

Analysis of Structural, Electrical and Magnetic Properties of In³⁺ Substituted Yttrium Iron Garnet

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ABSTRACT

In³⁺ was added in to yttrium iron garnet (YIG). Samples, with a nominal composition of Y₃In_xFe_{5-x}O₁₂ with x= 0.0, 0.2 and 0.6 were prepared by a solid-state sintering method. The samples were characterized by X-ray diffraction technique. The X-ray diffraction studies of compositions revealed the formation of single phase cubic structure with lattice constant ranging from 12.37 to 12.44 Å.

The FTIR spectra of typical samples are taken in the range of 500-4000cm⁻¹. IR spectra show typical absorption bands indicating the garnet nature of samples. The D.C. electrical resistivity ρ_{d.c.} was measured in the temperature range 300-725 K. The results of a.c. susceptibility exhibit normal ferrimagnetic ordering which decreases with substitution of non-magnetic In³⁺ ions in place of Fe³⁺ ions. The effect of 'In³⁺' substitution in YIG shows that the saturation magnetization (M_s) decreases slowly for Y₃Fe₅O₁₂ (x = 0.0, 0.2 and 0.6).

Keywords : Yttrium iron garnet, indium, structural and electrical study.

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I. INTRODUCTION

Mixed metal oxides with iron (III) oxides as their main component are known as ferrites. Historically ferrites represent an important category of materials, which are in great demands due to their numerous applications in many fields. The electrical and magnetic properties of ferrites are strongly dependent on their chemical composition and their method of preparation [1, 2]. It is important to optimize the

electrical and magnetic properties of ferrites, for desired applications. Due to their interesting properties scientists, researchers and engineers are still interested in designing the various types of ferrites material substituted with different cations with different valencies and prepared by different techniques.

In the various types of ferrites rare earth garnet especially yttrium iron garnet (YIG) is of great importance for scientist and technologist because of

Investigation of Structural and Magnetic Properties of Ni-Cu Spinel Ferrites

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ABSTRACT

The polycrystalline samples of ferrite having the general formula $Ni_{1-x}Cu_xFe_2O_4$ with $x = 0.0, 0.4, 1.0$ were synthesized using solid state reaction technique. The X-ray diffraction patterns revealed the formation of single phase cubic spinel structure for $x = 0.0$ and $x = 0.4$. The lattice constant increases with copper content and shows tetragonal structure for $x = 1.0$ ($CuFe_2O_4$) with lattice constant $a = 5.8489 \text{ \AA}$ and $c = 8.6385 \text{ \AA}$. X-ray intensity ratios were calculated for selected planes (220), (311), (440), (422), (333) were compared with the observed intensity ratios in order to obtain cation distribution. The results of the cation distribution indicate that Cu^{2+} and Fe^{3+} occupy both sites whereas Ni^{2+} occupy octahedral B site. The saturation magnetization (M_s) and magneton number (n_B) both decreases with copper substitution. The behaviour of magnetic properties was also studied using Neel's collinear model.

Keywords : X-ray diffraction, cation distribution, magneton number

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I. INTRODUCTION

Spinel ferrites are commercially important materials because of their excellent electrical and magnetic properties. Interesting physical and chemical properties of ferrites arises from ability of these compounds to distribute cations amongst the available tetrahedral A-site and octahedral B-site and magnetic A-A, B-B and A-B interactions. Ferrites fulfill the wide range of applications from microwave to radio frequencies and are of importance from both fundamental and applied research point of view. [1,2].

The twin property of electrical insulator and magnetic conductor makes ferrites useful in many devices such as transformer cores, antenna rod, and memory chips, microwave devices, magnetic recording etc. Compared to other magnetic materials ferrites can be easily prepared, low cost and highly stable. The important electrical and magnetic properties of ferrites depend on various factors which include method of preparation, type, nature and amount of dopants etc. [3, 4].

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Cations Distribution Study of Ni_{1-x}Cu_xFe₂O₄ Ferrite System

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ABSTRACT

In present work polycrystalline soft spinel ferrite samples having the general chemical formula Ni_{1-x}Cu_xFe₂O₄ where x = 0.0 to 1.0 in step of 0.2 were prepared by standard ceramic technique. The formation of single phase cubic spinel structure of all the samples was characterized by X-ray diffraction technique. The values of lattice constant determined from XRD data found to increase as copper content x obeying Vegard's Law. The cation distribution has been calculated analytically by using X-ray data suggest that Ni²⁺ ions occupy octahedral [B] sites and Fe³⁺ ions occupy both tetrahedral (A) and octahedral [B] sites for all the compositions. Cu²⁺ ions occupy octahedral [B] site in major percentage as compared to tetrahedral (A) sites.

Keywords : Cation distribution, NiCu spinel ferrite, X-ray diffraction.

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I. INTRODUCTION

In recent year, the magnetic oxides, namely spinel ferrites, having the formula MFe₂O₄ have been investigated extensively by many workers because of their potential application in magnetic recording, microwave devices, transformers, drug delivery [1-4]. They are of great importance to the technologists and academicians owing to their remarkable electrical and magnetic properties. The high electrical resistivity, low eddy current and dielectric loss, high saturation magnetization, chemical stability etc. are the important aspects of ferrite material which make them useful in many applications. These aspects are highly sensitive to the preparation methodology [5], amount of constituent metal oxide [6], sintering

condition [7] etc. Usually, spinel ferrites are prepared by ceramic technique. It is well- known that the properties of ferrite materials are influenced by the material composition and microstructure. The sintering temperature, sintering time, sintering atmosphere etc. also plays an important role in governing the properties of spinel ferrites [8]. There are many methods can be used for low production materials such as sol-gel, chemical co-precipitation, micro emulsion [9, 10]. We use standard ceramic method which is easier and fabrication of material is cheaper than any other method. In the literature, many reports are available on the structural, electrical and magnetic properties of Zn, Cd, Al, Cr, Ti, Mn substituted spinel ferrites [11, 12]. Among the different spinel ferrites, Ni is one



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THE POLITICAL REVIEW OF F. SCOTT FITZGERALD *THE BEAUTIFUL AND DAMNED*

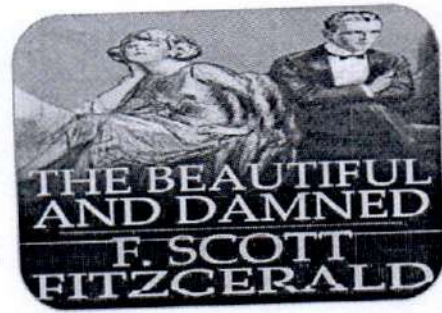
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ABSTRACT:

Fitzgerald's The Beautiful and Damned seek to chart the possible progress of individuals in the United States in the immediate post-war era. Written during a time of great personal optimism Fitzgerald attempts to vindicate with some reservations, many of the liberal ideals prevalent at the time of America's involvement in World War I.

KEYWORDS: *Beautiful and Damned, youthful exhilaration, restless generation.*



INTRODUCTION

Anthony Patch begins *The Beautiful and Damned* with the belief that he will accomplish some quiet, subtle thing. While living in Europe, Anthony has a delightful sense of being very young and free in a civilization that was very old and free. But such youthful exhilaration is short-lived and Anthony comes to acknowledge his misgivings. He exclaims, 'One minute it's my world, and the next I'm the world's fool'.

In *The Beautiful and Damned*, Fitzgerald start identifies clearly the role played by the war in transforming society. The war is the root of the social disillusion in the novel. Originally, the conflict is notable only because it keeps the newlywed Patches from going abroad on their honeymoon. In time, the characters come to adopt a more insolent attitude towards the conflict. Maury Noble, Anthony's friend, comments that the 'restless' United States wants to have some fun from the hostilities overseas. The war gave a restless generation something to talk about—and almost everyone fully enjoyed it. Society is caught up in the pageantry of American involvement. Anthony's wife Gloria reflects on this huge red light of patriotism which is streaming across the nation.

The war is finally identified as a malignant force and it successfully shakes the country out of its leisure, it was with fearful results. Thinking about the conflict, Gloria believes that here at length went the world to inevitable and well-merited destruction. In a very curious and chilling way, Gloria expresses an equivalent of the imperialistic basis of the First World War when she claims she would sacrifice a hundred thousand...a million people, presumably for one palace full of pictures from the Old World and exquisite things. Gloria's declaration that the great mass of human life is essentially valueless to the privileged class anticipates the total massacre of the great war. The view of post-war diplomacy expressed in *The Beautiful and Damned* is also quite sardonic.

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मानव अधिकार आणि संवैधानिक तरतुदीचा अभ्यास

प्रा.डॉ.चंद्रशेखर काशिनाथ तळेकर

राज्यशास्त्र विभाग,

एस.के.गांधी महाविद्यालय कडा,ता.आष्टी, जि.बीड

प्रस्तावना :-

मानवाधिकाराची संकल्पना सर्वत्र गतीमानतेने रुढ झाली आहे. या संकल्पनेचे महत्व भारतीयांच्या दृष्टीने विशेष अधोरेखित करण्यासारखे आहे कारण भारताने 200 वर्ष गुलामगीरीत काढल्यामुळे व्यक्ती स्वातंत्र्याचे महत्व अधिक स्पष्ट पणे जाणले त्यामुळे प्रत्येक व्यक्तीस काही मुलभूत हक्क प्रदान करण्यात आले. ते अगदी मानव अधिकाराशी तंतोतंत साधर्म्य असणारे आहेत. या दृष्टीकोणातून मानव अधिकार विषयक संविधानातील तरतुदीचा समावेश अधिक महत्वपूर्ण ठरतो. मानवाच्या विकासासाठी अत्यावश्यक समजल्या जाणाऱ्या बाबीला संविधानाच्या माध्यमातून करण्यात आलेल्या तरतुदी अन्वये एक प्रकारचे संरक्षण प्रदान करण्यात आली आहे. मानवी जीवनात व्यक्ती स्वातंत्र्य, समता, धर्मीक स्वातंत्र्य, शोषणापासून मुक्ती तसेच शिक्षणविषयक अधिकार, सांस्कृतीक अधिकार, घटनात्मक उपाय योजना करण्याचा अधिकार, यांचे महत्वपूर्ण स्थान असते. अशा प्रकारच्या हक्काशिवाय मानवास आपला व्यक्तीमत्त्व विकास तसेच मुक्त पणे जीवन जगण्या विषयीची कल्पनाही केली जावू शकत नाही. या दृष्टीकोनातून मानाधिकाराविषयक तरतुदींना संवैधानिक संरक्षण प्रदान करण्यात आले आहे. प्रत्येक नागरीकांचे स्वातंत्र्य अबाधित ठेवून त्यास आर्थिक, सामाजिक, सांस्कृती, शैक्षणिक, राजकीय अधिकार प्रदान करण्यात येत असतात. याच दृष्टीकोनातून मानवाधिकार विषयक संवैधानिक तरतुदीवर प्रकाश टाकण्याच्या हेतुने हा शोधनिबंध प्रस्तुत करण्यात आला आहे.

शोधनिबंधाचे उद्देश :-

- 1) मानवी अधिकारांची अर्थ, व्याख्या स्पष्ट करणे.
- 2) मानवी अधिकार विषयक संवैधानिक तरतुदींचे अध्ययन करणे.
- 3) भारतीय संविधान आणि मानवी अधिकारांची संकल्पना यांतील प्रमुख घटकांचा परामर्श घेणे.

मानवी अधिकारांची संकल्पना :-

मानवी समाजातील स्त्री असो अथवा पुरुष दोन्ही प्रकारच्या मानवी घटकांचा मानव अधिकार जन्मजात प्राप्त झालेले असतात. मानवाच्या जन्मानंतर त्याला आपले जीवन व्यतित करण्यासाठी काही साधनांची गरज असते. त्या प्रमाणेच त्यास व्यक्तीमत्त्व विकासाची देखील आवश्यकता असते. अशा घटकांसाठी त्यास आवश्यक असणारे मानव अधिकार त्याच्या जन्मासोबतच त्यास प्राप्त होत असतात. मानव अधिकाराच्या व्याख्या करण्याचा प्रयत्न अनेक विचारवंतानी केला आहे.

1) मॅकफरलेन :-

मानव अधिकार हे असे नैसर्गिक अधिकार आहेत जे प्रत्येक स्त्री आणि पुरुषाला समान प्राप्त झाले आहेत.

2) सन 1993 चा मानव अधिकार संरक्षण कायदा :-

या कायद्यातिल मानव अधिकाराचा अर्थ अशा प्रकारे स्पष्ट केला आहे की मानव अधिकार म्हणजे व्यक्तीचे स्वातंत्र्य, जिवन आणि समतेशी निघडीत असे मुलभूत अधिकार ही ज्यांच्या संरक्षणाची हामी राज्य घटनेने दिली आहे.

3) हेरॉल्ड लास्की :-

ज्या परिस्थितीच्या हक्काशिवाय व्यक्तीला आपली सर्वांगीन प्रगती साध्य करता येत नाही त्या परिस्थितीच्या घटकांना मानवी अधिकार असे म्हणतात.

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Political Review of F. Scott Fitzgerald's *This Side of Paradise*

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Fitzgerald's fiction developed a more pessimistic outlook throughout his career, the transition to the vision advanced in *This Side of Paradise* is most significant. The disillusioning realization that there are limits to human accomplishment was the lesson learned by all liberals as the lasting realities of the post-war period became manifest. F. Scott Fitzgerald had reason to experience such disillusion in his personal life and to observe it in the world at large. This growing sense of pessimism is seen in his novels effectively.

General critical opinion about F. Scott Fitzgerald is called as the great chronicler of the American 1920s. But for the most part, Fitzgerald's works are seen as little more than detailed illustrations of the manners of the age. Few people Fitzgerald's fiction with any measure of political content. Even friends who knew Fitzgerald best maintain that he knew nothing about politics and had little interest in political matters.

Critic Scott Donaldson has set out to politicize somewhat the tarnished image of the American novelist. He has proposed three distinct stages in the political thought of F. Scott Fitzgerald. According to Donaldson, Fitzgerald experienced disenchantment with politics that extended from his boyhood until the early 1930s. While the mid-thirties were marked by a well-documented interest in communism, Fitzgerald reached a mature understanding of political issues only in the final years left him before his death in December 1940. Fitzgerald's fiction, in fact is representative of life in the United States during the 1920s. It necessarily portrays many aspects of an emerging American ethic that both shaped a unique and important period in U.S. politics and was, as well, defined

ग्रामसभा:लोकशाहीचे उगमस्थान

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लोकशाहीत "लोक" या शब्दाभोवतीच प्रशासन केंद्रीभूत होत असते. "लोक" या शब्दासाठीच सर्व प्रशासन यंत्रणा कार्यरत असते. त्यातही भारताने कल्याणकारी ठरान्याच्या संकल्पनेचा स्विकार केला असल्याने भारतीय प्रशासनाचा केंद्रबिंदु भारताचा सर्वसामान्य नागरिक ठरत असतो. लोकशाहीतील प्रमुख घटक केंद्रीय सरकार, राज्य सरकार आणि नव्यानेच स्थापन करण्यात आलेल्या पंचायतराज संस्था यांचा प्रामुख्याने उल्लेख करता येईल. परंतु या सर्वांच्या तळाशी असणारा, अत्यंत महत्वपूर्ण असा घटक म्हणजे ग्रामसभा होय. ग्रामसभेस लोकशाहीचे उगमस्थान संबोधल्यास वावगे ठरणार नाही. इतका महत्वपूर्ण घटक परंतु राजकीय जागृतीच्या अभावामुळे ग्रामसभेकडे दुर्लक्ष होत गेले. देशात पंचायतराज संस्थांची निर्मिती होऊन अनेक वर्षे झाली. परंतु ग्रामसभाना आपल्या अधिकाराची कल्पना नसल्याने अनेक वेळा ग्रामसभेच्या बैठकी केवळ कागदावरच होत असत. ग्रामसभा कागदावरच होत असल्याने बैठकीतील निर्णयही संगनमताने राजकीय पदाधिकारी घेत असत. ग्रामस्थाना ग्रामसभेच्या कार्यपध्दती व अधिकाराबाबत माहिती नसल्याने अनेक योजना पक्षपातीपणे राबविण्यात आल्या. याच्या परिणामातून ग्रामीण विकासास खीळ बसली. परंतु त्यानंतर संविधानाच्या माध्यमातून घटनात्मक दर्जा बहाल करण्यासाठी 73 वी आणि 74 वी घटनादुरुस्ती करण्यात आली या घटनादुरुस्ती द्वारे ग्रामसभेचे अधिकार सपष्ट करण्यात आले. त्यामुळेचे ग्रामस्थाना ग्रामसभेच्या अधिकाराची जाणिव निर्माण झाली. या ग्रामसभेच्या अधिकाराचा आढावा घेण्याच्या दृष्टीकोनातून शोधनिबंध प्रस्तुत करण्यात आला आहे.

शोधनिबंधाची उद्दिष्टे :

- 1) ग्रामसभेची रचना स्पष्ट करणे.
- 2) ग्रामसभेचे अधिकार व कार्याची माहिती स्पष्ट करणे.
- 3) भारतीय लोकशाहीतील ग्रामसभेच्या स्थानाचा, अस्तित्वाचा आढावा घेणे.

ग्रामीण भागातील अशिक्षितपणामुळे तसेच राजकीय जागरूकतेच्या अभावामुळे ग्रामसभेचे अस्तित्व असून नसल्यासारखे होते. परंतु आज राजकीय जागृती होत आहे. ग्रामीण विकासासाठी जागरूक ग्रामसभा आवश्यक असल्याचे महत्व पटु लागले आहे. या दृष्टीकोनातून ग्रामसभेच्या अधिकार व कार्याचा आढावा पुढीलप्रमाणे घेण्यात आला आहे.

- 1) ग्रामीण विकासासाठीच्या निधीवर नियंत्रण :

ग्रामीण विकासाच्या दृष्टीकोनातून ग्रामसभेस व्यापक अधिकार प्रदान करण्यात आले आहेत. महाराष्ट्र शासनाने 73 व्या घटनादुरुस्तीची तातडीने अंमलबजावणी करून. ग्रामीण विकासाच्या उद्देशाने ग्रामपंचायतींना व्यापक अधिकार प्रदान अधिकार बहाल केले परंतु त्यावर नियंत्रण ठेवण्याच्या दृष्टीकोनातून ग्रामसभेस ही त्याच प्रमाणात अधिकार प्रदान केले. त्यातील एक महत्वपूर्ण अधिकार म्हणजे ग्रामीण विकासासाठी ग्रामपंचायतीस प्राप्त निधीवर नियंत्रण ठेवण्याचा होय. या अधिकारांतर्गत गावातील विकासकामे सुरु करणे, त्यांचा प्राधान्यक्रम ठरविणे, आणि त्यासाठीच्या खर्चाला मान्यता देण्याबाबत ग्रामसभेस अधिकार आहेत

- 2) योजनांचे लाभार्थी ठरविण्याचा :

ग्रामसभेच्या बैठकीद्वारे विविध योजनांच्यासाठी लाभार्थी ठरविण्याचा अधिकार ग्रामसभेस देण्यात आला आहे. ग्रामीण भागात जवाहर रोजगार योजना, संजय गांधी निराधार योजना, इंदिरा आवास योजना, तसेच समाजकल्याण खात्यामार्फत राबविण्यात येणाऱ्या विविध योजनांसाठी चुकीच्या पध्दतीने किंवा पक्षपातीपणे लाभार्थी निवडले जाऊ नयेत यासाठी या लाभार्थ्यांची निवड करण्याचे अधिकार ग्रामसभेस देण्यात आले आहेत. खऱ्या गरजवंतास योजनेचा लाभ मिळावा या दृष्टीकोनातून ग्रामसभेच्या शिफारशीने लाभार्थ्यांची निवड करण्यात येत असते.



Application of Matrix to Cryptography

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INTRODUCTION

The roots of cryptography are found in Roman and Egyptian civilizations. Cryptography is the art and science of keeping messages secure. The primary goal of cryptography is to secure important data. When information is transformed from a useful form of understanding to an opaque form of understanding, this is called encryption. When the information is reverted back into a useful form, it is called decryption. The information in its useful form is called plane text while the information in its encrypted form is called cipher text.

PRELIMINARIES

Define any suitable 3×3 matrix A as

$$A = \begin{bmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{bmatrix}$$

This is known as encoding matrix.

The inverse of matrix A i.e. A^{-1} is a decoding matrix.

ANALYSIS AND INTERPRETATION

Encryption: suppose we want to send the message

INDIA IS MY COUNTRY

Our encoding matrix is



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WRESTLING PERFORMANCES IN OLYMPIC GAMES

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Introduction

Wrestling sports practiced in various styles by two competitors involving forcing an opponent to touch the ground with some part of the body other than his feet. In the 1900 games were the only once where wrestling was not present in any shape or form. Freestyle wrestling first appeared on the Olympics of 1904 and thereafter all Olympic games all champion countries performed very well and made champion. There for study is important and so to study of the performances of wrestling in Olympic Games I chose this topic for research paper.

Objectives of research:

- 1) To overview on Olympic competition and games.
- 2) To study Olympic performances.
- 3) To study of wrestling performances in Olympic Games.

Research Methodology:

For the purpose of this study used social science research methodology to study the research topic. Used scientifically analysis. In this method used secondary data tools. In this secondary data tool used reference books, research articles, newspapers, journals, published and unpublished materials and also taken help of internet facilities. There after Olympic Games the performances of wrestling game in Olympic Games are described as following:

1904 St. Louis Olympic -

Freestyle wrestling initial appeared on the Olympic software engineer at the 1904 games in St Joe Louis throughout this 1904 the third Olympiad control at St. Louis, Missouri, wrestling become a locality of games. The U. S. won the primary "Free vogue wrestling" tournament. The Olympics gave an incredible impetus to wrestling throughout the planet.

1908 London Olympic -

In London Olympic competitions there was control in 1908 wrestling is enclosed Free vogue wrestling underneath the name of Catch-as-Catch was initial contend in Olympics control at London throughout 1908, nice Great Britain got 3 gold medals whereas America got 2 gold medals.

1912 Stock Home Olympic

In 1912, at Stock Home Olympic games, gold medals tally was Sweden one and Finland three in free vogue wrestling. There was a bout of 9 hours length between Algerian and J. Bolling of European country. Within the year 1958, Shiripathi Kanchanalak fought with Sadiq from West Pakistan. The bout was control at Kolhapur for one 1/2hour finally, the bout was drawn. Thanks to initial war, Olympic was control late in 1920 at Anvers. Here, the length for the free vogue wrestling was judged up to fifteen minutes. the smallest amount range of penalty point's receiver ought to be thought-about because the winner and therefore the contestant having 5 penalty points may well be eliminated from the competition.

1924 to 1936 Olympic

Successive Olympic Games were control in Paris in 1924. America got four gold medals, whereas an important weight matman. Heglanof France snatched one gold in free vogue

“PRODUCTION AND DISEASE MANAGEMENT OF CHILLI”

Mr. Sayyad Innus Gafur Assist. Prof. (Botany Department) (Smt. S. K. Gandhi Arts, Amolak Science and P H Gandhi Commerce College Kada Maharashtra)

Abstract: *The current era is the technical era. Human development is witness of universal development in all sectors of life. The development in all sectors including agricultural sector is the special feature of current and global era. The agriculture products are produced with the help of technical era. The production of chilli is one of it. Chilli is very essential for human food, especially in India. Rodriguez-Burruezo, A; González-Mas Mdel, C; Nuez, F (2010) stated about the importance of Chilli in words as, “While red chillies contain large amounts of vitamin C (table), other species contain significant amounts of provitamin A beta-carotene. In addition, peppers are a rich source of vitamin B₆”. New improved varieties and planting techniques are increasing the productivity of chilli crop. Chillies are rich in vitamins A and C. Phosphorus and calcium are good. The redness is due to capsaicin, while the red colour is due to capsaicin. But there are many side effects of using technical tools for the production of chilli. Use of chemical converts the good chilli in diseases. There are many preventive measurements which need to take care of chilli during its production. The current paper will focus on the disease on chilli and preventive measurement for it as the disease management on chilli.*

Key Words: *Disease, chemical use, chilli, management, global era etc.*

Introduction: Chili is the most important commercial crop in India. It is taken almost all over the country. There are more than 400 varieties of pepper found in the world. It is also called hot chilli, red chilli, sweet chilli, bell pepper. Kraft, KH; Brown, CH; Nabhan, GP; Luedeling, E; Luna Ruiz, Jde J; Coppens; d'Eeckenbrugge, G; Hijmans, RJ; Gepts, P defined the term chilli and its originality as, “Chili peppers originated in Mexico.”² Chili plays an important role in tasting certain foods in our daily diet. The classical name of the chilli crop is Chilli and the genus Chilli is Solanaceae. The genus is Capsicum and the name of the plant is “Capsicum annum”.

Bosland, P.W. (1998) rightly pointed about chilli as, “Capsicum fruits have been a part of human diets since about 7,500 BC, and are one of the oldest cultivated crops in the Americas.”³

It means Capsicum fruit has been a part of the human diet for about 7500 years, and is one of the oldest cultivated crops in the United States. It was one of the first self-pollinators to be planted in Mexico, Central America, and parts of South America.

Land, Climate and Production of Chilli:

Medium to black and well drained soil is suitable for this crop. Applying the right amount of fertilizer in light soil can give good yield. In hot and humid climates, the growth of the crop is vigorous and the yield is good. Crop growth is not good in winter season when the temperature is less than 20 to 25 degrees Celsius. This reduces flowering and fruit set.

a. Climate: In hot and humid climates, the crop grows vigorously and yields well. Chilli can be grown in all the three seasons of monsoon, winter and summer. However, due to low temperature of 20 to 25 degrees Celsius in winter season, the growth of chilli crop is not good and therefore flower retention and fruit set are low. It is better to have less than 40 inches of rain. If the temperature rises above 35 degrees Celsius during the season, the flowers wither and the yield decreases.

b. Soil:

Medium to black and well drained soil is suitable for this crop. A good crop can be obtained by applying proper amount of fertilizer in light soil. Chilli crop thrives in hot and humid climates and yields well. Crop growth is not good in winter season when the temperature is less than 20 to 25 degrees Celsius. This reduces flowering and fruit set.

“AGRICULTURAL MANAGEMENT OF CHILLI IN INDIA”

Mr. Sayyad Innus Gafur Assist. Prof. (Botany Department) (Smt. S. K. Gandhi Arts, Amolak Science and P H Gandhi Commerce College Kada Maharashtra)

Abstract: Technological development is increasing day-b-day in each and every sector. India is the nation in which most of the population live in villages. Most of the earning of Indian is depend on agricultural base. The production of chilli is in large number in India. It is known as one of the wonder productions and it is the commercial product. At the universal, the highest range of production is chilli. They are the Capsaicin is a potent inhibitor of the substance which is a neuropeptide associated with the inflammatory process. The hottest popular varieties of chilli include Naga jalokia, habero and scotch bonnet pepper. Jalapios are later in their heat and capsaicin content, followed by mild varieties including Spanish pimitos and Nahim and Hungarian cherry pepper. Capsaicin is being studied as an effective treatment for sensory nerve fibber disorders, including pain associated with arthritis, psoriasis, and diabetic neuropathy. When animals were injected with a substance that causes inflammatory arthritis, they were given a diet containing capsaicin that delayed the onset of arthritis and significantly reduced paw inflammation. The current work focuses on the production of chilli and agricultural management of the production of chilli in India.

Key Words: Agricultural growth, production of chilli, chemical impact, Capsaicin etc.

Introduction: The productivity of chilli crop has been increasing day- by- day due to the development of new improved varieties and planting techniques. Peppers are rich in vitamins A and C and are also rich in phosphorus and calcium. The redness is due to capsaicin. The Central Government's National Integrated Pest Management Research Center in New Delhi conducted a survey in Madhya Pradesh and Maharashtra. The survey was conducted in November 2014, August, November 2015 and January 2016 in the area under chilli cultivation in these two states. During the survey, the scientists discussed the issue with the farmers.

According to the farmers, the outbreak of Churhamurha disease on chillies was first in the nursery. The outbreak starts 10 to 15 days after transplanting in the field i.e. in July-August and the disease spreads in the month of October-November. Due to high incidence of the disease and lack of control, many farmers had to give up their crops. Some people uprooted the chillies and took another crop. Hence, during the production of chilli, the farmer needs to take care of proper planning. The current work is the survey based work. The data is collected as the secondary source from valid publication.

Objectives of the Study:

- a. To find out the production ratio of chilli in India.
- b. To analyse the production method of chilli in India.
- c. To the crop protection of India.

Methodology of the Study:

The current research is survey based descriptive research in which the data is collected from reliable printed or e-books, journals, news papers, government records etc. the collected data is analysed with special reference to the academic year 2018.

Literature Review:

- a. Bosland, P.W. studied in 1998) on the topic, "Capsicums: Innovative uses of an ancient crop". This is published in In J. Janick (ed.). Progress in New Crops. Arlington, VA: ASHS Press. pp. 479-487.
- b. "Chili production in 2016 entitled as Crops/World Regions/Production Quantity/Green Chillies and Peppers from pick lists". UN Food and Agriculture Organization, Statistics Division (FAOSTAT). 2017.



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Percentage to Control Fungal Diseases of Brinjal by using Different Leaf Extract

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Abstract:

Now a days we know that due to the environmental condition atmosphere is not favorable for any crops, so that for healthy and more production we are spraying different fungicides, insecticides and etc. Spraying things are not good for human beings for that we are using different leaf extracts, this method is very easy and economically beneficially to producer. The Brinjal consist of different fungal diseases to control we are using different leaf extracts which affects to the plant's growth and yield to a best of genetic potential. In present study, the pathogenic fungus was isolated from infected plant parts and identified based on morphological and cultural characters as *Fusarium Solani* f.sp, *melongenae*. Hossain KS and Bashar MA (2011). The different plant extracts viz, *Azardichata Indica*, *Argemone Mexicana*, *Datura stramonium*, *Ipomoea fistulosa* were tested to control brinjal pathogen. Different concentrations 5, 10, 15 and 20% of plant extracts was used in the study. Alemu Nega (2014). Among the different extracts 20% of *Azardiachta Indica* was found most effective followed by *Argemone Mexicana*, *Datura stramonium*, *Ipomoea fistulosa*.

Keywords :- pathogen, fungal diseases, leaf extract, fungicides etc.

Introduction:

Brinjal or eggplant (*Solanum melongenid* L.) is an important crop of sub-tropics and tropics. The name brinjal is popular in Indian subcontinents and is derived from Arabic and Sanskrit whereas the name eggplant has been derived from the shape of the fruit of some varieties, which are white and resemble in shape to chicken eggs. It is also called aborigine (French word) in Europe. Jagannathan R. and Narasimhan (1988). The eggplant is native of India. Brinjal is grown as an important vegetable crop in all over world. It is grown in India over an area of 0.4 million hectares with an annual production of 7.8 million tonnes Hossain KS and Bashar MA (2011). Among the different diseases that attack brinjal crop, wilt has become a major disease-causing significant reduction in yield. The wilt of brinjal is characterized by yellowing of foliage drooping of apical shoot to ultimate death of whole plant. The pathogen is a soil inhabiting fungus and forms in the senescing tissues of the diseased plant and may survive in the soil for many years. There are many methods which are presently being used to control various plant pathogens including wilt pathogen such as physical, chemical, biological, cultural etc.

Effective and efficient management of crop disease is generally achieved by the use of synthetic pesticides [2]. due to increased awareness about the risks involved in use of pesticides, much attention is being focused on the alternative methods of pathogen control. The spiraling up cost chemical fungicides particularly in those countries where pesticide is imported. pollution to soil, water, air by the accumulation of obnoxious chemicals residues due to continuous use of fungicides and development of resistance races to these chemicals

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26. Calorimetry

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Abstract

Calorimetry is that the science or act of measurement changes in state variables of a body or the aim of etymologizing the warmth transfer related to changes of its state due, as an example, to chemical reactions, physical changes, or part transitions underneath given constraints. Measure is performed with a measuring instrument. The word measure comes from the Latin word calor, which means heat and therefore the Greek word μέτρον (metron), which means live. Scottish medical practitioner and individual Black, UN agency was the primary to acknowledge the excellence between heat and temperature, is claimed to be the founding father of the science of measure.

Introduction

Indirect measure calculates heat that living organisms manufacture by measurement either their production of greenhouse gas and chemical element waste (frequently ammonia in aquatic organisms, or carbamide in terrestrial ones), or from their consumption of element. Lavoisier noted in 1780 that heat production is expected from element consumption this manner. victimization multiple correlation. The dynamic energy budget theory explains why this procedure is correct. Heat generated by living organisms may additionally be measured by direct measure, within which the whole organism is placed within the measuring instrument for the activity.

A wide used trendy instrument is that the differential scanning measuring instrument, a tool that permits thermal knowledge to be obtained on tiny amounts of fabric. It involves heating the sample at a controlled rate and recording the warmth flow either into or from the specimen.

Classical Measuring Calculation of Warmth

Cases with Differentiable Equation of State for a One-Component Body

Basic Classical Calculation with Relevance Volume

Calorimetry needs that a reference material that changes temperature has notable definite thermal constituent properties. The classical rule, recognized by Clausius and by Kelvin, is that

“SOCIO-ECONOMIC PERSPECTIVES OF MURME VILLAGE”

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ABSTRACT :-

Caste has vital role in social economic and political spheres along with settlement for generation in India. Social discrimination and restrictions on the caste basis are attributable impact factor for cultural and historical traditions. It differs a group from another social group. Though education is considered valuable for social change, only a few selected sections of society are benefitted by pursuing formal education. Some of the sections of the society were deliberately kept away from the lessons by education. Obviously this caused a rift between factors such as education, occupation as well as other economic conditions among population that belong to various social groups. This is mostly observed in Hindu traditions.

In modern India, democratic institutions are proving helpful to shape new ways for social patterns and space articulation. Hence, it attracts a great academic interest for conducting a socio-economic survey at village level.

KEY WORDS :-

Economic condition, social Problem etc.

OBJECTIVES :-

To conduct evaluation on social and economic structure at household level in village.

RESEARCH METHODOLOGY :-

The present paper comprehends the use of various natures of data and maps from different sources as published and unpublished sectors.

Census of India is the prime source of secondary information with socio-economic abstracts. Quantities and analytical methodology is used for present work.

STUDY AREA :

Murme is famous for the temple of lord Datta. The village Murme is located on 19°61' north latitude and 74°96' east longitude, at the attitude of 500 meters from sea – level. The village is situated in Newasa taluka. The village is located on the bank of stream Pravara and on the Ahmednagar - Aurangabad highway. It is 5 km. away from this highway in north direction. The village covers an area of 4.10 sq.km. In the north of Murme lies Ghodhegaon,

DIATOM CYMBELLA AT MEHEKARI WATER RESERVOIR

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Abstract: The algae from Mehekari water reservoir were investigated from October 2016 to January 2018. Samples were collected from various locations of the water reservoir. The present paper reports the unlikeness of diatoms from the water reservoir. The diatoms observed were belonging to the family Cymbellaceae. Ten species of genus *Cymbella* have been reported from the study area.

Keywords: Diatoms, Cymbellaceae, *Cymbella*, Mehekari

Introduction:

Mehekari water reservoir is constructed on the Seena River in Ashti tehsil of Beed district of Maharashtra. The study was carried out to explore the presence of the diversity of diatoms of the water reservoir.

Diatoms are most fascinating and offer us a sight of pleasure when viewed under a microscope, because of the very fine sculptured cell wall. These are extensively found in salt waters as well as freshwaters. They occur in all aquatic habitats forming an important part of the vegetation. Although diatoms are mostly unicellular, colonial species are also represented by them.

A survey of the algae was carried out at different locations of Mehekari water reservoir, during the years 2018-2019. The diatoms observed during the investigation are described in this paper.

Materials and Methods:

The studies on algae from different locations of Mehekari Lake (Ashti) in the Beed district of Maharashtra were undertaken for the present study. The observed diatoms were collected at monthly intervals from October 2018 to January 2019 from the different locations of the water reservoir. The Samples were collected in collections bottles then taken to the laboratory and preserved in 4% formalin for further taxonomic investigations. Temporary Mounts of the algal specimen were prepared with suitable stains and observed under the compound microscope.

NAVICULACEAE AT MEHEKARI WATER RESERVOIR

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ABSTRACT

The algae from Mehekari water reservoir were investigated from October 2016 to January 2018. Algal samples were collected from various locations of the water reservoir. Present paper reports the unlikeness of diatoms from the water reservoir. The observed species were belonging to family Naviculaceae and Gomphonemaceae. Eleven species of diatoms belonging to six genera viz. *Diploneis* (02), *Caloneis* (02), *Pinnularia* (03), *Mastogloia* (01) have been reported from the study area.

KEYWORDS: Naviculaceae, *Caloneis*, *Diploneis*, Mehekari.

INTRODUCTION

Mehekari Lake is constructed on the Seena River in Ashti tehsil of Beed district of Maharashtra. The study was carried out to explore the presence the diversity of diatoms of the water reservoir.

Diatoms are extensively found in salt waters as well as in fresh waters. They occur in all aquatic habitats forming an important part of the vegetation. Although diatoms are mostly unicellular, colonial species are also represented by them. Diatoms are most fascinating and offer us a sight of pleasure when viewed under a microscope, because of the very fine sculptured cell wall (Sambamurty, 2006).

A survey of the algae was carried out at different locations of Mehekari water reservoir, during the years 2016-2018. The diatoms observed during the investigation are described in this paper.

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01

A study of forming comprehensive attitudes of good soil health and management

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Abstract:

The bigger problems of sustainable land management are discussed fully in the World Soil resources report-73, FESLM (An International Framework for Evaluating Sustainable Land Management) (F.A.O. 1993B). In this paper, the pillars on which sustainable land management is based are stated to be as Productivity; Security; Protection; Viability; Acceptability. The land must be produced on a secure basis, and the natural resources are must be protected, and the management system must be economically viable and socially acceptable. However, it must also be recognized that land can't be managed sustainably unless the soil, which is a component of the land, is properly managed. This requires maintaining and improving soil productivity, avoiding and remedying soil degradation, and escaping environmental damage.

1. Introduction:

Good soil management has always required that the soil be used in such a way that its productivity is maintained or preferably, enhanced. This requires that the chemical and physical condition of the soil does not become less suitable for plant growth than when cultivation commences. Cultivation normally means that the soil will, in fact, deteriorate due both to nutrient removal when harvesting crops, and to physical damage to the soil structure.

What is essential is that the deterioration is reversible, by chemical additions to the soil, mechanical manipulation, or natural processes of fertility restoration under pasture or trees. This implies that the soil must be resilient, i.e., after being subjected to the stresses involved in crop production. It must have the ability to return to its former condition or an improved condition (Greenland and Szabos: 1994). Most of the farmers considers land management in terms of the land that they own themselves or to which they have access. This suggests that the effects of the soil management practice which happen off-site may not be given due attention without some form of rule. Off-site effects may include the deposition of eroded soil or material washed out of the soil into waterways and onto fields of neighbouring farms. It can also include the effects of materials vaporised from the soil, such as greenhouse gases and other potential pollutants. Good soil management must not only serve the immediate needs of the farmer but should also be acceptable to the wider society. For farmers other than those working at the subsistence level, the system must also be economically viable if the farmer is to continue to manage the land successfully, and improve the standard of life of his or her family.

2. Objective:

This study helps a lay man who wants to understand the sustain soil productivity, soil nutrients, managing soil organic matter and biological conditions explains with simple way.

3. Database & Methodology:

In this paper secondary data is used in related literature using books and websites.

4. Sustaining soil productivity:

If a soil is to sustain the production of crops it must provide the nutrient requirements of the crop. It delivers a physical medium in which the plant roots can grow satisfactorily. So that water and nutrients can be absorbed. Soil stores sufficient water for the crop which allows

A Freezing Method for Solving Bottleneck-Cost Transportation

Problem

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Abstract:

A new method namely 'Ghadle-Munot freezing method' is proposed for finding optimal solution to bottleneck Transportation Problem. Further Ghadle-Munot Algorithm [Congruence modulo method] is used to find all efficient solution of bottleneck-Cost Transportation Problem. The method structured in the form of an algorithm and coded in MATLAB which makes it user friendly. The method is illustrated through numerical example.

Keywords - Bottleneck Transportation Problem, Freezing Method, Congruence modulo Method, Bottleneck-Cost Transportation Problem, MATLAB.

Introduction:

The Bottleneck or time minimizing Transportation Problem (TP) is one of the special subclass of TP where the time associated with each shipping route need to be minimized. In real life applications, the time minimizing TPs are firmly rooted for determining better ways to deliver goods to consumer within time. Along with it, transportation of perishable food, groceries, emergency services like fire control equipment, ambulance, military armaments, help to the people caught in disaster etc. needs prompt delivery. Particularly, having a sight on COVID-19 pandemic around the globe; timely transportation of medical facilities plays a vital role, as delay in time may result in larger loss than any cost advantage. All such issues are tackled in BTP.

In standard TP, objective function is sum of shipping costs where as in BTP, objective function is maximum time of shipping a commodity. Because, time of transportation is independent of amount of commodity sent if all $x_{ij} \geq 0$. In this article, Author analyzes bi-criteria TP i.e. time and cost which is also called Bottleneck-Cost TP.

(Illija N. 2007) has developed an algorithm which finds minimum of total transportation time to time TP. BCTP has been proposed by (Aneja & Nair 1979), (Ahmed & Reshi 2014), (Isserman 1984) developed various ways to get the set of efficient solutions. (Pandian & Natrajan 2011) solved BCTP by blocking method to get set of time and then used zero point method to get all efficient solutions. (Pandian & Anuradha 2011) proposed dripping method to solve BCTP.

In this article, author propose a new method 'Ghadle – Munot Freezing method' for finding the set of all efficient solution to BCTP which is based on Congruence Modulo method (Ghadle – Munot algorithm). The proposed method will enable decision maker to handle time oriented logistic problem and from set of efficient solution select an appropriate transportation schedule depending on financial position and timely need. Also, proposed algorithm has been coded in MATLAB which makes it very easy to use and get the solution within fraction of seconds.

Further the article is organized as Mathematical formulation and Preliminaries in section 2, proposed algorithm in section 3, section 4 contains a numerical example illustrated with proposed algorithm. Result is discussed in section 5 and finally concluding remarks has been provided in section 6.

Mathematical Formulation:

Original Research Article

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Study of Bunchy Top of Banana Virus (BBTV) and its Control by Integrated Disease Management (IDM)

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ABSTRACT

India is the top country by Banana production in the world as of 2019, bananas production in India was 30.5 million tonnes that accounts for 26.02% of the world's bananas production. The top 5 countries (others are China, Indonesia, Brazil, and Ecuador) account for 53.94% of it. The world's total bananas production was estimated at 117 million tonnes in 2019. In India, states like Andhra Pradesh, Gujarat, Tamil Nadu, Maharashtra, Kerala, Uttar Pradesh, Bihar and Madhya Pradesh contribute more than 70 per cent of the country's banana production. Banana and plantain (*Musa spp.*), produced in 10.3 million ha in the tropics, are among the world's top 10 food crops. They are vegetative propagated using suckers or tissue culture plants and grown almost as perennial plantations. They are vulnerable to pests and pathogens, especially viruses which causes reduction in yield and are also hinders to the international exchange of germplasm. The most economically important viruses of banana and plantain are Banana bunchy top virus (BBTV), a complex of banana streak viruses (BSVs) and Banana bract mosaic virus (BBrMV). BBTV is known to cause the most serious economic losses contributing to yield reduction of up to 100% and responsible for a dramatic reduction in cropping area. The BSVs exist as episomal and endogenous forms are known to be worldwide in distribution. In India and the Philippines, BBrMV is known to be economically important.

Keywords

Banana bunchy top virus, tissue culture, IDM, Banana viruses and diseases

Article Info

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Introduction

A banana is an edible fruit, botanically a berry, produced by several kinds of large herbaceous flowering plants in the genus *Musa*. In some countries, bananas used for cooking may be called plantains. Banana basically a tropical crop grows well in a

temperature range of 15°C-35°C with relative humidity of 75-85% (1,2,3). In India this crop is being cultivated in climate ranging from humid tropical to dry mild subtropics through selection of appropriate varieties. A soil that is not too acidic and not too alkaline rich in organic material with high nitrogen content adequate phosphorus level and plenty of

A Study of Land Use and Agricultural Cropping Pattern in Ashti Tehsil of Beed District

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1. Abstract:

It can be said that the area under forests shows normal change while the land under cultivable waste remained stable during the period under study. The net sown area remained stable. The intensity of cropping has remained stable during the period under study. It can be said that the area under forests shows normal change while the land under cultivable waste remained stable during the period under study. The net sown area remained stable. The intensity of cropping has remained stable during the period under study.

2. **Key words:** Land use, cropping pattern, geographical area, cropping intensity, fallow land, and cultivable waste.

3. Introduction:

Land use study carries a great importance because it can provide a picture about intensively used, under used and unused land of the area. The concept of general land use is related to the use to which land is put in a certain reason at a given period of time. Land use is a result of combinations of both natural genesis and human influences which have been brought to bear unit in the past and of those which are still active in the present (Vink, 1975). The basic objective of the land use pattern is to use the available land which is limited. The pattern of land use is complex and dynamic. Farmers

are growing numerous of crops in the field rather than single crop. Cropping pattern refers to the proportion of land under cultivation of various crops at different points of your time. This indicates the time and arrangement of crops during a particular acreage. Changing cropping pattern would cause the Change within the proportion of land under different crops. The distributional pattern of crops in any region is an outcome of predominance of certain crop or combination of crops. Cropping pattern in study region has undergone an evolutionary process. The soil and other natural environmental factors, along with the socioeconomic factors, affect the cropping pattern in study region.

4. Objective:

The objective of this work is to find out the changes in the geographical area and agricultural cropping pattern within a decade in Ashti tehsil.

5. Study Area:

Ashti tehsil is a sub-district of Beed district of Maharashtra State of India. Which is lies to the east of the Western Ghats and situated on the Deccan trap. Ashti tehsil extends from 18°27' to 19° 27' North latitude and 74°49' to 75°19' east longitude. It is bounded on the east Patoda and Shirurkasar tehsil of Beed district. On the west Nagar and Shrigonda tehsil, on the north Pathardi tehsil and on the South Jamkhed and Karjat tehsil of Ahmednagar district.

6. Database and Methodology:

The study is based on the time series data obtained from two sources i.e. published statistical literature and by contacting agencies such as the data on land utilization, as well as total area under different crops are collected from District superintendent of land records. Agriculture Department, Revenue Department and Zilla Parishad. Socio-economic review and district statistical abstract of Beed District. The data obtained on the land use and crop-pattern of Ashti Tehsil from 1996-97 to 2016-17 were analyzed with simple charts and tabular method.

GLOBAL WARMING AND ENVIRONMENTAL IMBALANCE

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Abstract

Global warming is the phenomenon of a gradual increase in the temperature near the earth's surface. This phenomenon has been observed over the past one or two centuries. This change has disturbed the climatic pattern of the earth. However, the concept of global warming is quite controversial but the scientists have provided relevant data in support of the fact that the temperature of the earth is rising constantly. There are several causes of global warming, which have a negative effect on environment and as like humans, plants and animals. These causes may be natural or might be the outcome of human activities. Climate change is already having an impact on health: There has been an increase in the number of heat-related deaths in some regions and a decrease in cold-related deaths in others. We are already seeing changes in the distribution of some water-borne illnesses and disease vectors. Climate change is happening so fast that many plants and animal species are struggling to cope. Many terrestrial, freshwater and marine species have already moved to new locations. Some plant and animal species will be at increased risk of extinction if global average temperatures continue to rise unchecked. Prevent deforestation and tree-clearing Plant more trees through reforestation and forestation Shop sustainably Call on our leaders to introduce stronger laws to stop excessive tree-clearing.

Introduction

Global warming is the phenomenon of a gradual increase in the temperature near the earth's surface. This phenomenon has been observed over the past one or two centuries. This change has disturbed the climatic pattern of the earth. However, the concept of global warming is quite controversial but the scientists have provided relevant data in support of the fact that the temperature of the earth is rising constantly. There are several causes of global warming, which have a negative effect on environment and as like humans, plants and animals. These causes may be natural or might be the outcome of human activities. In order to curb the issues, it is very important to understand the negative impacts of global warming. Climate change encompasses not only rising average temperatures but also extreme weather events, shifting wildlife populations and habitats, rising seas, and a range of other impacts. All of these changes are emerging as humans continue to add heat-trapping greenhouse gases to the atmosphere. To study causes of Global warming, Consequences of Global warming and negative effects on world I choose this topic for research paper.

Population Study Of Kamthi Village A Geographical Survey

Dr. Shinde Sanjay Mahadeo
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Abstract :

The present paper deals with population study of Kamthi village. It focuses on various population working population etc. It shows very diverse working composition.

Introduction :

A study of the structure and characteristics of population is an important aspect of study of population. The study of the structure is a characteristics of population which is also known as the study of the composition of population. It covers aspect of population studies, which embraces the following basis, personal, social and economic characteristics or attributes of population age, sex, race, nationality, religion language, marital status household and family composition, literacy and educational attainment, employment status, occupation income etc. These all characteristics help to study population study for a small village to world level.

Key Words :

Sex ratio, literacy, working population.

Objectives :

The present paper has certain specific objectives. These are as follow.

1. To study population growth of Kamthi village.
2. To study population composition of Kamthi village.

Date base and Methodology :-

The present paper is based on the census handbook 2011 and socio economic abstracts. Books and Journal also referred for the study. Quantitative and analytical methodology is used for present work.

Study Area :

The village Kamthi is located on $18^{\circ}48'55''$ North latitude and $74^{\circ}47'25''$ east longitude, at the height of about 658 m. from sea-level. The village is located in Shrigonda taluka. The village occupies about 11.6 sq.km. area. The northern boundary of the village is marked by Ralegaon village. In the south the Wadghul, in the east Mandavgaon and in the west the Gundegaon village forms the boundary. The average annual rainfall is less than 240 mm. most of the area of the village is covered with Gray soil. The natural vegetation of this village is not significant because of dry climate and less rainfall, grass is grown on the poor soil. The village has some Nimb,

वसंतराव नाईक यांचे महाराष्ट्राच्या जडणघडणीतील योगदान व कार्य

डॉ.गोंदकर तुकाराम दत्तात्रय

राज्यशास्त्र विभाग

एस.के.गांधी महाविद्यालय, कडा,ता.आष्टी.वि.बीड.

प्रस्तावना :

वसंतराव फुलसिंग नाईक हे कृषीतज्ञ, प्रगतशील शेतकरी व राजनितीज्ञ होते. महाराष्ट्राच्या मुख्यमंत्रीपदी सर्वाधिक काळ होते. महाराष्ट्रातील एक आग्रणी सुधारक म्हणून वसंतराव नाईक यांच्याकडे पाहिले जाते. नाईकांचा जन्म यवतमाळ जिल्ह्यातल्या पुसद या गावाजवळील गहुली या छोट्या खेड्यातील एका सघन शेतकरी कुटुंबात झाला होता. यवतमाळ सारख्या मागासलेल्या जिल्ह्यातील पुसद तालुक्यातल्या गहुली या गावात एका बंजारा कुटुंबात वसंतराव यांचा जन्म झाला. अशा साधारण कुटुंबात जन्मलेले असताना आणि कसलीही राजकीय पार्श्वभूमी नसतना महाराष्ट्राचे मुख्यमंत्री होणे ही खरेतर आश्चर्याची गोष्ट आहे. गहुली गावात शिक्षणाची सोय नसल्यामुळे 3 किमी दूर असणाऱ्या गावात पायी प्रवास करून त्यांनी प्राथमिक शिक्षण घेतले. नागपूर मधील नील सिटी हायस्कूल मधून मॅट्रिकची परीक्षा वसंतराव उत्तीर्ण झाले. याच काळात त्यांना वाचनाची गोडी लागली. अस्पृश्यता निवारण, स्त्री शिक्षण, डॉ बाबासाहेब आंबेडकर यांचा सामाजिक लढा त्याचबरोबर महात्मा फुले आणि डॉ आंबेडकरांच्या कार्याचा वसंतरावांच्या मनावर प्रचंड प्रभाव पडत गेला. नागपूर हे त्या काळी सामाजिक राजकीय चळवळीचं केंद्र मानलं जायच. नागपुरातील अशा वातावरणात त्यांची राजकीय सामाजिक जडण घडण झाली. व २४ व्या वर्षी पदवी मिळवल्या नंतर त्यांनी पुढे एल.एल.बी. ची पदवी प्राप्त केली. पंजाबराव देशमुख यांच्या मार्गदर्शनाखाली त्यांनी वकीली केली. आकर्षक व्यक्तिमत्व मनमिळावू स्वभाव गरीब गरजू माणसांना मदत करण्याची वृत्ती यामुळे ते अल्पावधीतच लोकप्रिय वकील झाले. हे पुसद नगरपालिकेचे अध्यक्षपद होते. नाईक हे महाराष्ट्रातील हरित क्रांती, पंचायत राज तसेच शेतक्रांती व रोजगार हमी योजनेचे जनक समजले जातात. त्यांनी आपल्या राजकीय कारकिर्तीद्वारे समाज सुधारण्याचा प्रयत्न केला. समावास शिक्षण उपलब्ध करून देण्याचा प्रयत्न केला. शेतकऱ्यांना हरितक्रांतीच्या माध्यमातून एक नविन संदेश दिला. समाजातील वंचीत, पिढीत तसेच दुर्बल घटकांना विकासाच्या प्रवाहात आनण्यासाठी त्यांनी महत्त्वपूर्ण कार्य केले. वसंतराव नाईक यांचे नाव अधुनिक महाराष्ट्राच्या सामाजिक, आर्थिक, राजकीय, शैक्षणिक आणि सांस्कृतिक अशा विविध क्षेत्रात उल्लेखनीय स्वरूपाचे योगदान देणारे ठरते.

शोधनिबंधाचे उद्देश :-

1. वसंतराव नाईक यांच्या जिवन कार्याचा आढावा घेणे.
2. वसंतराव नाईक यांच्या राजकीय वाटचाल व कार्याचा परामर्श घेणे.
3. अधुनिक महाराष्ट्राच्या जडण घडणीत वसंतराव नाईक यांचे योगदान तपासणे.

वसंतराव नाईक यांचे अधुनिक महाराष्ट्रातील सामाजिक विकासाच्या दृष्टिने जे योगदान महत्त्वपूर्ण ठरले आहे. त्याच्या आढावा पुढील प्रमाणे घेण्यात आला आहे.

राजकीय वाटचाल

वसंतरावांनी कायद्याची पदवी घेऊन पुसद येथे वकिलीस सुरुवात केली. हळूहळू त्यांचा वकिलीत जम बसू लागला व आर्थिक स्थितीही सुधारली तसेच त्यांची हळूहळू प्रतिष्ठाही वाढली. नंतर ते पुसद कृषिमंडळाचे अध्यक्ष म्हणून निवडले गेले (१९४३-४७). यांशिवाय हरिबन वसतिगृह व राष्ट्रीय वसतिगृहाचे (दिग्रस) ते अध्यक्ष होते. १९४६ मध्ये त्यांनी

महाराष्ट्रातील पंचायतराजचा विकास-एक अभ्यास

चंद्रशेखर काशिनाथ तळेकर

राज्यशास्त्र विभाग

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महाराष्ट्राला पंचायतराजची फार मोठी ऐतिहासिक पार्श्वभूमी लाभलेली आहे. महाराष्ट्रात खऱ्या अर्थाने पंचायतराजची सुरुवात स्वतंत्र महाराष्ट्र राज्याच्या निर्मितीनंतर झालेली दिसून येते. भारतात श्री बलवंतराय मेहता समितीच्या शिफारशीनुसार पंचायतराजची स्थापना झाली असली तरी महाराष्ट्रात पंचायतराजच्या विस्तृत अभ्यासासाठी व त्या बाबतची लागू करण्यासाठी श्री वसंतराव नाईक समितीची स्थापना करण्यात आली. वसंतराव नाईक हे या समितीचे अध्यक्ष होते. या समितीच्या शिफारशीनुसारच 1 मे 1962 पासून महाराष्ट्रात पंचायत राजची सुरुवात झाली. महाराष्ट्रात पंचायतराजच्या स्थापनेच्या दृष्टीने पहिला आणि महत्त्वाचा टप्पा म्हणजे श्री वसंतराव नाईक समिती होय. महाराष्ट्रात ब्रिटिश काळापासून प्रदेशप्रदेशानुसार वेगवेगळे कायदे अस्तित्वात होते.इ.स.१९३३ चा 'बॉम्बे विहलेज पंचायत अॅक्ट' हा पश्चिम महाराष्ट्रात लागू होता,तर विदर्भात जनपद कायदा आणि मराठवाड्यात इ.स.१९४९ नंतरचा ग्रामपंचायत कायदा लागू होता.इ.स.१ मे १९६० रोजी स्वतंत्र महाराष्ट्र राज्याची स्थापना झाली.मा.यशवंतराव चव्हाण महाराष्ट्राचे पहिले मुख्यमंत्री झाले.जनतेचा सामाजिक तसेच आर्थिक विकास साधायचा असेल तर लोकांच्याच हाती सत्ता जाणे गरजेचे आहे असे त्यांचे मत होते.त्यांनी राज्य सरकारच्या हाती एकवटलेल्या सत्तेचे लोकशाही पध्दतीने विकेंद्रीकरण करण्याचा निर्णय घेतला.त्यांनी बलवंतराय मेहता समितीच्या शिफारसीचा अभ्यास करण्यासाठी महसूल मंत्री मा. वसंतराव नाईक, यांच्या अध्यक्षतेखाली एक उच्च स्तरीय समिती स्थापन केली.समितीने दिलेल्या अहवालानुसार इ.स.१९६१ साली जिल्हा परिषद आणि पंचायत समिती कायदा संमत करण्यात आला.या कायद्याप्रमाणे जिल्हा परिषद व पंचायत समितीच्या निवडणूका झाल्या आणि दिनांक ०१ मे १९६२ त्या प्रस्तापित झाल्या. निवडून आलेल्या सदस्यांतून सरपंच, उपसरपंच, अध्यक्ष,उपाध्यक्ष, महापौर, उपमहापौर इत्यादींची निवड करण्याची पद्धत रूढ झाली.अशा रितीने लोकशाही पध्दतीने लोकांच्या हातात कारभार सुपूर्त करण्यात आला आणि ख-या अर्थाने पंचायतराज व्यवस्थेची मुहूर्तमेढ रोवली गेली.

महाराष्ट्रातील जनतेचा पंचायतराज मधील प्रत्यक्ष सहभाग वाढविण्याच्या दृष्टीने जिल्हा परिषद, पंचायत समिती आणि ग्रामपंचायतीच्या निवडणूका प्रत्यक्ष मतदान पद्धतीने घेतल्या जाव्यात असे समितीचे मत होते. 21 वर्षे पूर्ण असलेली आणि मतदान यादीत नाव असलेली व्यक्ती गुप्तमतदान पद्धतीद्वारे निवडणुकीमध्ये सहभाग घेऊन आपले सदस्य निवडतील असे मत या समितीने व्यक्त केले. देशात राजस्थान, आंध्रप्रदेश या राज्यात संसद सदस्य तसेच आमदारांना जिल्हा परिषदांचे सदस्यत्व दिले जाते. मात्र वसंतराव नाईक समितीच्या मते स्थानिक नेतृत्वास या ठिकाणी वाव देणे आवश्यक आहे. या दृष्टिकोनातून त्यात आमदार-खासदारांना या संस्थेचे सदस्यत्व असू नये असे समितीच्या शिफारशीमार्फत सुचविण्यात आले.तसेच स्थानिक नेतृत्वाला वाव देऊन यात सहभागी करून घेण्याचेही या समितीने सुचविले होते. मेहता समितीने विकास गटाच्या स्तरावर पंचायत समिती स्थापन करावी असे सुचविले होते. परंतु नाईक समितीने विकास गटाचे आकारमान व साधन संपत्ती विचारात घेता हा घटक कार्यक्षम ठरणार नाही असे वाटल्याने त्यांनी तालुकास्तरावर पंचायत समितीची स्थापन करण्याची शिफारस केली. जिल्हा परिषद आणि ग्रामपंचायत यांच्यातील दुवा म्हणून पंचायत समितीने काम करावे असे सुचविले होते.

वसंतराव नाईक समितीने जिल्हा स्तरावरील विकासाची यंत्रणा जिल्हा परिषदेकडे सोपविण्यासाठीची शिफारस केली होती. जिल्हा परिषदेच्या प्रशासकीय कामकाजावर नियंत्रण ठेवण्यासाठी तसेच कामात सुसूत्रता ठेवण्यासाठी जिल्हा



**To Study the Percentage of Diseases on Brinjal by using different Leaf
Extract**

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ABSTRACT

Now a days we know that due to the environmental condition atmosphere is not favorable for any crops, so that for healthy and more production we are spraying different fungicides, insecticides and etc. Spraying things are not good for human beings for that we are using different leaf extracts, this method is very easy and economically beneficially to producer. The Brinjal consist of different fungal diseases to control we are using different leaf extracts which affects to the plant's growth and yield to a best of genetic potential. In present study, the pathogenic fungus was isolated from infected plant parts and identified based on morphological and cultural characters as *Fusarium Solani* f.sp, *melongenae*. Hossain KS and Bashar MA (2011). The different plant extracts viz, *Azardichata Indica*, *Argemone Mexicana*, *Datura stramonium*, *Ipomoea fistulosa* were tested to control brinjal pathogen. Different concentrations 5, 10, 15 and 20% of plant extracts was used in the study. Alemu Nega (2014). Among the different extracts 20% of *Azardiachta Indica* was found most effective followed by *Argemone Mexicana*, *Datura stramonium*, *Ipomoea fistulosa*.

Key words: Brinjal,Extracts,Diseases

INTRODUCTION:

The eggplant is native of India. Brinjal is grown as an important vegetable crop in all over world. It is grown in India over an area of 0.4 million hectares with an annual production of 7.8 million tones. (Raghvendra M.P. etal.,2002) Among the different diseases that attack Brinjal crop .Fungal discases become a major discase causing significant reduction in yield.. The pathogen is a soil inhabiting fungus and forms in the senescing tissues of the diseased plant and may survive in the soil for many years. Effective and efficient management of crop disease is generally achieved by the use of synthetic pesticides. Due to increased awareness about the risks involved in use of pesticides, much attention is being focused on the alternative methods of pathogen control. The recurrent and indiscriminate use of fungicides have posed a serious threat to human health and to the existing human eco geographical conditions as some of them have already been proved to be either mutagenic carcinogenic. Keeping in view the drawback of chemical management of plant disease, the use of plant extracts in the management of plant disease is gaining importance. Perusal of

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Significant Trends in Medicinal Chemistry

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Abstract:

Medicinal chemistry's foundations can be found in the prolific blend of antiquated people medication and early regular product chemistry, and henceforth its name. As appreciation for the connections between chemical structure and noticed biological movement developed, medicinal chemistry started to arise around 150 years prior as an unmistakable order planning to investigate these connections through chemical change and primary mimicry of nature's materials, especially with an eye toward improving the viability of substances thought to be of remedial worth. Understanding structure activity relationships (SARs) at the degree of inalienable actual natural properties (i.e., lipophilic, electronic, and steric boundaries) combined with thought of atomic adaptation before long turned into the sign of medicinal chemistry research. Moreover, it follows that on the grounds that these central standards could be valuable during the plan of new medications, applications toward drug configuration turned into the essential area for a still youthful, fundamental science discipline. Maybe fairly rashly, restorative science's medication plan job turned out to be particularly significant inside the private area where its training immediately flourished and developed widely across the rich fields being marked out inside the sections of land of licenses and protected innovation that were specifically

noteworthy to the industry. Drug discovery is the center of pharmaceutical chemistry. The medication disclosure measure incorporates all the phases of medication improvement, from focusing on an illness or ailment to harmfulness concentrates in creatures, or even, by certain definitions, testing the medication on human subjects. Ordinarily, conditions that influence a bigger level of the populace get more consideration and more exploration subsidizing. **Key Words:** Structure activity relationship, lipophilic, electronic, steric, pharmaceutical chemistry.

Introduction:

Drug scientists are associated with the turn of events and appraisal of helpful mixtures. Drug science envelops drug configuration, drug amalgamation, and the assessment of medication adequacy (how viable it is in treating a condition) and medication security. Before the nineteenth century, schools of drug store prepared drug specialists and doctors how to plan restorative cures from common natural items or inorganic materials. Natural prescriptions and people cures tracing all the way back to antiquated Egyptian, Greek, Roman, and Asian social orders were regulated with no information on their organic system of activity. It was not until the mid 1800s that researchers started extricating synthetics from plants with implied helpful properties to separate the dynamic segments and distinguish them. By finding and basically portraying compounds with restorative movement, scientists can configuration and diminished antagonistic results. (Sathyanaj A. 2011).

Medicinal chemistry's foundations can be found in the prolific blend of antiquated people medication and early regular product chemistry, and henceforth its name. As appreciation for the connections between chemical structure and noticed biological movement developed, medicinal chemistry

started to arise around 150 years prior as an unmistakable order planning to investigate these connections through chemical change and primary mimicry of nature's materials, especially with an eye toward improving the viability of substances thought to be of remedial worth. In the United States, therapeutic science got formalized as an alumni level control around 75 years prior inside the scholarly system of drug store instruction. From this setting, outlines of therapeutic science's topic have been offered to undergrad drug store understudies for a long time. Understanding structure activity relationships (SARs) at the degree of inalienable actual natural properties (i.e., lipophilic, electronic, and steric boundaries) combined with thought of atomic adaptation before long turned into the sign of medicinal chemistry research. Moreover, it follows that on the grounds that these central standards could be valuable during the plan of new medications, applications toward drug configuration turned into the essential area for a still youthful, fundamental science discipline. Maybe fairly rashly, restorative science's medication plan job turned out to be particularly significant inside the private area where its training immediately flourished and developed widely across the rich fields being marked out inside the sections of land of licenses and protected innovation that were specifically noteworthy to the industry. (Pauli W., 2002).

Review of Literature:

1) Kumar (2013) reported that pharmacy is the science or practice of preparing and dispensing medical drugs. Knowledge about the properties of medicine is not new to world, though earlier there were no separate professions of a doctor and a pharmacist. The introduction of complex compounds into medicines, particularly in the last two Centuries, resulted in pharmacy becoming a specialized work. The 21st Century with rapid advances in medicines, makes the management of medicines of a patient a far more complex task. The work

Desmids at Banganga Water Reservoir

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ABSTRACT

Osmanabad district forms part of Godavari River Basin in Maharashtra. Whereas Manjra, Sina, Terna, Bori, Benitura and Banganga are the main rivers which are flowing through the district. Author has earlier described the algal taxa belonging to chlorophyceae, and cyanophyceae from study area. Present paper deals with the occurrence of desmids from Banganga water reservoir. During the present study total nine species of desmids were noted from the area under investigation and presented in this communication. The noted genus of desmids were includes *Cylindrocystis*, *Closterium*, *Pleurotaenium*, *Penium*, *Micrasterias*, *Euastrum* and *Cosmarium*.

KEY WORDS: Desmids, Chlorophyceae, Banganga, Water reservoir.

INTRODUCTION:

The algal structure ranges from unicellular mucilaginous colonies to multicellular compact forms which show considerable diversity in form and adaptation to their distinctive environment (Krishnamurthy, 2000). The Banganga Project is built up on Banganga River near Songiri and Bhongiri village of Bhoom tehsil in Osmanabad district. It is mainly used for irrigation and drinking water purpose. The study of algal flora of water reservoir was carried out from October 2018 to December 2019 to explore the diversity of desmidian algae of the water reservoir. During present study, the desmidian taxa were observed.

MATERIALS AND METHODS:

Random sampling technique has been used for collection of algal samples. Sample collections from different locations were made during the period of October 2018 to December 2019 at monthly intervals. The algal samples were taken to laboratory. The Samples were preserved in 4% formalin for further taxonomic investigations. Temporary Mounts of algal specimen were prepared with suitable stains and observed under compound microscope. Identification of taxa was carried out by using Prasad and Misra (1992), (Sovranet, al)(2013), Coesel (2015), Adesalu I (2010), Stastny (2010), Coesel (1996) and Reddy (2015) and other relevant monographs and available literature.



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OCCURRENCE OF ALGAL FLORA AT WATERBODIES FROM BHOKARDAN REGION OF JALNA (M.S.) INDIA

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ABSTRACT: During the present study 16 algal species of algae viz. *Microcystis pulveria*, *Chroococcus montanus*, *Gloeocapsa polydermatica*, *Aphanocapsa koodersi*, *Aphanocapsa bififormis*, *Synechocystis pevalekii*, *Merismopedia punctata*, *Chroococcidiopsis indica*, *Oscillatoria chlorina*, *Oscillatoria terebriformis*, *Oscillatoria subbrevis*, *Oscillatoria vizagapatensis*, *Phormidium fragile*, *Phormidium tenue*, *Lyngbyarubida* and *Microcoleus chthonoplastes* were recorded from the water bodies in Bhokardan region of Jalna district in Maharashtra. A brief report is presented in this communication.

KEYWORDS: Bhokardan, Waterbodies, Algae, Chlorophyceae.

INTRODUCTION: The Bhokardan region is located in the Jalna district of Maharashtra. This area is having several water bodies like ponds, puddles, small lakes, water streams, etc. In these water bodies, water is stagnant and few places are running. Some of the water bodies are deep, while some water bodies are shallow on their rear sides. At these places, the depth of water body is about one meter and has different types of vegetation. In order to study the diversity of algal forms in these water bodies, a survey was undertaken from December-2018 to February 2020.

MATERIALS AND METHODS: Random sampling technique has been used for the collection of algal samples. Sample collections were made during the period of December-2018 to February 2020. The algal samples were cultured in the laboratory. After full growth of the samples these were preserved in 4% formalin. Morphological observations were recorded and the specimens were identified by using Desikachary (1959), Dhingra and Ahluwalia (2007), Dwivedi *et al.*, (2009), Dwivedi *et al.*, (2008), Hegde (1988), Kumar and Rai (2005), Mahajan and Mahajan (1990), Misra and Srivastava (2003), Nandan (1983), Patel and Asoka Kumar (1980), Patel and George (1980) and other relevant literature.



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DIVERSITY OF SOME FERN SPECIES IN HIRANYKESHI RIVER, SAHYADRI HILLS, WEASTERN GHATS, AMBOLI, MAHARSHTRA STATE, INDIA.

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Abstract

Survey of pteridophytic fern was carried out from Hiranyakeshi hills. The auther are engaged in the study of fern of the Sahyadri hills in weastern ghats. It is a rich biodiversity area in Sahyadri ranges. The present paper deals with the extended and distributed of 05 fern species. Belonging to 04 genera of fern which includes *Adiantum*, *Cheliantus*, *Athyrium* and *Pityrogramma* and their species. It was collected from origin of Hiranyakeshi river hills, Amboli.

Key wards: biodiversity, fern, Sahyadri hills, Western ghats,

INTRODUCTION

Maharashtra is the central state of India. The Sahyadri range is the physical backbone of Maharashtra. The region between the Arabian Sea and the Sahyadri Range is called the Konkan. The Konkan is the very best and a beautiful area and it's a god's gift to us having most of the diversity. Western Ghat is varied flora, fauna and landscapes. The area is one of the worlds "MEGA BIODIVERSITY HOTSPOTS". Diversity of life on earth has always remained a striking feature of troposphere and important area of investigation for biologist. These are some



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**SOME ETHNO VETERINARY MEDICINAL
PLANTS USED BY TRIBALS OF TORANMAL
REGION OF SATPUDA, NANDURBAR
DISTRICT, MAHARASHTRA, INDIA. (Part-1)**Vitthal N.Rathod¹, Navalsingh J. Todawat² and P.B. Jadhavar³¹Research centre, P.G.Department of botany, JET's Z.B.Patil College, Dhule, Maharashtra.²Moreshwar Arts, Science and Commerce College, Bhokardan, Jalna, Maharashtra.³S.K. Gandhi Arts, Amolak Science and P.H. Gandhi Commerce College Kada, Ashti, Beed.**ABSTRACT**

Present communication deals with some ethno veterinary medicinal uses of 24 plant species. The aim of the study was primarily to evaluate ethno veterinary uses of the plants known to tribals of Toranmal region of Satpuda Mountain. The study area is rich in biodiversity and the tribals of the area possess valuable ethno veterinary knowledge. Conservation of these medicinal plants is needed. Ethno-veterinary data gathered during botanical exploration of Satpuda region is presented here.

KEYWORDS: ethno veterinary, tribal, Toranmal, Satpuda.**INTRODUCTION:**

Toranmal is a hills station located on the eastern side of the Akrani hills in the Nandurbar Districts at an altitude of 1050m. and surrounding by several small hillocks. Toranmal plateau is about 41 sq. Km. With a lake at the centre.

Maharashtra being the fifth largest tribal population state, 47 tribal communities reside in hilly region of the state Western ghats and Satpuda ranges provide natural habitation for these tribals, while much of ethnobotanical work has been reported from these Satpuda hill ranges.

Studies of ethno veterinary medicinally important species worked out by [1]. Some local ordinary peoples pursue skills, knowledge and practices for the better health of livestock [2]. Few plant species from Toranmal region found to be effective to cure the cattle diseases [3]. In western Khandesh region highly diversified medicinal plants are found, of these 17 species helps to cure

LIBRARIES AND RESEARCH IN HIGHER EDUCATION

Dr. Thorwe.R.H.

Librarian

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Introduction

Libraries are thought of the profound ocean of data rising from the scholarly output over the years. These aren't simply preserves this scholarly content however transmit it to generations. This scholarly output is also in variety of text books, analysis articles, analysis reports, altered books, analysis theses or dissertations, etc. The library is such space} wherever a scholar finds made data on his specific area of interest. The knowledge resources are currently not restricted to its boundaries however it has currently been extended out of it. Libraries are forever was the mediators of data and data seekers. There are service suppliers to the scholar community of its parent organization. Therefore there's little question in language that an instructional establishment cannot survive while not a library. Therefore role of a library is taken into account way more vital for higher academic establishments. All academic programmes ar with success enforced with the assistance and coordination of the library.

Research Methodology:

For the aim of this study used science analysis methodology to check the analysis topic. Used scientifically analysis. during this methodology used secondary knowledge tools. during this secondary knowledge tool used reference books. analysis articles, newspapers, journals, revealed and unpublished materials and conjointly taken facilitate of web facilities.

Role of libraries current of upper academic educational institutes

The importance of libraries current of upper academic educational institutes, govt agencies like UGC and ICAR are providing consistent support to the libraries of those institutes in order that informational resources obtainable in any mode might be optimized properly by the scholar community. Dr S. R Ranganathan WHO is taken into account father of humanistic discipline framed "five laws of library science" concerning best utilization of libraries is also otherwise utilized in gift situation as:

1. Data is to be used
2. as of knowledge has its shopper
3. Each shopper has its data.
4. Save the time of user.
5. Data is increasing immensely

Research and academic use

Research and academic establishments worldwide ar incorporating data and Communication Technologies (ICT) into their management, administration and academic programs so as to serve their students additional cost-effectively and to arrange them for the planet into that they're going to graduate, post graduate or degree. In several developing countries, however, access to hardware, package and property is remaining challenges. it's so important to adapt pedagogic approaches and learning materials to the current setting whereas guaranteeing prime quality and relevant academic opportunities to any or all.

For providing data

How to Cite:

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Design, Synthesis, and Biological Evaluation of Some Methyl 2-(1h-Pyrazol-4-Ylthio)-1, 2, 3, 4-Tetrahydro-6-Methylpyrimidine-5-Carboxylate Derivatives as Potential DHFR Inhibitors

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Abstract--- Drug-resistant bacteria pose an increasingly serious threat to mankind all over the world. However, the currently available clinical treatments do not meet the urgent demand. Therefore, it is desirable to find new targets and inhibitors to overcome the problems of antibiotic resistance. Dihydrofolate reductase (DHFR) is an important enzyme required to maintain bacterial growth, and hence inhibitors of DHFR have been proven as effective agents for treating bacterial infections. In the present work, we have designed some methyl 2-(1H-pyrazol-4-ylthio)-1,2,3,4-tetrahydro-6-methylpyrimidine-5-carboxylate derivatives as potential DHFR inhibitors through rational drug design approach. The designed derivatives were screened through Lipinski rule, Veber's rule, ADMET analysis, drug-likeness properties, and molecular docking. All the compounds demonstrated more potent activity than Ampicillin against both gram-positive and gram-negative bacteria. Most of the compounds were more or equipotent than Chloramphenicol and Ciprofloxacin. Compound A7 was sensitive at 25 µg/mL against *Escherichia coli*, *Pseudomonas aeruginosa*, and *Staphylococcus aureus* whereas compound A20 was sensitive to all



DIGITAL ECONOMY AND ITS BENEFITS

Dr. Magar S. R.

Smt. S. K. Gandhi collage, KAda

Abstract-

Digital technology is a technology, which use of digital or computerised devices, methods and systems etc. use this technology was to start in 20th century, in the beginning it is limited use by various sectors. In 21st century it is used for various purposes. Nowadays, digital technology has adopted by every sector in the world. Without digital technology, we can't do anything. In India Digital technology acquire every sector, Finance sector is not exception of to use digital technology. To using of digital technology money transfer is very easy and efficient way. Digital economy word to firstly coined by Japanese professor and research economist in the midst of Japan recession of the 1990s. The digital economy referred to wide range of economic activities that use digitised information and knowledge as key factor of production. To use of digital economy, people are more cheaply access of products and services from any location. Every sector is friendly with digital economy. Due to digital economy, the people effortlessly transactions of money from any place to another. Digital economy is developing rapidly worldwide. In digital economy, most of the transactions and payments are online modes. For support of digital economy, there are so many apps are emerged. These are Google Pay, Phone Pay, YONO, Bhim, Paytm and many more. The UPI system is also a main gateway of online transaction.

Introduction:

The digital economy make easier to the customers and businesses for receiving their products and order also. The digital economic grades many more benefit to the people. Digital technologies have a potential to boost more inclusive and sustainable growth by spurring Innovation. Digital economy based on the computing. Computing technologies, banking cards. UPI, Mobile wallets, Bank Prepaid Cards, Point of Sale, Internet banking, Mobile Banking and Micro ATMs are the mode of digital payments. These modes are promoting the cashless transaction and converting less cash society.

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EFFECT OF AMMONIUM THIOUREA CHLORIDE ON LINEAR AND NONLINEAR OPTICAL PROPERTIES OF KDP CRYSTAL

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Abstract : In present Investigation 0.1, 0.3 and 0.5 mol% Ammonium Thiourea Chloride (ATC) doped Potassium Dihydrogen Phosphate (KDP) crystal has been successfully synthesized by slow evaporation solution technique (SEST). The cell parameters of the doped crystals were determined using single crystal X-ray diffraction analysis and crystal belongs to Tetragonal (I) crystal system. The FT-IR spectroscopy was used to confirm the presence of various functional groups in the doped crystal. The optical transmittance and various optical parameters of the doped crystal were studied by using UV-Visible spectroscopy in the range of 200-900 nm. Mechanical hardness has been identified by Vickers micro hardness study and vital parameters were evaluated. The growth mechanism of the crystal was assessed by chemical etching studies. The second harmonic generation (SHG) efficiency was found to be 1.40 times of KDP crystal.

Keywords: crystal growth; optical constant; optical device.

1. Introduction

In the field of photonic and optoelectronic technologies the new crystals with high second and third order optical nonlinearity has been attracted by crystal community. This Nonlinear (NLO) crystal fulfills the need of society by multilevel applications of nonlinear crystals.

The optical applications like optical storage, optical computing, optical information processing, optical power limiting, optical switching, antireflection coating, image manipulation and processing were achieved in NLO crystal by crystal engineering at the time of synthesis. applications.

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To Study the effect of soil borne fungi on seed germination of Brinjal by using *Trichoderma* species.

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ABSTRACT:

In present study the fungi on seed germination of Brinjal and their control by using Antagonistic activity of *Trichoderma* species. The efficiency of controlling seed borne fungal diseases by using one *Trichoderma* species. Four different hybrid varieties of Brinjal and one wild varieties of Brinjal sown in pot expt. in Botany Garden The seed were purchased in various company i.e. Ankur, Panchganga, Arnav Mahyco and Wild variety. The seed Germination in Ankur is 90.00%, Panchganga 87.09%, Arnav 82.00% and Mahyco 81.06% germination was seen as compare to wild variety

KEYWORDS: Seed germination, Soil Borne, Seed Varities, *Trichoderma*, Fungi, etc.

INTRODUCTION:

Egg - plant (*Solanum melongenae*) is an important of the popular vegetable crop worldwide. It is affected by several diseases, which do not control the plants to grow and yield to the best of genetic potential. Various disease management methods have been implemented to combat and eradicate pathogenic fungi. These include cultural, regulatory, physical, chemical and

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चपखलपणे वापर केलेला आहे. बोलीभाषेचा ठसकेबाजपणा पानोपानी जाणवतो. उदा. त्या मायझ्या, शेंबड्याला मद्या कारभारात कोण पचपच कर म्हणलं व्हतं. इतका शानपणा करायलया (पृ.३०)

या कादंबरीत मायझ्या, नादर, असे शब्द पुरुषपात्राच्या तोंडी वारंवार येतात तर रांड, हा शब्द स्त्रीपात्राच्या तोंडी वारंवार येतांना दिसतो.

विषयाचा आवाका लक्षात घेता कादंबरीत काही घटनांची होणारी पुनरावृत्ती टाळली असती तर ती अधिक वाचनीय झाली असती. हे खरे असले तरी भारत काळे यांचे अनुभवाचे प्रचंड भाडार व बोलीभाषेवरील हुकुमत ही ह्या कादंबरीमुळे स्पष्ट होते. दोन कुटुंबांची कथा चित्रित करता करता गाव, गोतावळा अंतर्गत ताणतणावासह, गुंतागुंतीसह कादंबरीत चित्रित झालेला आहे. भाऊबंदकी त्यातून वाढणारी वांझोटी स्पर्धा, केविलवाणी इर्षा, कुपमंडुकीवृत्ती, असूया या सर्वांचे वास्तवदर्शी चित्रण हे आणखी एक कादंबरीचे बलस्थान हे इथे नोंदवता येईल.

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भारतातील सामाजिक परिवर्तनामधील समाजशास्त्राची उपयोगिता

भोसले एस.ई.

गांधी कॉलेज कडा, जि.बीड

प्रस्तावना :

सामाजिक परिवर्तन ही निरंतर चालणारी प्रक्रिया आहे. समाजाच्या उत्पत्तीपासून समाजामध्ये काळानुरूप परिवर्तन घडून आले आहे. समाजाची संरचना आणि कार्ये यात परिवर्तन होत असते. सामाजिक संस्था, सामाजिक संबंध, सामाजिक मूल्य यामध्ये काळाच्या ओघात परिवर्तन घडून आले आहे. मात्र परिवर्तनाची गतीही बदलत असते. प्राचीन आणि मध्ययुगीन काळाच्या तुलनेत आधुनिक कालखंडात सामाजिक परिवर्तनाची गती वाढली आहे. प्रबोधनकाळ, औद्योगिक क्रांती, नवनवीन तंत्रज्ञानाचा विकास, शहरीकरण यामुळे सामाजिक परिवर्तनाची गती वाढली आहे. भारतात इंग्रजांच्या आगमनानंतर सामाजिक परिवर्तन झपाट्याने घडून आले आहे. तसेच स्वातंत्र्यानंतर विशेषतः १९९० नंतर जागतिकीकरण, उदारीकरणामुळे भारतात आर्थिक विकासाबरोबरच सामाजिक परिवर्तनाची गती ही वाढली आहे. भारतात सामाजिक परिवर्तनासाठी विविध घटक जबाबदार असले तरी त्यात समाजशास्त्राची भूमिकाही तेवढीच महत्त्वाची आहे. समाजशास्त्रीय अभ्यास, समाजशास्त्रज्ञांचे योगदान यामुळे समाज परिवर्तनाला गती मिळाली आहे.

भारतातील सामाजिक परिवर्तन आणि समाजशास्त्र:

भारतात प्राचीन काळापासून समाजाचा अभ्यास झालेला दिसून येतो. विशेषतः धार्मिक ग्रंथांमधून समाजाचा विविध पैलूंचा उल्लेख झालेला आढळतो. परंतु समाजाचा शास्त्रीय दृष्टीकोनातून अभ्यास समाजशास्त्रात करण्यास

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Certain Cryptography Involving Mathematical Function

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Abstract: In this paper a cryptographic method is introduced by using mathematical relation. We provide a new algorithm for cryptography in which we use mathematical function, encryption key and secret key for encrypting the plain text and the corresponding process is used to transform for decryption.

Keywords: Cryptography, Data Encryption, Data Decryption, Function.

I. INTRODUCTION

In the present age of electronic communication the problem of network security becomes very important. The fundamental objective of cryptography is to keep the communication private. Cryptography mainly consists of encryption and decryption. Encryption and Decryption require the use of some secret information. Encryption is the transformation of data into some unreadable form while Decryption is the reverse of encryption. It is the transformation of encrypted data back into some intelligible form. In this paper the idea of One to one Mapping is used in cryptography.

II. ALGORITHM

A one to one mapping $f(x) = (5x+3) \bmod 26$ is key mapping also known as secret key. This key is used to encrypt the message. Decryption of encoded message is carried out by using invertible mapping $g(x)$ of the function $f(x)$ where $g(x) = (Ax+B) \bmod 26$

By an interesting task, the values of the constants A and B are finding.

III. EXAMPLE

Encryption: suppose we want to send the message

Water is life, Treat it right!

And the encoding mapping is

$$f(x) = (5x+3) \bmod 26$$

for all x in $\{0, 1, 2, 3, \dots, 25\}$

Now associate each letter with its position in the alphabet A is 0, B is 1, C is 2 and so on Z is 25. Thus the message becomes

W	a	t	e	r		l	s		L	i	f	e	
22	0	19	4	17		8	18		11	8	5	4	
T	r	e	a	t		l	t		R	i	g	h	t
19	17	4	0	19		8	19		17	8	6	7	19

Now as our key

$f(x) = (5x+3) \bmod 26$, calculate all values associated with our letters of the message. We get

$$f(22) = (5 \cdot 22 + 3) \bmod 26 = 113 \bmod 26 = 9$$

in similar way

$$f(0) = 3 \text{ and } f(19) = 20$$

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आधुनिक महाराष्ट्राची जडणघडण आणि यशवंतराव चव्हाण

डॉ.गोंदकर तुकाराम दत्तात्रय

राज्यशास्त्र विभाग, एस.के.गांधी महाविद्यालय, कडा ता.आष्टी जि.बीड.

आधुनिक महाराष्ट्राची जडणघडण मराठी मातीतल्या अनेक सुपुत्रांनी केलेली श्रेष्ठ भारतीय संस्कृती, इतिहास आणि प्रगतीचा एक अविभाज्य भाग म्हणजे महाराष्ट्र राज्य, स्वातंत्र्य चळवळीस महाराष्ट्राचे योगदान फार मोठे राहिलेले आहे. अशा या स्वातंत्र्यचळवळीच्या मुशीतून तयार झालेले एक प्रभावी व्यक्तिमत्व आणि नेतृत्व म्हणजे 'यशवंतराव चव्हाण' होत. समाजवादी विचारांचा प्रभाव असणारे, लोकशाही मूल्यावर श्रद्धा असणारे यशवंतराव चव्हाण, छत्रपती शिवाजी महाराज, म. जोतीराव फुले, राजर्षी शाहू महाराज, कर्मवीर भाऊराव पाटील व डॉ. बाबासाहेब आंबेडकर अशा थोर व्यक्तित्वांच्या जीवनकार्यातून आणि विचारा प्रेरणा घेवून राजकीय क्षेत्रात प्रचंड असे कर्तृत्व गाजवू शकले आणि स्वप्रयत्नाने राष्ट्रीय नेते होऊ शकले, केवळ स्वतःच्या व्यापक मानवतावादी, राष्ट्रवादी पुरोगामी विचार व कार्यामुळेच. प्रारंभी महाराष्ट्र राज्याच्या निर्मितीपूर्वीची ४ वर्षे आणि नंतरची २ वर्षे असे ६ वर्षे यशवंतराव चव्हाण मुख्यमंत्री पदावर होते. पण या वर्षात त्यांनी ज्या पद्धतीने राज्य केले त्यातून जनतेला शिवरायांच्या राज्यकारभाराची आठवण झाली. लोकशाही राज्यपद्धतीला बळकटी देवून राष्ट्रीय एकात्मतेला बळ देवून, राज्याच्या विकासाच्या विविध क्षेत्रांच्या योजनांचे नियोजनत्यांनी केले. याच दृष्टीकोनातून त्यांच्या कार्यावर प्रकाश टाकण्याच्या उद्देशाने हा शोधनिबंध प्रस्तुत करण्यात आला आहे.

शोधनिबंधाचे उद्देश:

1. यशवंतराव चव्हाण यांच्या संयुक्त महाराष्ट्राच्या निर्मितीतील योगदानाचा मागोवा घेणे.
2. आधुनिक महाराष्ट्राच्या जडणघडणीत यशवंतराव चव्हाण यांचे योगदान स्पष्ट करणे.
3. त्यांचे ग्रामीण विकासातील योगदान स्पष्ट करणे.

यशवंतरावाच्या व्यक्तिमत्वात सुसंस्कृतपणा हा अनेक प्रसंगातून दिसून आल्यांनी त्यांच्यावर वैयक्तिक पातळीवर अनेकदा हल्ले केले. पण यशवंतराव कधीच न डळमळता व क्रोधित होता शांतपणे त्यास उत्तर देत तेव्हा अत्र्यांसारख्या उत्तुंग व्यक्तीमत्व कृत्याची क्षमा मागावी लागते हे विशेष. १९६२ साली जेव्हा यशवंतराव संरक्षणमंत्री झाले तेव्हा त्यांना शुभेच्छा देतांना आचार्य अत्रे यांनी यशवंतरावाच्या कामगिरीबाबत स्तुतीसुमने उधळली होती. "यशवंतराव आपले आहेत, परममित्र आहे त्यांच्यात काही अलौकिक गुण आहे त्यांचा स्वभाव त्यांचे बोलणेचालणे-वागणे हे सारे असेच आहे की, त्यांचे शत्रुत्व करू इच्छिणाऱ्या माणसालासुद्धा फार काळ शत्रुत्व करणे शक्य होत नाही. असे मी माझ्या अनुभवावरूनच सांगू शकतो." अशा प्रांजळ भाषेत त्यांनी यशवंतरावाची प्रशंसा केली होती

विष्णु प्रभाकर की कहानियों में मानवीय समस्याएँ

डॉ. किशोर बाळासाहेब चौधरी

हिंदी विभाग,

एस.के.गांधी महाविद्यालय कडा

हिन्दी साहित्य के क्षेत्र में विष्णु प्रभाकर एक अग्रगण्य लेखक के रूप में जाने जाते हैं। उन्होंने मानवीय समस्या पर अपने कहानियों के माध्यम से प्रकाश डालने का काम किया है। विष्णु प्रभाकर की कहानियों में मानवीय समस्या इतनी जटिल दिखाई देती है कि वह सलझाने में बहोत कठीनाई आती है। प्रभाकरजी का जन्म २० जुलाई १९१२ मीरपूर जिला मुझफरनगर उत्तरप्रदेश में हुआ। सरकारी कागजों में उनका जन्म २१ जून १९१२ दर्ज की गयी है। उनके पिता का नाम चिरंजीवीलाल था। उनके परिवार का वातावरण बहोत धार्मिक वातावरण था इसलिए उनके परिवार में सभी के नाम देवी देवता पर रखे गए थे। उनकी माताजी एक संस्कारीत होने के कारण उन्होंने अपने बच्चे पर अच्छे संस्कार दिये। विष्णुजी को पढाई के लिए उनके मामा पास रखा गया क्यो की वह अच्छा पढे। विष्णुजी को पढाई में बहोत ही लगाव था वह पढाई में अच्छे अंको से पास होते थे।

विष्णुजी के पिता की तम्माखू की एक छोटी सी दुकान थी। वह इस छोटी सी दुकान में एक टोकरे में अपने किताबे भरकर रखते थे। और उसी के पास बैठकर अपना अध्ययन करते थे। ज्ञान की लालसा र दिन दुना रात चौगुना बढ़ती गयी। उनके गांव में शिक्षा का प्रबंध कम था इसलिए उनके माँ ने उन्हे मामा के पास रख दिया था ताकी आपनी शिक्षा पुरी करे और अपनी जिन्दगी अच्छी जीएँ। विष्णुजी के मामा सरकार में क्लर्क की नौकरी करते थे। वे आर्य

समाज के कटटर अनुयायी थे। मामा नौकरी को होने के कारण उनके यहाँ बहुत ही किताबे थी। विष्णुजी को भी वहाँ पर ज्ञान का भांडार प्राप्त हुआ था। विष्णुजी की बचपन की शिक्षा मीरपूर में हुई। गांव में शिक्षा का प्रबन्ध अच्छा नहीं होने कारण उनके मामा उन्हे हिसार ले गये। और उन्होंने अपनी दसवी की शिक्षा नियमित रूप से प्राप्त की परंतु उनकी आर्थिक स्थिति ठिक न होने के कारण उन्होंने बी.ए. की डिग्री बाहर से प्राप्त की, पंजाब विश्व विद्यालय में अच्छे अंको से प्राप्त होने के बाद उन्होंने इतिहास संस्कृत का ज्ञान प्राप्त किया।

परिवारिक समस्याएँ :

विष्णु प्रभाकर की कहानी में सामाजिक समस्या देखी गई है वे साहित्य के माध्यम से मानव जीवन की विवाह समस्या पर प्रकाश डालते हैं। व्यक्ति के जीवन में विवाह यह रुढी परंपरा बहुत ही पुराणि पध्ती है, इसके आधार पर स्त्री और पुरुष एकत्रित रहते हैं। और समाज इसे मान्यता देता है। विवाह के बीना अनपहचाने स्त्री और पुरुष एकत्रीत रहने लगे तो समाज और कानून उसे मान्यता नहीं देता। संतान उत्पत्ती करना यह सब विष्णु प्रभाकरजी की कहानी साहित्य की समस्या देखी है। समाज का निर्माण परिवारो से होता है। मनुष्य सामाजिक प्राणी है उसे प्रकृतीने एकाएक नहीं बनाया, उसे प्रकृती और समुह की जरूरत होती है। अपनी शिक्षा, पालन, पोषण सभी समस्या के लिए दुसरों का आधार लेना पडता है। अपनी काम भावना के लिए स्त्री को पुरुष की और पुरुष को स्त्री की आवश्यकता होती है, अपनी काम द्वासना अकेले नहीं कर पाता काम वासना से संतानोत्पत्ती होती है इसलिए स्त्री और पुरुष एकत्रित रहते हैं। और उसीसे परिवार की निर्मिती होती है। और स्त्री-पुरुष एकत्रित रहते हैं।

व्यक्ति के चरित्र घटन का कार्य परिवार से होता है। जीवन की बुनियाद परिवार से रच रही है। माता पिता परिवार में रहने के कारण वही संस्कार बच्चे पर होते हैं और वे अपना चालचलन वैसा रखते हैं। इसके अंतर्गत वैवाहिक और विवाह बाहय संबंध प्रेम स्वार्थ और स्वतंत्रता आदि का समावेश आता है।



Ionic Liquid [(EMIM)Ac] Catalyzed Green and Efficient Synthesis of Pyrano[2,3-c]Pyrazole Derivatives

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ABSTRACT

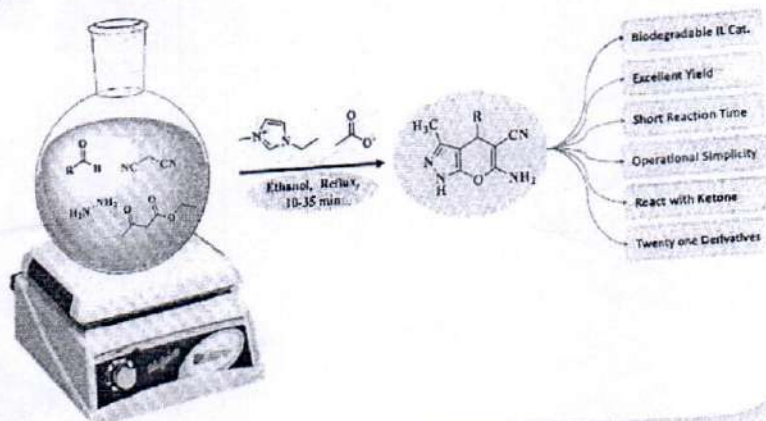
Green, efficient and clean route for synthesis of biologically potent pyrano[2,3-c]pyrazole derivatives has been developed in excellent yield, by using biodegradable ionic liquid 1-ethyl 3-methyl imidazolium acetate [(EMIM)Ac] as a green catalyst via one-pot four-component condensation reaction of ethyl-acetoacetate, hydrazine-hydrate, malononitrile and carbonyl compounds at reflux condition in ethanol. The striking features of the protocol are a cleaner reaction profile, mild experimental procedure, applicable to extensive range of substrates and short reaction time.

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KEYWORDS

Pyrano[2,3-c] pyrazoles;
biodegradable ionic liquid;
green Synthesis;
Condensation reaction;
cleaner reaction profile



Introduction

Pyranopyrazoles are a valuable, widely distributed in nature and fused heterocyclic scaffolds having potent pharmacological and biological properties along with industrial importance.^{1,2} Pyranopyrazole exists in four isomeric forms out of which pyrano[2,3-c] pyrazole is extensively studied due to its high medicinal and industrial application.³

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A GM Method for Solving Solid Transportation Problem

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ABSTRACT

'GMmethod' is proposed to solve Solid Transportation Problem which uses the concept of modular arithmetic. In this method given problem with three constraints is solved by considering three different forms and minimal answer (maximal answer) from all answers of possible forms is considered as best settlement solution of given minimization (maximization) STP. Proposed method is structured in an algorithm and illustrated by numerical examples. It is also coded in MATLAB for the user to use it with ease.

Keywords: Solid Transportation Problem, GM method, MATLAB, Modular Arithmetic.

I. INTRODUCTION

Transporting the goods from one end of the globe to other with minimum cost and maximum profit has become a challenging task now-a-days known as Transportation Problem (TP). While achieving the aim of minimizing cost or maximizing profit along with the reduction of travelling cost through supply and demand constraint one more constraint conveyances i.e. mode of transportation which can be done through trucks, cargo flights, ships, trains etc. is taken into account. Such type of TP having three constraints is Solid Transportation Problem first introduced by Shell [1]. STP is the extension of classical TP where we have different ways of transporting goods from origin to destination which is widely applicable in public transport systems. Importance of well-planned Transport system can be realized if we have an eye on worldwide expanding market due to online sell and purchase throughout the globe which can be done through heterogeneous ways of transport like air-ways, road ways, and railways or through sea etc. Considering conveyances along with supply and demand points to STP Haley [2] described the way of getting solution for such problems. Bit *et al.*[3] solved multi objective STP through fuzzy programming. Kocken *et al.*[4] suggested parametric method to generate all optimal solutions of FSTP. Sobana [5] *et al.* solved STP in fuzzy approach. Zavardehi *et al.*[6] solved STP by metaheuristics. Jimnez *et al.*[7] solved STP by Genetic Algorithm. Different recent ways to solve TP are studied by Ghadle *et al* [8]. Ghadle *et al.*[9, 10] developed a new approach of modular arithmetic to solve TP and the same approach is extended to solve AP, BCTP, FrTP. In this paper, author have extended the concept of modular arithmetic in GM method to solve STP, here given

LIBRARY MANAGEMENT: IMPACT OF COVID-19 PANDEMIC**Dr.Thorwe.R.H.**

Librarian

Gandhi Mahavidhyalaya
Kada,Tq.Ashti.Dist.Beed.**Intrduction**

Covid 19 affected whole world. So many peoples have been affected and also died in this year by coronavirus. India is also a strong patient of this disease. It is also affecting all the elements and parts of world. In this situation all peoples maintain social distancing. And also all countries of world were lock downed by there government cause of these all peoples stayed at home. Pandemic During the covid 19 pandemic the library focused on safeguarding the health and well-being of staff and students and enabling library staff to work from home as necessary. The library staff organised off campus access to library resources, access to physical books, safe study space, individual support by email, phone as well as online and started to deliver workshops online. To keep connected to users, the library staff arranged online meetings with student representatives and the Associate Faculty Deans and kept the communications going through social media and the University website. To study this important changes of library management Therefore I choose this topic for research paper.

Objectives of research:

The main objective of this paper is to discuss the positive and negative impacts of COVID-19 in a Library management perspective For the purpose of this study used social science research methodology to study the research topic Used scientifically analysis. To study Impact of corona virus pandemic on world. To overview on role of libraries in this pandemic. To study of Impact of corona virus pandemic on Library management.

Research Methodology

The main objective of this paper is to discuss the positive and negative impacts of COVID-19 in a Library management perspective For the purpose of this study used social science research methodology to study the research topic Used scientifically analysis. In this method used secondary data tools. In this secondary data tool used reference books. Research articles, news papers, journals, published and unpublished materials and also taken help of internet facilities. Impact of corona virus pandemic on Library management as we can say that the challenges brought on by the COVID-19 pandemic have continued to affect colleges and universities around the world, and much still remains unknown. Academic libraries have found the need to shift their collection development practices and philosophies to ensure they can support students and researchers in the short-term and long-term, no matter where they are

Access of books in the library

The following option have suggested by different countries: No any user should accessible the library books as the Netherlands followed, only librarians themselves should serve this type of service (as in Slovenia and Portugal) (IFLA, 2020). Some libraries have suggested to use of self-service machines to avoid human interaction. The light reading magazines and daily newspapers, may need to remain inaccessible for the users until the risk is low enough, or it

Characterization And Antimicrobial Evaluation of Thiadiazol Derivatives By IR, NMR, In Silico Studies By Auto dockVina

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Abstract:

Thiadiazol is a heterocyclic organic compound that has a five-member ring having one Sulphur and two nitrogen atoms. There exist four possible structures of thiadiazols depending on the relative positions of the heteroatoms named as 1,2,3-thiadiazole, 1,2,4-thiadiazole, 1,2,5-thiadiazole, 1,3,4-thiadiazole, these are structural isomers. Zone of inhibition around four bacterial cultures and one fungal culture is measured for the study of antimicrobial activity of which compound D possess significant antibacterial as well as antifungal activity. The data collected from IR spectrum is much useful in determining the presence of the functional groups. NMR spectroscopic study proved the presence of methylene group and secondary amino group in thiadiazole derivatives. Molecular properties of the compound are predict with the help of in-silico analysis for which AutoDock Vina software is used, the docking simulations were performed using autodock vina program. It consists of two generations of software: Autodock vina 4 and Autodock vina.

Key Words: Thiadiazoles, Heterocyclic compounds, Structural isomers, methylene group, secondary amino group, In-silico analysis, AutoDock Vina.

Introduction:

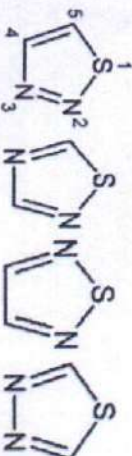
Thiadiazole is a heterocyclic organic

compound that has a five-member ring having one sulphur and two nitrogen atoms. In chemistry thiadiazoles are a sub-family of azole compounds. The term thiadiazole originates from Hantzsch-Widman nomenclature. Thiadiazoles are aromatic ring compound by virtue of their two double bonds and sulfur lone pair. There exist four possible structures of thiadiazoles depending on the relative positions of the heteroatoms which are structural isomers. (Jain et al, 2013).

In recent years many small synthetic organic molecules with broad spectrum of antimicrobial activity have been reported, of which thiadiazole derivatives proved to have a very interesting inhibitory activity against microorganisms. (Agata, 2014).

Antimicrobials are one of a very important category of drug; these classes of drugs are prescribed right from a simple infection to the serious disease like cancer and also in life threatening infections like meningitis. So it is quite clear from the spectrum of use that these categories of drugs are very important from medical point of view. But microbial resistance towards the drug creates very serious problem because of this development of resistance many drugs are now useless which were very effective before. Moreover the toxic effects produced by these antibiotics are also reducing their significance. (Barve et al, 2009)

The four derivatives of thiadiazoles are as follows.



- a) 1,2,3-thiadiazole
- b) 1,2,4-thiadiazole
- c) 1,2,5-thiadiazole
- d) 1,3,4-thiadiazole

Review of Literature:

1) Ashutosh et al(2009) reported that the presence of heterocyclic ring in lead structure in-

creases the probability of that compound to be a good antimicrobial. Among all the derivatives of thiadiazoles, 1,3,4-thiadiazoles represent one of the most promising classes of heterocycles in drug discovery.

2) Pooja et al (2010) said that the widespread antibiotic resistance, the emergence of new pathogens in addition to the resurgence of old ones, and the lack of effective new therapeutics exacerbate the problems of antimicrobial resistance.

3) Agata et al(2014) reported that the antifungal screening of a series of 1,3,4-thiadiazole derivatives together with enzymatic and docking studies aimed at explaining the mode of their bioactivity. It was proposed that the compounds might be considered as potential inhibitors of chitinase, a hydrolytic enzyme that catalyzes the hydrolysis of chitin, an essential structural component for the fungal cell wall.

4) Jasmine et al (2015) stated that heterocyclic moieties can be found in a large number of compounds which display biological activity which is mainly dependant on their molecular structures. 1,3,4-thiadiazoles are very interesting compounds due to their important applications in many pharmaceutical, biological and analytical field. Sulphur-nitrogen heterocycles are important compounds due to their significant and versatile biological activity. Thiadiazole nucleus exhibits multifaceted biological activities possibly due to the presence of -N=C-S moiety. During recent years there has been intense investigation of different classes of thiadiazoles compounds, many of which known to possess interesting biological properties such as antimicrobial, antifungal, antimycobacterial, antileishmanial, analgesic, anti-inflammatory, antidepressant and antipsychotic.

5) Malleshappa et al(2016) stated that the treatment of infectious disease caused by bacteria, fungi and viruses still remains an important and challenging problem because of a combination factors including newly emerging in-



RECENT TRENDS IN PUBLIC ADMINISTRATION

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Introduction:

Public administration is the oldest science as like other social sciences. In public administration day-by-day make some changes according to the need of human being. The basic concepts are same, but some new concept are emerged in the subject. The today's world is advanced by various technologies and other things. It impact on the public administration. The philosophers and scientists develop new idea for better service to the mankind. Every country in the world to serve best services to its citizen, today's public administration tremendously changed from rule on citizens to welfare of citizens. Nowadays the role of Public administration has been evolving as the need and demand of public. Public administration also deal with private administration and non-governmental organization. Public administration has been set new relationship between citizens and government, as the world change the new concept begin to emerge in public administration.

Public administration is an administration to serve the public services among people of the country. Some old practices of public administration are not comfortable in today's word, so the changes of old practices and evolve new trends is much more necessary to provide advanced services to the people. New some recent trends are emerged in public administration. These are good governance, E-Governance, Public Management, Public Choice Approach, Information Technology, Environmental Administration, Disaster Management, Human Resource Administration, Administrative Ethics, Administrative Culture and Public Private Partnerships.

Good governance

This is latest concept in public administration. Governance is a process which is related to decision making and implementation. Traditionally, the concept of governance is to rule on someone. Governance is used for Local Governance, National Governance, international Governance and corporate Governance. In 1992, the World Bank report entitled 'Governance and Development' In this report, World Bank define the good governance is as 'The

Organic & Supramolecular Chemistry

Ionic Liquid Promoted Regio-Selective Synthesis of 2-Methyl amino-3-Nitro-pyrano[3,2-c]chromen-5-ones

Ashishkumar P. Katariya,^[a, e] Pravinkumar B. Gaikwad,^[b] Gajanan G. Kadam,^[c] Mayya V. Katariya,^{*(d)} and Satish U. Deshmukh^{*(e)}

An efficient, and simple protocol for the synthesis of extremely functionalized pyrano[3,2-c]chromen-5-ones (**4a–v**) has been developed. One-pot multicomponent cyclo-condensation of 4-hydroxycoumarin, aromatic-aldehydes, and (*E*)-*N*-methyl-1-(methylthio)-2-nitroethenamine (NMSM) catalyzed by ionic liquid [(EMIM)Ac] in two different methods as methanolic media and at solvent free condition is described which

presumably involve the Knoevenagel reaction succeeding Michael-addition and *O*-cyclization with elimination of methanethiol. The noteworthy features of this protocol are use of ionic liquid as catalyst, good to excellent yield, optimum reaction time with easy experimental procedure. The prepared derivatives were characterized by IR, ¹HNMR, ¹³CNMR and HRMS spectroscopic techniques.

Introduction

Multicomponent reaction (MCR) is a key that practices in the field of synthetic chemistry which involve the condensation of at least three reactants in a vessel to form an intricate molecule.^[1] In Multicomponent reaction there is no need of isolation of intermediate and its purification, so it minimizes reaction time, use of solvents and manpower requirement. MCR technique possesses the high proficiency, selectivity, and simplicity which can be used to carry out diversity-oriented synthesis of heterocycles.^[2–4]

In the era of science and technology, ionic liquids (ILs) as catalyst have experienced excellent growth and has ability to

bring out the significant changes to synthetic organic chemistry.^[5–9] There are number of instances for a variety reaction that have been successfully carried out by using ionic liquid as catalyst. ILs possess various properties which include, high range of thermal stability, non-flammability, low viscosity, low volatility, negligible vapor pressure, high range of solubility.^[10] This property makes the ionic liquid green and environmental being solvent, reagent, as well as catalyst in organic synthesis.^[11–12]

Pyrano[3,2-c]chromen-5-ones are the valuable class of heterocycles containing oxygen as heteroatom. They are widely found in nature and having high range of biological and medicinal profile.^[13–19] For example, Compound I has displayed anti-lung tumor cell growth activity, Compound II has anti-fungal activity, Compound III has antibacterial, antituberculosis and antimalarial activity and Compound IV and V reveal antibacterial activity^[20–23] (Figure 1).

Similarly, a number of pyran annulated heterocyclic compounds display a broad range of biological spectrum and serving as anti-coagulants,^[24] anti-tumoral,^[25] anticancer

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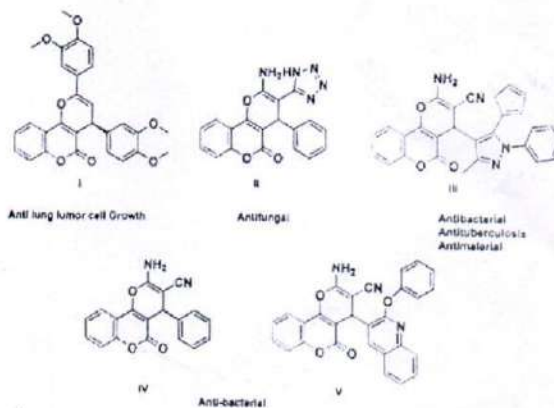


Figure 1. Representative of biologically active pyranochromene derivatives.

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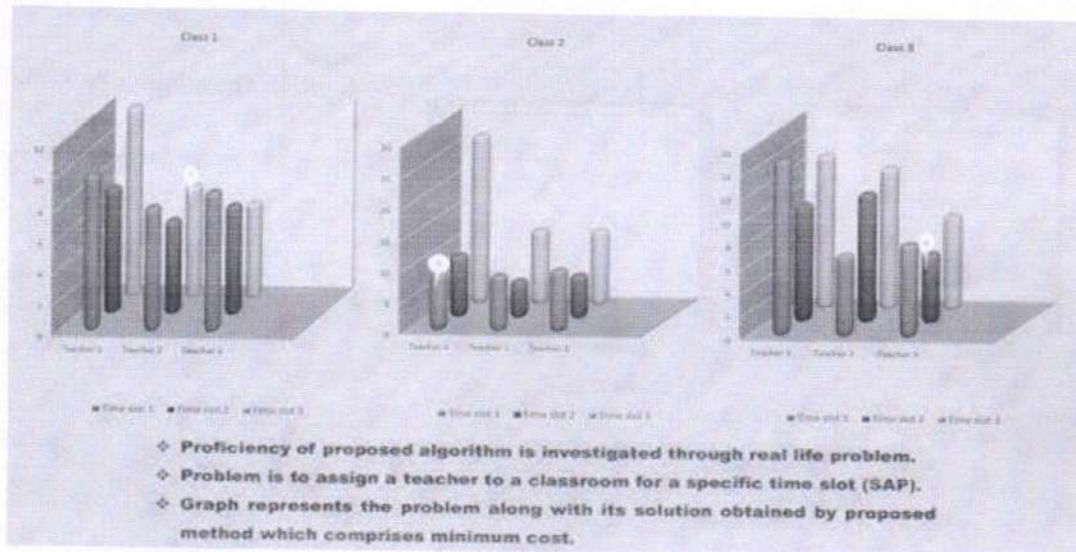
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ON SOLVING SOLID ASSIGNMENT PROBLEM WITH APPLICATION TO REAL LIFE

DHANASHRI A. MUNOT* AND DR. KIRTIWANT P. GHADLE

Graphical Abstract:



ABSTRACT

A novel way which uses the concept of modular arithmetic is proposed to solve Solid Assignment Problem. SAP is a special case of STP where the quantities corresponding to supply, demand and conveyance are assumed to be one and hence one to one allocation is required. In this method given problem with three constraints is solved by considering three different forms and minimal answer (maximal answer) from all answers of possible forms is considered as best settlement solution of given minimization (maximization) SAP. Proposed way of solving SAP is also organized in the form of an algorithm and illustrated by real life numerical example where aim is to assign a teacher to a class for a time slot with minimum cost of assignment. Proposed algorithm is also coded in MATLAB for the user to use it with ease.

Keywords: Solid Assignment Problem, Solid Transportation Problem, MATLAB, Modular Arithmetic, Online Teaching Platform.

INTRODUCTION

AP is special case of TP studied in the area of optimization where aim is to assign a set of k elements to another set of k elements. For instance assigning job to men, teacher to class, driver to bus, satellite to orbit and so on. In all such situations one more constraint can be considered for more perfection like assigning job to men in particular branch of company, teacher to class for definite time period, driver to bus along a specified route, satellite to orbit for particular time with the aim of minimizing cost. All such cases are tackled in SAP first stated by Pierskalla [9], the name Solid Assignment Problem itself states that it has 3 constraints to deal with at once. Magos and Miliotis [8] used branch and bound technique to find an optimal solution of the planar three-index AP. Anuradha and Pandian [2] got the optimal solution of SAP by using one-to-one fixed method. Anuradha [1] solved FSAP by optimum assignment schedule, in another work Anuradha, Jayalakshmi, Kavitha, Basit, and Raza [3] obtained an optimal solution for SAP by using reduction method. Kumar [7] have solved Intuitionistic Fuzzy Solid Assignment Problem by using LINGO 17 software. Sobana and Anuradha [10] have solved multi objective unbalanced SAP with triangular type 2 fuzzy parameters. Ghadle and Munot [4] has studied recent approaches to solve TP and FTP. Ghadle and Munot [5, 6] have developed an innovative way to solve TP and is further extended to solve AP, BCTP, FrTP, STP as well. In this paper, author have used the concept of modular arithmetic to solve SAP, herein the problem with all given three constraints is solved by considering three different forms satisfying all 3 assignments at once and minimal answer from all is considered as best settlement solution of given SAP. Proposed method is illustrated by real life example in which assigning teacher to online class for given time slots is considered, where aim is to minimize the cost of assignment and thereby maximizing the profit of corresponding online platform.



इलेक्ट्रॉनिक माध्यम बनाम मुद्रित माध्यमों का व्यावसायिकरण

डॉ. गव्हाणे व्ही.बी

विभाग प्रमुख तथा सहयोगी प्राध्यापक

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वैश्वीकरण, निजीकरण तथा उदारीकरण के विकास के साथ समाज का पूर्ण ढाँचा बदल गया है। किसी भी प्रकार से साहित्यिक गतिविधियों में परिवर्तन होना स्वाभाविक ही था। आज हम २१ वीं सदी में अपना जीवन ज्ञापन कर रहे हैं। इस समय हम यह कह सकते हैं कि इलेक्ट्रॉनिक माध्यम तथा लिखित माध्यम आमने-सामने खड़े होते हुए भी साथ-साथ भी जा रहे हैं। ब्लॉग के द्वारा इलेक्ट्रॉनिक माध्यम का लिखित माध्यम अपना स्थान तलाश रहा है। ब्लॉग अभिव्यक्ति का सशक्त साधन बन सकता है लेकिन वह पूरी तरह से विकसित नहीं हुआ है। उसके विकास की संभावना तब तक बनी रहेगी जब तक आज के सभी अत्याधुनिक तंत्र-तकनीक का उपयोग करना आरंभ नहीं करेंगे। वर्तमान समय में दृष्टिगत होता है कि उच्चशिक्षा प्राप्त अभियंता संगणकीय ज्ञान से अवगत है तथा आज का युवा वर्ग बड़े अच्छे ढंग से संगणक की बारीकियों से परिचित है इसलिए ब्लॉग के प्रयोग के द्वारा अपने आपको अभिव्यक्त तथा स्थापित करते हुए दिखाई देते हैं। आज की स्थिति में बहुत ज्यादा ब्लॉग के जरिए साहित्यिक धरातल पर स्तरीयता की अपेक्षा करना उचित नहीं होगा, वह विकसित होने के बाद किस प्रकार आकार ग्रहण करेगा यह भविष्य ही बताएगा लेकिन हमें इस नव निर्मित विधा का स्वागत अवश्य करना होगा।

हिंदी में हमने इस प्रकार की इतनी प्रगति नहीं की है कि इ-लायब्रेरी, इ-जर्नल को एक्सेस करें, हम वार्षिक राशि का भुगतान करें। हम बैठे-बिठाए विविध प्रकार की जानकारियाँ प्राप्त कर सकते हैं- हिंदी की चर्चित पत्रिका को हम ऑन लाइन पढ़ने का अवसर प्राप्त हो तो वह सोने पे सुहागा अवसर रहेगा। साथ ही ऑनलाइन समाचारों से देश विदेश की ताजा घटनाओं की जानकारी हम असानी से प्राप्त कर सकते हैं। हाल ही में चल रहे रशिया-युकेन युद्ध की, क्रिकेट की, विविध देशों की स्थिति की यह सारी खबरे और दृश्य कुछ मिनटों में हमारे पास पहुँचती है। यह केवल इलेक्ट्रॉनिक मीडिया का कमाल है। यही सारी खबरें लिखित माध्यम में हम तक पहुँचने में कम से कम एक दिन लगता है और उसका प्रभाव भी कम मात्रा में होता है। अंग्रेजी में जिस प्रकार से वेब साइट बनाने के काम चलते हैं उस प्रकार की गतिशीलता हिंदी में नहीं दृष्टिगत होती। अगर वेब-पेज, वेब डिसाइनिंग का काम बड़े मात्रा पर सक्रिय रूप से हिंदी में चलता तो हमारे सारे प्रसिद्ध साहित्यकारों का साहित्य इंटरनेट पर आ जाता। इलेक्ट्रॉनिक माध्यम के लिखित रूप को विकसित करने की दृष्टि से लोगों में जागरूकता लाना जरूरी है। हर एक को इस माध्यम से अवगत होना आवश्यक है, तभी उस टंकित सामग्री को इंटरनेट पर डाल सकते हैं।

इस स्थिति में व्यवसाय की दृष्टि से भारतीय साहित्य संग्रह का काम उल्लेखनीय है। इसकी मदद से ही हिंदी पुस्तकों का प्रकाशन वर्ष, मूल्य, प्रकाशन संस्था के साथ ही पुस्तक के कुछ अंश, उसका समीक्षात्मक विवेचन भी प्राप्त होता है ताकि पाठक उसे पढ़कर आदेश दे सके। इसलिए हम कह सकते हैं कि वेब मीडिया के अंतर्गत हिंदी का उतना व्यावसायिकरण नहीं हुआ है।

संगीत कला के क्षेत्र में बैजू-बावरा, तानसेन गोपाल, नामक गायक से लेकर बालकृष्ण इचलकरंजीकर तक सभी प्रसिद्ध गायकों का संगीत आज के पीढ़ी को भी सुनने को मिलता है। साथ ही उसी शती के बड़े बुजुर्ग कलाकारों का कलाविष्कार वर्तमान में हमें तथा आनेवाली पीढ़ियों के लिए उपलब्ध है। यह भी बड़ी गर्व की बात है। इसका सारा श्रेय इलेक्ट्रॉनिक प्रसार माध्यमों को ही जाता है। इस माध्यम का व्यावसायिक दर्जा का महत्व अनन्यसाधारण रहा है। नए-नए तंत्रज्ञान के कारण इस प्रसार माध्यम का आलेख बढ़ता और उन्नति की ओर ही जाता दृष्टिगत होता है। इसका दायित्व व्यवसायिकता को ही जाता है।

Organic & Supramolecular Chemistry

An Efficient and Green Synthesis of Tetrahydrobenzo[*b*]Pyran Derivatives Using [(EMIM)Ac] at Room TemperatureAshishkumar P. Katariya,^[a, b] Ashok R. Yadav,^[a] Omprakash B. Pawar,^[c] Parshuram M. Pisal,^[d] Jaiprakash N. Sangshetti,^[e] Maya V. Katariya,^{*[f]} and Satish U. Deshmukh^{*[a]}

An efficient, expedient, clean and environmental being synthesis of tetrahydrobenzo[*b*]pyran's twenty derivatives (4a–t) has been reported via one-pot three component condensation reaction of various benzaldehydes, dimedone and malononitrile in presence of ionic liquid [(EMIM)Ac] as a catalyst at

ambient temperature in ethanol. Advantages of these reaction follow the principle of green chemistry, which are operational simplicity, shorter reaction time, and mild reaction conditions with high yield (78–98%) products.

Introduction

In the recent era of synthetic organic chemistry awareness about developing environmental being routes for synthesis of bioactive heterocyclic scaffolds is increasing which follows the principles of green-chemistry and prevents the environmental damage. Green-chemistry is a powerful strategy that not only deals with synthetic processes to reduce the production of hazardous materials but also introduces new synthetic techni-

ques, in which organic chemists design compounds more environmentally and efficiently.^[1–3]

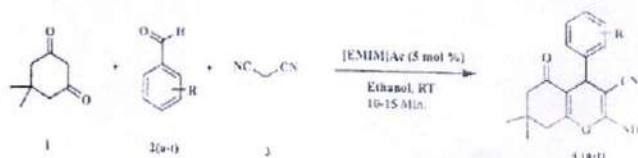
(MCR) is one of the best synthetic techniques used to synthesize organic compounds in which a highly diverse complex cascade of molecules is formed in a single vessel process without separating the mediators by reacting three or more reactants in a single vessel of the reaction. Multi-component reactions (MCRs) have their inherent advantages such as operational simplicity, high atom economy, less reaction time, and cost of the final reaction. MCR techniques can be used for the synthesis of wide range of heterocyclic scaffolds due to their simplicity and proficiency.^[4,5]

The use of ionic liquid as a catalyst is another green technique used in organic synthesis. Ionic liquid has received considerable attention as an environmentally friendly solvent as well as catalyst.^[6–8] Ionic liquids (ILs) own various properties including thermal stability, flammability, low viscosity, low volatility, negligible vapors pressure, and a wide range of solubility. Ionic liquids (ILs) own the potential to bring about fundamental and essential changes in synthetic ways by replacing conventional reagents.^[9]

Pyran is a valuable class of heterocyclic scaffolds in the field of drug discovery and pharmaceuticals.^[10–12] Pyran widely used as antibacterial,^[13] anti-HIV,^[14] anti-inflammatory,^[15] diuretic,^[16] and anti-coagulant agents.^[17] Tetrahydrobenzo[*b*]pyrans exhibit a broad range of anticancer activity and shown to be more potent activities against cancer cells^[18–21] Figure 1. Additionally, tetrahydrobenzo[*b*]pyrans can be brought as cognitive en-

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Scheme 1. Synthesis of tetrahydrobenzo[*b*]pyran using [(EMIM)Ac].

**डॉ. बाबासाहेब आंबेडकर यांचे कृषी क्षेत्रा विषयीचे विचार आणि आजची प्रासंगिकता****डॉ. मगर एस. आर.**

श्रीमती. एस. के. गांधी कॉलेज, कडा.

सारांश:

“डॉ. बाबासाहेब आंबेडकर एक बहुआयामी व्यक्ती होते. त्यांनी अनेक क्षेत्राविषयी आपले विचार मांडले आहेत. यामध्ये प्रामुख्याने आर्थिक विचार, सामाजिक विचार, शिक्षणविषयक विचार, राजकीय विचार, व्यक्तीविषयक विचार, धार्मिक विचार, मानव अधिकार विषयक विचार, आणि कृषी विषयक विचारविचार यांचा समावेश होतो. कृषी क्षेत्रा विषयी खूप विचारवंतानी आपले मत मांडले आहेत, या विचारवंतांमध्ये डॉ. बाबासाहेब आंबेडकर यांचे नाव अग्रक्रमाने येते. त्यांनी समूह शेती, कृषी उत्पादन, कृषी आधारित उद्योग, कृषी शेतातील मजूर, कृषी शेतातील रोजगार, शेतीच्या समस्या आणि त्यामुळे होणारे नुकसान, कृषी शेताचा आर्थिक वाढीवर होणारा परिणाम, जमीन महसूल आणि कृषी क्षेत्रात उपयोगात येणारे अपुरे तंत्रज्ञान यावर आपले विचार मांडलेले आहेत. आजही डॉ. बाबासाहेब आंबेडकर यांचे कृषी क्षेत्राविषयीचे विचार प्रासंगिक आहेत”.

प्रमुख शब्द: कृषी, उत्पादन, रोजगार, तंत्रज्ञान.**उद्देश:** डॉ. बाबासाहेब आंबेडकर यांच्या कृषी क्षेत्राविषयीचे विचारांची माहिती करून घेणे.**व्याप्ती:** डॉ. बाबासाहेब आंबेडकर यांनी कृषी क्षेत्राविषयी मांडलेल्या विचारांचा आढावा घेणे.**मर्यादा:** . बाबासाहेब आंबेडकर यांनी मांडलेल्या कृषी क्षेत्राविषयी विचारांची माहिती करून घेणे आणि त्याची आजच्या काळातील प्रासंगिकता तपासणे.**प्रस्तावना:**

भारत हा देश कृषी प्रधान देश म्हणून ओळखला जातो. प्राचीन काळापासून भारतातील लोक कृषी क्षेत्राशी निगडित असल्याचे पहावयास मिळतात. २०११ च्या जनगणनेनुसार देशातील एकूण लोकसंख्येच्या ५४.६ टक्के लोकसंख्या कृषी आणि कृषीशी निगडित क्षेत्रांमध्ये कार्यरत आहे. देशाच्या एकूण जीडीपी चा विचार केला तर, २०१५-२०१६ मध्ये कृषी आणि कृषीशी संबंधित क्षेत्राचे योगदान १७ टक्के होते. यावर आपणास आसे म्हणता येते की, देशाच्या अर्थव्यवस्थेतील कृषी क्षेत्राचे योगदान मोठ्या प्रमाणावर आहे. याबरोबरच कृषी क्षेत्र देशामध्ये रोजगार पुरवणारे प्रमुख क्षेत्र आहे. कृषी क्षेत्रावर जर संकट आले तर त्याचा परिणाम देशाच्या अर्थव्यवस्थेवर, रोजगारावर आणि कृषी क्षेत्राशी निगडित क्षेत्रावर होत असतो.

आजपर्यंत अनेक विचारवंतानी कृषी क्षेत्राविषयी आपले विचार मांडलेले आहेत यात प्रामुख्याने नॉर्मन बोरलॉग, जॉर्ज कार्वर, इवा इकब्लाद, रीच टेचमार्क, स्कॉट अंगल, बेन्झामीन पॉल, पी. सार्डनाथ, सुब्रह्मण्यम नागारजन, एम. एस. स्वामीनाथन, हेम शिंग प्रूथी, डॉ. राजेंद्र परोडा, सुभाष पालेकर, देविंदर शर्मा आणि पी. व्ही. राव इत्यादी. याबरोबरच भारत सरकारने देखील आजपर्यंत अनेक आयोग आणि समित्या कृषी क्षेत्राची सुधारणा करण्यासाठी आणि आढावा घेण्यासाठी स्थापन केले आहेत त्यापैकी काही महत्वपूर्ण आयोग म्हणजे कृषी खर्च आणि मूल्य आयोग, पी. व्ही. गुप्ता समिती, खुसरो समिती, अशोक दलवाई समिती, राष्ट्रीय कृषी आयोग आणि स्वामीनाथन आयोग या सर्वांनी केलेल्या शिफारशी आणि अभ्यास कृषी क्षेत्राला नवसंजीवनी देणारा ठरला आहे. या सर्व विचारवंत आणि शास्त्रज्ञाबरोबरच डॉ. बाबासाहेब आंबेडकर यांचे विचार कृषी क्षेत्राला दिशा देणारे आणि त्यांचा कृषी क्षेत्रा विषयीचा अभ्यास महत्वपूर्ण ठरतो. डॉ. बाबासाहेब आंबेडकर यांनी मांडलेले कृषी क्षेत्रा विषयीचे विचार खालील प्रमाणे आहेत.

१) समूह शेती:

डॉ. बाबासाहेब आंबेडकर यांच्या मते शेती हा विषय राज्य शासनाच्या अखत्यारीतील विषय आहे. त्यामुळे राज्य शासनांनी राज्यातील सर्व जमीन अधिग्रहित करावी आणि त्या बदल्यात प्रत्येक शेतकऱ्याला आर्थिक मोबदला द्यावा. शासनांनी समूह शेतीसाठी काही नियम व कायदे तयार करावेत. या नियम आणि कायद्याच्या अधीन राहूनच त्या त्या भागात समूह शेती केली जावी. समूह शेती करतेवेळेस जाती पातीवरून भेदभाव करू नये, सर्व जातींना समूह शेतीमध्ये सारखेच स्थान द्यावे. या समूह शेतीसाठी लागणारी आर्थिक मदत शासनाने करावी. या उत्पन्नातून मिळणारा आर्थिक फायदा समूह शेतीमध्ये कष्ट करणाऱ्यांना काही प्रमाणात देण्यात यावा. समूह शेतीची नियम व कायदे मोडनाऱ्यांना दंड आकारण्यात यावा. असे स्पष्ट मत डॉ. बाबासाहेब आंबेडकर यांनी समूह शेतीच्या वाबतीत



English as an opportunity to access Entrepreneurship

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There are several key business development skills which help to ensure that a business can operate smoothly. This is a key reason why English is important for business. If the existing corporate language is English, creating a world-wide culture is to literally ensure that the entire company speaks the same language. The enormous competitive advantage of knowing that everybody in the company understands and buys into the organisation's ethos and goals cannot be overstated. Knowing English will help employees with customer service, but it will also build a company culture across the continents. Language is a means for humans to interact with each other. Learning a language is an obligation for every human being. In addition, to learn the mother tongue, learning a foreign language is also something important, especially learning English. English has become a global language used in various aspects of lives especially in the business aspect.

Back in the early days of pre-globalization, knowing English was a plus. Like it or not, it was a mark of superior knowledge and sophistication. It made look impressive to people. Now, regardless of background and upbringing, many bosses will automatically expect to know the language. Even if education is received in a different language or come from a place where English is barely spoken. Today it is *expected* to know English. This means that in order to impress interviewer or boss now, one has to show that one is extremely fluent and competent in both speaking and writing the language. It will help to communicate better with colleagues. Working in an office means teamwork and collaboration. Even if you are an introvert (someone who prefers to spend more time alone), you will have to interact with your colleagues. And that will be difficult if you don't know the language they speak very well. In a worst-case scenario, it may even lead to misunderstandings that might put your job at stake.

Business always develops following the times and in every development of business has used English in their every element. English in the business world is very important to establish cooperation and communication between entrepreneurs on an international scale. Therefore, in a company, it is necessary to have a supporting element in the form of human resources who understand and are fluent in using English. This allows organisations to retain their identity and what made them successful in the first place whilst operating across national boundaries. Speaking the same language in the workplace also enables the different departments of the company to co-ordinate operations effectively, and therefore increases efficiency. Enrolling onto a Business English language course gives employees the best training available, and help to grow the reputation of that business worldwide. It will empower them, and help to promote a good work ethic – employees feel valued when their company invests in them, especially life skills like language training. Of course, most companies are not in the luxurious position of the large corporations who can afford to employ whole departments dedicated to promoting corporate culture. Using specialist providers for your company's English Study Breaks helps to keep the cost down, as well as removing the stress of organising the ins and outs of the trip.

The human resources are business management students. They must be able and fluent in using English to be part of an international company or also to be able to build their own business on an international stage. Several ways can be done to support the English language skills of business management students, such as by increasing vocabulary, watching English films, and listening to English songs. English is the language of business and communication worldwide. English is the most widespread spoken and written language in the world.

So, if you don't know English well, you won't be able to effectively communicate with many other people. English is the language of the internet. English tops the internet in number of users and is also a top language in tech. And you have to be tech-savvy to do well in the workplace—whether this means being able to put together Excel sheets, do a conference call, research and fact-check data or use social media successfully. English is the language of pop culture. While this might not seem as important as the facts above, you don't want to be the one at work who always gets the punchline a little too late. You don't want to feel out of place. You need to be aware of common cultural nuances



The Impact Of English Language On Journalism And Mass Media

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Language is the medium through which men express their thoughts and emotions. It is through language that people interact with one another. The scholars write and store knowledge, poets and journalists communicate their reactions to objects of nature and the world, and friends talk to one another. Most of the activities are carried on through or by it. Language is a powerful weapon to influence the minds of men and women through language. The poets inspire people to war and peace, sing of love and joy and beauty, condemn evils and scorn the pride and prejudice. Language is the medium through which scientists and philosophers convey their researches and thoughts. The prophets give their messages and politicians excite the masses. The gestures like the weaving of hands, shaking of the head, signals like red and yellow lights, road signs, emblems, morse, codes, the hieroglyphs and symbols of mathematics are forms of communication but the language is the most flexible, concrete and comprehensive method of communication.

To become a news reader anchors, English fluency is very important. Even in media shows, everyone gives priority to English language. Many websites are written and created in English. The other languages are given the option to translate their site into English only because English is the common language majority of people know to read, write, learn and speak. No matter where ever you are in the world you can easily find English newspapers and books. Your mother tongue may differ from other languages but English is most commonly used for many purposes.

If you are working in media especially in the position like anchoring, you will have to travel to many places for your shows. In that case, it is necessary to know English and have a good flow when you communicate with others. You can easily travel around the world if you have better understanding and fluency in English. While booking ticket for movie or travel English is the common option available in all sites. Whatever field you may choose whether you are a doctor, engineer, businessman, etc... You should have one thing in common that is you must have a fluency in English to have a complete success in your career. Media play a big part in influencing people. Whether the goal is to sell a product, impart an important case or set the standards in today's society, they function as the fourth estate, meaning that their power is immense. Still, media written in certain languages have more power than others. Language is the most powerful, convenient and permanent means of communication. As media plays the role of communication, so both journalism and language are interlinked.

In the world of media, there is especially one language that stands out, and that is English. It is the native language for approximately 360 million people and the second language for about 430 million people, giving newspapers and magazines, let alone articles on the internet. It is, therefore, natural that most information will be found in English and that the different media have more penetrating power than other languages. For instance, an example of the article written on subject like medicine. Today, all the most influential medical journals are written in English, and English has become the language of choice at international conferences. Where the medical terms were in former times derived from Latin or Greek, English has now become the joint language. The focus in today's society has shifted from using different languages, towards having a joint language one can communicate with, namely English. That gives the English- language media a central role transmitting information. However, there are other examples which are more pressing when showing the role English- language media has in the international society. Even though it can be wrong to pin the responsibility of today's expectations regarding looks on only one language. The magazines in English are central in developing an international standard. Furthermore, TV-shows in English and films from Hollywood often help contributing to the focus on looks and appearance. Films, TV-shows and magazines in English are, therefore, important when it comes to setting an international standard on how people should look and act. English- language media play a very central role in the international society, probably as it is read on a global scale and reach a bigger audience than most other languages. Consequently, it is important for the media to be aware that power and not misuse it. Journalism is devoted to purveying to readers news and views which are mainly political, economic



Social Entrepreneurship in India – Opportunities and Challenges in the Current Scenario

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ABSTRACT:

Social entrepreneurship is a topic of growing interest among academicians and practitioners. The potential of social problems in India is well known, but the degree of support and interest is hardly significant. An entrepreneurial mindset is re-emerging in India. Right from ancient times, India has been entrepreneurial. But the era of liberalization of late had released the genie from the bottle – the suppressed urge and natural instincts of our effervescent entrepreneurial class has once again been unleashed. The opening up of the industrial sector to foreign competition had created a flutter among the Indian industrial circles. The paper attempts to shed light on the comment state of affairs on the theme of challenges and opportunities facing the social entrepreneurship scene in India.

(*Keywords: social entrepreneurship, challenges, problems, opportunities.*)

INTRODUCTION The economic development of a Nation depends on its industrial development. The industrial development is based on the entrepreneurial competencies of the people. Entrepreneurs are innovative, highly motivated, and critical thinkers. When these attributes are combined with a drive to solve social problems, a social entrepreneur is born. Social enterprises are the organizations which aim their efforts toward improving the general welfare of society and they apply market-based strategies to achieve a social purpose. Social entrepreneurs and social enterprises share a commitment of going ahead with a social mission of improving society. There is a great difference between social entrepreneurs and nonprofit organizations on the basis of their goals and objectives. Social entrepreneurs are driven by social as well as financial goals whereas non-profit organizations work purely for social purpose. An understanding of whether and how social entrepreneurship differs from processes and activities by political actors or social activists who also aim to bring about social change or alleviate social problems. In a nutshell, the concept of social entrepreneurship is still poorly defined and its boundaries to other fields of study are still fuzzy. While to some this may appear to be a problem, we see it as a unique opportunity for researchers from different fields and disciplines, such as entrepreneurship, sociology and organizational theory, to challenge and rethink central concepts and assumptions.

The entire mechanism of social entrepreneurship remains same as economic entrepreneurship, except few distinctions, which set apart this from conventional or economic entrepreneurship. India has been in need of social entrepreneurship for a very long time and could be benefited more. Some social enterprises which are established in India are changing the very face of society by balancing the social imbalance. Government of India also encourages such initiatives by motivating them and awarding them time to time along with some private institutions doing the same. There are some examples of social entrepreneurship which clears that touches the very basic of the society. The most prominent example include micro financing, educational institutions, medical institutions etc. The prime objective of social entrepreneurship is to bring changes in the society rather than earning money for themselves. But they are still financially clubbing their activities.

OBJECTIVE OF THE STUDY.

1. To study social entrepreneurship with its basic framework.
2. To list out the challenges faced by social entrepreneurship in India.
3. To give suggestions to face prevailing challenges for social entrepreneurship in India.

RESEARCH METHODOLOGY-

The research methodology which is applied during the research study is descriptive in nature. The data collection of data is done on secondary basis and the research is strictly done to meet the objectives set previously for the present research. The data and information which is furnished in the study is taken from the various secondary sources. Various reports and studies, books on social entrepreneurship have been refereed in the present research.



डॉ. बाबासाहेब आंबेडकरांचे कामगार विषयक कार्ये

प्रा.डॉ.शिवाजी भोसले

गांधी महाविद्यालय, कडा

प्रस्तावना :

मध्ययुगीन काळातील गृहउद्योग पध्दती कमी होऊन सतराव्या शतकापासून इंग्रजांच्या आगमनानंतर भारतात हळूहळू आधुनिक उद्योगधंद्यांना सुरुवात झाली. नवनवीन वैज्ञानिक शोधामुळे युरोपखंडाबरोबरच भारतातही कारखाना उत्पादन पध्दतीला सुरुवात झाली. आठराव्या शतकात युरोपात आद्योगिक क्रांती घडून आली. त्याच्याच परिणामातून भारतातही मोठमोठे उद्योग सुरु होऊन एका - एका कारखान्यातून हजारो कामगार काम करू लागले. आधुनिक कारखाना पध्दतीमुळे गृह उद्योग बंद पडू लागले आणि त्यातील बेकार कामगार रोजगारासाठी शहराकडे स्थलांतर करून कारखान्यात काम करू लागले. भारतात जसा जसा औद्योगिक विकास होत गेला त्याप्रमाणे कामगार संख्यासुद्धा वाढू लागली. परंतु त्यावेळी कामगारांच्या हितासाठी कल्याणकारी कायदे अस्तित्वात नव्हते. परिणामी भांडवलदार वर्गाकडून कामगारांचे शोषण होऊ लागले. भांडवलदारांच्या स्वार्थांमुळे कामगारांची आर्थिक, शारीरिक पिळवणूक होऊ लागली. त्यातूनच कामगार आणि मालक यांच्यात संघर्ष सुरु झाला. कामगारांकडून 15 ते 16 तास काम करून घेऊन अत्यल्प मोबदला दिला जात असे. काम करतेवेळस अपघात झाल्यास कामगाराला विमा संरक्षण किंवा इतर कोणतीही मदत मिळत नसे. अशा अन्यायकारक परिस्थितीतून मुक्त होण्यासाठी भारतातही अनेक कामगार संघटना अस्तित्वात येऊ लागल्या आणि मालक वर्गाविरुद्ध संघर्ष सुरु केला. तरीदेखील कामगारांना पाहिजे तेवढे यश संघर्षातून मिळाले नाही. तेव्हा डॉ. बाबासाहेब आंबेडकरांनी 1936 साली स्वतंत्र मजूर पक्षाची स्थापना केली आणि कामगारांच्या अन्याय अत्याचारा विरुद्ध लढा देऊन अन्यायाला वाचा फोडली.

डॉ. बाबासाहेब आंबेडकर एक थोर समाजसुधारक, विचारवंत, शिक्षणतंत्र, कायदेपंडीत, घटनाकार, संपादक, अर्थतज्ञ प्राध्यापक, बकिल, नामवंत संसदपटू, एक अभ्यासू आमदार, खासदार, लेखक अशी अनेक पदे भूषवलेले एक व्यक्तिमत्व तसेच 1942 ते 1946 पर्यंत केंद्रीय श्रम, रोजगार, ऊर्जामंत्री म्हणून कार्यरत होते. त्यांनी श्रममंत्री म्हणून कामगारांसाठी अनेक महत्वाचे निर्णय घेतले. त्यांनी भारतीय कामगारांचे होणारे शोषण आर्थिक व शारीरिक पिळवणूक पहिली होती. तेव्हा कामगार वर्गाच्या उध्दारासाठी त्यांनी विविध कायदे केले. इतर वेळेस कामगारांच्या विविध प्रश्नासाठी संघर्ष केला.

बाबासाहेबांनी समाजातील फक्त शुद्ध कामगारांसाठीच प्रयत्न केले असे नाही. तर कामगार म्हणून समाजातील सर्व घटकांसाठी त्यांनी संघर्ष केला. डॉ.आंबेडकर म्हणत असत की, "सामाजिक अन्याय, अन्यायकारक विरुद्ध, आर्थिक द्वािभते विरुद्ध कामगारांनी लढा दिला पाहिजे तेव्हाच कामगार संघटनेच्या बळावर प्रश्न मुटतील. तसेच पगवर्गदी असण्यापेक्षा स्वातंत्र्यी व्हा."

डॉ. बाबासाहेब आंबेडकर कामगार मंत्री असतांना कामगारांसाठी अनेक कायदे केले ते पुढील प्रमाणे:

1. कामगार विमा :

स्वातंत्र्यपूर्व काळात विविध क्षेत्रातील कामगारांसाठी नुकसान भरपाईची कोणतीही तरतूद नव्हती. कामाच्या ठिकाणी कामगाराला अपंगत्व आले किंवा मृत्यू झाल्यास त्यांच्या वारसांना नुकसान भरपाई मिळत नव्हती. तेव्हा डॉ. आंबेडकरांनी नुकसान भरपाई देण्यासाठी एक वील सादर केले. या वीला नुसार नुकसान भरपाई

F. Scott Fitzgerald : The Sense of Tragedy

Kalyankar A. S.

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F. Scott Fitzgerald is famous for the depiction of *The Jazz Age*. It represented a glamorous life of party's and money spending. It was the pursuit of material wealth that corrupts a man. In this ways American dream was corrupted by the pursuit of happiness. It was all about 20th century development that destroyed the American dream. His characters fail or succeed just to the extent that they exhibit a tragic sense of life. But his characters fail to reveal a philosophy of a brave struggle against fate. It is almost universal fear of life, a fear ultimately induced and nurtured by his age.

F. Scott Fitzgerald's presents the story of a young man who shifts his general point of view on life from despondency to wild hilarity, from stark realism to romantic idealism. And His contributions to literature reflect the instability of outlook.

For the typical Fitzgeraldian character, the loss of youth was tragic. The Jazz Age generation worshipped at the shrine of the goddess of youth. Youth was something one could not afford to lose. The activities of youth were cultivated by all living generations. Irresponsibility, a usual attribute of youth was the mode of the day.

The attitude expressed by Fitzgerald is a natural one for a young man whose country is at war and who feels that his future may be cut off by that war. However, his attitude was not to represent only a temporary opinion but a confirmed element in his philosophy. At the ripe old age of twenty-one, Fitzgerald bemoans the loss of his youth in a letter to Edmund Wilson: "God! How I miss my youth... I don't think you ever realized at Princeton the childlike simplicity that lay behind all my petty sophistication."¹ Describing New York on



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English: Opening Of New Opportunities For Employment

Mr. Kalyankar A. S. , Mr. Karale N. G.

Asst. Professor, S. K. Gandhi College, Kada, Dist. Beed

Throughout the centuries, the British Empire expanded and ruled over many different countries, including most of the ones just mentioned and many more. In many cases, the British forced the people they ruled over to speak English and some of these countries still speak English, even if it isn't their main language. Proficiency in English is a critical component of a successful modern society. English is the third most spoken and most widely taught language on the planet. English is commonly used as first language in most of the countries. English is a "global language," the "lingua franca of the modern era." English skills are necessary for any country to fully benefit from global commerce; access the latest science, technology, and innovation; and exert influence in the world. English may have a complicated past, but it has a bright future. Because so many people can speak the language, it helps connect us in a global world. It can also help you in your personal and professional life.

In the twenty-first century, the entire world has become narrow, accessible, sharable and familiar for all the people living on this earth as English is used as a common language even though there are some variations in habits, cultures, traditions, regions and idiosyncratic aspects. As English has got the common qualities, it has been accepted as the global language among the speakers of thousands of different languages. Since science and technology is progressing, there are tremendous changes taking place in the lives of the human beings everywhere in the world. As a result, the whole world has become a global village and the people have to maintain good relationship with the others. Moreover, business, trade and commerce have become international and most of the business organizations have their offices in most of the countries. In order to maintain international relationship in science, technology, business, education, travel, tourism and so on, English serves the purpose as a common language and a global language. It is the language mostly used not only by the scientists, business organizations and the internet but also in higher education, and tourism sectors. English plays a dominant role in almost all the fields in the present scenario. It also reveals how English is being widely used in scientific research, business and education. With the ever-growing levels of interconnectivity and globalization around the world, the significance of immediate and appropriate modes of communication has been increasing very rapidly in this modern world. It is an undeniable fact that there is a need for a common language to communicate with the present growing commerce and trade between companies from all over the world. With the development of informatization as well as globalization, it is evident that most people all over the world are communicating with the people of other regions in only one internationally recognized language, that is, English. English is the language that is almost used between an agent and an international company. English, being the first world language, is said to be the first global lingua franca and it is the most widely used language in the world in international trade, diplomacy, mass entertainment, international telecommunications and scientific publications as well as publishing newspapers and other books. English is one of the most used languages in the world.

English is official language in most of the countries. First and foremost, learning English can help you pursue and obtain more career opportunities. These days, the job market is global—many companies need employees who can communicate with partners and clients all over the world. Very often, that means finding employees who speak English. Are you job hunting? Are you looking for a promotion within your company? Do you just want to keep your professional options open? Learning English is an important step forward to all of those goals. The global job market has even created new positions for bilingual people. By learning English, you could become a translator, a language teacher or an English marketing professional for a global company. No matter what career path you decide to pursue, learning English is a valuable skill. It'll help you become a better, employee.



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English as an opportunity to access Entrepreneurship

Mr. Karale N. G. & Mr. Kalyankar A. S.

Asst. Professor, S. K. Gandhi College, Kada, Dist. Beed

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“COMPARATIVE STUDY OF USING GREEN CHILLI AND RED CHILLI IN INDIA”

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Abstract: The agricultural products play an important role in human life and even all lives on the earth. Agricultural products are edible out of which Grains are produced for their far seeds. They belong to the monocotyledonous family. Grain is a small, hard, dry seed attached without a fruit layer or hull, used for human or animal consumption. The two major types of commercial grains are food grains and legumes. After harvesting, dried grains are more durable than other staple foods, such as starchy fruits and tubers. This durability has made grains suitable for industrial agriculture, as they can be harvested mechanically, transported by rail or ship, stored for a long time in underground chambers, and used for making flour or oil is brought in. Thus, major global commodity markets exist for maize, rice, soybeans, wheat and other grains, but not for tubers, vegetables or other crops. From these all agricultural edible grains food is prepared. To make food tasty, chilli is used. In India, chilli is used in high quantity because without chilli, no tasty and good food. Any substance is incomplete without chilli. There are many varieties of foods. Pepper is used in many foods as preparation of vegetables, pulses or snacks; their taste seems incomplete without any one spice. Where one needs salt for salty taste, chilli is needed to make food spicy food. There are many people who like to eat spicy food or eat chilli separately with food which can be harmful. The current paper will focus on the benefits and usefulness of green chilli and red chilli for human health.

Key Words: Food, health, nutrition, vitamin, green chilli, red chilli, spice food etc.

Introduction: Chillies are not only added flavour to the food, but they are also packed with essential minerals and vitamins. There are different types of chillies available in the market green chillies and red chillies but many do not know about the consumption of chillies with its characteristics as good and bad. Many do not know much about chilli as which peppers should be consumed, green chillies or red chillies. In this article, the researcher will tell detail about using chilli, i.e. red and green. It will be comparative study about using both green chillies and red chillies which are similar in appearance but both have different tastes and also have different health benefits. When green chillies start getting old or dry, they turn red and become more pungent. In such a situation, it is important to know which of the two chillies is more beneficial for human body.

There are usually two types of chillies eaten in our homes, green chillies and red chillies. Some people argue a lot about which one is better. There are many parameters which can compare use of green chilli and red chilli. The following table is the comparative based use of green chilli and red chilli:

Sr. No.	Parameter	Green Chilli	Red Chilli
01	Vitamin	E and C	C and Iron
02	Health	To strengthen the digestive system. To help alleviate the heart problems	To Absorb of iron in the body. To burn calories in the body. To remove cold from body as it stops the runny nose. It is useful for blood flow through the arteries.
03	Taste	Adds Greater taste than Red Chilli	Lesser tasty as compare to Green chilli
04	Water	Water level is more in green chilli	Dryness is there in red chilli
05	Weight	It helps in weight loss.	It can not be stated about red chilli

Table 1.1 (Comparison of Green Chilli and Red Chilli)

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“GREEN CHILLI : HOME REMEDY FOR WEIGHT LOSS”

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Abstract: *There is a proverb about importance of health as, “Health is wealth,” which indicates importance of physical fitness in human life. The good health or physical fitness is depending on the diet and food taken by an individual. Since ancient era, India is known for its Ayurveda invention and the knowledge about proper diet. Indian food is very healthy and prepared with scientific and seasonal method. There are any ingredients which are used in Indian food for good health and physical fitness including use of chilli. The current work aims to identify the measure to control the increasing weight through proper diet, especially with the proper use of chilli in food/diet.*

Introduction: India is known for its historical heritage with its rich culture, the culture diversity, its food diversity, its numerous types of food and preparing tasty and yummy food. Chilli is the special ingredient used in Indian food. There are several types of chilli as green chilli, red chilli, black chilli etc. There are many health secrets hide in Indian foods. Now-a-days, due to changing the life style and changing the choice of food, lots if health issues are increasing amongst Indian young and growing youth. The increasing fat is the most common problem of today’s youth and growing children group. They must know the importance of traditional food of Indian culture and its benefits for the health. Taste and health both are important and useful for health. There are many ingredients which are used in traditional Indian food including chilli. The use of chilli in cooking is just as mandatory ingredients in Indian food, few people use only red chilli in cooking food while many use green chilli in preparing food in India. There are several benefits of using green chilli on health including weight loss. The current work focus on how the green chilli is useful as the remedy against weight loss. Due to the medicinal properties and nutritious elements found in green chilli, it can be beneficial for health in many ways. Here we are telling you in detail about the benefits of green chillies. In this current technical and global era, people are troubled by their increasing weight. People whose weight increases, many types of health related problems gradually start gripping them. People whose obesity increases rapidly, they are at increased risk of heart disease, diabetes, back pain, difficulty in getting up, blood pressure and many other types of diseases.

In order to reduce their rapidly increasing weight, people do not know how many types of medicines or dieting plans they adopt, so that they can get rid of this disease. Most of the people like to adopt home remedies to lose weight. Today, through this article, the research is trying to explain the best ways to lose weight with green chillies that make food spicy and easy. Weight can be reduced very easily even through green chillies. Most of the people do not know that green chilli is actually very effective for reducing weight. Just as other things enhance the taste of our food, in the same way green chillies also play an important role in adding a unique taste to our food.

One must have seen that there are many people who like to eat green chilli separately with food. The health of such people is also very good, because green chilli has innumerable health related benefits. Let us know further, what are the home remedies for weight loss with green chillies. There are many remedial measurements which can be used through eating green chilli in regular diet against the problem of increasing weight.

Health Nutrition in Green Chilli: Just as friends have maintained their important place in green chilli food, in the same way green chilli has many health benefits. Many such health nutrients (chia seeds for weight loss) are present inside green chillies, which are effective in keeping our body safe

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पेयजल शुद्धीकरण पद्धती

डॉ. मगर एस. आर.

श्रीमती. एस. के. गांधी कॉलेज, कडा.

प्रस्तावना:

आज जगाच्या कानाकोप-यामध्ये शुद्धीकरण प्रक्रिया करणारे अनेक प्रकल्प पाहावयास मिळतात. पाण्यातील क्षारांना मायक्रॉनमध्ये मोजले जात आहे, तसेच आजच्या तंत्रज्ञानामुळे मिलियन, बिलियनमध्ये संयुगे शोधली जात आहेत. प्रत्येक देशामध्ये विविध कायदे केल्यामुळे पाणी स्वच्छता करणारे प्रकल्प आणि नागरिकांना सुरक्षित व शुद्ध पाणी पुरवण्यासाठी प्रयत्न केले जात आहेत. मेम्ब्रेनच्या वापरामुळे मायक्रॉनमध्ये जीवजंतू मोजून त्यांना पाण्यात शिरकाव करण्यापासून अटकाव केला जात आहे. अल्ट्राव्हायलेट लाइटच्या माध्यमातून पाण्यातील सूक्ष्मजंतूचा नाश केला जात आहे. जे की, अरोम्यास हानिकारक असतात. पेयजल शुद्धीकरणाच्या अनेक पद्धती विकसित करण्यात आलेल्या आहेत. आज जवळपास खालील 24 पद्धतीने पेयजलाचे शुद्धीकरण करता येते.

1) पाणी गाळणे:

या पद्धतीमध्ये पाणी एका पातळ कपड्यावर टाकून गाळून घेतल्याने त्यातील कचरा कपड्यावर साठतो आणि चांगले पाणी पिण्यासाठी उपलब्ध होते, ही पद्धत पूर्वीपासूनच वापरात असल्याचे दिसते. आजही या पद्धतीचा वापर पाणी स्वच्छतेसाठी केला जात आहे.

2) पाणी उकळणे:

ही पद्धतही जुनीच आहे. या पद्धतीमध्ये पाण्याला 15-20 मिनिटे उकळू दिल्यास पाण्यातील 99.9 टक्के सूक्ष्मजंतू मारले जातात आणि रासायनिक पदार्थ वाफेचा माध्यमातून निघून जातात व हे पाणी पिण्यासाठी सुरक्षित असते, आजही ही पद्धती पाणी स्वच्छतेसाठी वापरली जाते.

3) ऊर्ध्वपतन:

या पद्धतीमध्ये पाणी गरम करून त्यातील रासायनिक व जैविक घटकांना नाहीसे केले जाते व पाणी थंड करून पिण्यासाठी वापरले जाते, ही पद्धती महाग असल्यामुळे आणि शिल्लक राहणा-या पाण्यामध्ये विषारी घटक जास्त प्रमाणात निर्माण होत असल्यामुळे याचा जास्त प्रमाणात वापर केला जात नाही.

4) अल्ट्राव्हायलेट किरणांद्वारे:

ही पद्धती नवीन आहे. तंत्रज्ञानाच्या माध्यमातून या पद्धतीचा विकास करण्यात आला आहे. या पद्धतीमध्ये पाण्यावर अल्ट्राव्हायलेट किरणांचा मारा करून त्यातील जीवाणू मारले जातात व पाणी स्वच्छ केले जाते, ही पद्धती पाण्यातील रासायनिक घटकांना कमी क डिग्री शकत नाही म्हणून या पद्धतीचा वापर फक्त रासायनिक घटक नसलेल्या स्वच्छ पाण्यावर प्रक्रिया करण्यासाठी केला जातो. आज हे तंत्रज्ञान नवीन आहे. भविष्यामध्ये यात ब-याच सुधारणा होण्याची शक्यता आहे.

5) क्लोरिनच्या वापरान्वये:

ही एक प्रचलित पद्धती आहे. तसेच ही स्वस्त पद्धती आहे. या पद्धतीमध्ये क्लोरिनचा वापर करून पाण्यातील जैविक घटक नाहीसे केले जातात; पण रासायनिक घटक या पद्धतीद्वारे कमी करता येत नाहीत, तसेच या पद्धतीच्या वापरामुळे पाण्याची चव बदलते. आज या पद्धतीद्वारे पाण्याचे शुद्धीकरण फार मोठ्या प्रमाणावर केले जात आहे.

6) ब्रोमीनच्या वापरान्वये:

या पद्धतीचा उपयोग तलावातील आणि भूजलातील पाणी शुद्धीकरण करण्यासाठी केला जातो; पण या पद्धतीद्वारे पूर्णपणे हानिकारक जैविक घटक नाहीसे होत नाहीत तर काही प्रमाणात जैविक घटक नष्ट होतात. तसेच पाण्याच्या चवीमध्ये आणि वासामध्येही बदल होतो. या पद्धतीचा वापर कमी प्रमाणात केला जातो.

7) आयोडाइनद्वारे:

या पद्धतीमध्ये पाण्यात आयोडाइन टाकून पाण्याचे शुद्धीकरण केले जाते; पण या पद्धतीचा वापर तुरळक प्रमाणात केला जातो.

8) हायड्रोजन पॅरोक्साइड:

या पद्धतीमध्ये पाणी शुद्धीकरणासाठी हायड्रोजन पॅरोक्साइडचा वापर केला जातो. याद्वारे पाण्यातील जीवाणू मारले जातात, तसेच पाण्यातील ऑक्सिजनही नाहीसा होतो, तसेच ही रासायनिक पद्धती असल्यामुळे पाण्यात विषारी घटक निर्माण होतात. या पद्धतीचा वापर आपात्कालीन परिस्थितीमध्ये करण्यात येतो.

9) सिल्व्हर:

या पद्धतीमध्ये पाण्यामध्ये सिल्व्हर टाकून पाण्यातील जीवाणू नाहीसे केले जातात. या पद्धतीमध्ये विषारी घटक निर्माण होतात आणि हे घटक पाण्यातून निघूनही जात नाहीत. त्यामुळे या पद्धतीचा वापर फार कमी प्रमाणात केला जातो.

10) ऑर्गॅनिक अॅसिड:

डॉ. मगर एस. आर.

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Portrayal of Social Evil and Economic Freedom in Bhabani Bhattacharya's

A Goddess Named Gold

Karale N.G.

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Abstract: The rich Indian culture provides the foundations for Indian English literature. Bhabani Bhattacharya is one of the Indo-Anglian novelists and short story writers of the period who witnessed to dramatic events of the period and had felt the spirit of those times in their own veins. He has depicted these movements in his writings. His novels deal with the Gandhian ideal of rural reconstruction as a step towards winning Swaraj. The novels affords the author with ample scope for description of scenery for delineation of national types and characters, for reflections of social, political, and economic problems. There is no doubt that his novels contain many descriptions of Indian life and manners. The picture of life and manners in the novels expound the main theme more markedly. Bhabani Bhattacharya is one of the older generations of Indian writers who write in English. He has written novels and short stories, a book on Gandhi as a writer, popular accounts of episodes from Indian history, as well as translations of Tagore. It is critical to take note of that Bhattacharya's novels about epoch-making events provide a valuable social document. His works capture the essence of Indian society. Some of his best-known works include *So Many Hungers*, *Music for Mohini*, *A Goddess Named Gold*, *Shadow from Ladakh*, etc. Bhabani Bhattacharya is a genuine pearl among Indian English language authors. The novel *A Goddess Named Gold* is about gold, which represents richness, status, and position, and it examines money as a need, want, or desire for different people.

Keywords: *social, political, economic, swaraj, goddess, gold, etc.*

Introduction: Prior to the arrival of the British in India, Indian literature consisted of stories, religious works, verse, and other forms of expression written in Hindi and other provincial dialects. Indian English writing emerged with the appearance of the British in India. As a result of the British's closeness, Indians were propelled to compose their own English writing, giving Indian English fiction an authentic presence. Bhabani Bhattacharya's writings provide a realistic depiction of India's turbulence as a result of social, political, and economic change. He was able to develop spectacular characters and offer extraordinary literature. Every one of his books has a

The biological activeazole drug compounds: Review

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ABSTRACT

The present paper reviews the different characteristics use of azoles to recognize the differences in safety, toxicity ,pharmacology and potential drug interactions of these antifungal agents was found that the use of currently available azoles in combination with other antifungals is likely to provide enhanced efficacy. But, several factors lead to therapeutic failure or relapse after the antifungal therapy. These factors are concerned with the different characteristics of the antifungal antibacterial used. Thus, researcher should be carefully investigated the different biological characteristics. However, the present review explore that the uses of azoles are sufficiently diverse in pharmacokineticssafety, toxicity, pharmacology, and potential drug interactions to differentiate among these agents based upon their characteristics as per the needs of any particular patient.

Keywords: Azoles, pharmacology,toxicity,antifungal.

INTRODUCTION

In the recent period, the fungal and bacterial infections have been increased. Surgery, treatment and critical care accompanied by the use of broad-spectrum antimicrobials and the human immunodeficiency virus (HIV). Epidemic, Pathogenic fungi are affecting human is eukaryotes, generally existing as filamentous molds or intracellular yeasts fungal infections can be primarily superficial and irritating (e. g., dermatophytosis) or systemic and life threatening (e. g., blastomycosis, cryptococcosis, histoplasmosis, coccidioidomycosis) ¹⁻³. The external auditory canal and cornea may be invaded by yeasts and fungi that are opportunistic pathogens,topical infections caused by fungi may become established on the skin and adnexa or mucous membranes (buccal, ruminal, vaginal),The soil reservoir is the primary source of most infections, which can be acquired by inhalation, ingestion, or traumatic introduction of fungal elements ⁴⁻⁶.

Toxicity of antifungals is a common cause of therapeutic failure. Both the antifungal target organism and the host cells are eukaryotic. The cellular targets of fungal organisms are often similar to the host structurestherapy after resolution of clinical signs but before

Advances of novel Pyrazole-containing Derivatives as Anti-tubercular Agents

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Abstract

One-third of the total world's population get infected with tuberculosis (TB), and about more than 1 million deaths annually. The co-infection of the pathogen Mycobacterium tuberculosis (MTB) and HIV and the drug-resistant TB, multi-drug resistant TB, have further aggravated the mortality and the spread of this disease. Thus, there is a need to develop novel anti-TB agents against both drug-susceptible and drug-resistant TB. The wide spectrum of biological activities and successful utilization of pyrazole-containing drugs in clinic have caught more attention towards this kind of heterocycles. Numerous of pyrazole-containing derivatives have been synthesized to search new anti-TB agents, and some of these possess potency and have novel mechanism of action. This review focus on outline the recent achievements in pyrazole-containing derivatives as anti-TB agents.

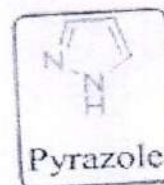
Keywords: anti-tuberculosis activity, pyrazole derivatives, anti-mycobacterial activity,

Introduction

Mycobacterial infection is caused by Mycobacterium tuberculosis (MTB) complex including MTB itself, *M. bovis*, *M. caprae*, *M. microti*, *M. africanum*, *M. canettii*, *M. pinnipedii*.¹ The World Health Organization (WHO) report suggested that there were 10.4 million newly clinical cases and 1.4 million people died of TB. A MTB predominantly affects the lungs (pulmonary TB)

apart from other vital organs, and result in tuberculosis (TB). Although patients with latent TB do not require any medical treatment and only 5-10% of individuals (100-200 million) with latent TB eventually develop an active TB, the large population base of the latently infected individuals is responsible to cause a great concern.^{2,3} The incidence of drug-resistant TB, multidrug-resistant TB (MDR-TB is resistant to at least two front-line anti-TB drugs like isoniazid (INH) and rifampicin (RIF). The newly registered cases were 0.48 million of which 0.18 million people died, of extensively drug-resistant TB and totally drug resistant TB have further aggravated the mortality and spread of this disease.⁴ TB is the major cause of death among people living with HIV/AIDS, that leads to 0.4 million deaths in 2015, accounting for 35% of HIV-related deaths. TB is spread from person to person through the air, and the transmission rates are extremely high in endemic TB settings. So TB transmission has already become a public concern throughout the world. TB transmission occurs in a very similar pathway to many common colds, and the most frequent approach of transmission. When a person coughs and another person breathes in particles that were expelled from the lungs of the person coughing. TB transmission is mostly occur with exposure to an infectious contact with patients with unrecognized pulmonary or laryngeal TB who are not having effective anti-TB therapy in the setting of household environments, but extrahomociliary transmission also may take place.⁵ All the above facts necessitates the urgent need to develop new anti-TB agents.

Heterocyclic pyrazole compounds:



Pyrazole derivatives have a varied bio-



Biological evaluation of some methyl 2-((4-acetylthiazol-2-yl)sulfanyl)-1,2,3,4-tetrahydro-6-methylpyrimidine-5-carboxylate derivatives as potential DHFR inhibitors to overcome antibiotic resistance

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Abstract

Multidrug-resistant bacteria are an increasing global threat. Current therapeutic medicines aren't enough to meet the demand. To address antibiotic resistance, new targets and inhibitors are needed. Dihydrofolate reductase (DHFR) is essential for bacterial development, hence DHFR inhibitors are helpful in treating bacterial infections. In the present work, we have designed some methyl 2-((4-acetylthiazol-2-yl)sulfanyl)-1,2,3,4-tetrahydro-6-methylpyrimidine-5-carboxylate as potential DHFR inhibitors through rational drug design approach. The designed derivatives were screened through Lipinski rule, Veber's rule, ADMET analysis, drug-likeness properties, and molecular docking. All of the compounds had action against gram-positive and gram-negative bacteria that was much more powerful than that of ampicillin. The majority of the compounds either had a higher potency than chloramphenicol or an equivalent potency to ciprofloxacin. Compound **C7** was sensitive at 25 µg/mL against *Escherichia coli*, *Pseudomonas aeruginosa*, and *Staphylococcus aureus* whereas compound **C20** was sensitive to all gram +ve and -ve bacteria at same concentration. Compound **C16** was sensitive at 50 µg/mL against all the bacteria. In antifungal activity, compound **C7** exhibited MFCs of 100 µg/mL against *Candida albicans*, *Aspergillus niger*, and *Aspergillus clavatus* which is same as Nystatin. Compound **C16** and **C20** were also sensitive to all the antifungal strains at 100 or 200 µg/mL concentration. Compound **C20** is more potent than Greseofulvin against *Candida albicans*. As a result of our research, we came to the conclusion that compounds **C7**, **C16**, and **C20** are the most effective and have the potential to be further developed into more promising molecules for the treatment of bacterial infections.

Keywords: DHFR, Biginelli reaction, Pyrimidines, Antibacterial, Molecular docking

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1. Introduction

The advent of pathogens that are resistant to the vast majority of the conventional medicines used in treatment is now one of the most significant threats to the general population's health (Baig et al., 2022; Murali et al., 2014; Sánchez-Sánchez et al., 2017). The treatment of nosocomial infections, which pose a significant risk to public health on a global scale as a result of drug-resistant bacteria such as methicillin-resistant *Staphylococcus aureus* (MRSA) and

multidrug-resistant *Escherichia coli*, is made extremely challenging as a result of these bacteria (Anwar et al., 2020; Jouhar et al., 2020; Loi et al., 2019). If we do nothing, a research commissioned by the United Kingdom Government estimates that "the cost in terms of lost global production between now and 2050 would be an astounding one hundred trillion USD." Infections caused by fungi may pose a significant threat to human health, and this is especially true for immunocompromised



भारतातील स्त्रियांचा शैक्षणिक विकास

डॉ. शिवाजी भोसले

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प्रस्तावना : —

भारतीय समाज व्यवस्थेत प्राचीन काळापासून स्त्रियांना लक्ष्मी, सरस्वती आणि दुर्गेच्या रुपात पूजले जात असले तरी प्रत्यक्षात समाजात स्त्रियांचा दर्जा पुरुषांच्या तुलनेत निम्नच राहिलेला दिसून येतो. भारतीय समाजातील पितृसत्ताक कुटुंबपध्दतीमुळे स्त्रीयांना लहान वयात वडीलांवर, तारुण्यात पतीवर आणि वृद्धापकाळात मुलावर अवलंबून रहावे लागते. पूर्व वैदिक काळात जरी स्त्रियांना थोडेफार अधिकार असले तरीही ते पुरुषांच्या तुलनेत नगण्यच होते. उत्तर वैदिक काळापासून पुढे हळूहळू स्त्रियांवर निर्बंध लादून स्त्रियांचे जीवन नरकमय केले. विविध स्मृती ग्रंथांमधून स्त्रियांवर निर्बंध लादले. स्त्रियांचे संपत्ती आणि शिक्षणाचे अधिकार काढून घेतले आणि वर्णव्यवस्थेतील शुद्राप्रमाणे स्त्रियांवर बंधने घातली गेली. भारतात विविध कालखंडात अनेक समाजसुधारक, संत आणि राज्यकर्ते यांनी स्त्रियांच्या उध्दारासाठी प्रयत्न केले. भारतात इंग्रजांच्या आगमनापर्यंत स्त्री शिक्षण बंदी, बालविवाह, बहूपत्नीपध्दती, नियोगपध्दती, विधवा, सतीप्रथा, पडदापध्दती, वेश्या, जनानखाने, संपत्तीचा अधिकार नसणे इत्यादी अनेक समस्या स्त्रियांच्या संदर्भात दिसून येत होत्या. परंतू भारतात पाश्चिमात्य इंग्रज, डच, पोर्तुगिज यांच्या आगमनानंतर भारतीय समाजाचा पाश्चिमात्य संस्कृतीशी परिचय झाल्यानंतर त्यांच्या प्रभावातून सामाजिक परिवर्तनाला खऱ्या अर्थाने सुरुवात झाली. त्यातूनच पुढे स्त्रिशिक्षण आणि इतर समस्या सोडवण्यासाठी इंग्रज सरकार आणि विविध समाजसुधारकांनी प्रयत्न केले.

अधिष्टये : —

- १) पारंपारिक भारतीय समाजातील स्त्रियांचा दर्जाचा अभ्यास करणे.
 - २) भारतातील स्त्रिशिक्षणासाठी जबाबदार घटकांचा अभ्यास करणे.
 - ३) भारतीय समाजातील स्त्री साक्षरतेचे प्रमाण अभ्यासणे.
- स्त्रीच्या व्यक्तिमत्त्वाचा सर्वांगीण विकास व परिपोषण करणारे महत्त्वाचे साधन

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“Major Issues of Corporate Social Responsibility”

Dr. Meera Narayan Nath

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ABSTRACT

Business has today, emerged as one of the most powerful institutions on the earth. Some of the biggest companies in the world are in fact, bigger in size than some of the developing countries of the world. Globalization makes the world smaller, and business, worldwide, is expanding like never before. Companies are expanding their operations and crossing geographical boundaries. Indian companies too have made their way into the business boom and are today globally acknowledged as major players. India is currently amongst the fastest growing countries in the world. The globalization and liberalization of the Indian economy has helped in stepping up growth rates. Integration of the Indian with the global economy has resulted in Indian businesses opening up to international competition and thereby increasing their operations. In the current scheme of things, business enterprises are no longer expected to play their traditional role of mere profit making enterprises. The ever-increasing role of civil society has started to put pressure on companies to act in an economically, socially and environmentally sustainable way.

Key word: CSR, Status, Issues, Challenges

'Challenges & forecast of Entrepreneurship'

By

Prof. Meera Nath

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ABSTRACT

India is one of the fastest growing economies in the world. India has also a significant youth population. So why doesn't India have a substantial number of entrepreneurs? If India is to tap the entrepreneurial talent of its people, its leaders must enact significant reforms that increase support for new businesses in the formal sector. India needs to minimize barriers and provide support that will accelerate entrepreneurial growth. A 2011 Gallup study of 20 economic entities in Asia showed that India ranked in the bottom quartile on several important indicators of a well-functioning entrepreneurial ecosystem. Although cross-country comparisons may not be perfect because of Asia's economic, governmental, and cultural diversity, ranking in the bottom quartile across a majority of indicators does arouse major concerns.

Keyword: Entrepreneurship. Role, Challenges & forecast

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“INDIAN CONSTITUTION: THE PRIDE OF INDIA”

Dr. Gondkar Tukaram Dattatray Assist. Prof. S.K. Gandhi Arts, Amolak Science and P.H. Gandhi Commerce College Kada, Tq. Ashti, Dist. Beed.

Abstract: India is one of those developing countries, which is moving towards the progress India in all sectors rapidly. This is a country which adapts itself to every situation with time. India has a rich heritage of the oldest civilization, ancient culture and history. India is not called a golden bird like this, India has always been a country of peace, humanity which believes in building friendly relations with its neighbouring countries. There were many great personas who have taken birth in the holy soil of my country of India like Vivekananda, Dayanand Saraswati, Iron Man Sardar Vallabhbhai Patel, Chandrashekhar Azad, Ashfaq Ullah Khan, who gave freedom to India. Bhagat Singh (who sacrifice his life at the age of 23) Rajguru, Rani Laxmibai, Subhash Chandra Bose and so on. There were many such brave lives who sacrifice their lives in saving this holy soil. Swami Vivekananda gave a speech in the Hindi language in the Chicago session and made India's chest proudly wide. Writers have also played a special role in making India famous, such as Tulsidas, Kalidas, Rabindranath Tagore, Sumitranandan Pant. Harivansh Rai Bachchan etc. All these have made India proud at the level. The most important aspect is the greatness of India lies in its constitution which is ideal constitution in the world. On 26 November 1949, the Constituent Assembly of India formally adopted the Constitution of India. It came into force on 26 January 1950. BR Ambedkar in his speech in the year 1949, before the adoption of the Constitution, said, "The methods of civil disobedience, non-cooperation and satyagraha should be abandoned." Hence, the current work aims to throw a light on the constitution of Indian as the pride of India.

Key Word: India, Constitution, articles, diversity, religion, caste, etc.

Introduction: India is the country of diversity with people of different religion, caste, language, colour, form live together with great love. Where worshipping bells in temples and the sweet sound of conch shells will make you feel sacred, today in mosques, God's prayer in churches, all these make India different from the countries of the whole world. India has always respected every culture where Diwali, Holi, Christmas, Eid are celebrated festival on their own. In India, the rule of Mughal rulers and elders has been a part of our culture, India has always had the culture of 'Atithi Devo Bhava (Guest are equal to God).' The Mughals and the British ruled over us for many years but Indians also welcomed them openly, they adopted the policy of dividing India many times, but India forced them to flee from here due to unity in diversity. Despite all this, there has been no change in the culture, rites and belongingness.

On 19th November 2015 was declared as Constitution Day by the Government of India. The announcement was made during the laying of the foundation stone of Ambedkar's Statue of Equality Memorial. The year 2015 also celebrated the 125th birth anniversary of Ambedkar. It took almost two years for the constitution makers to develop a comprehensive constitution which would reflect the development of our country. With the attainment of independence in 1947, the need for a strong constitution was felt to govern the country. Then the Constituent Assembly was formed under the leadership of Babasaheb Bhimrao Ambedkar and the constitution of the country was prepared in 2 years, 11 months and 18 days.

Indian Constitution is the fundamental law of the country. In other words, the Constitution of India is considered the 'lex suprema' of India, that is, the supreme law of India. It is the longest written constitution in the world. The Constitution of India was prepared in 2 years 11 months and 18 days and was adopted by the citizens of India on 26 January 1950.

The Constitution serves as a guideline for every law that comes into force in India. It includes the basic structure of governance in the country. Initially, the constitution had 395 articles, divided into 8 schedules and 22 parts. At present, the Constitution of India has 470 articles, divided into 12 schedules and 25 parts and has been amended 104 times.



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**A STUDY OF HEALTH AND EXERCISE AWARENESS AMONG
WOMEN IN ASHTI OF BEED DISTRICT**

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Abstract

women constitute nearly half of the total human population on the earth, women play multiple roles in family, at working place & in society. She has to face economic, financial social, cultural, occupational, personal, family stresses. The capability of a woman to handle such stress depends upon her health. Besides all these things due to natural phases she has to face menstrual cramps, pregnancy and menopause

Hence, research has taken a survey to study health and exercise awareness among women in Ashti city of Beed District.

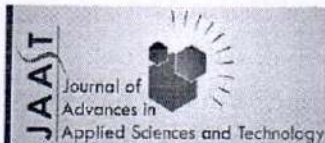
The researcher has chosen 60 women from Ashti city using random sampling technique. The study is based on primary as well as secondary data separate questionnaire was circulated & interviews were arranged.

It was found that majority of women were going for walking, yoga, cycling, gym etc. were the other exercise practices followed by women. Majority of the sample women have not taken training for exercise practices. Majority of women are facing acidity problems followed by anemia, knee-pain, joint pain, back pain etc. And half of the sample women were unaware regarding their health maintenances.

Key words: - Women, Stress, Yoga, Cycling, Gym, Walking, health maintenance

Introduction :

As per the 2011 census, women account for about 48.46 per cent of the total population. From ancient times to the present, Indian women have proven their mettle. India is amongst the first countries in the world having a woman Prime Minister. India had a lady president also. Indian woman is now participating in all fields. To quote Swami vivekananda's inspiring words 'If you do not raise the woman who are but the living



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CRYSTALLOGRAPHIC AND ELECTRICAL STUDY OF INDIUM (In^{3+}) SUBSTITUTED YTTRIUM IRON GARNET

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Abstract: In^{3+} was added in to yttrium iron garnet (YIG) samples, with a nominal composition of $\text{Y}_3\text{In}_x\text{Fe}_{5-x}\text{O}_{12}$ with $x = 0.0, 0.2$ and 0.6 were prepared by a solid-state sintering method. The samples were characterized by X-ray diffraction technique. The X-ray diffraction studies of compositions revealed the formation of single phase cubic structure with lattice constant ranging from 12.37 to 12.44 Å.

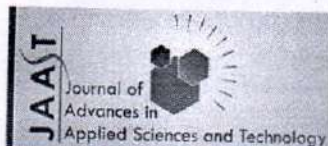
The FTIR spectra of typical samples are taken in the range of $500\text{-}4000\text{cm}^{-1}$. IR spectra show typical absorption bands indicating the garnet nature of samples. The D.C. electrical resistivity ρ_{dc} was measured in the temperature range 300-725 K.

Keyword: Yttrium iron garnet, indium, structural and electrical study.

INTRODUCTION:

Mixed metal oxides with iron (III) oxides as their main component are known as ferrites. Historically ferrites represent an important category of materials, which are in great demands due to their numerous applications in many fields. The electrical and magnetic properties of ferrites are strongly dependent on their chemical composition and their method of preparation [1, 2]. It is important to optimize the electrical and magnetic properties of ferrites, for desired applications. Due to their interesting properties scientists, researchers and engineers are still interested in designing the various types of ferrites material substituted with different cations with different valencies and prepared by different techniques.

In the various types of ferrites rare earth garnet especially yttrium iron garnet (YIG) is of great importance for scientist and technologist because of their applications in microwave communication devices such as circulators, oscillators, gyrators and phase shifters because of its small ferromagnetic resonance line-width, high electrical resistivity and low dielectric loss in microwave regions in many fields [3]. Yttrium iron garnet (YIG) is microwave ferrite, which in polycrystalline form has specific characteristics. The magnetic and crystallographic properties of the magnetic iron garnet have been studied by many workers [4-7]. Substituted iron garnets have found extensive use in wide band non reciprocal microwave devices [8].



STUDY OF STRUCTURAL PARAMETERS AND CATION DISTRIBUTION OF NICKEL – COPPER SPINEL FERRITES

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Abstract: Mixed Ni-Cu ferrites having the combination formula $Ni_{1-x}Cu_xFe_2O_4$ ($x = 0.0, 0.1, 0.2.$) were synthesized by solid state reaction technique using AR grade oxides (NiO, CuO, Fe₂O₃). The formation of mono phase cubic spinel structure of all the samples under investigation have been carried out using X-ray diffraction technique at room temperature. Structural parameters and X-ray intensity ratios were calculated using XRD data for selected planes (220), (400), (440) and compared with the observed intensity ratios in order to obtain cation distribution. The results of the cation distribution indicate that Cu²⁺ and Fe³⁺ occupy both sites whereas Ni²⁺ occupy octahedral B site. In this work we report our results on structural parameters and cation distribution of copper substituted nickel ferrites.

Keyword: XRD, structural parameters, cation distribution.

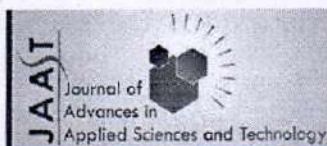
1. INTRODUCTION

Spinel ferrites are commercially important materials because of their excellent electrical and magnetic properties. Interesting physical and chemical properties of ferrites arises from ability of these compounds to distribute cations amongst the available tetrahedral A-site and octahedral B-site and magnetic A-A, B-B and A-B interactions. Ferrites fulfill the wide range of applications from microwave to radio frequencies and are of importance from both fundamental and applied research point of view. [1,2]. The twin property of electrical insulator and magnetic conductor makes ferrites useful in many devices such as memory chips, transformer cores, and antenna rod, magnetic recording, microwave devices etc. Compared to other magnetic materials ferrites can be easily prepared, low cost and highly stable. The important electrical and magnetic properties of ferrites depend on various factors which include method of preparation, type, nature and amount of

dopants etc [3, 4]. The electrical and magnetic properties are greatly influenced by the occupancy of cations at tetrahedral (A) and octahedral [B] sites. Thus, the study of cation distribution is important in order to understand the basic structural, electrical and magnetic properties of spinel ferrites. Among the spinel ferrites, nickel ferrite is having special attraction because of their useful properties such as inverse spinel nature, high saturation magnetization and Curie temperature, high electrical resistivity and chemically most stable. Copper is a Jahn Teller ion with magnetic moment one in the literature very few studies on copper substituted nickel ferrite are reported. Here, we report our results on structural and cation distribution studies of $Ni_{1-x}Cu_xFe_2O_4$ for $x = 0.0, 0.1$ and 0.2 samples.

2. EXPERIMENTAL

The polycrystalline samples of $Ni_{1-x}Cu_xFe_2O_4$ ($x = 0.0, 0.1, 0.2.$) were prepared using the standard ceramic technique [5]. A.R. grade oxides of corresponding ions (NiO, CuO and Fe₂O₃) were



STRUCTURAL BEHAVIOR AND INITIAL PERMEABILITY STUDY OF Ni-CuFERRITE

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Abstract: In present work polycrystalline soft spinel ferrite samples having the general chemical formula $Ni_{1-x}Cu_xFe_2O_4$ (with $x = 0.0, 0.4$ and 0.8) have been prepared by standard ceramic technique. The formation of single phase cubic spinel structure of all the samples was characterized by X-ray diffraction technique. The values of lattice constant determined from XRD data found to increase as copper content x obeying Vegard's Law. The initial permeability μ_i was measure and it is found that μ_i increases with Cu substitution. Curie temperature measured through permeability versus temperature plot.

Keywords: X-ray diffraction, Initial Permeability, Curie temperature.

1. INTRODUCTION

Several mixed metal oxides with iron oxide as their main component having the formula MFe_2O_4 have been investigated and found to have interesting structural, electrical and magnetic properties. Due to their remarkable electrical and magnetic properties they are used in many technological applications [1]. Spinel ferrites are commercially important materials because of their excellent electrical and magnetic properties. Interesting physical and chemical properties of ferrites arises from ability of these compounds to distribute cations amongst the available tetrahedral (A) site and octahedral [B] site and magnetic A-A, B-B and A-B interactions. Ferrites are generally classified into two groups, hard ferrites and soft-ferrites. Ferrites for which coercive field is small are termed as soft ferrites.

Polycrystalline ferrites which have many applications in microwave frequencies are very good dielectric materials. The basic structural and magnetic properties of spinel ferrite are depends upon several factors such as method of preparation, preparative parameters and preparative conditions, nature, type and amount of dopant [2-6].

Extrinsic property such as permeability losses even depend on microstructure as well as sintering condition [7]. Among the spinel ferrites, the inverse type is particularly interesting due to its high magneto-crystalline anisotropy, high saturation magnetization, and unique magnetic structure. Nickel ferrite ($NiFe_2O_4$) is an inverse spinel with cubic structure shows ferrimagnetism that originates from magnetic moment of anti-parallel spins between Fe^{3+} ions at tetrahedral sites and Ni^{2+} ions at octahedral sites [8]. Spinel ferrites

Initial Permeability Studies of Copper Substituted Nickel Ferrite

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ABSTRACT

Polycrystalline soft spinel ferrite samples having the chemical formula $Ni_{1-x}Cu_xFe_2O_4$ with varying x ($x = 0.0, 0.2, 0.4, 0.6, 0.8, 1.0$) were prepared by standard ceramic technique. The formation of single phase cubic spinel structure of all the samples was characterized by X-ray diffraction technique. X-ray diffractograms did not show any impurity phases. The values of lattice constant increases as Copper (Cu^{2+}) percentage increases. The initial permeability μ_i was measured by measuring inductance (L) using LCR-Q meter. It is found that μ_i increases with Cu substitution. Curie temperature measured through permeability versus temperature plot.

Keywords: Spinel Ferrite, Initial Permeability, Curie temperature.

1. INTRODUCTION

The magnetic oxides, namely ferrites, having the formula MFe_2O_4 have been investigated extensively by many workers because of their interesting combined property of magnetic conductor and electrical insulator. They are of great importance to the technologists and academicians owing to their remarkable electrical and magnetic properties. The high electrical resistivity, low eddy current and dielectric loss, high saturation magnetization, chemical stability etc. are the important aspects of ferrite material which make them useful in many applications. These aspects are highly sensitive to the preparation methodology [1], amount of constituent metal oxide [2], sintering condition [3] etc. Usually, ferrites are prepared by ceramic technique. It is well-known that the properties of ferrite materials are influenced by the material composition and microstructure. The sintering temperature, sintering time, sintering atmosphere etc. also plays an important role in governing the properties of ferrites [4].

Spinel ferrites are important in several applications, hence studies of structural, electrical, magnetic and other properties of spinel ferrites is very essential [5-6]. The interest in these materials is sustained till date because of their applications in the field of drug delivery, multilayer chips, magnetic recording, sensors, catalysts, etc. The substitution of divalent, trivalent and tetravalent ions in spinel ferrites leads to diversification in various properties. The properties of spinel ferrites can be modified by substituting the various kinds of cations. In the literature, many reports are available on the structural, electrical and magnetic properties of Zn, Cd, Al, Cr, Ti, Mn substituted spinel ferrites [7-8].

In the present work, the properties of Nickel ferrites were modified by substituting Cu^{2+} ion in place of Ni^{2+} ions with a view to improve the permeability properties. We report the structural and initial permeability studies of $Ni_{1-x}Cu_xFe_2O_4$ with $x = 0.0, 0.2, 0.4, 0.6, 0.8, 1.0$.

2. MATERIALS AND METHOD

NiCu spinel ferrites of the chemical composition $Ni_{1-x}Cu_xFe_2O_4$ with $x = 0.0, 0.2, 0.4, 0.6, 0.8, 1.0$ were prepared by using the standard ceramic method. A.R. grade NiO, CuO and Fe_2O_3 were used for the preparation of ferrite as a raw material. The compositions of these ferrites are shown in Table 1. The oxides were mixed thoroughly and ground in stoichiometry proportion. First pre-sintering of powder was carried out at 1225K for 12 hr. The sintered powder is again reground and sintered at 1375K for 12 hr. To measure the initial permeability toroids of outer diameter 2 cm and inner diameter 1 cm are prepared. The prepared samples were characterized by X-ray powder

साहित्य, सिनेमा तथा समाज

डॉ. विष्णु गव्हाणे

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साहित्य जीवन और जगत के विविध पहलुओं को चित्रित करनेवाला सबसे समृद्ध तथा सशक्त साधन है। सामाजिक सभ्यता तथा संस्कृति का ज्ञान साहित्य से ही होता है। इसी कारण से हिंदी सिनेमा साहित्य कि और अधिक आकृष्ट हुआ। जिस प्रकार हिंदी सिनेमा निर्माता को साहित्य का आकर्षण रहा है उसी प्रकार हिंदी साहित्यकारों को भी हिंदी सिनेमा का आकर्षण रहा है। हिंदी के अनेक साहित्यकारों ने उत्कृष्ट कथा-लेखन, सवांद-लेखन, गीत-संगीत आदि रूपों में हिंदी सिनेमा को अपना योगदान दिया है।

सिनेमा जनसंचार मनोरंजन का एक लोकप्रिय माध्यम रहा है। जिस प्रकार साहित्य समाज का दर्पण होता है, उसी प्रकार सिनेमा भी समाज को प्रतिबिंबित करता है। भारतीय युवाओं में प्रेम के प्रति आकर्षण निर्माण करने की बात हो या सिनेमा के कलाकारों के पहनावे के अनुरूप फैशन का प्रचलन हो, यह सब सिनेमा का समाज पर प्रभाव दृष्टीगत होता है। हिंदी सिनेमा का स्थान समाज की दृष्टि से अत्यंत महत्वपूर्ण रहा है। भारतीय साहित्य, समाज, संस्कृति इन पर आधारित रचनात्मक रूप हिंदी सिनेमा पर इन सब का सामाजिक प्रभाव भारी रहा है। लेकिन कुछ लोगों का मानना है कि सिनेमा समाज के लिए अहितकार है तथा इसके कारण संस्कृति का न्हास होता है। समाज में फिल्मों के प्रभाव से फैली अश्लीलता तथा फैशन के नाम पर नंगेपण को, इसके उदाहरण के रूप में प्रस्तुत किया जाता है, किंतु सिनेमा के बारे में यह कहना केवल, बुराई फैलाता है, सिनेमा के साथ अन्याय करने जैसा होगा। सिनेमा देखकर उसके जो अच्छे विचार हो उन्हें ही आत्मसात करना है और बुराई को त्यागना।

सिनेमा का समाज पर बड़ा प्रभाव होता है। इसलिये इसे जन जागरूकता पैदा करने के लिए एक प्रमुख उपकरण के रूप में इस्तेमाल किया जा सकता है। एक सिनेमा हमेशा एक अच्छा मनोरंजन होता है।