate in the region.*

Keywords- Flora, life forms,Bahedj range forest.

I. INTRODUCTION

The increasing population trend over the last few decades and their consequent dependence on plant and bio-products has led to the vast exploitation of natural flora. Study of the floristic composition is objective of the present work; an attempt is made here to review some of the work done in the past on flora of Gujarat state. The flora and floral composition of Gujarat state has been studied ingreater details by contributors like Cooke (1901- 1908), Koriwar(1995),Vora and Patel(1981), Shah(1978), Santapau and Jamardhani(1966), Yadav(1979), Pandit and Raviya(2003), Pandit *et al* (1996), Patel(2003), and several other workers in Gujarat have further added to our knowledge about flora and floristics of the state.

Some authors have also studied the life forms for Gujarat state. Bourgeusen (1929) studied the vegetation of Dwarka in Saurashtra with reference of Raunkiaer's life forms. This work is followed by an account of the life forms of the vegetation of Bhavnagar in Saurashtra (Murthy, 1957) Dangs(Shah andYadav,1979), Gujarat state(Shah *et al*. 1978 and 1983), Pandit *et al*.(2005) etc.

The Aravalli district is situated in the North West part of Gujarat between latitudes20 13' 15" and24 34' 30" North and longitudes 72 47' 0" and 73 37' 30" Est.part of the western Aravalli in Aravalli The Bahedj range forest is situated on latitudes 23 30' 40" North and Longitudes73 30' 40" east.The total forest area 9722.08 hector. 4234.28 hector is reserved forest and 5487.80 hector is unclass forest.The different part of the Meghaj forest is hilly and elevation varies from 157 to 480 meters above the mean sea level. An attempt is now made to present life forms is also compared with Barda Hills, Gir forest, Goghumabal, Gujarat state, Saurashtra Region, South Gujarat.

II. MATERIALS AND METHODS

Several field trips of duration ranging from 2to 12 days were made at regular intervals to various parts of study area.The investigation based on the intensive and extensive field observation, collection and identification which were undertaken in different seasons for a period of two years and for the determination of life forms the methods of Raunkiaer's (1934) were employed.

III. RESULT AND DISCUSSION

The present study enumerated 333 species, which belongs to 202 genera and 70 families of Angiosperms.

Table 1 depicts life forms of the present study.It shows the highest percentage (46.54) of Therophytes. Hence, the area falls under the category of therophytic type photo climate, which indicates hot and dry climate in the region, congenial for the growth of annuals and herbs.

Table1: Life forms of Bahedj forest.

Life forms	Ph	Ch	H	Cr/G	Th
Normal spectrum(%)	46	9	26	6	13
Total species	114	39	12	13	155
% of species	34.23	11.71	3.8	3.9	46.54

Fig. 1 : Comparison of Raunkiaer's life forms spectrum with present study.

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Floristic Assessment Of Kherai Range Forest Of Megharj District Aravalli, North Gujarat,India

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Abstract- *The present work has been done to collect the Information about different plant species of Megharj range forest in particular zone of Kherai. The data obtained from these studies have botanical importance of the particular zone Kherai. During my field work we have consisted of total 67 Agiospermic families are belonging 220 genera and 326 species were collected and recoeded. Herbs are dominated with 126 and 87 shurbs, 35 climbers and 78 trees. We have also noted 4 ptreidophytes and 3 bryophytes. The dominant species are Acacia nilotica and,Holarrhena antidysenterica Tactona grandis, Butea monosprma etc.*

Keywords- Floristic composition, dominant species, Megharj-Kherai.

I. INTRODUCTION

Floristic studies have acquired increasing importance in recent years in response to the need of developing and under developing countries to assess their plant wealth. the rich botanical wealth of this Megharj range forest in particular zone Kherai is being continuously over exploited for timber and non timber forest products such as fodder, grasses, gums,grazing etc. The earlier work on floristic part of North Gujarat has been carried out Sexton & Sejweek (1918). Later on there was on gap were from 1917 onward Patel (2000), Ant (2001), Jangid (2003),Desai (2007). They were worked in selected different area of North Gujarat. During our field trip visit were taken various photographs rare plant species in Kherai forest. From this region we have reported 326 plant species. In view of the regional importance of the particular zone of Kherai forest flora so that present study was under taken.

II. MATERIALS AND METHODS

The Aravalli district is situated in the North West part of Gujarat between latitudes 20 13' 15'' and 24 34' 30" North and Longitudes 72 47' 0" and 73 37' 30" east. Part of the western Aravallis Mountain in Aravalli. The Kherai forest

The present work is the output of the our continuous field study during the season winter 2009 to2010. Collected plant species were identified with the help of "The flora of Gujarat state" and flora of "The Presidency of Bombay".

III. RESULT AND DISCUSSION

The total number of **67** Agiospermic families are belonging 220 genera and 326 species reported from this area. we have also noted the dominant species are *Acacia nilotica* and,*Holarrhena antidysenterica, Tactona grandis, Butea monosprma etc*.. in particular region Kherai.

Table 1 : Floral richness of the Kherai forest.

Categories of Angiosperms	Genera	Species	Families
Dicots	201	300	58
Monocots	19	26	9
Total	**220**	**326**	**67**

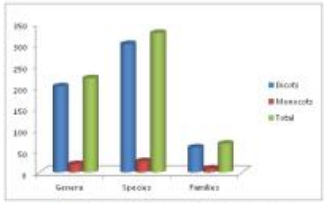

Fig. A. Floral richness of the Kherai forest

Table 2 : Dominant plant in the Kherai forest

Families	Plant name	Total number of plant (approxi.)
Mimosaceae	Acacia nilotica	1220

1

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Determination of the Probiotics Properties of the Lactic Acid Bacteria Isolated from the Different Homemade Dairy Products

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ABSTRACT

Probiotic bacteria are sold mainly in fermented foods, and dairy products play a predominant role as carriers of probiotics. MRS medium and BEA medium used for the isolation, it was followed by the enrichment process. Total 30 isolates were obtained from the different types of dairy products out of which 15 were isolated and studied its probiotic properties, biochemical characterization And morphological characters. When probiotics are added to fermented foods, several factors must be considered that may influence the ability of the probiotics to survive in the product and become active when entering the consumer's gastrointestinal tract so different probiotic properties like Bile salt tolerance, pH tolerance, Temperature tolerance, Antibiotic resistance.

Keywords *LAB, probiotics, fermented milk, like Bile salt*

Sample Collection Devang Dairy ,Dharmik Dairy,AmbikaDairy,Talod Dairy,Poornima Dairy,Gaytri Dairy,Nazmin's House,Apexa's House ,Palak's House, BHavyata's House

Dilution Serial dilution of all the curd samples in sterilized distilled water ranging from 10^1 to 10^3 using sterile distilled water and 0.1 ml. plated on to sterile DeMann, Rogosa and sharpe (MRS) agar and (CATC). Bile Esculin Azide (BEA) agar medium, because the well isolated colony obtained on MRS plates and BEA plates.

MediaThe MRS, BEA and CATC medium used for the isolation for the isolation of *Lactobacillus*.All the curd samples were streak by direct streak plates technique which is used for the isolation.

Incubation All the MRS plates and BEA plates CATC were maintained in microaerophillic condition & incubated for the 24 to 45 hrs.

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FUNCTIONS OF GENERALIZED BOUNDED VARIATION AND ITS MULTIPLE FOURIER COEFFICIENTS

Kiran N. Darji and Rajendra G. Vyas

Abstract. Here, generalizing the class $(\Lambda^1,\Lambda^2)^*BV^{(p)}([0,2\pi]^2)$ to the class $(\Lambda^1,\Lambda^2)^*BV^{(p,q)}([0,2\pi]^2)$ of functions of p,q-$(\Lambda^1,\Lambda^2)^*$-bounded variation, it is observed that the class is a Banach space with respect to the pointwise operations and the generalized variation norm. Moreover, we estimate the order of magnitude of multiple Fourier coefficients of a function of this class.

1. Introduction

Fülöp and Móricz [3] estimated the order of magnitude of multiple Fourier coefficients of functions of $BV(\mathbb{T}^N)$ in the sense of Vitali and Hardy, where $\mathbb{T}=[0,2\pi)$, which is generalized [6] for the functions of the class $(\Lambda^1,\dots,\Lambda^N)BV^{(p)}(\mathbb{T}^N)$. Here, generalizing the class $(\Lambda^1,\Lambda^2)^*BV^{(p)}(\mathbb{T}^2)$ to the class $(\Lambda^1,\Lambda^2)^*BV^{(p,q)}(\mathbb{T}^2)$ of functions of p,q-$(\Lambda^1,\Lambda^2)^*$-bounded variation, we prove that it is a Banach space with respect to the pointwise operations and the generalized variation norm. Moreover, we estimate the order of magnitude of multiple Fourier coefficients of a function of this class.

2. Notations and definitions

Consider function f on $\mathbb{R}^k$. For $k=1$ and $I=[a,b]$, define $\Delta f_a^b = f(I) = f(b)-f(a)$. For $k=2$, $I=[a,b]$ and $J=[c,d]$, define

$$\Delta f_{(a,c)}^{(b,d)} = f(I\times J) = f(I,d)-f(I,c) = f(b,d)-f(a,d)-f(b,c)+f(a,c).$$

Definition 2.1. Let $\mathbb{L}$ be the class of nondecreasing sequences $\Lambda=\{\lambda_n\}_{n=1}^{\infty}$ of positive numbers such that $\sum_n \frac{1}{\lambda_n}$ diverges. Given $\Lambda=(\Lambda^1,\Lambda^2)$, where $\Lambda^k=$

2010 *Mathematics Subject Classification:* 42B05; 26A45; 46B99; 26D15.
Key words and phrases: Banach space, functions of generalized bounded variation, order of magnitude of multiple Fourier coefficients.
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Isolation and identification of pathogen from wilted cumin plant and in vitro study of antagonistic potential of microorganism.

Journal article: Trends in Biosciences, 2018, Vol. 11, No. 6, 849-854 ref. 23
Authors: Neekita Charan Neekita Charan, Aniruddh Gadhavi Aniruddh Gadhavi
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Abstract

Cumin (*Cuminum cyminum* L.) is one of the most important spice commonly grown in Northern Gujarat. Every year cumin registers a yield loss up to 40% due to wilt disease by *Fusarium* spp. The current study revolve around isolation and Identification of Pathogen from Wilted Cumin Plant and in Vitro Study of Antagonistic potential of Microorganism. In this research it showed a strong antagonistic effect against the isolated fungus. Twenty indigenous *Trichoderma* species were isolated from cumin rhizosphere collected from cumin growing fields around patan district, which is geographically located

Generalized improved non-central potential and solution of Schrödinger equation with extended ring-shaped potential via Nikiforov-Uvarov method

Regular Article | Published: 01 March 2019
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Rajendrasinh H. Parmar

Abstract.

Publication - Article

Construction of solvable non-central potential using vector superpotential: a new approach

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https://doi.org/10.1007/s12648-019-01401-1

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Summary

TL;DR Key highlights Top keywords

This research introduces a new approach using vector superpotential to construct and reconstruct central and non-central potentials in supersymmetric quantum mechanics. The appropriate choice of radial, angular, and azimuthal parts of the superpotential is crucial in this process. The study successfully reconstructs previously solved potentials and also introduces new non-central potentials.

Abstract

We introduce here vector superpotential which is useful to find general potential form using supersymmetric quantum mechanics (SUSY QM) approach. Using the vector superpotential, we reconstruct different solved central potentials and non-central shape variant or shape invariant potentials. To construct and

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Analytical Solutions of D-Dimensional Schrödinger Equation for Generalized Exponential Coulombic Potential

Rajendrasinh H Parmar
Sir P T Science College, Modasa-Gujarat, India

Abstract: We proposed generalized exponential Coulombic potential (GECP) and solutions are obtained for N-dimensional Schrodiger equation in this research article. We obtained energy spectrum and wave functions for this GECP using generalized parametric Nikiforov-Uvarov (NU) method. Using proposed potential and these solutions, we deduced Coulomb plus modified exponential Screened Coulomb potential and investigated its energy spectrum and wave function. To find dynamical properties of the physical and chemical quantum mechanical systems, these solutions has important role.

Keyword: *Coulombic potential, generalized exponential Coulombic potential, energy spectrum, NU method*

1. Introduction

The solutions of Schrödinger, Klein-Gordon, Dirac, Duffin-Kemmer Petiau (DKP) and spinless-Salpeter wave equations have been important role in research for applied mathematicians and physicists [1-6]. The Schrödinger equation is second order differential equation and it is important to solve chemical and physical quantum mechanical problems. Using solutions, one can understand the behavior and properties of the given quantum system. Transforming Schrödinger equation into the known ordinary differential equation, whose solutions are available in terms of special functions such as associated Laguerre polynomials, hypergeometric functions etc. Various methods have been used to solve Schrödinger equation such as the asymptotic iteration method [7-9], supersymmetric method [10,11], the Nikiforov-Uvarov (NU) method [12], Qiang Dong proper quantization rule [13,14], the Lie algebraic method [15] and the exact quantization rule method [16].

Different type Coulombic potentials presented and obtained solution by number of researchers using different method [7-15]. These potentials are such as Coulomb and harmonic oscillator terms [17], modified Coulombic potential [18], Coulomb-plus-linear potential [19], screen Coulomb potential [20,21], Coulomb and linear confining potentials [22], More General Exponential Screened Coulomb Potential Plus Yukawa (MGESCY) Potential [23], Hulthen plus exponential Coulombic potential with centrifugal potential barrier [24], Coulombic potential with cosine-cosec exponential term [25] and q-deformed Wood-Saxon plus modified Coulomb potential [26].

We proposed GECP as,

$$V(r) = -\frac{A_1 e^{-2\beta r} + A_2 \cosh(\beta r) e^{-\beta r}}{r} - A_3 cosech\beta r \, e^{-3\beta r} \quad (1)$$

Using the Pekeris-like approximation [27,28] to the *cosechar* term [25] , Eq. (1) rewritten as,

$$V(r) = -\frac{A_1 e^{-2\beta r} + \frac{A_2}{2}(1+e^{-2\beta r})}{r} - \frac{A_4 e^{-\beta r}}{r} \quad (2)$$

where A_1, A_2, $A_4 = 2A_3/\beta$ are depth of potentials and β is parameter.

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Pollution

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Modification of Guar Gum Waste and its Applications for Removal of Industrial Pollutants

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Adsorbent,
Unsaturated Co-polymer,
Conductivity,
TDS,
BOD,
COD.

ABSTRACT

Guar gum waste was treated with ethylacetoacetate. The resultant acetoacetyl guar gum (AGG) was then adducted with sodium bisulfate. The so called product was designated as SAGG. The various mixture of SAGG, pumkin peel powder, eggshell powder and activated charcoal were prepared. The waste water from different industrial zones was collected and then qualitative parameters were determined. All the wastewater samples treated with above various mixtures as adsorbent. The analytical parameters before and after adsorption process were documented and discussed.

Introduction

The industrial pollutants creating water pollution of more particularly the textile effluents are toxic to mankind and animal living. Numbers of dyes are manufactured and applied for textile dyeing worldwide [1-3] and create water pollution.

Experimental

Materials and methods

The guar gum acetylation and sulfination were carried out by reported method[]. All the chemicals were used of pure grade. Various adsorbent mixtures were prepared as

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POISONOUS PLANTS OF BAYAD TALUKA, DISTRICT ARAVALLI (GUJARAT) INDIA

Author(s):

M.A.Dadu | M.S.Jangid

Keywords:

Bayad Taluka, Poisonous plants.

Abstract

In this present work, a brief account of poisonous plants of Bayad Taluka, district Aravalli (Gujarat) have been given. Total 32


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A Note On Double Walsh–Fourier Coefficients of Functions of Generalized Wiener Class

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Abstract

In this note, we have estimated the order of magnitude of double Walsh–Fourier coefficients of functions of the class $(\Lambda^1,\Lambda^2)BV(p(n)\uparrow\infty,\varphi,[0,1]^2)$.

Keywords: *double Walsh–Fourier coefficients, functions of the class* $(\Lambda^1,\Lambda^2)BV(p(n)\uparrow\infty,\varphi,[0,1]^2)$.
2010 Mathematics Subject Classification: *42C10, 42B05, 26B30, 26D15.*

1. Introduction

In 2000, Akhobadze [1] introduced the generalized Wiener class $BV(p(n)\uparrow p,\varphi)$, where $1\le p\le\infty$. This class is further generalized to the class $\Lambda BV(p(n)\uparrow p,\varphi)$ in [5] and the order of magnitude of single Walsh–Fourier coefficients of functions of the class $\Lambda BV(p(n)\uparrow\infty,\varphi,[0,1])$ is estimated in [2]. Recently in [6], introducing the generalized Wiener class $(\Lambda^1,\Lambda^2)BV(p(n)\uparrow p,\varphi,[0,2\pi]^2)$, where $1\le p\le\infty$, the order of magnitude of double Fourier coefficients of functions of the class $(\Lambda^1,\Lambda^2)BV(p(n)\uparrow\infty,\varphi,[0,2\pi]^2)$ is estimated. Here, we estimate the order of magnitude of double Walsh–Fourier coefficients of functions of the class $(\Lambda^1,\Lambda^2)BV(p(n)\uparrow\infty,\varphi,[0,1]^2)$.

2. Notation and definitions

In the sequel $\mathbb{I}=[0,1)$, $\mathbb{N}_0=\{0,1,2,\cdots\}$, L is a class of non-decreasing sequences $\Lambda=\{\lambda_n\}_{n=1}^{\infty}$ of positive numbers such that $\sum_n\frac{1}{\lambda_n}$ diverges, and $\varphi(n)$ is a real sequence such that $\varphi(1)\ge 2$ and $\varphi(n)\to\infty$ as $n\to\infty$.

Consider function f on $\mathbb{R}^k$. For $k=1$ and $I=[a,b]$, define $\Delta f_a^b=f(I)=f(b)-f(a)$. For $k=2$, $I=[a,b]$ and $J=[c,d]$, define

$$\Delta f_{(a,c)}^{(b,d)}=f(I\times J)=f(I,d)-f(I,c)=f(b,d)-f(a,d)-f(b,c)+f(a,c).$$

Definition 2.1. *Given* $\Lambda=(\Lambda^1,\Lambda^2)$, *where* $\Lambda^r=\{\lambda_n^r\}_{n=1}^{\infty}\in L$, *for* $r=1,2$, $1\le p(n)\uparrow p$ *as* $n\to\infty$ *and* $1\le p\le\infty$, *a measurable function* f *defined on a rectangle* $R^2:=[a,b]\times[c,d]$ *is said to be of* $p(n)-\Lambda$*–bounded variation (that is,* $f\in\Lambda BV(p(n)\uparrow p,\varphi,R^2)$*) if*

$$V_{\Lambda_{p(n)}}(f,R^2)=\sup_{n\ge1}\sup_{\{I_i\},\{J_j\}}\left\{V_{\Lambda_{p(n)}}(f,\{I_i\},\{J_j\}):\ \delta(\{I_i\},\{J_j\})\ge\frac{(b-a)(c-d)}{\varphi(n)}\right\}<\infty,$$


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ON WEIGHTED β–ABSOLUTE CONVERGENCE OF DOUBLE FOURIER SERIES

K. N. Darji and R. G. Vyas

Abstract. In this paper, we obtain a sufficient condition for the weighted β –absolute convergence $(0<\beta<2)$ of the double Fourier series of a function f of (ϕ,ψ)-(Λ^1,Λ^2)-bounded variation.

1. Introduction

One of the most striking trends in analysis is the study of the Fourier coefficients properties of functions of various generalized bounded variations. Extending a classical result of Zygmund, Schramm and Waterman [6] obtained sufficient condition for the absolute convergence of single Fourier series of functions of the classes $\Lambda BV^{(p)}(\overline{\mathbb{T}})$ $(p\geqslant 1)$ and $\phi\Lambda BV(\overline{\mathbb{T}})$, where $\overline{\mathbb{T}}=[0,2\pi]$ is the torus. In 2007 [8], these results of Schramm and Waterman were extended to β-absolute convergence of single Fourier series. Gogoladze and Meskhia [3] obtained sufficient conditions for the weighted β-absolute convergence of single Fourier series for different function spaces. In 2008, Móricz and Veres [4] extended these results of Gogoladze and Meskhia from single to multiple Fourier series. In 2013 [9], we have obtained sufficient conditions for the β-absolute convergence of multiple Fourier series which includes a multidimensional analogue of one dimensional result proved by Schramm and Waterman [6, Theorem 1, p. 274]. In this paper, we obtain a sufficient condition for the weighted β-absolute convergence of the double Fourier series of a function f of (ϕ,ψ)-(Λ^1,Λ^2)-bounded variation. Our sufficient condition gives generalized two dimensional analogue of one dimensional result proved in [6, Theorem 2, p. 274] by Schramm and Waterman, [8, Theorem 2, with $n_k=k$, for all k, p. 770] and [12, Theorem 1, with $n_k=k$, for all k].

In the sequel, $\mathbb{L}$ is a class of non-decreasing sequences $\Lambda=\{\lambda_n\}_{n=1}^{\infty}$ of positive numbers such that $\lim_{n\to\infty}\Lambda_n=\infty$, where $\Lambda_n=\sum_{k=1}^{n}\lambda_k^{-1}$, and C represents a constant vary time to time.

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Ind. J. Pure App. Biosci. (2019) 7(5), 476-481

Research Article

Indian Journal of Pure & Applied Biosciences

Isolation and Medium Optimization of Bacterial Lipase from Oil Mill

Krishna Patel * and Samir Parikh

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Received: 10.06.2019 | Revised: 17.07.2019 | Accepted: 24.07.2019

ABSTRACT

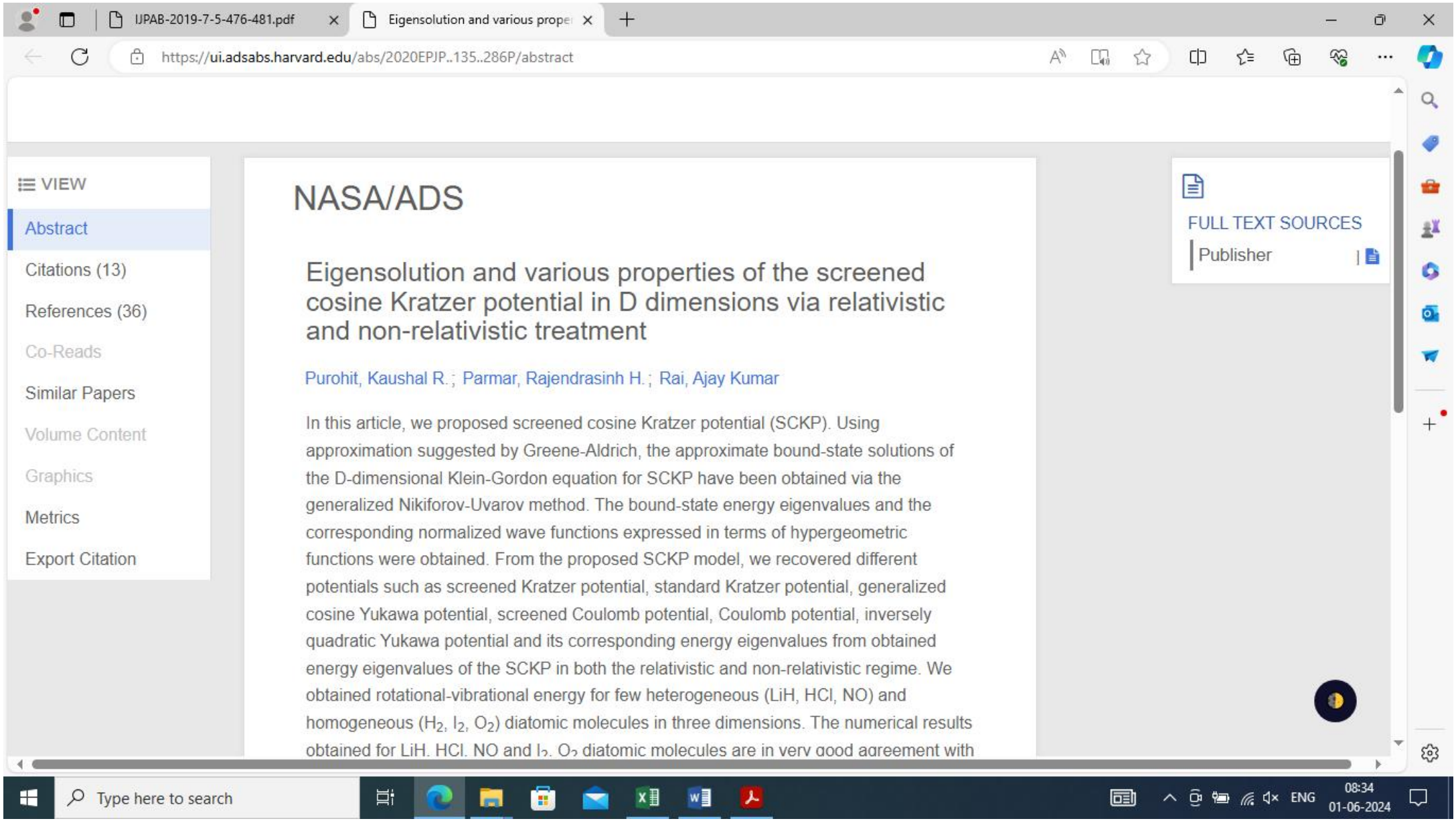
Lipase (glycerol ester hydrolases EC 3,1,1,3) is a important biocatalyst because of their demand in various industrial application. In this study lipolytic bacteria isolate KK12 Bacillus spp. was isolate from oil contaminated sample by using tributyrine agar medium. Isolate KK12 bacillus spp gave the highest zone of hydrolysis with 25mm. Lipase production was improved by optimized for different oils, carbon sources, nitrogen sources, substrate, pH, temperature, metal ions. The highest lipase activity was 14U/l at 37°C at pH 7.6. In this study isolate KK12 Bacillus spp giving best activity with peptone was 9.2U/l. Lipase activity was high in olive oil about 9.8U/l at 37°C after 48hours incubation than other substrate. Other different parameters like pH, temp., metal ions also study in this research same all of these.

Keywords: *Lipase, Optimization, Bacterial isolates, Lipase activity, Oil contaminated soil*

INTRODUCTION

Lipase are one of the biocatalysts with potential for contributing to the multibillion dollar underexploited lipid technology and used in many industrial application Lipase are hydrolytic enzyme. They hydrolyze triglycerols in to free fatty acid, diacylglycerols and glycerol. They also gives other activities like phospholipase, isophospholipase, cholesterol esterase, amidase, cutinases etc. Lipase contain unique properties like their substrate specificity, temperature, pH, activity in organic solvents, etc (031). So, lipase have been studied for many years and also produced on a large scale. agrochemical, cosmetic, oleochemical and also used for diagnostic tool etc (Verma et al., 2012, Jaeger & Reetz, 1998).

In environment many sources are available that produce lipase like plants, animals human pencriase, bacteria, fungi, and yeast In which bacteria, fungi and yeast are very cheapest sources of lipase. There are s examples of bacteria produce lipase like pseudomonas spp. Bacillus spp. Alcalgenes spp., Staphylococcus spp. Serratia spp. etc. some fungi produce lipase like Aspergillus spp., Rhizopus spp., Penicillium spp. Etc. and some yeast like Candida spp. etc. For lipase production from m.o. both submerged and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Eigensolution and various properties of the screened cosine Kratzer potential in D dimensions via relativistic and non-relativistic treatment
Purohit, Kaushal R.; Parmar, Rajendrasinh H.; Rai, Ajay Kumar
In this article, we proposed screened cosine Kratzer potential (SCKP). Using approximation suggested by Greene-Aldrich, the approximate bound-state solutions of the D-dimensional Klein-Gordon equation for SCKP have been obtained via the generalized Nikiforov-Uvarov method. The bound-state energy eigenvalues and the corresponding normalized wave functions expressed in terms of hypergeometric functions were obtained. From the proposed SCKP model, we recovered different potentials such as screened Kratzer potential, standard Kratzer potential, generalized cosine Yukawa potential, screened Coulomb potential, Coulomb potential, inversely quadratic Yukawa potential and its corresponding energy eigenvalues from obtained energy eigenvalues of the SCKP in both the relativistic and non-relativistic regime. We obtained rotational-vibrational energy for few heterogeneous (LiH, HCl, NO) and homogeneous (H_2, I_2, O_2) diatomic molecules in three dimensions. The numerical results obtained for LiH, HCl, NO and I_2, O_2 diatomic molecules are in very good agreement with
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Bound state solution and thermodynamic properties of the screened cosine Kratzer potential under influence of the magnetic field and Aharanov-Bohm flux field

Purohit, Kaushal R. ; Parmar, Rajendrasinh H. ; Rai, Ajay Kumar

In this article, approximate analytical bound state solutions of the Schrödinger equation in two-dimensional space for screened cosine Kratzer potential (SCKP) under the influence of the magnetic field and Aharanov-Bohm flux field have been investigated. We obtained energy eigenvalues and wave functions for SCKP with external fields (magnetic field and Aharanov-Bohm flux field) via parametric Nikiforov-Uvarov (pNU) method using the approximation method suggested by Greene-Aldrich for handling centrifugal barriers. We deduced energy eigenvalues for screened Kratzer potential (SKP) and Hellmann potential (HP) from the obtained energy spectrum of SCKP with an external field. We extended our results in D dimensions for Hellmann potential in the absence of external fields. Thermodynamic properties such as partition function $Z(B \rightarrow, \Phi_{AB}, \beta)$, mean energy $U(B \rightarrow, \Phi_{AB}, \beta)$, mean free energy $F(B \rightarrow, \Phi_{AB}, \beta)$, entropy $S(B \rightarrow, \Phi_{AB}, \beta)$, specific heat capacity $C_s(B \rightarrow, \Phi_{AB}, \beta)$, magnetization at finite temperature $(B \rightarrow, \Phi_{AB}, \beta)$ and magnetic susceptibility $\chi_m(B \rightarrow, \Phi_{AB}, \beta)$ at finite temperature are presented. The obtained numerical resultsfor SKP and Hellmann potential are in very good agreementwith numerical results available in the literature with and without external fields respectively

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International Journal for Science and Advance Research In Technology

(INTERNATIONAL PEER REVIEWED OPEN ACCESS JOURNAL) **ISSN [Online] : 2395-1052**

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Title for paper submitted to International Journal for Science and Advance Research In Technology (22Ps)

POISONOUS PLANTS OF BAYAD TALUKA, DISTRICT ARAVALLI (GUJARAT) INDIA

Author(s):

M.A.Dadu | M.S.Jangid

Keywords:

Bayad Taluka, Poisonous plants.

Abstract

In this present work, a brief account of poisonous plants of Bayad Taluka, district Aravalli

IJSART - *Volume 6 Issue 1 –JANUARY 2020* *ISSN* [ONLINE]: 2395-1052

Study of Plant Diversity In Jarda Forest District Aravalli, Gujarat, India

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Dept of Botany
Sir P.T. Science College Modasa. North Gujarat, India

Abstract- *Biodiversity Conservation is major problem of the day. We are trying to establishment of natural habitat for plant.Jarda forest is the part of Aravalli mountains.so it is unque example from floristic point of view. In present study, a total of 87 plant spices belonging to 43 families have been recorded from Jarda forest in particular zone of district Aravalli. North Gujarat. During September 2019. The investigation also reveals the ecological balance is being upset due to rapid rise of human population and their increased demand for more utiluization of natural resources.*

Keywords- Jarda forest, Plant diversity, Natural habitate, Ecological balance

I. INTRODUCTION

Diversity means floristic variety of plant forms Rich diversity suggests a great many kinds of plans species and conversely poor diversity indicates flower types of living species. On this diversity hinges the future, health and beauty of the living planet habitat of floristic diversity contain wild

II. MATERIALS AND METHODS

To carry out work on floral diversity in Jarda forest range Aravalli district, first of all, the study area was selected and divided into different regions for the sake of convenience and systematic study. To study the floristic diversity in different forest area Jarda range forest,the frequent visits were made to the study area in the different seasons, so that seasonal variation could be studied.

A general survey of the vegetation was made and observed different plants such as herbs, shrubs and trees.the general associations of plants were observed in all the unprotected areas. Apart from the study of vegetation , plant species are collected and Herbarium sheets are prepared, and also to take photograph of particular species. Frequency percentage of each species was calculated by following the method given by Mishra(1968).

III. RESULT AND DISCUSSION

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Floristic Assessment of Tintoi Forest District Aravalli, Gujarat , India

Hasmukh Kharadi
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Sir P.T. Science College, Modasa, Gujarat, India.

Abstract- *The present work has been done to collect the Information about different plant species of Shangal range forest in particular zone of Tintoi. The data obtained from these studies have botanical importance of the particular zone Tintoi During my field work we have consisted of total 47 Agiospermic families are belonging 153 plant species were collected and recoeded. Herbs are dominated with 62 and 45 shurbs, 8 climbers and 38 trees. We have also noted 2 ptreidophytes and 3 bryophytes. The dominant species are Acacia nilotica and, Holarrhena antidysenterica Tactona grandis, Butea monosprma etc.*

Keywords- Floristic composition, dominant species, diversity.

I. INTRODUCTION

Floristic Assessment have acquired increasing importance in recent years in response to the need of developing and under developing countries to assess their plant wealth. the rich botanical wealth of this Tintoi range forest in particular zone Tintoi is being continuously over

The present work is the output of the our continuous field study during the season monsoon 2019. Collected plant species were identified with the help of "The flora of Gujarat state " and flora of " The Presidency of Bombay".

III. RESULT AND DISCUSSION

The total number of 47 Agiospermic families are belonging 112 genera and 153 species reported from this area. we have also noted the dominant species are *Acacia nilotica* and,*Holarrhena antidysenterica, Tactona grandis, Butea monosprma etc.*. in particular region Tintoi

Table 1 : Floral assessment of the Tintoi forest.

Categories of plant.	Genera	Species	Families
Dicots	112	144	43
Monocots	4	9	4
Total	116	153	47

One-pot synthesis of 2-aminobenzoxazole derivatives using acetic acid as an electrolyte under electrochemical conditions

Original Paper | Published: 18 February 2021

Volume 18, pages 2241–2248, (2021) Cite this article

Tanay Ghoshal & Tarun M. Patel

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Acetic Acid Mediated Electrochemical Synthesis of Benzazole and its Application in the Synthesis of Pharmaceutically Active Compounds

Tanay Ghoshal,[a, b] Tarun M. Patel,*[a] and Sharadsrikar Kotturi[b]

An acetic acid promoted electrochemical synthesis of benzazoles, benzimidazoles, benzthiazoles and benzoxazoles, is reported. The method offers large substrate scope, good functional group tolerance, while using cheap electrolyte. The method uses acetic acid as the electrolyte which has a better solubility in methanol, hence the reaction time is less and product formation is observed in high yield without much side product. This electrochemical method is further utilised to synthesise thiabendazole, fuberidazole, chlormidazole and advance intermediates of bilastine and clemizole in good yields.

1. Introduction

Five and six membered heterocyclic ring systems are known to be pharmacologically active and are an important class of pharmaceutical compounds.[1–2] Imidazoles,[3] thiazoles,[4] or oxazoles[5] linked to a phenyl moiety in a bi-cyclic system are an important motif in many pharmaceutical, agrochemical and dye compounds with substructure **I** as their backbone. Compounds **Ia-e** (Scheme 1) reported to be pharmacologically significant.[6–10]

While literature abounds with numerous methods to *et al.*,[18] have developed a method for benzazole synthesis using 0.1 M ammonium chloride as electrolyte but poor solubility of ammonium chloride in acetonitrile increases the reaction time during scale up.

In an endeavour to develop an efficient and general electrochemical method for the synthesis of benzimidazoles, we were intrigued to see if the condensation of aldehydes with *o*-substituted anilines would result in the bicyclic heterocycles like benzimidazoles, benzothiazole and benzoxazoles.

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2

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Ghoshal and Patel *Future Journal of Pharmaceutical Sciences* (2020) 6:94
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Future Journal of Pharmaceutical Sciences

REVIEW Open Access

Anticancer activity of benzoxazole derivative (2015 onwards): a review

Tanay Ghoshal and Tarun M. Patel*

Abstract

Background: According to the report published recently by the World Health Organization, the number of cancer cases in the world will increase to 22 million by 2030. So the anticancer drug research and development is taking place in the direction where the new entities are developed which are low in toxicity and are with improved activity. Benzoxazole and its derivative represent a very important class of heterocyclic compounds, which have a diverse therapeutic area. Recently, many active compounds synthesized are very effective; natural products isolated with benzoxazole moiety have also shown to be potent towards cancer.

Main text: In the last few years, many research groups have designed and developed many novel compounds with benzoxazole as their backbone and checked their anticancer activity. In the review article, the recent developments (mostly after 2015) made in the direction of design and synthesis of new scaffolds with very potent anticancer activity are briefly described. The effect of various heterocycles attached to the benzoxazole and their effect on the anticancer activity are thoroughly studied and recorded in the review.

Conclusion: These compiled data in the article will surely update the scientific community with the recent development in this area and will provide direction for further research in this area.

Keywords: Benzoxazole, Anticancer activity, Cytotoxicity, Cell lines, Antitumor activity, Anti-proliferative activity

Background

Cancer is a one of the major health problem for human beings with the leading mortality rate [1]. Natural, synthetic, or biological and chemical substances are the cancer-causing agents [2]. Many drugs are used to cure it, but they have their own toxic side effects [3]. Hence, there are lots of research carried out to synthesize new [4–6], effective, and affordable anticancer drugs with more selectivity, minimum dosage, and lesser side

many reportation of synthetic compounds and naturally occurring compounds with benzoxazole backbone showing a very active anti-cancer activity. Different research groups have done much progress in designing compounds with benzoxazole, synthesizing them, and collecting anticancer activity data of those against various human cancer cell lines. An attempt has been made to see how various heterocyclic moiety attached with benzoxazole have an effect on the anticancer activity of the

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International Journal for Science and Advance Research In Technology

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Title for paper submitted to International Journal for Science and Advance Research In Technology (22Pts)

STUDY THE FOOD ADULTERATION AND DETECTION IN SOME COMMON FOOD ITEMS PURCHASED BY PEOPLE

Author(s):

Hasmukh Kharadi

Keywords:

food adulteration, consumers awareness, Human health

Abstract

Food is one of the basic needs for our life. Foods provides us important nutrition and plays a vital role in proper health but now days

Energy and momentum eigenspectrum of the Hulthén-screened cosine Kratzer potential using proper quantization rule and SUSYQM method

Original Paper | Published: 23 November 2021
Volume 27, article number 358, (2021) Cite this article

Kaushal R. Purohit, Rajendrasinh H. Parmar & Ajay Kumar Rai

Abstract

Eigensolution of the Klein–Gordon equation for modified Yukawa–Kratzer potential and its applications using parametric Nikiforov–Uvarov and SUSYQM method

Original Paper | Published: 22 May 2021
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Rajendrasinh H. Parmar & P. C. Vinodkumar

Abstract

Eigensolution of the Klein–Gordon equation for modified Yukawa–Kratzer potential and its applications using parametric Nikiforov–Uvarov and SUSYQM method

Original Paper | Published: 22 May 2021

Volume 59, pages 1638–1703, (2021) Cite this article

Rajendrasinh H. Parmar & P. C. Vinodkumar

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Tetrahedron Letters
Volume 70, 27 April 2021, 153014

A facile electrochemical synthesis of suvorexant

Tanay Ghoshal [a b], Tarun M. Patel [a], Sharadsrikar Kotturi [b]

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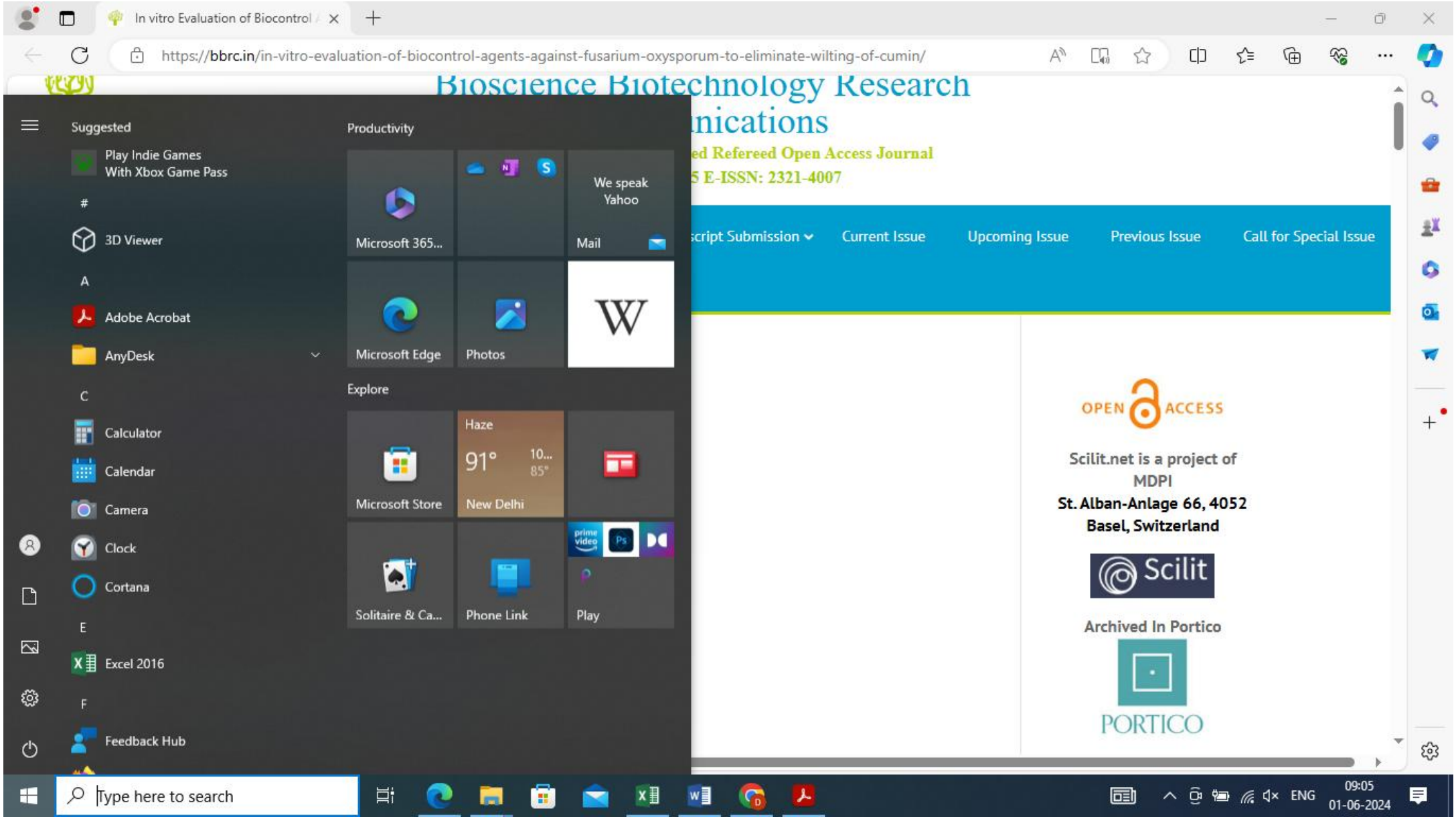
Highlights

- Electrochemical process to prepare Suvorexant is not reported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In vitro Evaluation of Biocontrol Agents Against *Fusarium oxysporum* to Eliminate Wilting of Cumin.

Neekita D. Charan, Kiransinh N. Rajput and Rakeshkumar R. Panchal*

Department of Microbiology and Biotechnology, *In Vitro* Evaluation of Biocontrol Agents Against *Fusarium oxysporum* to Eliminate Wilting of Cumin University School of Sciences, Gujarat University, Ahmedabad, Gujarat, India.

Corresponding author email: Panchalrrce@hotmail.com

DOI: http://dx.doi.org/10.21786/bbrc/14.3.21

Article Publishing History

Solution of the modified Yukawa–Kratzer potential under influence of the external fields and its thermodynamic properties

Original Paper | Published: 06 September 2022

Volume 60, pages 1930–1982, (2022) Cite this article

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Kaushal R. Purohit, Rajendrasinh H. Parmar & Ajay Kumar Rai

Abstract

The Schrödinger equation has been solved in two dimensions for the modified Yukawa–

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International Journal for Science and Advance Research In Technology

*(INTERNATIONAL PEER REVIEWED OPEN ACCESS JOURNAL)***ISSN [Online] : 2395-1052**


Title for paper submitted to International Journal for Science and Advance Research In Technology (22Ps)

POISONOUS PLANTS OF BAYAD TALUKA, DISTRICT ARAVALLI (GUJARAT) INDIA

Author(s):

M.A.Dadu | M.S.Jangid

Keywords:

Bayad Taluka, Poisonous plants.

Abstract

In this present work, a brief account of poisonous plants of Bayad Taluka, district Aravalli (Gujarat) have been given. Total 32

Original Article

Synthesis, Characterization And Chelating Properties Of Polymeric Azo Dye Based On 8-Hydroxyquinoline-Formaldehyde Polymer

Priyanka R Patel[1*], Dr.S.V.Patel[2]

[1,2]Sir P.T.Science College Modasa.Gujarat. Email: Priyankapatelrameshbhai@gmail.com

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DOI: 10.47750/pnr.2022.13.510.700

Abstract

The polymeric phenyl azo 8-hydroxyquinoline-Formaldehyde (PHQ-F) was prepared by coupling of phenyl diazonium salt with 8-hydroxyquinoline-Formaldehyde (8HQ-F) polymer. The resultant polymeric ligand designated as PHQ-F was characterized by elemental analysis, IR spectral features and thermogravimetry. The polymeric metal chelates of PHQ-F with Cu^{2+}, Zn^{2+}, Mn^{2+}, Ni^{2+},Fe^{+3} and Co^{2+} metal ions were synthesized and characterized by metal:ligand ratio, IR and reflectance studies, magnetic properties and thermogravimetry. The PHQ-F sample was also monitored for its chelating and metal ion-exchanging properties by batch equilibration method.

Key words: 8-hydroxyquinoline-Formaldehyde (8HQ-F) polymer, Diazotization, polymeric metal Chelates, IR spectra, ion-exchange properties, Batch equilibrium method, thermogravimetry and antimicrobial activity.

INTRODUCTION

8-hydroxy quinoline (HQ) is one of important heterocyclic derivatives due to its metal chelating behaviour [1]. HQ derivatives have high antibacterial activities [2-5]. Azo derivatives of HQ also play pivotal role as chelating agents of many metals [4-13]. But not applied for dying clothes. However, some of HQ azo dye has mordent dyeing application [14]. In addition HQ azo dyes have been found application in analytical chemistry [9-25].

The polymers derived from HQ and formaldehyde are reported very good metal chelates and ion-exchangers [26]. The Indian scientists have also good deal of work in this direction [27,28]. Good deal of work was carried out in the field of polymeric azo dye based on phenolic resins by Patel and his coworkers [29,30]. Looking to the phenolic properties and azo dye formation of HQ, the azo dyes based on 8-hydroxy quinoline - formaldehyde (HQF) polymer has not been studied either textile dyeing or metal chelating properties. Thus, the present authors thought interesting to undertake such study. Thus, the research design as present paper is shown in scheme.

JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS

Synthesis, Characterization And Antimicrobial Screening Of Sulfadiazine-2-Azetidinone-1,2,4-Triazole Clubbed Derivatives

Rutambhar Bharatbhai Patel , Dr Shailesh V Patel

DOI: https://doi.org/10.47750/pnr.2022.13.S10.664

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ABSTRACT

Sulfadiazine, IUPAC namely 4-amino-N-(pyrimidin-2-yl)benzenesulfonamide **(1)** was condensed with aromatic aldehydes to get Schiff's bases, 4-(arylidene amino)-N-(pyrimidin-2-yl) benzene sulfonamide **(3a-g)**. These were on cyclo condensation with chloro acetyl chloride afford 2-Azetidinone derivatives, 4-(3-chloro -2-oxo-4-arylazetidin-1-yl)-N-

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Synthesis, Characterization And Antimicrobial Screening Of Sulfadiazine-2-Azetidinone-1,2,4-Triazole Clubbed Derivatives

Rutambhar Bharatbhai Patel , Dr Shailesh V Patel

DOI: https://doi.org/10.47750/pnr.2022.13.S10.664

ABSTRACT

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JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS

Synthesis, Characterization And Antimicrobial Screening Of Sulfadiazine-2-Azetidinone-1,2,4-Triazole Clubbed Derivatives

Rutambhar Bharatbhai Patel , Dr Shailesh V Patel

DOI: https://doi.org/10.47750/pnr.2022.13.S10.664

ABSTRACT

Sulfadiazine, IUPAC namely 4-amino-N-(pyrimidin-2-yl)benzenesulfonamide **(1)** was condensed with aromatic aldehydes to get Schiff's bases, 4-(arylidene amino)-N-(pyrimidin-2-yl) benzene sulfonamide **(3a-g)**. These were on cyclo condensation with chloro acetyl chloride

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Research Journal of Chemical Sciences ISSN 2231-606X
Vol. **12(2),** 41-45, June **(2022)** *Res. J. Chem. Sci.*

Study on novel polymeric ligand based on bismaleimide

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Available online at: www.isca.in, www.isca.me
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Abstract

Michael addition reactions of 1, 4-phenylene bismaleimide (PB) with benzidine dicarboxylic acid (BDC) affords polymeric ligand (PB-BDC). Elemental analysis, spectral study and TGA were carried out of all PB-BDC. The transition metal chelates of Cu^{2+}, Ni^{2+}, Zn^{2+}, Co^{2+}, Mn^{2+} metal ions with PB-BDC were prepared and characterized all by metal: ligand ratio, spectral studies, magnetic moment and thermogravimetry. Antimicrobial activity of all polymer samples was carried out against various plant pathogens.

Keywords: 1,4-phenylene bismaleimide, benzidine dicarboxylic acid, Thermo gravimetric study, Magnetic moment and Antimicrobial activity.

Introduction

Bismaleimides are key component for high performance polyimides[1-8]. These polymers have many potential applications like composites, fibres, adhesives, coating etc.[3-8]. Michael addition polymerization of such bismaleimide affords the polyamines which have also good applications[9-11]. One of the approach in which the Michael addition polymerization of bismaleimide with benzidine dicarboxylic acid (BDC) has not been reported. If such polymer prepared it may give good metal complexing polymeric ligand and ion-exchanger. Though, anthranilic acid affords the ion-exchange and polymeric metal chelates[12,13].

ltd. Ahmadabad. All other chemicals and solvents used were of LR grade and used after necessary purification.

Measurement: Elemental content of all samples evaluated on Thermo Finnagam 1101 EA (Italy). IR spectra of all the samples were taken on a NICOLET 700 FTIR instrument in solid phase. Metal content of polychelate samples were estimated by method reported[15]. Magnetic moments of their samples were evaluated by Gouy method using all standard parameters. Diffuse reflectance spectra of also was scanned for all chelates. Thermo gravimetric analysis of all chelates was estimated on DuPont 950 TGA analyzer.

Research Article | Volume 10, Issue 4, July, 2022 Check for updates

Identification, production, and purification of a novel lipase from *Bacillus safensis*

Krishna Patel, Samir Parikh Author Affiliations

Open Access
Published: Jun 01, 2022
DOI: 10.7324/JABB.2022.100410

Abstract

Lipase is an extracellular enzyme produced by various sources such as plants, animals, and microorganisms. Microorganisms are the best source of extracellular lipase and are used in various industrial processes for their potential application. In this research study, lipase producers were isolated in oil-contaminated soil collected from oil refineries of Aravalli district situated in Gujarat, India. It was screened on a selective medium like tributyrin agar. The isolate was identified using the 16S rRNA method and lipase enzyme activity was

Title

ON ABSOLUTE CONVERGENCE OF DOUBLE FOURIER-HAAR COEFFICIENTS SERIES.

Authors

DARJI, KIRAN N.

Abstract

In this paper we obtain a sufficient condition for the absolute convergence of the double Fourier-Haar coefficients series of a function f whose continuous partial derivatives fx and fy are of bounded partial p-variation on the unit square.

Electrochemical Synthesis of *N*-Substituted 5-(1*H*-Indol-3-yl)-1,3,4-oxadiazole-2-amines: A Mild and Green Approach

Published: 21 December 2023

Volume 93, pages 2948–2959, (2023) Cite this article

Russian Journal of General Chemistry

Aims and scope →

Submit manuscript →

Tarun M. Patel, Khushbu G. Patel & Parasar Modh

Abstract

Curr Drug Discov Technol. 2023;20(6):9-37. doi: 10.2174/1570163820666230505120553.

A Review of the Therapeutic Importance of Indole Scaffold in Drug Discovery

Nishith Teraiya [1], Khushbu Agrawal [2], Tarun M Patel [3], Archita Patel [4], Samir Patel [4], Umang Shah [4], Shaileshkumar Shah [5], Khushman Rathod [1], Krupa Patel [1]

Affiliations + expand

PMID: 37151073 DOI: 10.2174/1570163820666230505120553

Abstract

Indole is known as a versatile heterocyclic building block for its multiple pharmacological activities and has a high probability of success in the race for drug candidates. Many natural products, alkaloids, and bioactive heterocycles contain indole as the active principle pharmacophore. These encourage the researchers to explore it as a lead in the drug development process. The current manuscript will serve as a torchbearer for understanding the structurally diverse class of indole derivatives with extensive pharmacological activity. The current manuscript describes the

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Review Article

A Review of the Therapeutic Importance of Indole Scaffold in Drug Discovery

Author(s): Nishith Teraiya*, Khushbu Agrawal, Tarun M. Patel, Archita Patel, Samir Patel, Umang Shah, Shaileshkumar Shah, Khushman Rathod and Krupa Patel

Volume 20, Issue 6, 2023

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Synthesis, biological activity of newly designed sulfonamide based indole derivative as anti-microbial agent

Khushbu Agrawal, Tarun Patel & Rajeshree Patel

Future Journal of Pharmaceutical Sciences **9**, Article number: 17 (2023) | Cite this article

Abstract

Background

Characterization and Chemical Management of Cumin Wilt Disease Caused by *Fusarium oxysporum*

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DOI: http://dx.doi.org/10.21786/bbrc/16.3.5

Article Publishing History

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ABSTRACT:

Cumin is the current leading currency earning crop in India, as per Agriwatch production estimate, Jeera production for 2021-22 marketing period is estimated at 391,291 MT, generating 8,600 crore rupees. Despite its importance, cumin is threatened by a serious, destructive disease called Cumin Wilt, which is caused by *Fusarium oxysporum*. The disease's impact has reduced income at both the household and national levels. The current study was carried out to look into chemical control strategies for the disease. The research was carried out from November to March (Rabi season) in Ravipura Kampa, Gujarat, India. Field observation of infected cumin wilt was followed by laboratory isolation, characterization of the causative agent, and assessment of the effects of various fungicides. In chemical management different fungicides were used. In laboratory tests, *F. oxysporum,* which is characterized by whitish mycelia growth and chlamydospores, was found to be the causative agent of the cumin wilting symptoms. There are two types of conidia: macro conidia and micro conidia.

After 120 days of application, the tested chemical fungicides showed significant effects on the suppression of Fusarium wilt