3.3.1 Number of research papers published per teacher in the Journals notified on UGC website during the last five years :

2020-21

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISSN number	Link to the recognition in UGC enlistment of		
						Link to website of the Journal	Link to article / paper / abstract of the article	Is it listed in UGC Care list
Jagtikikaran ani Marathi Kavita	Biraris H. N.	Marathi	*Drishtikon*	2020	ISSN: 0975-119X	Drishtikon Prakashan		UGC Care List Journal
Agriculture Strategies to Mitigate Farmers? Sorrow for the Covid 19	Ahire S. C.	Geography	*AJANTA*	2020	ISSN : 2277-5730	www.sjifactor.com		UGC Journal List No. 40776
Study of Molecular Interaction of 2-(Dimethylamino)Ethanol	Bhadane S.J.	Chemistry	*Journal of Scientific Research, 65,7,12*	2021	ISSN : 0447-9483		Doi:10.37398/JSR.2021.650727;	UGC care list group:D
Medicinal plants Diversity in Nashik Distric (Maharashtra; India)-Polypetalae &	Karande, R. V	Botany	*Journal of Scietific Research*	2021	ISSN : 0447-9483		DOI:10.37398/ISR.2021.650720	UGC care list group:D
Ichthyofaunal diversity of Malangaon Dam Sakri Dist. Dhule.	Bhoi S. S.	Zoology	*Journal of Interdisciplinary Cycle*	2021	ISSN : 0022-1945		DOI:18:00021.JICR.2021.v1316.008301.317123001	UGC care Group-II Jr. list Sr. No.
Study of avian fauna of Malangaon Dam Sakri Dist. Dhule, Maharashtra, India.	Bhoi S. S.	Zoology	*The International Journal of Analytical and Experimental*	2021	ISSN : 0886-9367		DOI:18:0002.IJAEMA..2021.V1317.200001.015685932	UGC care Group-II Jr. list Sr. No. 36272
Histopathological changes in liver of freshwater fish, Channa marulius	Bhoi S. S.	Zoology	*Journal of Scietific Research*	2021	ISSN : 0447-9483		DOI:10.37398/ISR.2021.650719	UGC care list group:D

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"Sant sahitya parampara me Sant Kabirdas ka yogdan"	Marathe A. S.	Hindi	*AJANTA*	2020	ISSN 2277-5730	www.sjifactor.com		UGC Listed JournalJournal No. 40776
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Comparative Thermal Analysis Studies on Gel Grown Crystals of Li, Cu	Nandre S. J.	Physics	*Journal of Scientific Research*	2021	ISSN : 0447-9483	The Banaras Hindu University		UGC care list Group D,

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BHARTYA SAMAJATIL VIVIDHTA AANI EKATA	Korde Y. J.	**History**	*DRISHTIKON, VOL-12, ISSUE-7, MAY*	**2020**	ISSN-0975-	DRISHTIKON (EDUINDEX)		**UGC care list Journal**
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जागतिकीकरण आणि मराठी कविता

प्रा. डॉ. हेमराज नानाभाऊ बिरारीस
(मराठी विभाग)
उत्तमराव पाटील महाविद्यालय, दहिवेल
मो.नं.९४२२२१३३५२
hnbiraris14@gmail.com

गोषवारा

भारतीय समाज हा सर्वार्थाने एक अटळ बदलत्या टप्प्यावर आहे. खुल्या अर्थव्यवस्थेच्या स्वीकारानंतर फार मोठे बदल मानवी जीवनावर, समूहावर, समाज, संस्कृतीवर झालेले दिसून येतात. खाजगीकरण आणि जागतिकीकरणाचा प्रभाव भारतीय समाज व्यवस्थेवर वेगाने होतांना दिसत आहे. खाजगीकरण, उदारीकरण; जागतिकीकरणाचा फायदा जरी शहरी उद्योग जगतात प्रकर्षाने जाणवत असला तरी ग्रामीण व कृषी संस्कृतीची प्रचंड मोठी हानी झाली आहे. बाजारभाव व शेतकऱ्यांची आर्थिक स्थिती आणि शेतकऱ्यांच्या आत्महत्या या सर्व घटकांचा सहसंबंध जागतिकीकरणाशी लावला जातो. जागतिकीकरणाचे परिणाम सर्वच क्षेत्रांवर प्रभावित आहेत यातून साहित्यही सुटले नाही म्हणून नव्वदी नंतर मराठी साहित्यामधील कथा, कविता, कादंबरी, नाटक, वैचारिक वाङ्मय, भाषा संस्कृती इत्यादी सर्वच क्षेत्रांवर जागतिकीकरणाचा प्रभाव पडलेला दिसून येतो. समकालीन मराठी कविता ही जागतिकीकरणाच्या प्रक्रियेनंतर अधिकाधिक वास्तववादी चित्रण करते. साहित्य समाज जीवनाचा आरसा असते. जीवनाचे प्रतिबिंब त्यात पडलेले असते किंबहुना या प्रतिबिंबातील काही दुरुस्त्याही नंतरच्या काळात साहित्यातून झालेल्या दिसून येतात. मराठी साहित्यातील कविता हा एक प्रमुख प्रकार आहे. भोवतालच्या परिस्थितीचे निरीक्षण आकलन अनुभवाचे भाष्य करण्याचे प्रभावी साधन म्हणजे कविता असे म्हणता येईल. नव्वदीनंतर मराठी कवितेत काही कवींनी ग्रामीण दलित तसेच महानगरीय वास्तव जीवनाचे चित्रण केलेले दिसून येते. जागतिकीकरणाचा शिक्षण, संस्कृती, समाज, राजकारण, कृषी इत्यादी क्षेत्रांवर परिणाम झाल्यामुळे हे क्षेत्र कवितेत चित्रीत झाले. महानगरीय विकास, भांडवलशाही वर्गाचे हित जोपसणारा सत्तावर्ग परिणामी खालच्या वर्गाचे शोषण करत गेला आणि सबंध विषमता वाढली. याचे दर्शन मराठी कवितेच्या माध्यमातून समर्थपणे घडले. त्यात मराठी कवींची भूमिका महत्त्वपूर्ण राहीली. उत्तम कांबळे, यशवंत मनोहर, श्रीकांत देशमुख, इंद्रजीत भालेराव, अरुण काळे, अजय कांडर, दासू वैद्य, संतोष पवार, महेंद्र कुंभार, सुनील अवचार, अशोक कोतवाल, रावसाहेब कुवर, नीरजा, कविता महाजन, प्रज्ञा लोखंडे-पवार इत्यादींच्या काव्य लेखनातून

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VOLUME - IX, ISSUE - II - APRIL - JUNE - 2020
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1. Agriculture Strategies to Mitigate Farmers' Sorrow for the Covid-19

Dr. Ahire Suresh Chintaman
Uttamrao Patil Arts and Science College, Dahivel Dist. Dhule.

Introduction

Agriculture is basic Occupation in India. The Main source of livelihood for the country's 140 corer population is agriculture. The basic needs of food and clothing are met through agriculture. India's agriculture is composed of many crops, with the foremost food staples being rice and wheat. Indian farmers also grow pulses, potatoes, sugarcane, oilseeds, and such non-food items as cotton, tea, coffee, rubber, and jute. India is a fisheries giant as well the overwhelming size of the agricultural sector, however, yields per hectare of crops in India are generally low compared to international standards. Improper water management is another problem affecting India's agriculture. At a time of increasing water shortages and environmental crises, prospects of agricultural production during that period were not considered bright. The fact that is agriculture accounts for as much as a quarter of the Indian economy and employs an estimated 60 percent of the labor force. It is considered highly inefficient, wasteful, and incapable of solving the hunger and malnutrition problems. It is estimated that as much as one-fifth of the total agricultural output is lost due to inefficiencies in harvesting, transport, and storage of government-subsidized crops. Agriculture development is a major contributor to India's development. Waiver of farm lone, subsidies, agriculture export policy, technology, transportation, chemical fertilizers, hybrid seeds, pesticides etc. in this case the government's policy is accelerating development. But natural as well as manmade factors are a major obstacle in agriculture development. Due to unseasonal rainfall, early and let monsoon, cyclone, heavy rainfall, drought etc. cause many natural problems are facing agriculture. But COVID19 is big burning issue facing the world right now. Its effects on the agricultural occupation are also immediately visible. There are many big challenges facing on agriculture sectors.

The ongoing health crisis around COVID19 has affected all walks of life. Protecting lives of people suffering from the disease as well as frontline health responders have been the priority of nations. Governments have swung into actions since the Corona virus attack created an

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Study of Molecular Interactions of 2-(Dimethylamino) Ethanol with some higher Alcohols at 298.15K

S. J. Bhadane*[1], S.R. Patil[2], M.S. Borse[1]

[*1] Department of Chemistry, Uttamrao Patil Arts and Science College, Dahiwel (M.S.) India. sanjayjbhadane@gmail.com
[2]Department of Chemistry, Arts and Science College, Chopada (M.S.), India. srpatil_001@rediffmail.com

Abstract: **Viscosity(η), density(ρ), and ultrasonic velocity of 2-(Dimethylamino) ethanol with 1-butanol,1-pentanol, and 1-hexanol binary system of different compositions at 298.15 K were studied. The viscosity, density, and ultrasonic velocity data are used for the determination of excess molar volume (V^E), the viscosity deviation (Δη), and isentropic compressibility(ΔKs). These values were fitted with Redlich-Kister type polynomial equation. The value of viscosity was observed to decreases with an increase in concentration in the case of 1-Butanol and 1-Pentanol but a reverse trend is observed in the case of 1-Hexanol. A significant decrease in ultrasonic velocity was observed with increase concentration in the case of 1-Butanol and 1-Pentanol. The positive value of isentropic compressibility (ΔKs) for 2-(Dimethylamino) ethanol with a 1-butanol binary system is due to stronger polar interactions.**

Index Terms: **Viscosity, Density, Ultrasonic velocities.**

I. INTRODUCTION

Molecular interactions play an important role in liquid mixtures.. They affect the arrangement, orientation, and conformation of molecules in solutions. Ultrasonic energy is very useful in agriculture, medicine, engineering, and industry (Chauhan S. K. et al.,1993; Blokhra, R.L., et al.,1991). The Viscosity (η), Density (ρ), and Ultrasonic velocities (U) measurements find wide applications in characterizing the physicochemical behavior of liquid mixtures (Kinocid 1929; Mehra. K. S ,2000; Fort, R.J.et al.,1965).

2-(Dimethylamino)ethanol is a bifunctional compound containing both tertiary amine and primary alcohol functional groups. Amino-alcohols are bi-functional organic compounds having two kinds of polar groups, hydroxyl and amino groups, leading to complicated intermolecular interactions with the molecules having polar groups. They are used as chemical intermediates for the pharmaceutical industry (Lagemann R.T. et al.,1945; Puneet K.et al.,2013; Hawrylak, B., et al.,2000; Bernal-Garefa, et al.,2005). In multifunctional molecules, the exact hydrogen bonding with suitable molecule will result in micro and complicated competition between various possibilities, so the binary system of 2-(Dimethylamino) ethanol with 1-butanol,1-pentanol, and 1-hexanol are of considerable interest for finding the intra and intermolecular behavior of the present solvent system.

In this study, the measurement of viscosity, density, and ultrasonic velocity of a binary mixture of 2-(Dimethylamino) ethanol with 1-butanol,1-pentanol, and 1-hexanol at different compositions and at 298.15 K was carried out.

II. MATERIAL AND METHODS

2-(Dimethylamino) ethanol, 1-butanol,1-pentanol, and 1-hexanol used are 99% pure from E-Merck, Germany, and Sd Fine chemicals, India, without purification. The measured viscosities, densities, and ultrasonic velocities were compared with literature values, and the comparison is recorded in Table-1. The purities of the above chemicals were checked by density determination at 298.15K the uncertainty is less than ± $1x10^{-4}$ gcm^{-3}. The binary liquid mixtures of different known compositions were prepared in stopper measuring flasks. The density, viscosity, and ultrasonic velocity were measured as a function of the composition of the binary liquid mixture of 2-(Dimethylamino) ethanol, 1-butanol,1-pentanol and 1-hexanol respectively at 298.15 K. The density was determined using a Bi-capillary pyknometer. The weight of the sample was measured using an electronic digital balance with an accuracy of ± 0.1 mg (Model: Shimadzu AX-200). An Ubbelohde viscometer (20ml) was used for the viscosity measurement and efflux time was determined using a digital clock to within ±0.01s. An ultrasonic interferometer having the frequency of 2 MHz (Mittal Enterprises, New Delhi, Model: F-81) with an overall accuracy of ± 0.1% has been used for velocity measurement. An electronically digital operated constant temperature bath (RAAGA Industries) has been used to circulate water through the

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Medicinal Plants Diversity in Nashik District (Maharashtra: India)-Polypetalae& Gamopetalae

Ramdas Karande*[1], S.R. Kshirsagar[2], Shenpadu S. Bhoi[3]

[1] Department of Botany, Uttamrao Patil College, Dahiwel. Maharashtra, karande1969ramdas@yahoo.com
[2]P G Department of Botany, S S V P S's L K Dr P. R. Ghogrey Science College, Dhule, Maharashtra.
[3]Department of Zoology, Uttamrao Patil College, Dahiwel. Maharashtra,bhoiss16@gmail.com

Abstract: **Botanical survey on medicinal plants and their indigenous uses was carried out in Nashik district, Maharashtra. These areas are floristically rich areas where plants of various categories are growing spontaneously in their natural habitat. The rural community of these regions uses some of the plants as medicine for the treatment of various diseases and ailments. In this paper 47 genus and 50 species of medicinal plants belonging to 11 families were recorded from Nashik district. These medicinal plants are listed according to Bentham and Hooker's system such as Botanical name, local names along with family, Fruits and Flowers, part used and disease treated.**

Index Terms: **Medicinal plants in Nashik District Maharashtra, India.**

I. INTRODUCTION

Nashik District, with its diverse agro-climatic conditions and regional topography, has been considered as the treasure house or botanical garden of medicinal plants diversity and genetic resources. Hence, Plants are always considered as a primary source of drugs in traditional and alternative system of medicine in various forms such as crude form, juice, decoction, latex, and crude extracts. About 80% people of the world, particularly in the rural areas of developing countries, continue using traditional resources in healthcare. Large number of tribal communities also there and they survival form ancient times.

The tribal people primary healthcare is depending on the medicinal dwellers and his knowledge. Although, indigenous knowledge is transfer on orally from one generation to next generation without any writing records. Throughout human history, people have relied on natural products in general and the plants in particular, to promote and maintain good health and to fight sickness, pain, and disease. However, the past 200 years have witnessed not only an acceleration in the rate of extinction of plant and animal species, but also the erosion of traditional knowledge related to the medicinal properties and uses of plants and other natural products.

This knowledge becomes extinct of gradually. The traditional medicine is well established in Nashik District because of tribal community using a wide variety of plants for the treatment of various ailments. However, now-a-days these traditional medicinal plants knowledge record and preserve is important for the future studied to developed new drugs. Along with this traditional knowledge conservation in documentation research is important part for future generation. Although, there is only few research works on Medicinal plants was done past years in the Nashik District

Sr. No	Botanical name	Local name	Family	Frts &Fls	Parts used	Disease treated
1	*Woodfordia fruticosa* (L.) Kurz.	Dhawati	Lythraceae	Jan-Jun	[Fl.J]	Depurative, uterine sedative, constipating, antibacterial, febrifuge leprosy, skin, liver headache, hemorrhoids, hemorrhage, leucorrhea, disorders, menorrhagia, Juice of leaves is used in bilious sickness.

* Corresponding Author

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Journal of Interdisciplinary Cycle Research ISSN NO: 0022-1945

Ichthyofaunal diversity of Malangaon Dam Sakri, District Dhule (India).

Bhoi, S.S.

Department of Zoology, Uttamrao Patil Arts and Science College Dahiwel. (M. S.) 424304.

Corresponding Author: bhoiss16@gmail.com

ABSTRACT

The present study has shown that Malangaon Dam supported 20 fish species belonging to 6 orders, 9 families and 14 genera. The order Cypriniformes was dominant with 9 (45%) species followed by Perciformes with4 (20%) species, order Suliformes with3(15%) species, Synbranchiformes 2 (10%)species and Osteoglossiformes(5%)and Anguilliformes (5%) with single species each.

Key Words: Biodiversity, Ichthyofauna, Conservation, Malangaon, Protein etc.

INTRODUCTION

Malangaon Dam is one of the most important considerations of the fishery industry. It provides immense job near the people living at Malangaon Dam Sakri. The problem is solved to a considerable extent in rural areas there is a scope for self employment in fish culture of the Malangaon Dam Sakri.The freshwater fishes is controlled by a variety of factors and they are specialized aquatic dwellers some are surface feeders (*Catla catla*), some columns feeders (*Labeo boggut*) while others are bottom feeders (*Channa marulius, Channa punctatus* etc.) utilizing all the niches in the three dimensional space system(Patole and Patil, 2009).

Mankind is losing ground in the struggle of feed itself. Today the limited quantity of food calories is a great concern to many part of the under develop world but the quality, notably of protein is more crucial (Patole and More, 2010). Supplies of proteins are particularly scarce and costly in poorer nations. Forever one third of their populations the protein caloric balance of the diet is inadequate (Khodake *etal*., 2014). The gap is widening rapidly and protein problem is reaching a crucial stage. Fish are making important contributions to the world protein supply (Kawade and Pandarkar, 2015). Fish diversity is important represent the fish faunal diversity and their abundance (Patole, 2015). Dam

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UGC List No. Group-II

Study of avian fauna of Malangaon Dam, Sakridistrict Dhule Maharashtra, India

Bhoi, S. S.

Department of Zoology, Uttamrao Patil Arts and Science College Dahiwel. (M.S.) 424304.

Corresponding Author: bhoiss16@gmail.com

ABSTRACT

MalangaonDamSakri isa perennial Dam. It provideda good habitatfor residential and migratory birds. The present study deals with avifauna of Malangaon Dam which reveals the presence of 18 species of bird species with 10 different orders. The order Passeriformes is dominant over other bird species. Due to eneroachmentand anthropogenic disturbances, the resident and local migratory birds are threatened.

Key Words:Avifauna, Perennial, Wetland, Malangaon, Poaching etc.

INTRODUCTION

Birds are the best Known and most easily recognized of all animals. Birds have mixed with mankind in every aspect of life. They are unique in having feathers for flying which also clothe andinsulatetheir bodiestomakepossible a regulated body temperature. They have easilyavoided all kinds of enemies on landadopting an aerial modeof life. There are distinctive colorations and voices of birds were findingnear Malangaon Dam Sakri. Many birds are economic importancebecause of their food habits.

Fresh water wetlands are fragile ecosystems which are fast deteriorating and shrinking duetomanmade activities. Indiahas65,000 Wetlandscovering an area of 4.5 million hectares (Anon,1990). Indian Subcontinent represents 2094 forms belonging to 1200 species of avifauna (Aliand Ripley, 1983; Ripley, 1992). The abundanceof high ecologicaldiversity in thecountry and the diverse aquatic ecosystems ofIndia represent 417 formsbelonging to 318 species and 146 genera of the avifauna of the Subcontinent (Vijayan, 1991). A good number of works inrelation to birds have been done in India(Sampath and Krishnamurthy, 1993; Pentewar, 2018). The present study is carried out to asses Avianfauna of Malangaon Dam Sakri.

MATERIAL AND METHODS

Malangaon Dam is anideal habitat for wetland birds. The Survey of the avifauna of thisDamwasundertakenduring theperiod from November-2007 to December-2009. Thebirds were identified by available guideline given by Ali (1996);Sonobeand Usui

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Histopathological Changes in Liver of Freshwater Fish, *Channa Marulius* (Ham Buch) Exposed to Sub Lethal Concentration of Cypermethrin

Shenpadu Bhoi*[1], Satrughan Patole[2], Ramdas V. Karande[3]

*[1]Department of Zoology, Uttamrao Patil Arts and Science College Dahiwel (M. S.) bhoiss16@gmail.com

[2]Department of Zoology, V V. M's S G. Patil Arts, Science and Commerce College Sakri (M.S.) patolesg@gmail.com

[3]Department of Botany, Uttamrao Patil Arts and Science College Dahiwel (M. S.) karande1969ramdas@yahoo.com

Abstract. In the present study the toxic effects of Cypermethrin on the liver histology of fresh water fish, *Channa marulius* were investigated. The fishes were exposed to sub lethal concentrations i. e. 0.06 ppm and 0.18 ppm of Cypermethrin respectively for 96 h exposure period. Our result showed various histopathological changes like the liver hepatocyte degeneration, nuclear pyknosis, cellular swelling and congestion of blood vessels.

Index Terms *Channa marulius*, Cypermethrin, histological changes and liver.

I. INTRODUCTION

Histopathological investigation on different tissues of fish is tools for toxicological studies and monitoring water pollutions. In histopathology we can provide information about the health and functional of organs. While injuries in organs can result in the reduced survival, growth, fitness, low reproductive success and increase of susceptibility to pathological agent. (Velmurugan et al. 2009) observed the histopathological lesion in the liver tissue of fresh water fish *Cirrinus mrigala* exposed to sub lethal concentration of Dichlorfos. Frequently the intensity of tissue lesion depends on the concentration of insecticides caused specific or nonspecific histopathological damage (Devi and Mishra, 2013). Other researchers reported the same histopathological alteration in different tissue of fish treated with Lentrothion (Benli and Oykul, 2010), Aluminum (Hadi and Alwan, 2012), Diazon and temephos (Ba Omar, et al., 2013, Banaee et al., 2013).

The liver plays a key role in the metabolism and biochemical transformation of pollutant from environment and other histopathological alteration of the liver parenchyma or the bile duct (Anita et al., 2012). Fish liver regarded as major site of storage, biotransformation and excretion of pesticides. Deltramethrin exhibited vacuolation and multifocal hemosiderosis in the liver of Zebra fish, *Danio rerio* (Dilip and Badre, 2013). Nile tilapia when exposed to heptachlor, Laddese et al., 2014), liver showed severe damage of *Chaki albumus turichi* (Kaptaner et al., 2014), greater damage of Zinc oxide on liver of *Cyprinus carpio* (Subashkumar and Selvanayagam, 2015) and neoplastic lesion in the liver (Aswin et al., 2016). Chloroxuron had their effect on liver leaving altered lesion vacuolation in liver of fish, *Mystus tengara* (Nahid and Ahsan 2018).

Therefore, an attempt has also been observe possible histopathological changes in liver of *Channa marulius* exposed to sub lethal concentration of Cypermethrin.

II. MATERIAL AND METHODS

The fresh water fish *Channa marulius* weighing (15 ± 5 g) and length (10 ± 3 cm) were collected from Kan and Panzara river of Sakri Taluka (Dhule). Live fishes were brought to the laboratory in wide mouthed plastic containers. After thoroughly washed under tap water and acclimated to laboratory conditions for 15 days. They were fed with standard fish diet (Taiyu). Water in the tank was changes after 2 days of interval. Technical grade Cypermethrin was purchased from local market of Sakri. The fishes were divided into five groups, each group with ten healthy fishes. They were transferred to plastic tough having capacity of 10 litres. 4 groups were exposed to 1/4[th] and 3/4[th] sub lethal concentration (0.06 ppm and 0.18 ppm) of Cypermethrin. One group was kept as control.

At the end of exposure period, fish were randomly selected for histopathological examination. Tissue like liver was isolated

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"कोरोना वायरसचे संक्रमणाचे वास्तव व भारतीय समाजावरील प्रभाव- समाजशास्त्रीय अध्ययन"

"The Reality of Corona Virus Infection and its Impact on Indian Society" - A Sociological Study

प्रा. डॉ. सुनिल अजाबराव पाटील
समाजशास्त्र विभाग प्रमुख
उत्तमराव पाटील कला व विज्ञान
महाविद्यालय, दहिवेल ता. साक्री जि. धुळे
sunilapatil3373@gmail.com

• प्रस्तावना :-

कोरोना वायरसमुळे आज संपुर्ण जग महामारीच्या संकटात ओढले गेले आहे. आणि निसर्गाने जणू मानवाला घरात कोंडुन आपल्याला सर्व जिवना बाबत आयुष्याबाबत गंभीर पुर्वक विचार करायला भाग पाडले आहे. तसे पाहीले तर मानव आपल्या आयुष्यात फारच कमी वेळेत आपल्याला जिवनातील मुलगामी गोष्टींविषयी गांभीर्यपूर्वक विचार करतो प्रसिध्द शास्त्रज्ञ जे. बी.एच हाल्ट्रेन यांनी सामान्य व्यक्ती बाबत आपले मत मांडतांना असे म्हणले आहे की, "सामान्यतला सामान्य माणुस हा केवळ आपल्या वाईट काळात, संकट काळात त्याच्या मूलभूत प्रश्नांविषयी गंभीरपणे विचार करतो "परंतू भारतीय समाजाचा विचार केला तर हे आजही घडतांना दिसत नाही. म्हणजे भारतीय अजुनही आपल्या समस्येविषयी गांभीर्यपूर्वक विचार करतांना आढळत नाही. ही प्रामुख्याने चिंतेची बाब आहे.

कोरोना महामारी म्हणजे निसर्गाने मानवाला दिलेला इशारा आहे. असे मानावे कारण 200 वर्षापुर्वी प्रसध्दि लोकसंख्या शास्त्रज्ञ मालथस यांनी म्हटले होते की, मानवाने जर निसर्गावर आक्रमण केले किंवा आपला अतिहव्यास केला तर निसर्ग मानवाला आपल्या कवेत घेईल तो मार्ग भलेच नैसर्गिक आपत्ती जसे-त्सुनामी, चक्रीवादळ, भूकंप, महापूर, अवर्षण किंवा संसर्गजन्य रोग असे स्वरुप धारण करुन निसर्ग मानवाला धडा शिकवेल. ही भविष्यावाणी आज वास्तवात घडतांना दिसते आहे.

TRUE - COPY

PRINCIPAL,
Uttamrao Patil Arts & Sci. College
Dahivel, Tal. Sakri, Dist. Dhule.

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कोरोना - साथीच्या रोगामुळे टाळेबंदीचा (lock down) वर्तमान व भविष्यातील प्रभाव -समाजशास्त्रीय अध्ययन

डॉ. सुनिल अजाबराव पाटील
समाजशास्त्र विभाग प्रमुख,
उत्तमराव पाटील कला व विज्ञान महाविद्यालय, दहिवेल ता. साक्री जि. धुळे

प्रस्तावना -

कोरोना वायरस म्हणजे कोविड -१९ या साथीच्या आजारामुळे आज संपुर्ण देश व जग या महामारीच्या संकटात ओढले गेले आहे. आणि आज जगातील प्रत्येक समाजाला आंतर्मुख व्हावे लागते आहे. काही देशात मृत्यूचे तांडव सुरु आहे. तर काही देशांत संसर्ग व्हायला व वाढायला सुरुवात झाली आहे. आणि टप्याटप्याने यात वाढ होत आहे. परंतू हे संकट आटोक्यात आलेले नाही. कळत न कळत मानवाने हे संकट ओढवून घेतलेले आहे. आणि या महामारीच्या संकटात विकसित, विकसनशिल व मागासलेले अशा सर्वच वर्गातल्या देशांना याचा फटका बसला आहे. म्हणजे कोरोना संसर्गाने कोणत्याही देशावर भेदभाव केलेला नाही. या संसर्गात येणारे आणि ग्रस्त होणऱ्या लोकांची संख्या दिवसेंदिवस लाखोची उड्डाणे घेत आहे. या साथीच्या पसरणाऱ्या रोगामुळे आर्थिक, सामाजिक, राजकीय व्यवस्था ढवळून निघाली आहे.

चिनमधील वुहान शहरापासुन सुरु झालेला कोरोनाचा संसर्ग वाढत वाढत संपुर्ण जगात काही दिवसातच पसरला याचे मुख्य कारण या रोगाबाबत जनजागृती करण्यात काही देश कमी पडलेत तर काही देश आर्थिक सत्तेच्या मस्तीत राहीलेत, तर काही देशात निष्काळजीपणा व याकडे केलेले दुर्लक्ष यामुळे आज जगातील प्रत्येक देशासमोर व सर्व मानवी समाजासमोर एकच चिंता आहे ती म्हणजे या महामारीपासून वाचायचे कसे? आणि या संसर्गाला थांबवायचे कसे? आणि यातुनच वैद्यकीय उपचारांची पराकाष्ठा सुरु झाली. वैद्यकीय उपचार हे बाधीत लोकांसाठी आहेत परंतु हे संकट दुहेरी आहे. म्हणजे इतर लोकांना संसर्ग होऊ नये म्हणुन दुसरी यंत्रणा सुरु करणे आवश्यक आहे. त्यात पहिला पर्याय दिसला तो लॉकडाऊन (टाळेबंदी). आणि प्रत्येक देशांनी लॉकडाऊन स्विकारला म्हणजेच मानवाने घरातच राहणे आणि घरात राहुनच काम करावे "Stay Home, and work to Home".

आज प्रत्येक देशात विविध टप्पे करून लॉक डाऊन राबविला जात आहे. काही देशात तर आर्थिक आणिबाणी जाहीर केली. आर्थिक चक्र पुर्णपणे थांबले. अमेरिकेसारख्या आर्थिक महासत्ता असनाऱ्या देशात, इटली सारख्या वैद्यकिय प्रभाव असणाऱ्या देशात, युरोपिय देशात या महामारीने थैमान घालविणे सुरु केले. मी-मी म्हणणारे साम्राज्यावादी देश या महामारीपुढे हतबल झालेत आणि आपल्या भारताचा विचार केला तर आज जवळपास ५० हजारापेक्षा जास्त बाधीतांची संख्या असुन जवळपास ६ हजारापेक्षा जास्त मृत्यू झालेत. दिवसेदिवस ही आकडेवारी धक्कधक वाढवणारी आहे. आपल्या देशातल्या नेतृत्वानेही लॉकडाऊन स्विकारला आज लॉकडाऊनचा तिसरा टप्पा सुरु आहे. जवळपास दिड महिण्यापासुन घरात कोंडून रहावे लागते आहे. तरीही आपल्या समाजातील शिक्षित वर्ग शासनाने घोषित केलेल्या टाळेबंदिला (लॉकडाऊनला) हरताळ फासतो आहे. तर कुठे डॉक्टर, परीचारीका, (नर्स), पोलीस यंत्रणा यांच्यावर हल्ले होतांना पहावयास मिळतात, ते लोक ही स्वत:चा जिव धोक्यात घालून वैयक्तिक सुरक्षेसाठी त्यांनाही संघर्ष करावा लागतो आहे. हे चित्र एकूणच भारतीय समाजाला शोभणारे नाही. या रोगापासून बचावाचा मुख्य मुद्दा म्हणजे- स्वत:ला घरात बंद करुन घेणे व स्वत:चेही आणि इतरांचेही प्राण वाचविणे.

सद्यस्थितीत या महामारीमुळे साथीच्या रोगामुळे जगाचा इतिहास बदलताना पाहात आहे. लॉकडाऊनमुळे संपुर्ण जगात व देशात एक परिवर्तन होतांना दिसते आहे. या बदलत्या प्रवाहाचा संपुर्ण समाजावर, कुटुंबावर, अर्थ व्यवस्थेवर काय परिणाम होणार आहेत? व त्यातुन आपण काय शिकायचे आहे? त्यातुन समाजाला नवीन काय शिकता येईल? स्वत: मध्ये कसा बदल करता येईल? याचा विचार करणे आवश्यक आहे. या उद्देशाने अभ्यासकाने विचार करावयाचे ठरविले म्हणुन कोरोना साथीच्या रोगामुळे टाळेबंदीचा (लॉकडाऊनचा) सद्यस्थितीत व भविष्यातील प्रभाव-एक समाजशास्त्रीय अध्ययन हा संशोधनाचा विषय निवडला आहे.

संशोधनाचे उद्देश -

१) कोवीड-१९ चा वाढता प्रादुर्भाव परिणामांची जाणीव किंवा जागृतता लक्षात घेणे.
२) कोवीड-१९ च्या प्रसाराला प्रतिबंध घालण्यासाठी सूचविलेल्या उपायांचा अभ्यास करणे.
३) एकूणच जगातील मानवी जिवन पद्धतीत होणाऱ्या बदलाचा अभ्यास करणे.

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७. बहुआयामी व्यक्तित्व डॉ. बाबासाहेब आंबेडकर

डॉ. अशोक शामराव मराठे
हिंदी विभाग प्रमुख, उत्तमराव पाटील कला एवं विज्ञान महाविद्यालय, दहिवेल, तहसिल-साक्री, जिला-धुलिया ।

भारतीय संस्कृती मे चातुवर्ण्य व्यवस्था की अपनी एक विशेषता रही है । इस वर्ण व्यवस्था मे ब्राह्मण, क्षत्रिय, वैश्य और शुद्र का समावेश होता है । वैदिक काळ से लेकर आज तक किसी न किसी रूप मे यह व्यवस्था भारतीय संस्कृति में विद्यमान रही है । जाति प्रथा के इस रूप ने भारतीय समाज व्यवस्था को जितना विखण्डीत किया शायद उतना किसी व्यवस्था से नही हुआ है । परिणाम स्वरूप हम निरंतर अभिजात्य और दलित वर्ग मे बटते गये और बटते जा रहे है । दलित वर्गो को समाज की मुख्यधारा मे प्रवाहित करने के लिए अनेक प्रयास किये गये । जिनमे गौतम बुद्ध से लेकर महात्मा गांधी तक अनेक महापुरूषो ने अपनी महत्वपूर्ण भूमिका निभाई है । ऐसे महापुरूषो की कडी मे जुडनेवाला एक नाम भारतरत्न डॉ. बाबासाहब भीमराव रामजी आंबेडकर का भी आता है । जिन्होने भारतीय समाज मे समानता भाईचारा लाने के लिए अपना पूरा जीवन अर्पित कर दिया ।इसके संदर्भ मे डॉ. मोहन सिंह लिखते है कि, "जब करोडो भारतीयदलित समाज अज्ञान अंधकार मे तडप रहा था, चातुर्वर्ण्य की परपरा मे पीसा जा रहा था, ऐसे मृतवत, अस्पृश्य दलित समाज मे डॉ अम्बेडकर ने स्वअस्तित्व की सामर्थ्य, अस्मिता एव क्राति की आग जलाई, जिसमे सामाजिक न्याय के लिए अनेक दलित कार्यकर्ता आत्मबलिदान के लिए खडे हुए ।"[१]

डॉ. बाबासाहेब अंबेडकर बहुआयामी व्यक्तित्व के धनी थे । जिन्हे वैश्विक स्तर पर एक समाजसुधारक, चिंतक, लेखक, वकील, दार्शनिक, राजनीतिक, अर्थशास्त्री, सासद, मत्री, एव सविधान के निर्माता के रूप जाना जाता है । डॉ. अंबेडकर ने केवल दलितों के लिए सामाजिक, राजनीतिक, आर्थिक तथा शैक्षिक चेतना नही जगाई, बल्कि संपूर्ण मानव जात के लिए उनके प्रतिनिधी के रूप मे भारतीय राजनितियो तथा अंग्रेजी सरकार के प्रतिनिधियों से समता, समानता एवं भाईचारे की लढाई लढते हुए भारतीय सविधान की रचना मे महत्वपूर्ण भूमिका निभाई ।वे भारत के इतिहास मे ऐसे पहले व्यक्ति थे, जिन्होने छुआछूत, अपमान, सामाजिक अन्याय और पीडा को पहले स्वय झेला था और जितने सभी कठीनाइयो और जटिलताओ को पार करने के बाद ज्ञान और राजनीति के क्षेत्र मे संसार भर मे ख्याति पाई थी । जब उन्होने दबे कुचलो को यह एहसास कराया कि वे भी इंसान है और उन्हे समाज में बराबरी का हक जितना चाहिए तो मानो उन्होने बेजुबानो को स्वर दिया और उनकी आर्थिक पहचान बनाई । उनकी इस दलित समाज के प्रति समर्पण की भावना को देखते हुए वी जी खैर कहते है कि, "मै अंबेडकर के इस कथन का सम्मान करता हूँ कि उनके निजी हित और देश के हित मे टकराव होगा तो वे देश को प्राथमिकता देगे । माननीय सदस्य के जीवन और कार्यो से मै निकट से परिचित हूँ और मै कहूँगा कि उनकी यह बात पूरी तरह सच है । उन्होंने देश की भलाई की तुलना मे अपने व्यक्तिगत उत्कर्ष को गौण माना । वे वे दलितो को तरजीह देंगे ।"[२] अर्थात वे संपूर्ण रूप मे दलित समाज के प्रति समर्पित थे ।

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Asst. Prof. Vinay Shankarrao Hatole
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M.Drama (Acting), M.Drama (Prod. & Dir.), M.Ed.

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२३. संत साहित्य परंपरा में संत कबीरदास का योगदान

डॉ. अशोक शामराव मराठे
उत्तमराव पाटील कला एवं विज्ञान महाविद्यालय, दहिवेल, तहसील - साक्री, जिला -धुलिया.

हिंदी साहित्य के इतिहास में भक्तिकाल हमारी प्राचीन समृद्ध और शक्तिशाली भारतीय संस्कृति का निदर्शन संगीत है। अपने मूल्यबोध, भावबोध और सौंदर्यबोध के कारण ही इसे सुवर्णयुग के नाम से जाना जाता है। इस काल के साहित्य का महत्व किसी एक काल के लिए न होकर सार्वकालिन सिद्ध हुआ है। अंधकार में भटकते मध्यकालीन मनुष्य को इसने ऊर्जा प्रदान की थी। आज भी भौतिकता, वैचारिक उलझन, हिंसा तथा अविश्वास से ग्रस्त वर्तमान मानव समाज को ऊर्जा एवं प्रकाश दे सकता है। वर्तमान भारतीय परिवेश के परिप्रेक्ष्य में इस महान साहित्य की प्रासंगिकता निर्विवाद रूप से स्वीकार्य है। यह साहित्य मानव मूल्यों से भरा हुआ शाश्वत साहित्य है। भक्तिकाल में सगुण एवं निर्गुण साहित्य के रूप में दो धाराओं का विकास हुआ है। जायस, सिंगरौली जैसे संतों के नाम निर्गुण संतों में उल्लेखनिय रहे है। संतो की वाणी पर भारतीय संस्कृति एवं वेदांत दर्शन का प्रभाव अवश्य रहा है। आध्यात्मिक दर्शन पर ही संत साहित्य की पृष्ठभूमि आधारित है। उपनिषद ही भारतीय दर्शन का मूल स्रोत है। उपनिषद भारतीय दर्शनशास्त्र और धार्मिक संपदायों की नींव के समान है। इन्हीं संतो की निर्गुण परंपरा में आगे वाला एक नाम संत कबीरदास का भी आता है। जिनके द्वारा साहित्य में व्यक्त विचारों पर हमें चिंतन करना है।

संत कबीरदास मध्यकालीन भक्ति-आंदोलन के प्रमुख कवि है, उनका व्यक्तित्व अद्वितीय है। उन्होंने जो कुछ भी कहा है उसे उनके शिष्यो ने लिपिबद्ध किया है। कबीरदास की वाणी का संग्रह 'बीजक' नाम से प्रसिद्ध है। जिसके साखी, सबद, रमैनी जैसे तीन भाग किये है। उनकी रचनाओं में उनका व्यक्तित्व पखरता से झलक पडता है। इसलिए मध्ययुगीन भक्तो में कबीर का व्यक्तित्व अपनी दृढता, प्रखरता और सहजता के कारण आरंभ से ही आकर्षण का केंद्र रहा है। कई इतिहास लेखकों, धर्म और संप्रदाय का अध्ययन करनेवाले विद्वानो, हिंदी साहित्य का विश्लेषण करनेवाले आलोचकों तथा उनके विचारों को प्रकट करने की चेष्टा की है। संपूर्ण संत साहित्य पर उनके विचारों को प्रकट करने की चेष्टा की है। संपूर्ण संत साहित्य पर उनके विचारो की गहरी छाप है। नाभादास से लेकर आधुनिक युग के विचारो एवं आलोचकों सभी ने कबीर के काव्य एवं व्यक्तित्व को समझने का प्रयास किया है और हो भी रहा है। ऐसा लगता है कि कबीर का काव्य एवं व्यक्तित्व काळ-सापेक्ष अधिक प्रभावशाली एवं महत्वपूर्ण होता जा रहा है।

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तथा सोसायटी केवल लगाना चाहिए जिससे स्टाम्प रूप में आवश्यक राशि प्राप्त हो सके जिससे विश्वास बहाल हो सकता है। ईवीएम मशीन को अधिक पारदर्शी बनाया जाना चाहिए जिससे लोगों में किसी प्रकार गड़बड़ी न हो। इसके लिए सरकार एवं निर्वाचन आयोग को चाहिए कि ईवीएम में किसी प्रकार हेरा न हो तथा लोगों के विश्वास के अनुरूप चुनाव संपन्न हो इसके लिए कठोर कानून बनाये जाने की आवश्यकता है।

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मैत्रेयी पुष्पा का उपन्यास इदन्नमम में नारी संघर्ष

प्रा.डॉ. अशोक श्यामराव मगठे
हिंदी विभाग प्रमुख,
उत्तमराव पाटील कला व विज्ञान महाविद्यालय,
दहिवेल, तह. साक्री, जि. धुले

साहित्यकार अपनी रचनाओं में जिस किसी कथ्य को प्रस्तुत करता है उसका मूल आधार मानव जीवन के विविध प्रश्न होते हैं। केवल कहानी ही नहीं अपितु सभी साहित्यिक कलाकृतियों का मूल उद्देश्य मनुष्य चरित्र को जगाने का होता है। मनुष्य ही मनुष्य के लिए सबसे बड़ी चुनौती रहा है। अनंत काल से मनुष्य अपनी और अपने आस—पास के मनुष्य को खोज कर रहा है। मनुष्य को उसके संपूर्ण अस्तित्व के साथ जानने की जिज्ञासा के कारण ही कलाकृति की निर्मिति होती है। मनुष्य में जब वह कुछ विशेष देखता है तब उस विशेष को वह दूसरों तक पहुँचाना चाहता है। यह विशेष उस मनुष्य की अच्छाई या बुराई, उत्कृष्ट या निकृष्ट कुछ भी हो सकती है। इसी विशेष को साहित्यकार शब्दों में पकड़ना चाहता है। साहित्य निर्मिति के कार्य में स्त्री—पुरुष साहित्यकारों का समानांतर योगदान रहा है। आगे चलकर आधुनिकता के कारण और राजनीतिक विधान से उत्प्रेरणा पाकर नर—नारी समानता की बात सामने आयी। स्त्री मुक्ति के लिए आंदोलन हुए। अपने स्वतंत्र अस्तित्व के साथ—साथ अपने स्वत्व की रक्षा के लिए हर मोर्चे पर लड़ने की तैयारी की गयी। परन्तु दुर्भाग्य यह है कि आज भी नारी विषयक चिंतन में संपूर्ण परिष्कार नहीं हुआ। परिणाम स्वरूप महिलाओं ने अपने जीवन में भोगे हुए दर्द को अपनी कलम से लिखने की ठान बनाई। अपनी जिंदगी और अपने वजूद को व्याख्यायित करने का

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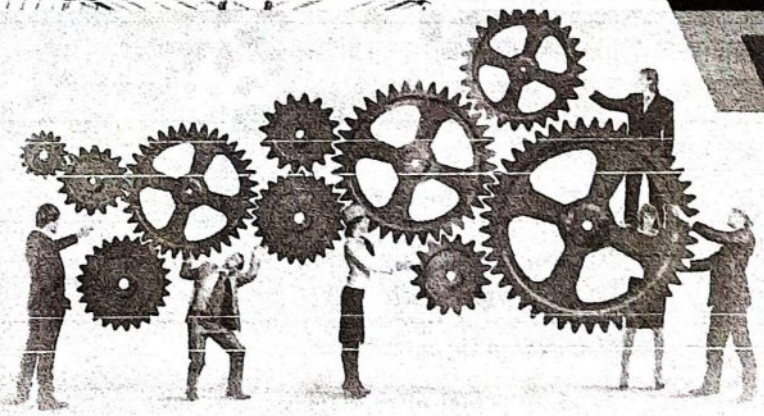

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१५. संत साहित्यातील निसर्ग जाणिवा

प्रा. डॉ. सुनिल भावराव देसले
उत्तमराव पाटील कला आणि विज्ञान महाविद्यालय, दहिवेल, ता-साक्री, जि. धुळे.

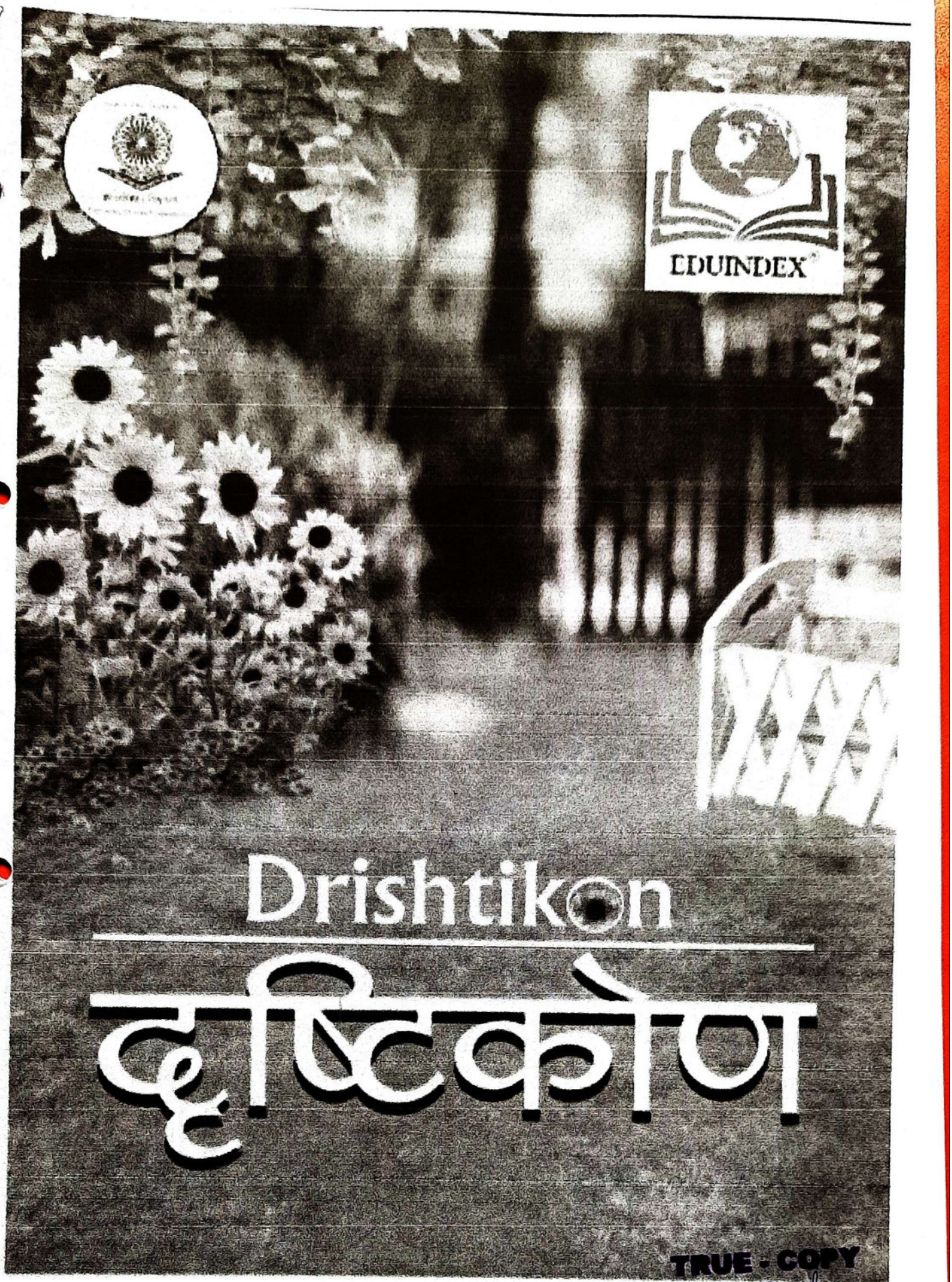
प्रस्तावना

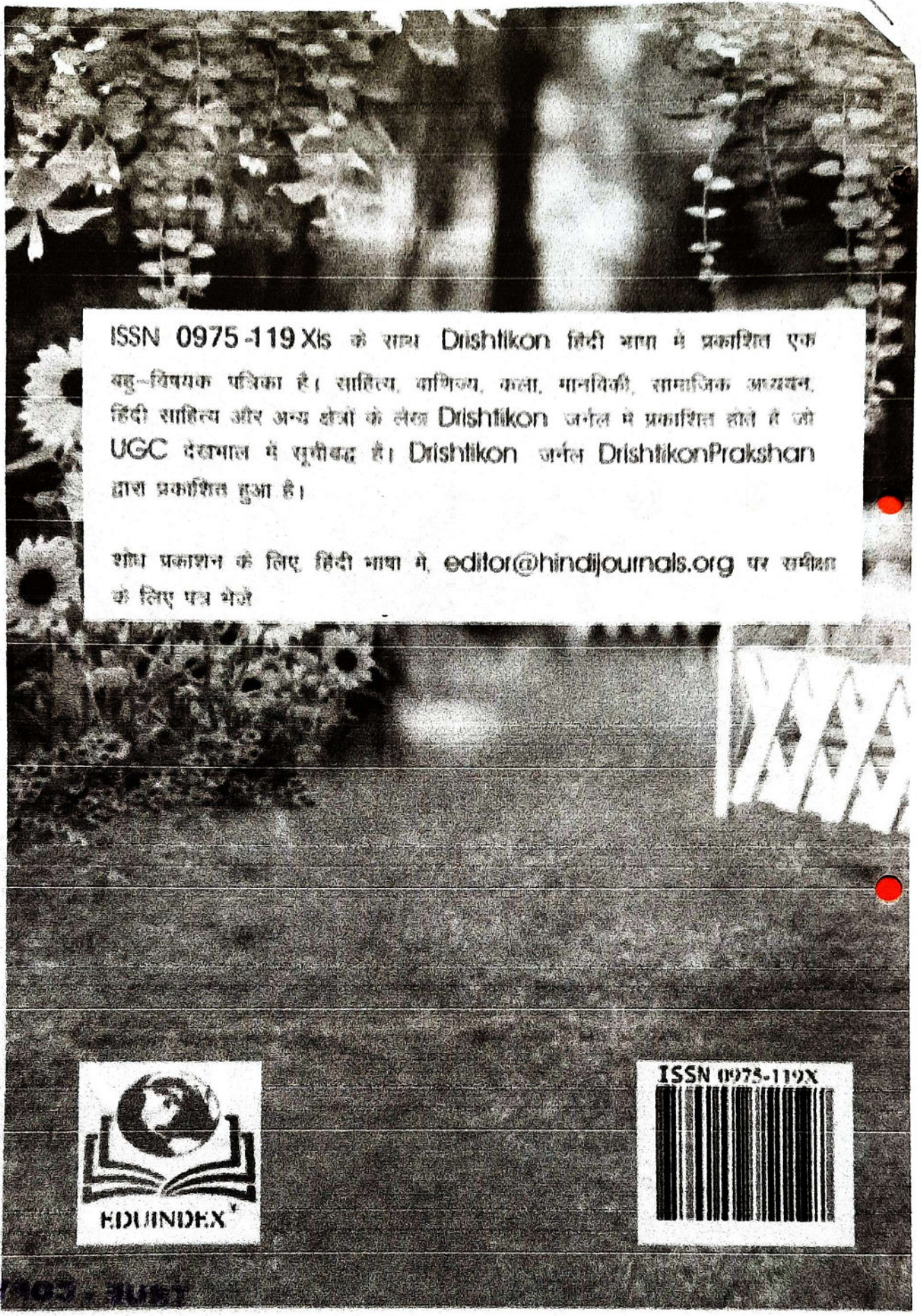
मानवप्राणी हा निसर्गातील एक महत्वाचा घटक आहे. निसर्गातील इतर सजीवांपेक्षा तो बुध्दीने पर्यायाने ज्ञान आहे. प्राचीन काळापासून मानवाने निसर्गाशी जुळवत आपले अस्तित्व विस्तारले, मात्र या विस्तारलेल्या अस्तित्वानेच अस्तित्वात कमी केले आणि परिणामत: मानवाचेच अस्तित्व धोक्यात आले. मानवाने आपल्या बुध्दीच्या जोरावर अफा केली तो परग्रहावर वस्ती करण्याचे स्वप्न पाहू लागला मात्र या सर्व गोष्टी करीत असतांना मानवाने निसर्गाला गृहि आपली प्रगती साधली, त्याचाच परिणाम निसर्गाची प्रचंड हानी झाली, निसर्गाचा समतोल ढळला आणि निसर्ग असमतोलाचे परिणाम मानवाला आता भोगावे लागत आहे हे सत्य नाकारून चालणार नाही. मानवाचा निसर्गाशी व्यवहार कसा असावा याचा विचार आज आपणास करणे अत्यंत गरजेचे झाले आहे.

मानवाने निसर्गाच्या केलेल्या हानीचा परिणाम त्याला आज जरी भोगावे लागत असतील तरी या मराठीभूमीत शतकापासून झालेल्या संतांनी आपल्या अभंगगातून किंवा उपदेशातून मांडणी करतांना मानवाचा निसर्गाशी कसा असावा, निसर्गाचे मानवीजीवनात किती महत्तव आहे याची जाणीव करून दिली. तेराव्या शतकापासून ते सतराव्या शत म्हणजेच ज्ञानेश्वर –नामदेवापासून ते तुकाराम – रामदासापर्यंतच्या संत प्रभावळीने आपल्या उपदेशातूनच नाही तर कृतीनेही मानवाच्या निसर्गाविषयक जाणीवा जागृत किंवा सजग करण्याचा प्रयत्न केला आहे. त्यांच्या मांड निसर्गविषयक जाणीवा शोधणे किंवा उजागर करणे आजच्या प्राप्त परिस्थितीला महत्वाचे आहे.

निसर्ग या संकल्पनेत जैविक –अजैविक घटकांचा समावेश होतो त्यात, प्राणी, पशुपक्षी, मानव, झाडे, नदी, हवा, पाणी सर्व घटाकांचा समावेश होतो. यातील प्रत्येक घटक एकमेकांवर अवलंबून आहेत. मात्र यातील मानव हा जरी निसर्गाची देण असला तरी त्याने आपल्या जीवन जगण्याच्या क्रियेतून या सर्व घटकांवर कमी जास्त प्रभार टाकल हे सत्य आहे मानवाने आपलया जीवनपध्दतीत सांगून जाऊन भोगवादी जीवनशैलीतून नैसर्गिक घटकांना ओरबाडले अस

सृष्टीचक्रात अडथळे निर्माण होणची वेळ आली आहे आणि त्यचे भयंकर परिणामही मानवाला भोगावे लागत किंवा दिसत आहेत, म्हणूनच मानवी मनात निसर्गाविषयक जाणिवा निर्माण करणे गरजेचे आहे. आपल्या संस्कृतीने उच्च स्थान दिले व त्यांच्या विचारांचा स्विकार केला. संताच्या विचारात जसा अध्यात्म पेरलेला आहे तसाच मानवी जं निसर्गाचे स्थान काय आहे याची जाणीव त्यांना झालेली होती तोच तत्कालीन मानवी कृतीचा बोध त्यांना झाला असावा पुढे निसर्गावर येऊ घातलेल्या संकटाची चाहूलच त्यांना लागली होती की काय याची सुचकताच त्यांच्या मांडणीतून आ





ISSN 0975-119 Xis के साथ Drishtikon हिंदी भाषा में प्रकाशित एक बहु-विषयक पत्रिका है। साहित्य, वाणिज्य, कला, मानविकी, सामाजिक अध्ययन, हिंदी साहित्य और अन्य क्षेत्रों के लेख Drishtikon जर्नल में प्रकाशित होते हैं जो UGC देखभाल में सूचीबद्ध है। Drishtikon जर्नल DrishtikonPrakshan द्वारा प्रकाशित हुआ है।

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जागतिकीकरणाचा प्रभाव दर्शविणारे नाटक 'दर्शन'

प्रा. डॉ. सुनिल भावराव देसले
उत्तमराव पाटील महाविद्यालय, दहिवेल
ता. साक्री, जि. धुळे
sb2desale@gmail.com

गोषवारा :

विसाव्या शतकाच्या उत्तरार्धात गॅटसारख्या करारातून मुक्त व्यापार ही संकल्पना जगाने मानली आहे. परिणामत: जांगतिकीकरणाच्या प्रक्रियेला वेग आला. जागतिकीकरणाच्या प्रभावाने मानवी जीवनातील साहित्य, संस्कृती, भाषा, नातेसंबंध, राजकारण, अर्थकारण आणि समाजकारण या सर्व क्षेत्रात बदल घडून आला. जागतिकीकरणाचा प्रभाव सर्व जगावर पडला असला तरी मराठी माणसांवर त्याचा कसा आणि किती परिणाम पडला याचे दर्शन आपणास 'दर्शन' या नाटकातून होते. भारतीय संस्कृती आपणास नितीमूल्यांची शिकवण देते. आईवडिलांना देव मानणारी आपली संस्कृती आहे. मात्र जागतिकीकरणाच्या प्रवाहातून या नितीमूल्यांची पायमल्ली होताना दिसून येत आहे. त्याचे उदाहरण 'दर्शन' नाटकातील कुमार या नाटककाराच्या आपल्या आई-वडिलांकडून असलेल्या अवास्तव अपेक्षा भारतीय संस्कृतीतील पवित्र नात्यांवर पाणी फिरवतांना दिसतात. तसेच भुकेल्या मानसाला भाकर आणि तहानलेल्या मानसाला पाणी देणे ही आपली संस्कृती. मात्र जागतिकीकरणामुळे हे मूल्यसंस्कार पायदळी तुडविले गेले. प्रत्येकात व्यवहार शिरला म्हणून 'दर्शन' नाटकात तहानलेल्या सेल्समनला ती बाई पाणी देत नाही. समाजातील नष्ट होवू पाहणाऱ्या मूल्यसंस्कारांना जपणे आपल्या समाजासाठी आणि संस्कृतीसाठी महत्त्वाचे आहे, याची जाणीव श्याम मनोहरांच्या 'दर्शन' नाटकातून होते.

जागतिकीकरणाचे स्वरुप :

विसाव्या शतकाच्या उत्तरार्धात गॅटसारख्या करारातून मुक्त अर्थव्यवस्था आणि मुक्त व्यापार या संकल्पना जगाने मान्यल्या परिणामत: जागतिकीकरणाच्या प्रक्रियेला वेग आला. संपूर्ण जगात औद्योगिक विकासाने वेग पकडला. परिणामत: आपल्या देशातल्या प्रत्येक क्षेत्रात वेगवान घडामोडी घडून येऊ लागल्या. जागतिकीकरणाच्या या प्रक्रियेचा माणसाच्या मनापासून ते भौतिक साधनापर्यंत आणि राजकारणापासून ते समाजकारणापर्यंत जीवनातल्या प्रत्येक क्षेत्रावर प्रभाव पडू लागला आहे. औद्योगिकरणाच्या प्रचंड विकासामुळे व दळणवळणातील प्रगतीमुळे जग जवळ आल्याचे बोलले जावू लागले. परिणामत: जगाचे एक वैश्विक खेडयात रुपांतर झाल्याचा अनुभव येऊ लागला. मात्र त्यातून

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२९. डॉ. बाबासाहेब आंबेडकरांचा पत्रकारितेविषयीचा दृष्टिकोन : एक अभ्यास

प्रा. डॉ. सुनिल भावराव देसले
उत्तमराव पाटील महाविद्यालय,दहिवेल, ता- साक्री, जि, धुळे.

प्रस्तावना

मराठी भाषेतील पत्रकारितेची मुळे आपणास राजेरजवाड्यांच्या पत्रव्यवहार आणि तत्कालिन बखर वाङ्मयात सापडतात, मात्र ब्रिटिश राजवटीत आलेल्या आधुनिकतेमुळे १९ व्या शतकाच्या प्रारंभीच खऱ्या अर्थाने मराठी पत्रकारितेचा उदय झाला. मराठी पत्रकारितेचा उदयकाल हा व्यावसायिक दृष्टिकोनाचा नव्हता तर त्यामागे समाजप्रबोधन ,समाजजागृती किंवा विशिष्ट विचारांची समाजात पेरणी (स्वातंत्र्य जागृतीचे विचार) अशा स्वरुपाचे होते. मात्र परिल्या महायुद्धानंतर सर्वच क्षेत्रात बदल घडत गेले परिणामत: पत्रकरितेत ही व्यावसायिक स्वरूप स्विकारले गेले. आणि स्वातंत्र्यानंतर त्याचे पूर्णत: बाजारीकरण केले गेले.

मराठीत 'दर्पण' सारख्या वृत्तपत्राने समाजसुधारणासारखे ध्येय समोर ठेवून आपली वाटचाल केली, त्यानंतर मुंबई अखबार, प्रभाकर, ज्ञानप्रकाश यासारखे असंख्य वृत्तपत्र निर्माण झाले आणि आपल्या उद्देशानुसार कार्य करू लागली. शमाजात वदल घडवून आणण किंवा समाजाचा दृष्टिकोन बदलने, समाजाला दिशा देण्यासाठी अनेक विचारवंतानी वृत्तपत्राला आपले हत्यार बनविले त्यातीलच एक थोर विचारवंत म्हणजे डॉ. बाबासाहेब आंबेडकर आहेत.

पत्रकारितेतील डॉ. बाबासाहेबांचे कार्य

डॉ. बाबासाहेब आंबेडकरांचे सामाजिक कार्य देशासाठी त्यांनी केलेले कार्य सर्व परिचित आहे, मात्र त्यांनी पत्रकारित क्षेत्रात केलेले कार्य मराठी वृत्तपत्र सृष्टीला दुर्लक्षित करता येणार नाही. डॉ. बाबासाहेब आंबेडकर यांनी अत्यंत प्रतिकूल परिस्थितीत सतत सनातनी समाजव्यवस्थेविरुद्ध लढून बंड केले आणि यशही मिळविले. व उच्च समाजाचे ज्या घटकांवर पिढ्यापिढ्या अन्याय अत्याचार केला अशा दोन, दलित, शुद्र, अतिशुद्र यांना न्याय देऊन त्यांना सामाजिक, आर्थिकदृष्ट्या प्रगतकरण्याचे काम केले. त्यासाठी त्यांनी आंदोलनासारखे मार्ग स्विकारले आणि या आंदोलनाला धार आणण्याचे काम त्यांच्या पत्रकारितेने केले. त्याच्या पत्रकारितेने लोकजागृती, प्रबोधन, लोकशिक्षण आणि समाजविकासाच्या प्रक्रियेला गतिमान केले. त्यांच्या वृत्तपत्रिय लेखनात न्याय, स्वातंत्र्य, समता आणि बंधुता या चतु:सुत्राचा स्विकार होता मात्र खून मोठ्या काळापर्यंत प्रचलित व्यवस्थेने त्यांच्या पत्रकारितेची दखल घेतली नाही.

डॉ. बाबासाहेब आंबेडकरांनी तत्कालीन परिस्थिती अपरिहार्यता म्हणूनच 'मूकनायक' (१९२०) आणि प्रबुद्ध भारत (१९५६) या सारख्या वृत्तपत्रांचा होता. या वृत्तपत्राच्या माध्यमातून त्यांनी जनतेच्या सामाजिक, आर्थिक, राजकीय व

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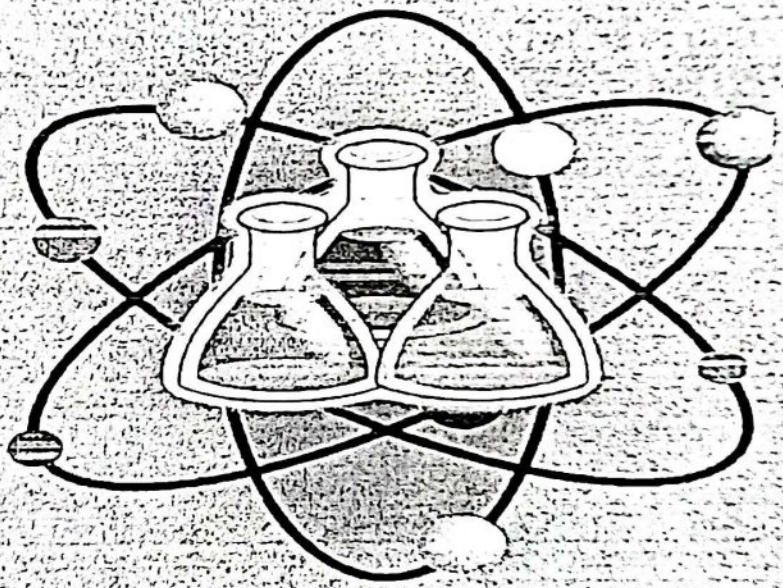

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Synthesis of Cobalt Oxalate Crystal in Agar Agar Gel

H.S.Pawar[1], S.J.Nandre[2], N.B.Sonawane[3] and P.P.Ahire[4]

[1]V.J.N.T. Late Dalpatbhau Rathod Junior College,Mordadanda (Dhule)

[2]Department of Physics,Uttamrao Patil Arts and Science College,Dahivel,(Dhule) M.S.

[3]Department of Physics, Karm A.M.Patil Arts,Commerce and Science College,Pimpalner (Dhule)

[4]Department of Physics S.G.Patil Art's, Commerce and Science College,Sakri(Dhule) M.S.

ABSTRACT

Cobalt oxalate crystals were prepared by gel method using agar-agar gel. In the present investigation, the cobalt oxalate was grown by single diffusion technique. Applying different parameter, the effect on growth of cobalt oxalate was studied. The parameter like concentration of gel, concentration of reactants, aging period, reversing of reactants found affecting the growth.[1] The growth was also studied by using different sizes of the test tubes. The nucleation was controlled by using such parameters and optimum conditions are obtained. Such grown crystals were found in different shape and transparency. The Surface morphology was studied by optical microscopy.

Keywords: Crystal growth, Gel method, Agar agar gel, Optical microscopy

Introduction

It has long been appreciated that advances in solid state science depends critically on the availability of defect free single crystal specimens. As a result, an enormous amount of labour and care has been lavished on the development of growth techniques. In terms of crystal size, purity and perfection, all the techniques used for the growth of single crystals from melt, vapour, and solution have their own inherent constraints. In spite of the technological advancement in condensed matter physics, crystal growing is still an extremely difficult task requiring great expertise and skill. This method is useful to grow the oxalates because they are insoluble in water and decompose before melting point. Many researchers have grown these crystals by using this technique in silica gel[2 -7] and gelatin gel, however very few researchers used the agar agar gel. The agar agar gel is not pH dependent and again makes the method simple. Khan et al in 1976 reported the growth of transition metal cobalt oxalate in silica gel.

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Comparative Thermal Analysis Studies on Gel Grown Crystals of Li, Cu and Mixed Li-Cu tartrate

D. V. Sonawane [*1], S. J. Nandre [2], R.R. Ahire[3]

[*1] J.E. S'S Arts, Science and Commerce College, Nandurbar (MS) India, Dvsonawane68@rediffmail.com
[2] Uttamrao Patil Art's Commerce and Science college, Dahiwel, Tal. Sakri, Dist.-Dhule (MS) India
[3]S.G. Patil Art's Commerce and Science College, Sakri, Dist.-Dhule (MS) India

Abstract: **The Natural as well as Gel grown crystals plays an important role in modern technology development. Gel method for the growth of crystals which are insoluble or sparingly soluble in water is the best alternative for the growth of many crystals. Crystals grown by gel method are relatively perfect compared to the other methods. In the present investigation crystals of Li- tartrate, Cu-tartrate and Mixed crystals of Li-Cu tartrate have been grown by single diffusion gel technique. The Thermal Analysis studies of these crystals are carried out in this work. The Thermal Analysis studies on these crystals.**

Index Terms: **Gel method, Thermal Analysis, Li, Cu and mixed tartrate.**

I. INTRODUCTION

It is well established that there is extensive study on tartrate-based crystal grown by gel technique, however, we have found that there are few reports on the lithium tartrate-based crystal because of its chemical properties (Henisch H.,1970; Henisch H..1986; Sawant D., et al., 2011; Patil H., et al.,2012). Therefore, in the present study, we have investigated the growth mechanism of lithium tartrate, copper tartrate and mixed lithium-copper tartrate crystals. All the three types of crystals were grown by gel method by using single diffusion techniques, the crystal growth procedures and various different parameters affecting the growth of the crystals are discussed. The present paper contains the comparative study of all crystals under investigation regarding their growth and Thermal Analysis study. All results obtained are put at a glance in present paper.

II. GROWTH OF CRYSTALS

In The crystals of lithium tartrate, copper tartrate, and lithium-copper tartrate were grown by gel method by using single diffusion technique.

Table 1 gives details regarding method and chemicals used, different habits of crystals obtained and their transparency etc. In the present work, we obtained semitransparent, shiny and star shaped lithium tartrate crystals. The copper tartrate crystals were of diamond shaped with bluish color, while the mixed lithium-copper tartrate crystals were whitish blue in color and having a cubic shape. The adopted single diffusion gel technique proved to be beneficial because of it only we successfully obtained well-shaped and good quality crystals. All the well-defined good quality crystals were found below 2 to 3 cm in the gel interface (Krishnakumar V., et al.,2009; Sawant. D.,2012; Sonawane S.,2015; Ahmad N.,2014).

The optimum growth conditions for gel grown crystals established by varying the different parameters like pH of gel, gel setting time, gel density, room temperature etc. are reported in the Table 2 for the all these three crystals. The suitable value of gel density is found to be 1.04 gm /cm^3 and the pH value is 4 to 4.2.

III. THERMAL ANALYSIS

Thermal analysis is the measurement of how specific physical or chemical properties of a substance changes with temperature. It measures the change in weight of the substance with respect to applied temperature. In present work, thermogravimetric analysis of lithium tartrate, copper tartrate and mixed lithium-copper tartrate crystals was done. It was noticed that the pure lithium tartrate crystal was more stable at high temperature than the copper tartrate and mixed lithium-copper tartrate crystals. We observed 60 % weight loss in the temperature range of 200-212 ^{0}C for copper tartrate crystals, whereas for

* Corresponding Author

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Effect of pre-heating temperature on ZnO thin films prepared by ultrasonic atomization and pyrolysis technique

S. D. Bagul[1*], D. G. Patil[2], R.B. Ahirrao[3]

[*1]Nanomaterial Laboratory, Pratap College, Amalner, Jalgaon. s.bagul@yahoo.co.in
[2]Nanomaterial Laboratory, Pratap College, Amalner, Jalgaon. s.bagul@yahoo.co.in
[3]Uttamrao Patil Arts and Science College Dahiwel, Dhule, ahirraorb@gmail.com.

Abstract: **Highly textured ZnO thin films were prepared using ultrasonic nebulizer and pyrolysis technique in horizontal quartz reactor double zone furnace. The thin films were prepared by varying the first zone temperature from 25°C to 400°C while keeping second zone at 500°C while using 0.1M (300 ml) solution of Zn $(NO_3)_2.6H_2O$. The stock solution was converted into fine mist droplets using ultrasonic nebulizer (Gapusol 9001 RBI Meylan, France with frequency of operation 2.1-2.3MHz). The fine mist generated by nebulizer was allowed to pass and pyrolyzed onto previously kept inline glass substrates in horizontal quartz reactor heated using double zone furnace with first zone at room temperature (25°C) while second zone at 500°C. The thin film so prepared was termed as S1. Repeating above procedure and changing first zone temperature to 200°C, 300°C and 400°C respectively the films are called as S2, S3 and S4. The structural properties were analyzed by XRD patterns of the thin films. Microstructural properties of the films were studied using FESEM micrographs. The optical properties of the films were characterized using UV-Visible and Photoluminescence (PL) spectroscopy. The results are discussed and interpreted.**

Index Terms: **ZnO, Thin films, Ultrasonics cavitation and Pyrolysis, Nanorods.**

I. Introduction

The ZnO is widely used materials in the medical, science and technology. The properties of the material mostly depend on the preparation condition of the materials. The world requires large quantity of nanocrystalline ZnO either in thin film or powder form at relatively low cost of synthesis. The ZnO has high mobility of conduction electrons and good chemical and thermal stability (Yamazoe, N., et al.,2003; Gaspar L., et al.,2017). It is a direct band gap wurtzite –type semiconductor. In nanocrystalline materials have large surface to volume ratio, due to this large surface area and interconnected particles give rise to a large number of energy traps on the surface and grain boundaries (Fujishima, A., et al.,2008; Nelson J., et al.,2004; Thompson T., et al.,2006; Elser, M. ,et al.,2006).

In present investigation we report a simple technique to prepare porous and nanocrystalline ZnO thin films at relatively low temperature (500°C) with zinc nitrate used as precursor. The preparative conditions of the thin films were optimized so as to get highly textured ZnO thin films. The prepared thin films were studied for its structural, microstructural and optical properties. Ultrasonic nebulization and pyrolysis technique was used for thin film preparation. It is cheaper and easier technique to produce highly textured porous thin films, requiring no vacuum for processing. Additionally, this coating technique features the ability to control desired morphology characteristics. This technique prepares uniform, thin, well textured and crack free thin films with high transmittance and conductive properties.

II. EXPERIMENTAL

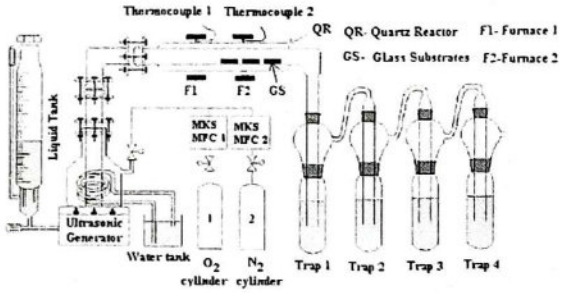

Fig. 1. Ultrasonic atomization and pyrolysis system to prepare thin films

The ultrasonic atomization and pyrolysis system used to prepare thin films is shown in Fig.1 (Patil L., et al.,2009). It consists of ultrasonic atomizer (Gapusol 9001 RBI Meylan,

* Corresponding Author

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Study of Photodegration of Methylene Blue Using Nitrogen Doped Tio_2 Nanoparticles

Jyoti S. Bharambe*[1], Prajakta Borgaonkar[2], V.B. Pujari[3], Rajendrakumar B. Ahirrao[4]

1. ICLES' M.J. College of Arts Science and Commerce, Vashi, Navi Mumbai, MS India, jyotibharambe@yahoo.com
2. Vikas College of Arts, Science and Commerce, Vikhroli, Mumbai, MS India, prajb1@yahoo.com
3. Karma veer Bhaurao Patil College Vashi, Navi Mumbai, MS India, pujarivb @kbpcollegevashi.edu.in
4. Uttamrao Patil Arts and Science College, Dahivel, Dhule, MS, India, ahirraorb@gmail.com

Abstract: **Pure and N-doped TiO_2 nanoparticles for different dopant concentrations were synthesized by sol gel method. The samples were characterized for morphological and elemental analysis using Scanning Electron Microscope (SEM), and Energy Dispersive X-ray Spectroscopy (EDX), X-ray diffraction and Micro-raman spectroscopy and Optical properties by UV-Vis diffuse reflectance spectra. The Photocatalytic activity of the samples for methylene blue degradation was investigated under Xenon lamp and halogen lamp. 3N-doped TiO_2 showed narrower band gap (2.98 eV) than undoped TiO_2 (3.18 eV). As a result, it was observed that the photocatalytic activity of N-doped TiO_2 nanoparticles was higher than that of undoped TiO_2**

Index Terms: **N-doped TiO_2, Sol-Gel method, Photocatalytic degradation, Methylene blue.**

I. Introduction

The Textile industries are the greatest polluters dumping large quantity of polluted water especially dye solutions, in the environment. These textile dyes constitute one of the largest groups of organic pollutants that are toxic to microorganism, aquatic life and human beings (Akpan U.G., 2009). How to eliminate such contaminants in water arouses a hot spot in today's scientific research. Photocatalytic degradation of effluents is the simple and environment-friendship technology and has developed rapidly in recent years. TiO_2, as a promising semiconductor photocatalyst, has been widely used in wastewater treatment on account of its unique photo-electric properties, high chemical stability, cost benefit and safety toward both humans and the environment. However widespread applications of TiO_2 as photocatalysis have been limited due to its wide band gap (~ 3.2 eV) (Modanlu S. & Shafiekhani A., ;2019). It requires U.V radiation of Wavelength less than 387 nm for photocatalytic activity. With TiO_2 only 3-5% of solar radiation reaching the earth's surface can be used (Zhang, Min;2013). Thus, for efficient photocatalytic activity it is necessary to extend the photoresponse of TiO_2 in the visible region by modification of its optical properties. Another problem is the high recombination rate of the photogenerated electron hole pairs which can be limited by introducing charge traps for electron and or holes which prolongs the recombination rate (Sharotri, N., et al.,2019).

In order to optimize the photocatalytic performance of TiO_2, different preparation methods (Andrew M., et al.,1997) and a lot of modification methods have been tried but doping TiO_2 with foreign ions is one of the most promising strategies for sensitizing TiO_2 to visible light and also for forming charge traps to keep electron hole pairs separate (Fujishima A, et al.,2008). TiO_2 doped with transition metals like Cr, Fe, V, Mn, Cu, Zn, Ni (Yoong. L., et al., 2009) have been used in past to improve visible light absorption. However, these metals have to be doped in small quantity to avoid recombination of photogenerated electron and hole favored by these dopant species (Asahi, R., et al.,2001) But the low content of metal doping leads to only small shift of absorption edge towards visible region. Generally, metal dopants form energy level below the conduction band edge (Kang, X.et al.,2019). Nitrogen doping is quite encouraging because of its its similar size (155 pm) to oxygen (152 pm), small ionization energy and stability. In addition, nitrogen doping only not modifies the crystal structure of TiO_2, but also suppresses the recombination rate of photogenerated electrons and holes, which leads to enhance photocatalytic activity compared to bare TiO_2 (Pawar, S.G., et al.,2011; Mingjie S., et al.,2020).

In this work, pure TiO_2 and N-doped TiO_2 nanoparticles were synthesized by sol gel method and the influence of N content on the photocatalytic performance tested by the photocatalytic degradation of methylene blue was discussed.

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RD and ED-XRF study of Indian; Modern, Ancient and Historic Coins

Rajendrakumar Ahirrao[1*]; Mandakini N Chaudhari[2]

[*1]Department of Physics, Uttamrao Patil College of Arts and Science, Dahiwel, Tal-Sakri, Dist.Dhule (MS) India.424302.
ahirraorb@gmail.com
[2]Department of Physics, Arts, Commerce and Science College, Kusumba, Tal. Dist.Dhule (MS) India.

Abstract: **The This is an innovative study and very few literatures are available on this specific domain as far as Indian coins are concerned. This is the attempt where reasonable number of ancient coins belonging to different periods were analysed by modern non-destructive multi-elemental technique. The six original coins of different time periods are considered for the study. The coins are analyzed by X-ray Diffraction (XRD) and Energy Dispersive X-ray Diffraction Fluorescent (ED-XRF) techniques without any pretreatment. The phase and structural information are obtained by XRD. The elemental composition was analyzed by ED-XRF study. The coins are made from different metallic elements but data of only six common elements are reported here. The archaeological study of spectroscopic techniques is presented. The results are discussed.**

Index Terms: **XRD; XRF; Structural parameters; Historical Background.**

I. Introduction

The researchers subjected a number of modern, ancient, and historical coins to compositional and structural testing using X-ray fluorescence and X-ray diffraction techniques. X-ray diffraction is the first exact method for the study of the structure of matter. In archaeology, this analysis is used successfully to study stone constructions, ceramics, pigments, etc. These photon excited techniques have become more popular and made major advantages in the past few years for elemental analysis in different interdisciplinary areas especially on archeological samples. The goal was to test the viability of X-ray diffraction as a tool for examining micro-structural characteristics of very old and often corroded coins that could shed light on ancient processes of production. The aim of this study is to explore the potential for the application of XRD to expanding our knowledge of coins.

The six coins discussed here were selected from the original sample because they illustrate the potential and pitfalls encountered during the course of this study. All interpretations related to coin composition and manufactures are preliminary. The issues discussed which relate to the practical aspects of the execution of the XRD scan (mounting techniques, probe and glancing angle settings etc.) are intended to aid those who would engage in similar study in the future. This study seeks the examination of composition and atomic structure investigating the metallic and oxide phases present by x-ray diffraction. In this technique the primary X-rays are made to fall on the sample substance under study. Because of its wave nature, like light waves, it gets diffracted to a certain angle. This angle of diffraction, which differs from that of the incident beam, will give the information regarding the crystal nature of the substance.

The wavelength of the X-rays can be varied for the application by using a grating plate. Scattering of X-rays by the atoms of a crystal that produces an interference effect. The diffraction pattern of a substance is its "fingerprint" allowing us to identify the substance and determine its crystalline structure. Crystalline solids, when exposed to monochromatic X-rays will diffract according to the principles of Bragg's law. The ED-XRF is a non-destructive technique used for chemical analysis of materials. It is a versatile tool in many analytical problems. Major, minor and trace elements can be qualitatively and quantitatively determined in various kinds of samples: metals, alloys, glasses, cements, minerals, rocks, ores, polymers as well as environmental and biological materials. Elements from Na to U are routinely determined using energy-dispersive X-ray fluorescence spectrometry (ED-XRF) (Mandal A. C., 2014). When a sample is placed in a beam of primary X-rays, part of it will be absorbed and the atoms get excited, by the ejection of electrons present in K and L shells. While relaxing they re-emit X-rays of characteristic wavelength. This re-emitted X-rays are called secondary or fluorescent X-rays and hence the name for this technique. Since, the wavelength of the fluorescence is characteristic of the element being excited; measurement of the wavelength and intensity enables to carry out the qualitative and quantitative analyses.

II. Historical Background

The fig.1.shows the photograph of coins manufactured in different

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Studies on H_2S Gas Sensing Performance of Pure and Modified Strontium Titanate Thick Films

Rajendrakumar B. Ahirrao*[1], Mandakini Chaudhari[2], Jyoti S. Bharambe[3], Jagdish U. Patil[4]

*[1]Department of Physics, Uttamrao Patil Arts and Science College, Dahiwel, Dhule, Maharashtra, India; Email: ahirraorb@gmail.com.
[2]Department of Physics, NN Chaudhari, Arts, Commerce and Science College, Kusumba, Dhule, Dhule, Maharashtra, India.
3ICLES' M.J. Arts and Science and Commerce College, Vashi, Navi Mumbai. India. Jyotibharambe@yahoo.com.
[4]Department of Chemistry, Uttamrao Patil Arts and Science College, Dahiwel, Dhule, Maharashtra, India.

Abstract: **The AR grade powders of $Sr(OH)_2$ and TiO_2 precursors use to prepare the $SrTiO_3$ (STO) powder. STO powder is sintered at 800°C for 5h. The thixotropic pest is formulated for fabrication of STO thick films on glass substrate. The films were fabricated by using screen printing technique. The CuO-modified STO films were obtained by dipping technique. The STO films dipped into 0.01 molar aqueous $CuCl_2$ solutions for different time intervals. These CuO-modified films were fired again at 500°C for 30 min. The films are proposed for the characterization. The pure and modified films were tested for different gases. The CuO-modified STO thick film (dipping time 10 min) gives highest response (930) at operating temperature 300°C to H_2S gas for Cu doped STO and the (155) for Pure STO. Hence the synthesized sensor could be treated as H_2S gas.**

Index Terms: **STO powder, Screen printing, Dipping Technique, Cu-STO, H_2S Gas Sensors.**

I. INTRODUCTION

This Gas sensors based on semiconducting metal oxides are being used to cover a wide range of applications ranging from monitoring automobile exhaust gases, to flue-gas monitoring in incinerators, from monitoring air for toxic and explosive gases to special industrial applications (Kohl C.D.,1989).Gas sensors have a simple design which makes mass production feasible, as well as having the required sensitivity, the certain materials also have a high degree of ruggedness therefore they can be used in environments containing aggressive chemicals or operated over long period of time. The use of advanced sensor film preparations has resulted in considerable progress (Sberveglieri, G., ET AL.,1992). Because of the complex surface reactions, the surface sometimes undergoes a formation process. Gas sensitivity is only obtained on completion of this process. In practice, this means that the sensors have to be operated for a certain period before full sensitivity is reached. Metal oxides react vigorously with the moisture in the air at such low temperatures (Reti, F., et al.,1994). Therefore, one has to cope with strong effects caused by humidity variations.

Metal-oxide gas sensors are commonly used in the monitoring of toxic pollutants and can provide the necessary sensitivity, selectivity and stability required (Arshak, K., et al.,2004). Such sensors find a range of application including the monitoring of traffic pollutants or food quality in specially designed electronic noses (Pirjola, L.et al.,2004). Commonly used oxides are tin oxide, zinc oxide, titanium dioxide, iron oxide, tungsten oxide. These materials have successfully been employed to detect a range of gas vapors, particularly ethanol, methanol, ammonia, hydrogen Sulphide (Rao, B.B.,2000; Sberveglieri, G.,2000; Neri, G.,2002; Noh, W.,2002). Thick film technology is often used to fabricate sensors and possesses many advantages, such as low cost, simple construction, small size and good sensing properties (Ryeol, S., et al.,2002). In addition, this approach provides reproducible films consisting of a well-defined microstructure with grains and grain boundaries that can be studied easily.

Hydrogen sulfide (H_2S) is most famous toxic gas because of bad smell can be perceived at a concentration lower than 0.1 ppm. H_2S gas often produced in coal, coal oil or natural gas manufacturing. The maximum limit of safety exposure is 10 ppm, but high concentrations cannot perceive and they may cause instant paralysis. H_2S has a density similar to air (Tamaki, 1998). Therefore, reliable sensors with low cost, low energy consumption having high sensitivity, selectivity and operable in sub ppm (ppb) range of H_2S sensors are in high demand for environmental safety and industrial control purpose.

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Study of Thymyl Ethers as a Plant Growth Regulators

Jagdish U. Patil[1*], Rakesh V. Patil [2], Mahendra Borse[1], Rajendrakumar B. Ahirrao[4], Anil Kakuste[5]

*[1]Department of chemistry, Uttamrao Patil Arts & Science College, Dahiwel, Tal. Sakri, Dist. Dhule. (M.S.), India, mrjupatil@gmail.com
[2]. Department of Chemistry, G.E.T.'s Arts, Commerce Science College, Nagaon, Dist-Dhule. (M.S.), India
[3]Synthetic Research laboratory, Department of Chemistry, Pratap College, Amalner, Dist.-Jalgaon (M.S.) India.
[4]Department of Physics, Uttamrao Patil Arts & Science College, Dahiwel, Tal. Sakri, Dist. Dhule. (M.S.), India,
[5]Department of Chemistry, Vimalbai Uttamrao Patil Arts and Late Bhasker Sadashiv Desale Science College, Sakri, Dhule, M. S, India.

Abstract: **The seed germination bioassay was carried by using fresh and healthy Triticum *astivum L* seeds of Lokwan variety of wheat. A laboratory experiment to study the effect of different concentrations (1%, and 2%) . Assays were conducted in 100 x 15 mm Petri dishes lined with a seat of Whatman no.1 filter paper. Observation on germination and the radical length were recorded. The bioassay was carried out with 5 replicates using complete randomized design. A thymyl ethers have been synthesized from thymol under microwave irradiation technique and these are tested against an activity of Wheat seed as plant growth regulators. In conclusion ether compounds have good effect on germination and seedling growth of *Triticum astivum* L (Trade name Lok-one) than thymol and does not depend on the concentration of compound used.**

Index Terms: **Thymol, Ether, Alkylation, Plant Growth Regulator, Monoterpenoids.**

I. INTRODUCTION

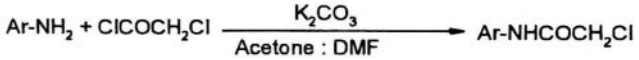
The bioassays of phytotoxicity have received great attention by environmental institutes of the world. Phytotoxicity is described as an intoxication of living plants by substances present in the growth medium. The Plant growth regulators are used in agriculture, horticulture and viticulture. These are important to increase crop yield and fruit quality. Therefore, of much interest. These are synthetic compounds essential in small amounts. They promote, inhibit, or modify a physiological process in plants. Similar to the natural phytohormones, many synthetic compounds such as carboxylic acids, esters and sesquiterpenes lactones shows plant growth regulating activity (Picman A. K,1986). Some sesquiterpenes lactones present in certain plants have been reported to be responsible for the allelopathic properties by affecting the germination and growth of other species (Fraga B.M., 1991; Kumbhar P. P, et al.,1999). The potential allelopathic activity of several natural and synthetic sesquiterpenes lactones has been investigated and the presence of α-methylene –β-butyrolactones shows very good biological activity. The presence of other reactive centre such as α, β-unsaturated ketones, chlorohydrin, epoxide, hemiacetal and the molecular arrangement is important for biological activity presented by these lactones (Fischer N. H., et al.,1991). From these observations ether shows plant growth regulatory activity, hence a number of ether derivatives of thymol were prepared and screened for their plant growth regulatory activity (Nikumbh V.P., et al.,2003; Xu H., et al.,2006).

II. REPORTED WORK

Structural modifications of phenolic monoterpenoid obtained by reacting thymol with various substituted α–chloro acetanilides, to improve biological activities. It gives the product with better yield and higher purity under mild reaction conditions by microwave irradiation technique (Pawar N. S., et al.,2010).

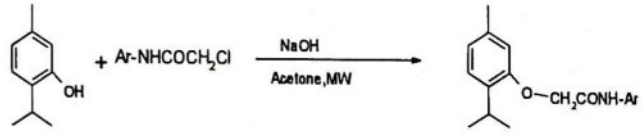
A. Reaction Scheme

STEP-I



1_{a-f} 2 3_{a-f}

STEP-II



4 3 a-f 5 a-f

Where- Ar,

a = $-C_6H_5$; b = $-p-CH_3-C_6H_4$; c = $-m-NO2-C6H4$;
d = $-m-Cl-C6H4$; e = $-m, p-Cl-C_6H_3$; f = $-C_{10}H_7$

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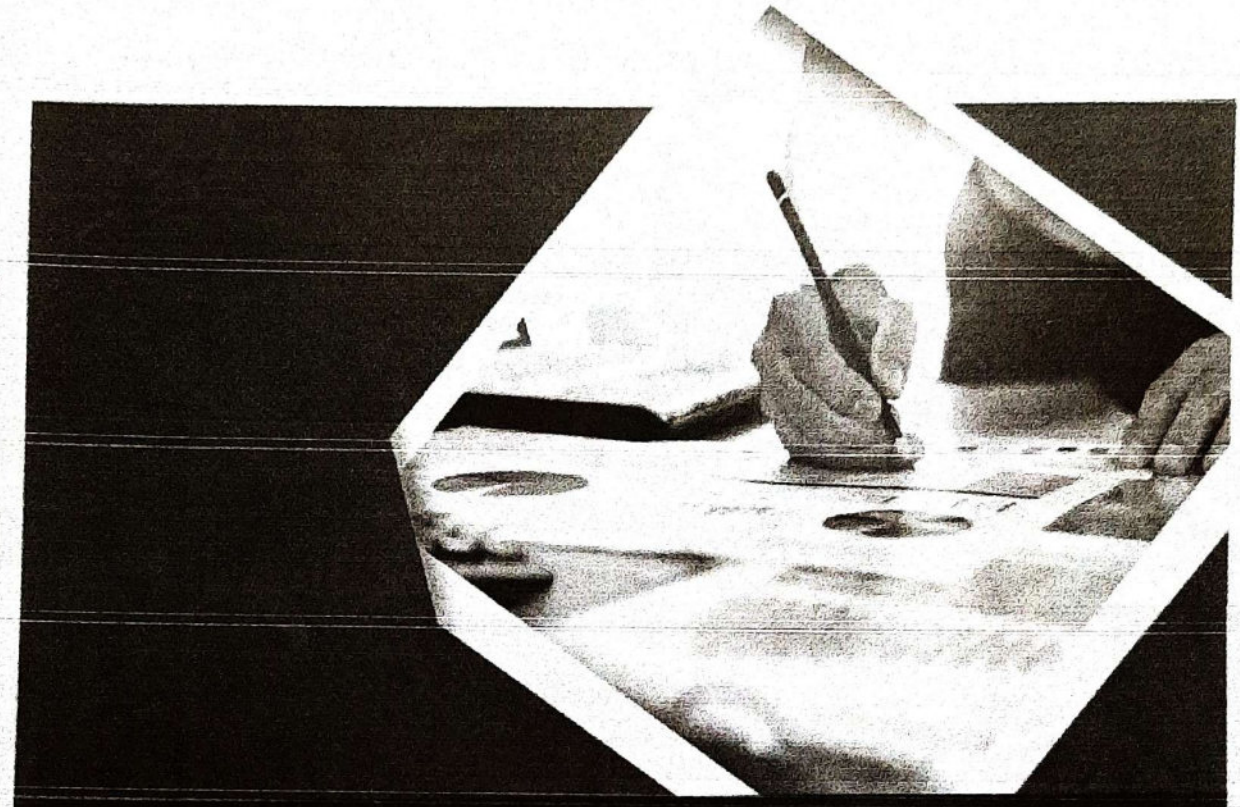

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AGRICULTURAL DEVELOPMENTINBRITISH PERIOD

Dr. Yogesh Jagannath Korde
Uttamrao Patil Arts and Sci. College, Dahivel
E-mail: kordeyj10@gmail.com
Mob: 9423906366

Introduction

India is an agricultural country. Agriculture is the basic means of livelihood for most of the people in India. During the British rule in India, fundamental changes took place in the field of agriculture. During the British rule in India, a new system of land revenue came into existence in the field of agriculture. At the same time, the system of private ownership of land was introduced in India during the British rule. This led to the emergence of a new landed class. Land revenue began to be recovered in cash. The commercialization of agriculture began in India during the British rule. The commercialization of agriculture contributed to the development of the national economy and the world of the villagers became wider.

Purpose of Study:

1) To study the development of Agriculture in India during the British period.
2) To study the development of modern means of transport and communication in India during the British period and its assistance in the field of Agriculture.
3) To study the trade of foreign countries in India during the British period.
4) To study the changes that have taken place in India due to the development that took place in the Agricultural sector during the British period.

Objectives:

1) The changes that took place in the agricultural sector during the British period can be studied.
2) What is the commercialization of agriculture?
3) The causation of commercialization of agriculture can be studied.
4) The effects of commercialization of agriculture can be studied.

Research Methodology:

This research paper is basically descriptive and analytical. In this paper attempt has been taken to analyze the study done by researchers on Agriculture during British Period. The data used in it is purely from secondary sources (Books, Literature, Articles, etc...) according to the need of this study.

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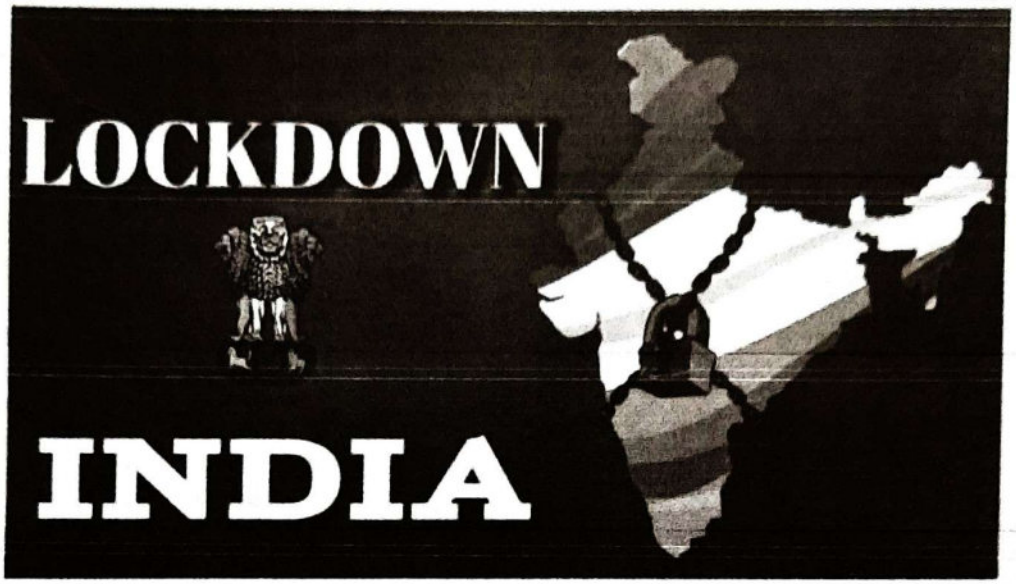

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'Ravichandran' Survey No. 101/1, Plot No.23

Mundada Nagar, Jalgaon (M.S.), India 425102

Role of Police and Defence in Prevention of Covid-19

Dr. Yogesh Jagannath Korde
Uttamrao Patil Arts and Sci.College, Dahivel

Introduction -

As we know that whole world is fighting against corona virus. This virus is spreading rapidly throughout the world. Corona viruses are single-stranded RNA viruses, about 120 nanometers in diameter. They are susceptible to mutation and recombination and are therefore highly diverse. There are about 40 different varieties and they mainly infect human and non-human mammals and birds. They reside in bats and wild birds, and can spread to other animals and hence to humans. The virus that causes COVID-19 is thought to have originated in bats and then spread to snakes and pangolins and hence to humans, perhaps by contamination of meat from wild animals, as sold in China's meat markets. In order to control the spread of this virus our government declared lockdown. By this time of lockdown, our Doctors, Police and army are still on their duties in order to protect or save the people of their country.

Purpose of study -

To realize the efforts done by police and army in order to prevent the spread of covid-19. Even in the period of lockdown without worrying about their life and family, they are working for the country. Main view of publishing this paper to highlight the efforts or work done by police and army against covid-19 in front of the society.

Research Methodology -

This research paper is basically descriptive and analytical. In this paper attempt has been taken to analyze the importance of the work done by police and army in prevention of covid-19. The data used in it is purely from secondary sources and websites according to the need of this study.

Role of Police and Defence in Prevention of COVID-19 -

MCO represents a strategy rooted in public health principle and law that emphasizes the protection of the community's health and wellbeing. -NSTP/ASYRAF HAMZAHTHE Movement Control Order/ (MCO) has been implemented in Malaysia to curb the Covid-19 outbreak since March 18.Despite the devastating spread of the communicable disease, not everyone agrees / that what the government is doing is right.Some have painted it as a national emergency, a starting point for the negative premise of emergency law's imposition which is synonymous with military rule.First though, Covid-19 is a global crisis that threatens public health and safety, constituting the term of "disaster" under Article 4, Malaysian National Security Council Directive 20. There were more than 1,000 cases and it claimed the lives of more than 10 people in less than two months.The pandemic has hastened the urgency to adopt vigorous responses but the government did not undertake aggressive options like declaring a state of emergency. MCO represents a strategy rooted in public health principle and law that emphasizes the protection of the community's health and wellbeing.The government's actions are based on Prevention and Control of Infectious Diseases (Measures within the Infected Local Areas) Regulations 2020 under the auspices of Prevention and Control of Infectious/ Diseases Act 1988.The Malaysian armed forces participation nationwide, starting from March 22, 2020, is to play a contributory role in national intervention in tackling Covid-19.By virtue of Section 5 of the Prevention and Control of Infectious/ Diseases Act 1988, the Health Ministry, as the main authority in charge, can call forth aid from any agency to enforce the said law and regulations.The Federal Constitution and Armed Forces Act 1972 designate the military with responsibilities of maintaining / law, / order / and public / safety. Military branches may hence be called upon to handle domestic disasters including riots, floods and episodic pollution.In similar vein, a whole spectrum of military resources comprising

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३२. नैसर्गीक संसाधनावर आधारीत मजुरांच्या हक्क व सुरक्षा प्रदान करणाऱ्या कायद्याचे विवेचन

डॉ. सुनिल नाना संदानशिव
सहयोगी प्राध्यापक राज्यशास्त्र विभाग, उत्तमराव पाटील कला व विज्ञान महाविद्यालय दहिवेल, ता. साक्री जि. धुळे.

प्रास्ताविक

भारताचा बराचसा मोठा भाग हा वनांचा, जंगलांचा आणि डोंगर दऱ्यांचा आहे. भारतीय भुमीत प्राकृतिक विविधता आहे आणि त्यानुसार त्या- त्या भागात राहणाऱ्या लोकांच्या प्रथा, परंपरा व जीवन जगण्याच्या पध्दतीत सुध्दा विविधता आढळते, अशा जंगल, डोंगर दऱ्यात राहणाऱ्या लोकांना आदिवासी असे संबोधले जाते. या जाती व्यवस्थेवर उभ्या राहिलेल्या ग्रामिण शहरी भारतीय समाजाच्या बाहेर काही अंतर राखुन असलेल्या स्वत:ची वैशिष्ट्येपूर्ण जीवनशैली व संस्कृती असलेल्या या जमाती आहेत. या मध्ये महाराष्ट्रात भिल्ल्, वारली, गौंड, यांचा समावेश होत असतो. या जमाती त्या-त्या भुमीतल्या मुळ रहिवासी असल्याने त्यांना आदिवासी असे संबोधले जाते. अलीकडे त्यांना या देशाचे 'मुल निवासी' असेही संबोधले जाऊ लागले आहे. सामाजिक व सांस्कृतीक दृष्ट्या या जमाती निसर्गाच्या अधिक जवळ पण अप्रगत मानल्या जातात. अर्थात या आदिवासी जमातीचेच जीवन वनांवर आधारीत आहे असे नाही तर भारतातील बहुसंख्य् खेडयांमधील लोकांचे दैनंदीन जीवन आसपासच्या जंगलावर, झाडांवर काही अधिक प्रमाणावर अवलंबुन आहे. जसे जळणासाठी लागाणारे लाकुड, घर बांधण्यासाठी, घरगुती वस्तू बनवण्यासाठी औजारांसाठी लाकुडतोड, गुरढोरांसाठी लाकुड, मध, विड्या बांधण्यासाठी वापरले जाणारे तेदुचे पान, अशा प्रकारे जंगलात मिळणारे वस्तूंच्या आधारे रोजगार करणारे असंख्य् लोक आहेत यात फक्त् आदिवासीच आहेत असे नाही तर सुतार, लोहार, कुंभार, बांधकाम मजुर असे विविध समुदायातील मजुरांचा व गुजरान करणाऱ्या लोकांचा यात समावेश होत असतो.

भारतातील जंगल व्यवस्थापन

भारतीय व्यक्तीला केवळ विशिष्ट् कायद्यांतर्गत विशिष्ट् हक्क् किंवा अधिकार प्राप्त् होतात असे नाही. तर कल्याणकारी लोकशाही राज्याचा एक नागरीक या नात्याने भारतीय संविधानच त्याला काही हक्क् आणि अधिकार प्रदान करत असते. त्यानुसार जंगलांचेही व्यवस्थापन संपुर्ण भारतात एका विशिष्ट् प्रशासकीय चौकटीतच केले जाते. केंद्र् आणि राज्य शासनाकडे जंगलांचे व्यवस्थापन असते ते सुमारे स्वातंत्र्य् पुर्व काळात तिच पध्द्त अस्तीत्वात आहे. वेळोवेळी वनखात्याची असलेली धोरणे, राबवलेली कायदे व नियम आणि वापरलेल्या कार्यपध्द्ती यांचे लोकांच्या दृष्टीने व्यवहारीक पातळीवर सर्वाधिक महत्व् अर्थात लोकांचा रोजचा संबंध वनखात्याच्या कनिष्ट् पातळयांवरील कर्मचारी व सेवकांशी येत असतो. त्यामध्ये रेंजर व फॉरेस्ट् गार्ड यांचा समावेश असतो. यांना जंगलांवर अवलंबून असलेल्या लोकांना सतत सामोरे जावे लागत असते. जेंव्हा यांच्या हक्कांसाठी संघर्ष करायचा प्रसंग येतो, अधिकार वापरण्याचा प्रसंग येतो तेंव्हा पोलीस खाते व सामान्य् प्रशासन खाते यांच्याशीही येत असतो. आपल्या उदरनिर्वाहासाठी जंगलावर अवलंबून असणाऱ्या लोकांचे हक्क् कोणते ते हक्क् प्राप्त् करण्यासाठी अडथळा ठरणाऱ्या बाबी कोणत्या आहेत आणि ते हक्क् प्राप्त् करुन घेण्यासाठी काय करणे किंवा घडवुन आणणे आवश्यक आहे यासाठी जागृती करणे संघटीत होणे आणि एक चळवळ उभी करुन शासनाचे लक्ष वेधणे हे लोकशाही शासन व्यवस्थेत आवश्य्क असते त्यानंतर आपले लोकप्रतिनिधी संसद अथवा विधिमंडळात त्या बाबतीत कायदे तयार करण्यासाठी धडपडत असतात.

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Density, Viscosity and Ultrasonic Velocity of Brij-35 in Presence of Water-Soluble Polymers

Anil D. Kakuste[1*], Mahendra. S. Borse[2], Jagdish U. Patil[2], Gunvant H. Sonawane[3]

[*,1] Department of Chemistry, Vimalbai Uttamrao Patil Arts and Dr.B.S.Desale Science College, Sakri, Taluka-Sakri, District-Dhule, Maharashtra, India. Email Id : anilkakuste@ymail.com
[2]Department of Chemistry, Uttamrao Patil Arts and Science College, Dahivel, Taluka-Sakri, District-Dhule, Maharashtra, India. Email Id : mahendraborse@yahoo.com
[3]Department of Chemistry, Kisan Arts, Commerce and Science College, Parola, Dist-Jalgaon, Maharashtra, India. Email Id: drgunvantsonawane@gmail.com

Abstract: **Density, viscosity and ultrasonic velocity of aqueous solutions of Brij-35 in presence of water-soluble polymers such as polyacrylic acid (PAA) and polyacrylamide (PAM) at different concentrations and temperatures (298.15, 303.13, 308.15 and 313.15) K. Different interaction parameters have been calculated using the experimental values of density, viscosity and ultrasonic velocity of aqueous solutions of pure Brij-35 and Brij-35 + PAA Brij-35 + PAM mixed system. The viscosity of surfactant solution increases with increasing concentration of PAA and PAM. The viscosity of Bri-35 solution was observed to more in presence of PAM. The ultrasonic velocity increases from 298.15 K to 308.15 K, then again decreases for 313.15 K. As the temperature increases, density, adiabatic compressibility and intermolecular free length decrease and ultrasonic velocities, acoustic impedance, molar volumes and molar sound velocities was observed to increases. The ultrasonic velocities initially increase then decreases with increasing concentration of PAA. For 0.03% PAA it shows maximum ultrasonic velocities.**

Index Terms: **Surfactants, Non-ionic surfactant Brij-35, acoustic parameter, polymer, polyacrylic c acid, polyacrylamide**

I. Introduction

Surfactants are among the most versatile materials appearing in diverse products such as motor oils, pharmaceuticals, detergents and petroleum and as flotation agents for beneficiation of ores. The last decade has seen the extension of surfactants applications to high-technology areas. Nonionic surfactants represent a major component material for applications ranging from personal care to a wide range of industrial uses. Structurally, nonionic surfactants combine uncharged hydrophilic and hydrophobic group that make them effective in wetting, spreading and as emulsifiers and foaming agents. Concurrently, they have minimal skin and eye irritation effects and exhibit a wide range of critical secondary performance properties.

In the complex world of surfactants formulation today, the surfactant technologist needs to have worked knowledge of surfactant-additives mixing principles as per the application desired for. This includes an understanding of surfactant behaviors both in the end use domains as well as in the formulation domains.

Ultrasonic velocity technique is widely used to study the solution behavior of organic liquids, polymers, surfactants and their mixtures in aqueous and non-aqueous solutions. It plays an important role in understanding the physico-chemical behavior of liquids (Amrutia, R, et al.2006; Bhura, B.et al., 2011; Iqbal, M., et al.,2006). It is well known that surfactant molecules can organize themselves into aggregates when dissolved in water. The micelle formation takes place above CMC. The functions and properties of surfactant systems depend on their structure, concentrations, temperature, solvent and additives etc. The small addition of additives can improve the properties of surfactants (Patel, J., etal.,2004; Razavizadeh, B. M., et al.,2004). The non-ionic surfactant Brij-35 widely used in leather and textile industries, herbicides to increase the penetration power, oil dispersant, used in buffers for lysing cells and dissociating cell membrane without protein disruption. In this paper the effect of temperature and different concentration of additives on density, viscosity and ultrasonic velocity on Brij-35 has been studied.

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Thermo Acoustic Studies of Mixed Surfactants (Brij-97 + DTAB) System in Presence of Various Additives

Pooja P. Patil[1], Mahendra S. Borse*[1], Kiran D. Patil[1], Rajendrakumar B. Ahirrao[2], Gunvant H. Sonawane[3]

[1]Department of Chemistry, Uttamrao Patil Arts and Science College, Dahiwel, Taluka-Sakri, District-Dhule, Maharashtra, India.
mahendraborse@yahoo.com
[2]Department of Physics, Uttamrao Patil Arts and Science College, Dahiwel, Taluka-Sakri, District-Dhule, Maharashtra, India.
ahirraorb@gmail.com.
[3]Department of Chemistry, Kisan Arts, Commerce and Science College, Parola, Dist-Jalgaon, Maharashtra, India.
drgunvantsonawane@gmail.com

Abstract: **Thermo-acoustic parameters of mixed surfactant system (Brij-97 +DTAB) in presence of inorganic electrolytes NaCl, $CaCl_2$ and $AlCl_3$ and non-electrolytes, sucrose and dextrose at various concentrations. Cloud point (CP) of nonionic surfactant Brij-97 was observed to increase with the increase in concentration DTAB in binary mixed surfactant system. In the ternary system (Brij-97+DTAB + additives) CP of the mixed surfactant system was observe to increases at 10 Mm concentration but slowly decreases with an increase in the concentration of additives. CP of mixed surfactant system was strongly influence by the structure and ions-ionic interaction of additives with micelle in aqueous solution. The clouding components release their solvated water and separate-out from the solution. Therefore, the CP of an amphiphile can be considered as the limit of its solubility. Considering the cloud point as threshold temperature of the solubility, the thermodynamic parameters of the clouding process (ΔG^o_{Cl}, ΔH^o_{Cl} and ΔS^o_{Cl}) was evaluated using the "Phase Separation Model". The phase separation results from micelle-micelle interaction. It was found that the overall clouding process was exothermic and $\Delta S^o_{Cl} > \Delta H^o_{Cl}$, indicating that the process of clouding was guided by both enthalpy and entropy-driven.**

Index Terms: **Surfactants, Thermodynamic parameters, Cloud point, Brij-97, DTAB.**

I. Introduction

The amphiphiles are molecules which contain two parts: one is the oil preferring, referred to as lipophilic or hydrophobic and the other one is the water preferring part, hydrophilic. In aqueous environment, these molecules can form a kind of self-organized molecular assembly above their critical micelle concentrations, CMC, which can be called as micelles (Alam, M. S., et al.,). The self- assembly and self-organization is natural and spontaneous) processes occurring mainly through non-covalent interactions, such as, Vander Waals, hydrogen bonding, hydrophobic, hydrophilic and electrostatic interactions (Alam, M.S., et al., 2015). Clouding is a well-known phenomenon and observed in non-ionic) surfactants; upon raising the temperature, the system becomes cloudy and phase-separates at a well-defined temperature called as cloud point (CP). Aqueous solution of a water-soluble surfactant becomes turbid. Knowing the cloud point is an important for determining storage stability (Khan F., et al.,2012; Lee., B.H.,2017). In pharmaceutical drugs penetrating power enhancement and various formulations needs knowledge of cloud point. Generally, nonionic surfactant shows optimal effectiveness when use near or below their cloud point. Low-foam surfactants should be use at temperatures slightly above their cloud point. Cloud points are typically measured using various concentration range of aqueous surfactant solution, it can be measured Cloud point range for 0° to 100°C (32 to 212°F), limited by freezing and boiling point of water. Cloud point is characteristic properties helps to calculating thermodynamic parameters of nonionic surfactants (Borse M.S., 2004).

Cationic surfactants are more water-soluble than that of nonionic surfactant and hence it will significantly improve the cloud point of non-ionic surfactant. Increased interest in these mixed systems can be attributed to the ease with which desired physicochemical properties can be obtained by just varying the cationic surfactant concentration in solution systems (Azum N., et al.,2014, Akbar J., et al 2012, Kakuste A.,2015).

Non-ionic surfactant are non-toxic and non-pollutant compounds that why studies get utilized in various fields

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