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Research articles

Microstructure and magnetic interactions of Co^{2+} substituted NiCuZn ferrites

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ABSTRACT

Nickel-Copper-Zinc ferrites are state-of-the-art dielectric materials with enhanced electromagnetic properties. Herein, we report, physicochemical and magnetic properties of Co^{2+} substituted NiCuZn ferrites of the series $Ni_{0.25-x}Co_xCu_{0.30}Zn_{0.45}Fe_2O_4$ (x = 0.00, 0.05, 0.01, 0.15, 0.20 and 0.25). The adopted synthesis method is the facile sol–gel auto combustion route with glycine as a reducing agent. X-ray diffraction (XRD) signatures revealed the cubic spinel structure, with a decrease in the lattice constant (*a*) due to a smaller ionic radius of Co^{2+} (0.72 Å) replacing Ni^{2+} (0.74 Å) ions. The optical properties of the ferrites are discussed in detail, viz. refractive index (η), reflectivity (*R*), the velocity of IR waves (v), and jump rates (J_1, J_2, and J). EDAX analysis indicated the elemental composition of ferrite samples as per the chosen stoichiometry. The microstructural analysis (SEM and TEM) depicts the dense microstructure with the average grain size of 38–95 nm. The samples exhibit a typical magnetic hysteresis loop at room temperature with low coercivity values confirming the soft magnetic nature. The maximum M_S = 56 emu/gm was observed for the ferrite sample with x = 0.20. Temperature-dependent initial permeability at a constant frequency (1 MHz) showed the drop in the permeability values with increasing Co^{2+} content, whereas the values of Tc remain fairly unchanged.

1. Introduction

Nickel-Copper-Zinc (NiCuZn) ferrimagnetic oxide materials are state-of-the-art dielectric materials with tailored electromagnetic properties which make them highly applicable at intermediate to high-frequency electronic devices. NiCuZn ferrites are highly relevant ferrimagnetic materials which are employed in multilayer chip inductor (MLCI) components, magnetic refrigeration, magnetic ferrofluids, magnetic beads, and magnetic recording heads [1-5]. They are more suitable magnetic material at high frequency than MnZn ferrite and at the same time better than NiZn ferrite because they possess lower densification temperatures [6,7]. Electromagnetic interactions of any ferrites depend on the preparation conditions (synthesis route, composition, and sintering conditions). There are several methods available to synthesize appropriate ferrites with tailor-made properties. Physical and chemical methods used in ferrite synthesis are – mechanical alloying, high energy milling, inert gas condensation, citrate/glycine precursor method, molten salt method, plasma deposition method, hydrothermal reaction, chemical co-precipitation, and sol–gel technique [8-10]. Autocombustion synthesis is an elegant and facile chemical technique to prepare ferrite nanoparticles with utmost purity, homogeneity, and uniformity in grain size [10]. Autocombustion synthesis renders advantage of good stoichiometric control which results in ultrafine particle yield, where glycine/citrate is used as a reducing agent.

Speaking about, cobalt substituted nano ferrites, they possess exceptional magnetic, optical, and electrical properties in comparison to their bulk counterparts, due to evolution in microstructure at nano size. Microwave properties can be enhanced using the fast relaxing and anisotropic nature of Co^{2+} ion. Li et al. have reported the studies of ferromagnetic resonance in $Ni_{0.5-x}Cu_{0.12}Zn_{0.4}Co_xFe_{1.98}O_{4-\delta}$ferrites; they observed Cobalt substitution as a feasible and effective way to improve K_1 (anisotropy constant) and K_1 changed sign between cobalt concentration of 0.003 and 0.006 [2]. H. Su et al. reported structural and magnetic interactions of NiCoCuZn ferrites; they discuss the saturation magnetic flux density, which gradually increases with an increase in Co-substitution. The obtained minimum coercive force was for x = 0.04 [11]. Dimri et al. analyzed dielectric parameters and permeability properties of Co^{2+}substituted NiCuZn ferrites at ultra-high

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Studies on structural, spectral and morphological properties of co-precipitation derived Co-doped ZnO nanocapsules for NO_2 sensing applications

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ABSTRACT

Pristine and Co-doped ZnO (CZ) nanocapsules (NCs) have been successfully prepared using a simple and cost-effective co-precipitation method. The effect of 1–4 at.% Co-doped ZnO (C_1Z–C_4Z) samples on physicochemical and hazardous NO_2 sensing performance were investigated and reported. The structural, morphological, spectral and compositional properties studied by XRD, FESEM and EDX, TEM, BET, FTIR, UV–Visible absorption spectroscopy and XPS techniques specify the phase formation of ZnO and doping of Co atoms into ZnO lattice. The NO_2 gas sensing properties of CZ samples were studied at 120–280 °C operating temperature and 5–100 ppm concentration. The sensing results showed that the 3 at.% Co-doped ZnO (C_3Z) sensor exhibited highest (286%) gas response with fast response/recovery time (3/319), stable, selective and reproducible towards 100 ppm NO_2 gas at 200 °C operating temperature. Such types of materials are very promising for the fabrication of NO_2 gas sensors.

1 Introduction

In recent years, promptly growth of industrialization causes progressively prominent air pollution, which has a serious impact on human health and the atmosphere. There are various air pollutants such as carbon monoxide, nitrogen dioxide, sulfur dioxide available in several ways in an environment which causes serious health issues of the human being. Among them, nitrogen dioxide (NO_2) is generally produced by combustion processes in which an endothermic reaction occurs between nitrogen and oxygen [1, 2]. In addition, NO_2 is one of the chief air pollutants that produce several respiratory and lung

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Electrospun flexible 1D-MnO_2 nanofibres: a versatile material for energy storage application

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ABSTRACT

We describe facile electrospinning route for fabricating 1D-MnO_2 nanofibres based high-performance flexible electrode for energy storage application. The physico-chemical and morphological analyses showcase the fibrous matrix of MnO_2 with its continuant elements in their atomic ratios. The surface composition followed by chemical states and stretching bond length of Mn–O were analysed using XPS and RAMAN spectroscopy. The surface roughness and wettability of electrodes were analysed using AFM and water contact angle measurements. The MnO_2 NFs demonstrated pseudocapacitive signature with better electrochemical performance as specific capacitance of 517.81 F/g, specific power of 89.36 kW/kg, specific energy of 28Wh/kg and excellent cyclic stability (91.73% retention after 1000 cycles, with ~ 10% loss in the specific capacitance after 1000 cycles) in 1 M Na_2SO_4 aqueous electrolyte. Being cost effective and environmental friendly design of developed MnO_2 showcase the potential candidature for energy harvesting application.

1 Introduction

Energy demand has risen significantly in human civilization. The fact pushed the researchers around the globe to work on the concept of renewable energy generation and storage [1–3]. In addition, rapid growth of portable/flexible electronic equipment is catching the attention of researchers to design the light weight, flexible and cost-effective energy storage devices. In the recent decades, the efficient supercapacitor with higher power densities than batteries and higher energy densities than traditional capacitors, with special features, such as shorter charge-and-discharge time, long cycle life and high specific capacity, has been significant as promising energy storage and portable electronic devices [4–6]. Supercapacitors are characterized as an electrical double layer capacitor (EDLC) and pseudocapacitor (PCs) depending on the charge storage structure and the substrate form. Most pledge active material electrode for supercapacitor applications is carbonaceous materials with a high specific surface area and superior cyclic stability used as EDLCs that store electrostatic ion absorption of the ions on the

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NO_2 gas sensing properties of heterostructural CuO nanoparticles/ZnO nanorods

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ABSTRACT

Monitoring of harmful nitrogen dioxide (NO_2) gases is very important for industrial fields and to maintain a clean environment. In this regard, it is essential to develop low-temperature operating NO_2 gas detecting devices. In recent years, semiconducting oxide-based heterostructured nanomaterials have received considerable attention in the detection of different types of gases at optimal working temperatures. In this context, the selective NO_2 gas sensing properties of CuO-nanoparticles/ZnO-nanorods based heterostructures are described in this article. The sensing films of CuO/ZnO heterostructures are fabricated using catalyst free thermal evaporation route followed by annealing in air and argon gas, respectively. Information regarding the structure, morphology, and composition of the heterostructured films was analyzed using XRD, Raman, EDS, SEM, TEM, XPS and contact angle techniques, prior to sensing measurements. Gas sensing studies have demonstrated that the thermally evaporated CuO/ZnO heterostructured sensor films detect NO_2 selectively at a lower working temperature of 150 °C. The heterostructured CuO/ZnO sensor showed a maximum response of 96% at 100 ppm NO_2 with good stability, reproducibility, and reversibility in gas response. The main objective of this study is the interaction of NO_2 gas with heterostructured CuO/ZnO sensing materials, which can be helpful in the detection of toxic gases.

1 Introduction

Chemiresistive gas sensors based on the metal oxide semiconductor (MOS) have been extensively used in different areas ranging from safety to well-being, including air quality monitoring, food processing, health diagnostics, and in the detection of explosive and hazardous gases [1–5]. MOS gas sensors are highly efficient because of their high response, simple fabrication, and compatibility with electronic strategies. In addition, MOS-based gas sensors are usually small, handy, and easy to integrate with

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Organochlorine pesticides in the drinking water of Merida and its Metropolitan Zone, a Karst Region

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STUDIES ON MULTI DRUG RESISTANT *KLEBSIELLA PNEUMONIAE*

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ABSTRACT

The wide spread use of antibiotics in hospitals has led to emergence of multidrug resistant organisms of low virulence like *Klebsiella* causing serious opportunistic infections. The purpose of this study was to know prevalence of antibiotic resistance to *Klebsiella pneumoniae* from clinical isolates from patients admitted to hospital in Barshi town. Mechanism of antibiotic resistance developed by *Klebsiella pneumoniae* was to be detected. A total of 10 strain of *Klebsiella pneumoniae* were selected for the study, 55(53.92%) of which were resistant to at least one of third generation cephalosporins. They were studied for antibiotic resistant and mechanism of antibiotic resistance by VITEK-2 machine. All the clinical isolates were isolated from clinical samples urine, pus, sputum, BAL, Blood, catheter and swabs. Antibiotic resistant of 310 *Klebsiella pneumoniae* cultures found were Wild (14); ESBL positive (288); ACQ PASE (15); ESBL CTX-M like (106); ESBL OXA-30 like (2); Carbapenemase (Metallo or KPC) (75); Resistast Cephalosporinase (AmpC) (49); ACQ Penicillinase (20); Inhibitor resistant PASE (IRT or OXA) (8); SHV1 Hyper production (9); Acq. Cephalosporinase except ACC-1 (36) and Penicillinase (9). Antibiotic resistant studied for antibiotics, Ampicillin, Ticaracilline, Amoxicillin, Piperacillin, Cefazolin, Cefuroxime, Ceftriaxone, Ceftazidime, Cefepime, Aztreonam, Doripenem, Ertapenem, Imipenem, Meropenem, Amikacin, Tobramycin, Nalidixic acid, Ciprofloxacin, Moxifloxacin, Tigecycline, Nitrofurantoin and Colistin was carried out using VITEK-2. Antibiotic resistance of *Klebsiella spp*. were studied by MIC and using HI media antibiotic discs.

KEYWORDS

Klebsiella pneumoniae, Multi drug resistant, VITEK-2 and MIC.

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INTRODUCTON

Antibiotic resistant is a global public health problem. The genus *Klebsiella* is widely distributed in nature multi drug resistant organism are resistant are resistant to one or more therapeutic drugs today's highly problematic multi drug resistant bacteria are *Klebsiella pneumonia* it has limited

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Original Research Article

Screening plants for medicines against *Klebsiella* & *Pseudomonas* species infections

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ABSTRACT

Klebsiella & Pseudomonas species are multi drug resistant bacteria. These bacteria are resistant to number of antimicrobial agents. The research work was aimed at killing and inhibiting the growth of these multi drug resistant pathogens, by using phytochemicals. The phytochemicals are secondary metabolites produced by plants. According to WHO medicinal plants are best products for maintaining human health. Plants like *Terminalia bellerica* (Behada) and *Santalum album* (Chndan) found to be the most effective against all isolated multi drug resistant *Pseudomonas* species and *Klebsiella* species. 20 pathogens were isolated on MacConkeys agar plate. Out of these isolates, all isolates showed resistance to the more than two antibiotics. All of them studied for colony morphology, cell morphology, biochemical nature & 16srRNA sequencing. The 10 isolated multi drug resistant *Klebsiella species* were named as K1 to K10. The 10 isolated multi drug resistant *Pseudomonas species* were named as P1 to P10.

1. Introduction

The medicinal plants have the strong acceptance in the religious activities of north Indian native communities, who worship the plants in the form of various gods, goddesses and minor deities (Dhyani, 2000).[1] *Cynodon dactylon, Ocimum sanctum, Juniperus communis, Aegle marmelos, Ficus benghalensis, Ficus religiosa, Azadirachta indica, Musa paradissica* and *Nardostachys grandiflora* are the examples of medicinal plants highly used for the medicinal as well as religious purposes by the Hindus in southern and northern part of India. The Buddhist community in northern India regards *Terminalia chebula* as an important medicine as well as sacred fruit. It has been stated long ago that the therapeutic potency of the medicinal plants is more effective and superior suited to a person of particular region or the culture in which the plant is naturally growing (Nadkarni and Nadkarni, 1989).[2] This idea has given a way to the development of a new drug for the heart patients of specific ethnic groups in India.

Various phytotherapy manuals have specified different therapeutic plants for treating irresistible ailments because of their less side impacts and lessened poisonous quality (Lee *et al.*, 2007).[3] There are a few reports on the antimicrobial movement of various natural separates (Islam *et al.*,[4] 2008; de Boer *et al.*, 2005), Numerous plants have been found to cure gastrointestinal disarranges, respiratory sicknesses and cutaneous contaminations (Somchit *et al.*, 2003; Santos *et al.*, 1995).[5,6] As per WHO, restorative plants would be the best hotspot for acquiring assortment of medications (Santos *et al.*, 2005).[6]

2. Materials and Methods

2.1. Collection of plant material

Fresh stem and seeds of total 16 medicinal plants were collected. The fruits, leaves, stem and seeds were separated, washed thoroughly with the tap water and shade dried, homogenized to fine powder and stored in air tight bottles which were used for solvent extraction.

Following plant materials had been selected for the purpose of study.

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भारतातील दिव्यांग लोकसंख्या व सबलीकरण : एक अभ्यास.

संशोधक

श्री. सूर्यवंशी भंडाजी रंगराव
श्री. शिवाजी महाविद्यालय,
बार्शी

मार्गदर्शक

डॉ. रावसाहेब पिराजी इंगळे
कर्मयोगी तुळशीराम पवार महाविद्यालय,
हडोळती,

■ **गोषवारा :-**

भारतातील दिव्यांगांची लोकसंख्या वाढत आहे. जगात अशिया खंडात दिव्यांगांच्या प्रश्नाकडे लक्ष देणे आवश्यक आहे. कारण या खंडात विकसनशील व अविकसित देशाचा समावेश आहे. जगातील अनेक देशांनी सामाजिक न्याय, समानता, समान हक्क, या तत्त्वानुसार समाजातल्या शारीरिक दुर्बल, आर्थिक दुर्बल घटकाचा सामाजिक, आर्थिक, शैक्षणिक विकास साध्य केलेला आहे. पण दिव्यांगांच्या विकासाला प्रारंभी कमी महत्त्व दिल्याचे दिसून आले आहे. 1976 साली पार पडलेल्या संयुक्त राष्ट्र संघाच्या सर्वसाधारण सभेपासून दिव्यांगांच्या विकासाला जगातील अनेक राष्ट्रात चालना मिळाली त्यानंतर जगातील अनेक देशातील सरकार कडून आपापल्या देशातील दिव्यांगांच्या विकासासाठी वेगवेगळी ध्येयधोरणे आखली जातात भारता सारख्या विकसनशील देशात वाढत्या लोकसंख्येबरोबरच लोकसंख्येतील वाढत्या दिव्यांगांचे प्रमाण ही एक प्रमुख समस्या आहे. लोकसंख्या वाढ व लोकसंख्या वाढी बरोबर वाढती दिव्यांग लोकसंख्या याचा विचार करून भारत सरकारने दिव्यांगांच्या विकासासाठी सामाजिक न्याय विभागा अंतर्गत स्वतंत्र दिव्यांग सबलीकरण विभागाची स्थापना केली. व दिव्यांगांच्या सशक्तीकरणाच्या अनेक योजना व दिव्यांगांच्या विकासासाठी वेगवेगळ्या संस्थांची स्थापना या विभागा मार्फत करण्यात आलेली आहे. त्याचा आढावा प्रस्तुत शोध निबंधात घेण्यात आला आहे.

■ **सूचक शब्द :-** दिव्यांग लोकसंख्या, सामाजिक सबलीकरण, सामाजिक न्याय, सामाजिक विकास,

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34

डॉ.बाबासाहेब आंबेडकर यांचा चळवळीतील दलितेतर सहकाऱ्यावर पडलेला प्रभाव –एक अभ्यास

प्रा.रसाळ दशरथ किसन
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घोषवारा (Abstract)–

२० व्या शतकात ज्या महाराष्ट्रात काही समाज परिवर्तनाच्या चळवळी झालेल्या होत्या.त्यामध्ये डॉ.बाबासाहेब आंबेडकर यांनी आपल्या कालखंडात(१९२०-१९५६)शैक्षणिक व सामाजिक चळवळी केलेल्या आहेत. त्याच बरोबर त्यांनी अनेक सत्यागृह, व लढे लढवून समाज परीवर्तनाची दिशा निर्माण केली होती. जो समाज पिढ्यानपिढ्या रूढी परंपरा अंधश्रद्धा, दैववाद वअज्ञानाच्या जोखडातसापडलेला होता. अशा अस्पृश्य, वंचित,शोषित घटकाला माणूस म्हणून वागविण्यासाठी त्यांनी महाड येथे पाण्यासाठी चवदार तळ्याचा (२० मार्च १९२७) मध्ये सत्याग्रह करून आम्हीही माणसे आहोत.आम्हालाही स्पृश्याप्रमाणे समानतेची वागणूक मिळाली पाहिजे.म्हणून समाजपरिवर्तनासाठी व समानतेसाठी चवदार तळ्याचा सत्याग्रह यशस्वी केला होता.म्हणूनच पाण्यासाठी सत्याग्रह करणारा जगातील पहिला महामानव म्हणजे डॉ. बाबासाहेब आंबेडकर होय. तसेच नाशिक येथील काळाराम मंदिर सत्याग्रह (१९३०) हा सत्याग्रह मंदिर प्रवेशासाठी केला होता. तसेच हा मंदिर प्रवेशसत्याग्रह करण्यामागचा उद्देश होताकी, 'आम्हीही माणसे आहोत स्पृश्य लोकांना मंदिरात प्रवेश आहे मग आम्हाला प्रवेश का नाकारला जातो.' ? याकरिता हा सत्याग्रह केला होता.तसेच पर्वती मंदिर सत्याग्रह पुणे,अमरावती येथील अंबादेवी प्रवेश मंदिर सत्याग्रह असे अनेक सत्याग्रह करून त्यांनी सामाजिक चळवळ उभी केली होती. अशा याशैक्षणिक व सामाजिक चळवळी मध्ये डॉ. बाबासाहेब आंबेडकरांच्या समवेत दलितेत्तर समाजातील अनेकसहकारी मोठ्या निष्ठेने या चळवळीत सहभागी झाले होते.म्हणून त्यांचे या चळवळीतील योगदान पाहणे अत्यावश्यक आहे.

प्रस्तावना –

१९ व्या आणि २० व्या शतकात भारतात आणि विशेषतः महाराष्ट्रात ज्या काही सामाजिक आणि शैक्षणिक चळवळी झाल्या त्यामध्ये शेतकरी, कामगार,आदिवासी व स्त्री चळवळी अशा अनेक चळवळी झालेल्या आहेत.त्यापैकी २० व्या शतकात महाराष्ट्रात डॉ.बाबासाहेब आंबेडकर यांच्या नेतृत्वाखाली अनेक चळवळीघडून आल्या होत्या. डॉ.बाबासाहेब आंबेडकर हे या देशातील महामानव व युगपुरुष असून ते स्वतःहा उच्चशिक्षित असल्याने त्यांनी उच्च शिक्षणाचे महत्व ओळखून अमेरिका,लंडन अशा जगप्रसिद्ध विद्यापिठातूनउच्चशिक्षण घेतल्यामुळे त्यांनी महाराष्ट्रात 'पिपल्स एज्युकेशन सोसायटी' ही शैक्षणिक संस्था स्थापनकेली होती.आणि बहुजन समाजाला उच्च शिक्षणं देण्यासाठी ८ जुलै १९४५ मध्ये मुंबई येथे शिक्षण संस्था उभारून या संस्थेच्या अनेक शाखा मुंबई, महाड, औरंगाबाद, नांदेड, पुणे येथे महाविद्यालये उघडून सर्वच समाजातील वंचित,दुर्बल घटकांना शिक्षणप्रवाहात आणले.त्यांच्या या चळवळीत दलितासहअनेक दलितेतर समाजातील सहकाऱ्यांनी त्यांच्या या समाज परिवर्तनाच्या चळवळीत निष्टापुर्वकयोगदान दिले आहे. त्यामध्ये अनंतराव चित्रे १८९४-१९५९, गंगाधर बापूसाहेब सहस्त्रबुद्धे १८८३-१९५८, ना. म.जोशी १८७९ - १९५५,प्राचार्य मनोहर भिकाजीचिटणीस १९०७-१९८३, शांताराम शंकर रेगे १९१४-२००४ या अशा अनेक दलितेत्तर म्हणजे कायस्थ समाजातील अनेक सहकाऱ्यांनीया चळवळीत योगदान दिले आहे.याबरोबरचमराठा, ओ बी सी अशा अनेक समाजातील सहकाऱ्यांनी योगदान दिले होते. त्यामुळे डॉ.आंबेडकर यांनी जे काही लढे,सत्याग्रह हाती घेतले.वआपल्या सहकाऱ्यांवर आपल्या कर्तुत्वाचा व ज्ञानाचा प्रभाव पाडला.म्हणूनच त्यांच्या या कार्याचा ज्या काही

डॉ. बाबासाहेब आंबेडकर यांचे उच्च शिक्षणविषयक विचार व कार्याचा प्रभाव - एक ऐतिहासिक अवलोकन

रसाळ दशरथ किसन[1] प्रा. डॉ. विष्णू बी नागमारे

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[2]प्रोफेसर/इतिहास विभाग प्रमुख श्री. शिवाजी महाविद्यालय, गार्डी जि. गोंदिया

घोषवारा (Abstact) :-

डॉ. बाबासाहेब आंबेडकर यांचे उच्च शिक्षण विषयक विचार व त्यांच्या कार्याचा प्रभाव पाहताना हि गोष्ट जाणवते कि, आज भारतासमोर अनेक समस्या असून त्या समस्यावरचा उपाय शोधण्यासाठी वेगवेगळ्या संशोधनाची गरज आहे. त्याकरीता भारताला उच्च शिक्षणात भरारी घेणे क्रमप्राप्त आहे. तसेच उच्च शिक्षणातून भावी पिढी घडविण्यासाठी अनेक क्षेत्रात कुशल मनुष्यबळाची गरज आहे.व ही गरज पूर्ण करण्यासाठी संशोधन क्षेत्रात आजच्या विद्यार्थ्यांनी, संशोधकांनी समाजपयोगी व राष्ट्रपयोगी असे उच्च शिक्षण घेऊन या राष्ट्राला गतिमान करून पुढे आणणे हे आपले कर्तव्य आहे. आपल्या देशात उच्च शिक्षण संस्था उभारून विद्यापिठीय संशोधन करून आपापल्या क्षेत्रात उच्चशिक्षित होणे हि काळाची गरज आहे. तेव्हा २० व्या शतकात डॉ. आंबेडकरांनी जे उच्च शिक्षणविषयक विचार मांडले. म्हणूनच त्यांच्या कार्याचा प्रभाव आज सर्वच क्षेत्रात पडलेला दिसून येतो.

प्रस्तावना :

२० व्या शतकात भारतात आणि मुख्यतः महाराष्ट्रात डॉ. बाबासाहेब आंबेडकर यांनी ज्या काही सामाजिक आणि शैक्षणिक चळवळी केल्या होत्या. त्याला भारताच्या समग्र इतिहासात तोड नाही. त्यांनी भारतातील समग्र वंचित, दलित, उपेक्षित समाजाला मानवी अधिकार मिळऊन दिली आहेत. तसेच त्यांना उच्चवर्णीयाच्या जोखडातून मुक्त केले आहे. याबरोबरच धर्म आणि धर्म मार्तंडाच्या जोखडातून बहुजन समाजाला शिक्षणरुपी संजीवनी देऊन मुक्त केले. हे त्यांचे कार्य या देशातील सामाजिक चळवळीच्या इतिहासात अमर ठरले आहे. डॉ. बाबासाहेब आंबेडकर यांनी प्राथमिक शिक्षणासह उच्च शिक्षण मिळणे किती आवश्यक असल्याचे प्रतिपादन केले आहे. त्यानी उच्च शिक्षणविषयक विचार मांडले. एवढेच नव्हे तर सर्वांना उच्च शिक्षण मिळावे म्हणून त्यांनी ब्रिटीश काळात स्वातंत्र्यापुर्वी मुंबई येथे ८ जुलै १९४५ रोजी 'पीपल्स एज्युकेशन सोसायटीची' स्थापना केली. आणि आपले उच्च शिक्षणविषयक विचार आणि कार्य प्रभावीपणे राबविले. आणि मुंबई येथे १९४६ सिद्धार्थ महाविद्यालय स्थापण केले. तसेच पुढे जुन १९५० मध्ये औरंगाबाद येथे मिलिंद महाविद्यालय स्थापन करून खऱ्या अर्थाने वंचीत, दलित व सर्वच समाजातील विद्यार्थ्यांना उच्च शिक्षण देऊन या महाराष्ट्रात आणि देशात एक आदर्श शिक्षण संस्था उभी केली.१९ व्या आणि २० व्या शतकात भारतात आणि महाराष्ट्रात ज्या काही शिक्षण संस्था ज्ञानदानाचे कार्य करीत होत्या. त्यापैकी एक उच्च ध्येय व उद्देश समोर ठेऊन डॉ. आंबेडकर यांनी 'पीपल्स एज्युकेशन सोसायटी, मुंबई येथे शिक्षण संस्था स्थापन केलेली दिसून येते. मात्र सर्वांपेक्षा या शिक्षण संस्थेचा विचार, ध्येय, आणि उद्दिष्टे हि फार वेगळी आणि सर्व समावेशक होती. तेव्हा डॉ. बाबासाहेब आंबेडकर यांचे उच्च शिक्षणविषयक विचार व त्यांच्या कार्याचा प्रभाव आज सर्व समाज घटकावर पडलेला दिसून येतो. तो प्रभाव आपण सर्वांनी पाहिल्यास त्यांच्या विचाराची झेप किती मोठी होती ती दिसून येते. त्यांच्या उच्च शिक्षण विषयक विचारातून आणि त्यांची कार्यातून आज त्यांचा प्रभाव पडलेला दिसून येतो.

संशोधनाची उद्दिष्टे –

१) डॉ. बाबासाहेब आंबेडकर यांचा उच्च शिक्षणविषयक विचार कृतीत आणणे.

२) डॉ. आंबेडकर यांचा उच्च शिक्षणविषयक विचार व कार्याचे अवलोकन करणे.

३) सर्व वंचित,दलित, स्त्री, सर्वहारा आणि बहुजन समाजाला ज्ञान देऊन त्यांचा सामाजिक स्तर उंचावणे हेच उच्च शिक्षणाचे ध्येय होते.

४) अस्पृश्य, वंचित, घटकातील स्त्री शिक्षणाला प्राधान्य देऊन त्यांना पुरुषाच्या बरोबरीने आणणे.

५) उच्च शिक्षणाद्वारे देशापुढील समस्या सोडऊन देशाला प्रगतीपथावर आणणे.

६) डॉ. आंबेडकर यांचे उच्च शिक्षणविषयक विचार मर्मग्राही व उद्बोधक होते.

७) उच्च शिक्षणाशिवाय प्रत्येकात स्वाभिमान निर्माण होऊन त्यांची आत्मिक उन्नती होणार नाही याची ओळख डॉ. आंबेडकरांनी करून दिली.

A Study of Relation between Anxiety and Emotional Maturity among Adolescence

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Abstract

Conducted study on anxiety and emotional maturity among adolescence in Barshi. Simple random sampling method usedfor data collection. Main purpose of the correlation in anxiety and emotional matureityof adolescence., Eighty adolescence selected for this study. The age range of participants was between 18 to 19 years the data was obtained using Sinha's comprehensive Anxiety Test (SCAT): A. K. P. Sinha and L. N. K. Sinha.Emotional maturity scale by Bhargava M. The finding the prediction there is positive correlation between anxiety and emotional maturity of adolescences girls. There is negative correlation between anxiety and emotional maturity of adolescents boys.

Keywords*- Anxiety, emotional maturity, adolescence*

Introduction:

Adolescence is frequently characterized by a transformation of an adolescent undertaking of the world, the rational direction towards a life course, and the active seeking of new ideas rather than the questioning acceptance of adult authority. Adolescents pay close attention and give more time and effort to their appearance as their body goes through changes. The lifestyle of adolescents in a given culture is profoundly shaped by the roles and responsibilities he or she is expected to assume. The extent to which an adolescent is expected to share family responsibilities in one large determining factor in normative adolescence behavior. For instance adolescents in certain cultures are expected to continue significantly to household chores and responsibilities. Adolescence is characterized by a strong tendency to experiment with risk behavior. The desire for novelty and the courage for experiment are much greater in adolescence than in later life. The adolescence period is characterized by its physical and psychological changes in the individual, together with increasing demands and influence of peers, school and wider society. It is well documented that behaviors during this period influence health in adulthood.

Anxiety

Whether because of work, relationships, economics, and so forth, most of us experience anxiety (or fear) repeatedly throughout our lifetime. Such reactions are a natural emotional response to stress and a normal part of life(Monroe& Reid, 2009). Although some anxiety can be energizing,extremely high levels of it can be immobilizing. High anxiety can prevent people from leaving their homes. It can also cause them to block out daily news events, avoid interacting with others, refuse to answer the phone, and in general, not enjoy everyday life. In individuals with anxiety disorders, which are characterized by symptoms of excessive or inappropriate anxiety or attempts to escape from such anxiety? The anxiety is out of all proportion to the stressful situation. In fact, anxiety may occur in the absence of any specific danger.

The main characteristic of generalized anxiety disorder is a persistent sense of "free-floating" anxiety, meaning that it follows the individual wherever they go. People who are chronically anxious can't say what they are afraid of all they know is that they feel on edge most of the time. They generally worry a lot, anticipate that something bad is going to happen, and find it hard to concentrate or make decisions.

"Anxiety is mood state characterized by marked negative affect and bodily symptoms of tension in which a person apprehensively anticipates future danger or misfortune. Anxiety may involve feelings, behavior, and physiological responses."

Emotional Maturity

Emotional maturity is the result of healthy emotional development. The emotional mature person is able to hide his feelings; such a person is not subject to swings in mood and can suffer in silence. When he dose express emotions, he does so with moderation, decently, and in good order. Emotional maturity is having proper emotion at proper time and to express it in proper form and in proper quality. Emotional maturity is an effective determinant to shaping the personality, attitudes and behavior of the youth into accepting responsibility, making decision, teaming with group, developing healthy relationship and enhancing self-worth.

According to Rather T. Jerkily, "emotional maturity means the degree to which the person has realized his potential for richness of living and has developed his capacity to enjoy things, to relate himself to others, to love and to laugh," to feel sorrow at the time of grief, to be frightened, without wearing any mask. According to Walter D. Smitson ,emotional maturity is a process in which the personality is continuously striving for greater sense of emotional health, both intra-psychically and intra-personality.

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Growth and Distribution of Population in Osmanabad District

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Abstract

The human population always changes continuously. Growth of population implies a change between two given points in period. Growth and distribution of population reflects the history of man's response to the environmental possibilities present in the region. Growth of population in any area is an index of its economic development, social awakening and many other characters. The population growth is the most fundamental demographic process with which all other demographic attributes are directly or indirectly associated. Therefore, an attempt is made here to analyse growth and distribution of population in Osmanabad district. The paper is based on secondary data source. to calculate growth of population simple mathematical formula i.e. growth rate = population of end period minus population of beginning period divided by population of beginning period X 100. To analyse grwoth of population, the tahsils of Osmanabad district are grouped into three categories on the basis of mean and standard deviation. the study reveals that the high growth rate of urban population only in Osmanabad tahsils mainly because of location of district headquarter in this tahsil, which leads to educational, industrial and administrative development.

Key wards: *Growth, Population Rural, Urban, Male, Female*

Introduction:

The word 'population' can be used in different ways. A biologist may refer to a collection of animals or plants as populations, whereas a geographer uses the same word to indicate the collection of human beings. Indeed, the term is frequently applied to a collection of people, the exact number of peoples. Population Geography may be defined as the analysis and geographic interpretation of spatial variation of the structure and value of demographic phenomena. These phenomena analyze the size and changes of population growth and distribution (Garnier, 1978).

The human population always changes continuously. Growth of population implies a change between two given points in period (reference?). Growth of population means any change in population in number, further it refers to the growth of the human population in a particular area during a specific period of time. The net change in population between two points in time is expressed in percentage and is described as the growth rate of population. Population growth is also measured in terms of absolute increase (Patil and Gatade, 2006). It may be negative or positive and it is resultant feature of the natural increase and net immigration or emigration over a certain period of time in a particular region (Sharma, 1978). It is determined by three basic factors namely human fertility, human mortality and human mobility.

Growth and distribution of population reflects the history of man's response to the environmental possibilities present in the region. Growth of population in any area is an index of its economic development, social awakening and many other characters (Chandana and Sidhu, 1980). The population growth is the most fundamental demographic process with which all other demographic attributes are directly or indirectly associated. Therefore, geographical study of population growth of a region has vital importance for understanding its dynamics as well as planning at the local and regional levels (Gharge, 2007).

The study of population growth provides an accurate assessment of the dimension of growing demand for food, fibre, shelter, and a variety of social and economic facilities on the one hand and on

'झाडाझडती' कादंबरीतील धरणग्रस्त लोकांच्या जीवनाची व्यथा

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प्रस्तावना

झाडाझडती ही विश्वास पाटील यांची सन१९९१ साली प्रकाशित झालेली सुप्रसिद्ध कादंबरी आहे. मराठीतील ख्यातनाम लेखक म्हणून विश्वास पाटील यांच्याकडे पाहिले जाते . कोल्हापूर जिल्हयातील 'नेले' या वारणाकाठी असलेल्या खेडगावात त्यांचा जन्म झाला . ग्रामीण जीवनाचे सुक्ष्म निरीक्षण हा त्यांच्या चिंतनाचा , लेखनाचा विषय ठरलेला आहे . ' झाडाझडती ' या ग्रामीण जीवनाची शोकपूर्ण महागाथा सांगणाऱ्या कादंबरीला १९९२ चा साहित्य अकादमी पुरस्कार लाभला . ' झाडाझडतीमध्ये एक विशाल पट मांडून , विविध माणसांच्या दुःख , वेदना आणि झुंजीच्या निमित्ताने जटिल होत जाणाऱ्या मानसविश्वाचा धांडोळा घेतलेला आहे . लेखकाने ' झाडाझडती'चे सात भाग करुन त्यातून ' जांभळी ' गावाचे धरणामुळे उठणे आणिपुनर्वसन होता होता तुकड्या - तुकड्यांनी तुटत जाणे अतिशय वास्तव पद्धतीने चित्रिलेले आहे . धरण म्हणजे बुडितक्षेत्रातल्या गावकऱ्यांवर ओढवलेलं जिवंत मरण होय .झाडाझडती ' या कादंबरीमध्ये कोणीही नायक नायिका नाही . धरणग्रस्तांचा समूह आणि त्यांच्या व्यथा - वेदना हाच या कादंबरीचा नायक आहे . असे असले तरी धरग्रस्तांचे नेतृत्व करणारे आणि जांभळीतले एकमेव शिकलेले व्यक्तिमत्त्व म्हणजे मास्तर वसंता खैरमोडे गुरुजी होय . खेरमांडे गुरुजींच्या नेतृत्त्वाखाली जांभळीचे लोक आधी मरण मग धरण ' अशी भूमिका घेऊन धरणाला विरोध करतात , बसंता खैरमोडे गुरुजींना धरणग्रस्तांच्या साऱ्या प्रसंगांची आणि परिस्थितीची जाणीव असते . त्यांनी कोयनेच्या धरणग्रस्तांचे दुःख जवळून पाहिलेले आहे . त्यामुळेच जांभळी गावांच्या धरणाचा प्रस्तावा येताच त्याला विरोध करण्यासाठी सर्व गावकऱ्यांना ते एकत्र करतात . खैरमोडे गुरूजी धरणग्रस्तांसाठी संपूर्ण आयुष्य वाहून घेतलेले प्राथमिक शिक्षकाची नोकरी करीत असताना त्यांना अनेक वेळा सस्पेंड केलेले असते पण गुरुजी या गोष्टीने अजिबात डगमगत नाही . कोयनेचा अनुभव पाठीशी असल्यामुळे खैरमोडे गुरूजी धरणग्रस्तांच्या न्याय्य हक्कासाठी अतिशय सजग आणि जागरूक आहेत . जांभळीकरांना ते सतत व्यावहारिक शहाणपण शिकवित असतात.

उद्दिष्टे- 'झाडाझडती' कादंबरीतील धरणग्रस्त लोकांच्या जीवनाची व्यथा अभ्यास करणे...

' झाडाझडती ' ही कादंबरी जांभळी गावच्या धरग्रस्तांची कहाणी आहे . " , " झाडाझडती ' ही जांभळीची कहाणी आहे . विस्थापितांच्या पुनर्वसनाची झालेल्या संघर्षाची काहाणी आहे . खैरमोडे गुरुजींच्या नेतृत्वाची कहाणी आहे . पण भावांपैकी केवळ कोणा एकाची नाही . विविध घटितांची ती समग्र कहाणी आहे . अनुभवाच्या विराटपणामुळे या कादंबरीला लाक्षणिक गद्य महाकाव्याचे रूप प्राप्त झाले आहे . ' एपिक ' म्हणजे महाकाव्य तसेच ' एपिक ' म्हणजे भव्य . या लाक्षणिक अर्थाने ' झाडाझडती'तील अनुभवच विराट आणि भव्य आहे"१ . ' धरणामुळे विस्थापित झालेल्या अनेक कुटुंबाची वाताहत झाडाझडतीमध्ये लेखकाने प्रभावीपणाने मांडलेली आहे . जांभळी गावाच्या बाजूला एक मोठे धरण होणार असल्यामुळे या जांभळी गावासह आसपासची नऊ गावे बुडीतात येणार असतात . वसंता खैरमोडे गुरुजींच्या नेतृत्वाखाली जांभळीचे लोक ' आधी मरण , मगच धरण ' अशी ताठर भूमिका घेऊन धरणाला विरोध करतात . गावकऱ्यांच्या या विरोधामुळे व एकूणच शासनाच्या उदासीनतेमुळे सुमारे पंचवीस वर्षे ' धरण होणार ' ही फक्त अफवाच राहते . गावे बुडणार म्हणून गावात प्राथमिक सुधारणा करण्याकडेही शासन दुर्लक्ष करीत राहते . खासदार शिंगाडेंच्या मुलाला सर्जेरावला साखर कारखाना काढायचा असतो . साखर कारखाना काढायचा तर ऊस क्षेत्र दाखविले पाहिजे आणि त्यासाठी या दुष्काळी क्षेत्रात धरण होणे अत्यंत गरजेचे असते .

Exploring Cultural Aspects in Amitav Ghosh's Sea of Poppies

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Abstract:

The present research paper brings out the cultural aspects in Amitav Ghosh's stunningly vibrant and intensely human work *Sea of Poppies*, the first in the *Ibis trilogy*. The ideas of community, the prevailing attitudes, the supremacy of white class, the plight of the marginalized in the backdrop of the historical period form the basis of the novel. The novelist presents the concept of jahaz-bhai and jahazbahen to each other and he also mentions them children of the ship where there will be no differences among them. There is a call for understanding of culture as a space of interaction of different elements and forces. Ghosh introduces different characters to bring out the picture of Indian culture. A trail of thoughts across the novel reveals his intent to shed light on the cultural aspects that constitute Indian society. Thus, the author structures the story and characters and seeks their interests that inspire people to adopt the beliefs of the society.

Key words: Culture, Ethos, Ibis Trilogy, Opium War, Jahazbhai, Jahazbahen etc.

Introduction

We waited till the latter half of the nineteenth century when the Western impact on India's cultural front had resulted in the development of formal written prose in the regional languages of India. The prose developed firstly as a functional and presently as an artistic medium. (Iyengar, p.314) *Sea of Poppies* presents the picture of nineteenth century Indian society in the backdrop of Opium War. Indian English Fiction gives an expression to the cultural ethos of the nation. Culture and identity are fused together that give a definite form and shape to the novels which present unique expression of the life, culture and ethos of India and its people.(Shukla, p.26) In his novels *The Circle of Reason, The Shadow Lines, The Calcutta Chromosome, The Glass Palace, Sea of Poppies, River of Smoke, Flood of Fire, The Gun Islan,* Amitav Ghosh presents the panorama of Indian society and decolonize the Indian mind. In the 20th century the reputation of the Indian novel in English came controversially to overshadow the vernacular literatures of the subcontinent, but the vernacular languages are heard in the rhythms and diction of reported speech, what the British Indian writer Salman Rushdie calls 'chutnified' English. (Birch, p.19) In *Sea of Poppies*, we get the impressions of the characters (Deeti, Kalua) who speak in their native language.

Culture is seen as constituted by contested codes and representations. All accounts of culture literary, historical, and anthropological ethnographic are stories about events an people, marked by the usual structures of language. (Nayar, p.205) Indian Literature has played a huge role in binding together vast cultures in an unseen way by preserving and adopting many a tale and numerous songs and plays dealt with the proverbs and aphorisms of the region. Indian English Literature has the vital role in maintaining and fostering cultural unity and identity. Ramayana and Mahabharata, Jataka tales, PanchaTantras and Hitopadesha ,Katha Saritsagarain, mystic songs and numerous works indifferent languages of India revere the tradition of India. Culture embodies the way in which one thinks and does things. Ghosh depicts the caste system, class system, religions, family system, festivals, the food items, and the local language etc. in the novel. He also presents the instances of prevalent customs and traditions of the society. E.g. widow system indentured labour system.India is a country where one finds unity in diversity. The novelist has given the references of the Himalayan ranges, the rivers like the Ganga and Hooghly, worshipping of the river Ganga in the novel. Clifford argues that Ghosh's writing draws attention to the complex roots and routes that make up the relations between cultures. (Khair, p.12) Culture, like a living organism, can sustain or etch out progress only when it shows adaptability to changing situations. The process of evolution, applicable in the case of living species, works equally effectively in the rise and decline of civilization and cultures. Indian culture has this adaptability in full abundance. (Prasad, p.30) Postcolonial literature attempts to undo the discourse of Europe about native cultures, to decolonize one. Decolonization involves a reaffirmation of one's cultural values and systems. It seeks retrieval of the forgotten rhythms of life. (Nayar, p.83)

The novelist depicts the culture giving the example of the prayer songs. Deeti would experience a pleasurable thrill when the women sang. She chanted the prayer-song for the end of the day:

Sājh bhaile
Sājha ghar ghar ghume
Ke mora sājh
manayo ji

Gain and Limitations of E-learning and Teaching Methodology in Higher Education during Pre and Post COVID-19 at Rural Area

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Abstract –

E-learning is new era in education system and it becomes essential part in COVID-19 pandemic situation throughout the word. In COVID-19 pandemic situation, class room teaching is suddenly stopped and colleges get closed for unlimited period. To avid educational loss of students, UGC and Universities decided to conduct online examination and teaching. This online teaching and learning process is new to students and teachers but it is unavoidable in pandemic circumstances. When online teaching-learning process started, but teachers and students were not techno savvy. There were some limitations regarding facilities of digital classroom, android mobile availability, economical condition, proper use of electronics gadgets and internet signal connectivity. In post COVID situation, it is essential to combine online and off line teaching and learning process.

Keyword-E-learning, Teaching, Online, Higher education, Gain, Limitations, Techno savvy

1. Introduction

Now a day, online teaching and learning is essential part of educational system especially in higher education. Online teaching is the process of educating others on virtual platform. This type of teaching includes live class, video conferencing, webinars and other many tools and apps as Zoom Meet, Google Meet, Jio-Meet, Teams and Teachmint. Online teaching is student centric methodology which increases student participation and interest in virtual class. In online teaching advanced technology is used to enhance the quality of distance education. The skills of teaching play an important role in successful interaction with students. Online teaching requires digital resources for effective and interactive teaching but it is somewhat difficult to create better virtual teaching-learning environment. New National Education Policy (NEP) also gives prime importance to online teaching-learning method and innovative use of advanced technology in higher education. In COVID-19 pandemic situation total education system is get hampered and University-Colleges suddenly closed for unlimited period. This pandemic situation is uncertain, nobody knows when it will be clear and regular University-colleges started. To avoid educational loss of stakeholders UGC and Universities decided to conduct online examination and online teaching.

When UGC and University decided to conduct online examination and online teaching but, whole system was new to online process. Nobody was pre-prepared and techno savvy for this online process but any how it should be implemented due to pandemic situation. In online examination and online teaching-learning process have many problems to stakeholders as availability of digital class room, internet connectivity, android mobile device, proper use of electronics gadget and economical condition of students. In E-learning process face to face communication is not possible and there is possibility of cheating in online examination and evaluation process. In E-learning process it is not possible to provide hands on training and laboratory practical. Online examinations were conducted and result was declared then some observations were noted and analysed it. Online teaching –learning observations and analysis also noted here. There are so many issues from student side and teacher side regarding online teaching–learning process which are discussed here.

2. Methodology

Throughout the pandemic situation of COVID-19 all over the country as per UGC and Universities decision to avoid loss of students, online teaching-learning process is accepted. This online teaching-learning process is mandatory to the teacher and student due to unavoidable pandemic situation. Study of online teaching-learning process is performed also discussed online university and college examination with result. In online teaching, observations of student presents, net connectivity, use of electronics gadget and digital class rooms are performed. The online, university and college examination observed regarding net connectivity, use of electronics gadget and examination with result by Google form and Zoom meet apps.

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2

Impact of COVID-19 on Geographical Diversity

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Research Paper - Geography

Introduction:-

Coronavirus disease 2019 (COVID-19) already considered as a global pandemic is rapidly spreading across the world and significantly affecting many countries. This outbreak of a novel coronavirus disease began in December 2019 in Wuhan, Hubei Province and China. By March 25, 2020, the disease had rapidly spread from Wuhan to 196 countries, located in different parts of the world. As of April 28, 2020, there have been a total of 3.12 million confirmed cases from all around the world. This contact transmissible disease has an average incubation period from 6 to 14 days. Fever, respiratory disorder, coughing and shortness of breath are some of the early symptoms; while in the acute stage, it can even lead to death.

According to WHO, the first infected case in India was reported on Jan 30, 2020. Later, around March 4 onwards, it turned into a major outbreak. Till January 27, Maharashtra was the leading state with a total number of 2,015,524 cases; while the whole country recorded a total of 175,328 cases. Social distancing is the only measure that is adopted due to the novel Covid-19 and transmitted through various bio-aerosols, large droplets or direct contact with secretions similar to the influenza virus. Virus transmission can be influenced by several geographical factors such as climatic conditions (temperature and humidity) and population density. It was observed that the

7

शेतमजूरांच्या रोजगारातील शेतीत झालेल्या बदलाचा अभ्यास

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Research Paper - Geography

प्रस्तावना :-

शेती या व्यवसायात शारीरिक श्रमाची जास्त गुंतवणूक असते. मग हे श्रम शेतकऱ्याचे स्वत:चे असोत, त्याच्या कुटूंबाचे असोत की मजुराचे लागवडीपूर्व मशागती पासून काढणीपर्यंत सर्वच ठिकाणी श्रम अपरीहार्य आहे. घाम गाळल्याशिवाय शेती पिकत नाही हे अखरे असले तरी सध्या महाराष्ट्रात ग्रामीण भागात शेती शिवारात गेले की सर्वात प्रथम शेत मजूरांच्या समस्येविषयी गाऱ्हाण ऐकायला मिळते. शेतकरी हा शेतमजुराच्या व शेतीच्या समस्यात गुरफटलेला दिसून येतो. गावातील मजुरांची उलब्धता. मजूर मिळाले तर ते काम किती करताव गळमंगळ किती करतात हा पुन्हा विचार करण्याचा विषय आहे. सध्या ग्रामीण भागातील बलुतेदारी प्रथा बंद पडली. गावातच अनेक व्यवसाय सुरु झाले. सावलीत काम कायम रोजागार यामुळे शेतमजूर चटकन नव्या व्यवस्थेत रुजले कांही शेतमजूरांनी जनावरे पाळून दूध व्यवसायाला सुरुवात केली. मुलांच्या शिक्षणासाठी शहरांचा मार्ग धरला व तेथेच लहान मोठे व्यवसाय करु लागले. शासनाने अनेक माध्यमातून नोकरीच्या व स्वयंरोजगाराच्या संधी निर्माण करुन दिल्या. शेतमजूरात अशी अनेक बदल होत असताना शेतीसाठी पर्यायी श्रमबळाची व्यवस्था निर्माण झाली. या अनेक कारणामुळे शेती व्यवसाय करताना शेतकरी हतबल झालेला दिसून येतो.

महाराष्ट्रातील शेतकरी व शेतमजूरांची अवस्था :-

शेती व्यवसायात शेतकरी व मजूर या दोघांनाही कामाच्या तुलनेत मजूरी कमी मिळते. तसेच वर्षभर काम व मजूरी मिळेल याची खात्री नसते. या व्यवसायात भविष्य निर्वाहनिधीची तरतूद नसते. या अनेक कारणामुळे शेती या व्यवसायाकडे येण्याची मानसिकता लोकांची राहिली नाही. म्हणूनच शेती या व्यवसायात मनुष्यबळाचा तुटवडा भासत असल्याचे दिसून येते. शेती हा व्यवसाय

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India's Trade Relationship with Germany After Liberalisation

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Abstract: *The article looks at the potential for trade change between India and Germany and explores possible improvement after liberalization for each economy. India is the largest cooperation partner in Germany and provides the basis for various forms of cooperation. This article identifies the trend of trade flows in a perfectly competitive world between the two countries' economies. This study includes cross-border German and Indian industries to obtain insight into the ease of doing business in a foreign country. This study discusses the flow of trade after liberalization between India and Germany. As this can be shown, both India & Germany create an array of possibilities that remain uncharted for each other. In building upon their partnership, there is great mutuality of benefit. To study the tone for these deliberations, this study was performed. Its goal is not only to highlight the attractiveness of both countries for investment and business through different avenues but also to lay the foundations for long-term affiliation between these two vibrant or promising economies. This also shows the assist in the development of bilateral relations between India and Germany in various fields, and hence. Establishing a laissez-faire economy in harmony with the new global economic order.*

I. Introduction

Decades of friendship and collaboration mark the history of Indo-German relations. India was the first nation to finish a war with FRG (Federal Republic of Germany) after World War II and the first to familiarise itself with a recently established country. As early as 1951, diplomatic terms were developed, but differences of ideological type assist two countries to expand and extend relations and cooperation beyond trade, cultural exchange. Although Germany pursued rapid NATO integration and intensified its relations with the West, in the heart of Europe, The frontline state was formed between the USA and the Soviet Union; India preferred to proceed on its course, first Nehru Foreign Policy Order became non-alignment.

The problem of diplomatic relations between Germany and India led, however, serious controversies were settled only when the Hallstein Doctrine was abandoned by Germany. Indeed in 1972 India finally recognized the second German state and established diplomatic relations with the DDR. However, relations in some industries have over time improved and deepened, taking into account the Cold War strategy. German participation in the field of development cooperation has proved to be a particularly invaluable factor in the establishment of close relations between India and Germany, supplemented by successful cultural exchanges, untroubled by historical or imperial legacies. However the economic component of relations has long played a subordinate role, and there has been no cooperation on security policy matters. The political interests of the FRG in India remained poor until the 1990s and the relationship could best be described as a 'benign neglect' policy[1].

Global politics transformed radically with the end of the Cold War and the fall of the Soviet Union. India has not only lost its largest and powerful trading partner, but also its most prominent supporter and partner in foreign policy. India had to revise its foreign policy and recognize its role in the world after the Cold War.

[1]*Cp. Dietmar Rothermund, Indien. Kultur, Geschichte, Politik, Wirtschaft, Umwelt, Ein India. Culture, History, Politics,[Handbuch (Munich: [Economy, Environment: A handbook C.H.Beck, 1995), 474.*

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STUDIES ON BETA LACTAMASE PRODUCING MULTIDRUG RESISTANT *KLEBSIELLA* SPECIES ISOLATED AT DR JAGDALE MAMA HOSPITAL AND RESEARCH CENTER BARSHI DISTRICT, SOLAPUR (MAHARASHTRA)

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ABSTRACT

Introduction: Increased use of antibiotics in hospitals led to multidrug resistant organisms (*Klebsiella* species). The purpose of this study was to know prevalence of extended spectrum beta - LACTAMASE (ESBL) producing multidrug resistant *Klebsiella* species from clinical isolate from patients admitted to Dr. Jagdale Mama Hospital and Research centre, Barshi. Dist Solapur (MS) **Methodology:** A total 310 specimens including urine, pus blood was isolated and identified by standard methodology. An antibiotic susceptibility testing was done by Kirby Bauer disc diffusion method. For detection of extended spectrum beta -lactamases producing isolates combination disk method was done **Result:** A total of 310 samples (200 urine, 60 pus, and 50 bloods) were included in study. Out of total samples 120(38.8%) samples precede showed growth in e Gram- negative bacteria. Amongst these significant growths 70(58.4%) *Klebsiella* species, 50(71.4%) *Klebsiellapneumoniae* and 20(28.5%) *Klebsiellaoxytoca* were isolated. Amongst these total isolated *Kpneumoniae*, 35(70%) multidrug resistant *Klebsiellapneumoniae* and 13(65%) multidrug resistant *Klebsiellaoxytoca* were isolated. A total of 23(65.7%) *Kpneumoniae* and 6(46.1%) *Koxytoca* isolates were found to be extended spectrum beta-lactamase producers.

KEYWORDS

MDT, ESBL and Antibiotics susceptibility testing.

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INTRODUCTON

Klebsiellapueumoniae producing ESBL rarely reported as a cause of septicemia out break among pediatric patients in medical literature. Organisms are a potential cause of severe infection in intensive care units and among pediatric patients (Podschun R. *et al*, 1998)[1]. An increased use of extended spectrum cephalosporins leads to development of

THE INESCAPABLE TRAP OF SLAVERY OF THE WORKING CLASS: A MARXIST READING OF ARAVIND ADIGA'S STORY OF CHENAYYA FROM *BETWEEN THE ASSASSINATIONS*

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Abstract*: Karl Marx and Friedrich Engels consider the history of mankind as the history of class struggle. This is accurately applicable to the Indian history as well. In India there is a long tradition of division of the society into classes based on religion, caste, gender, financial status, occupation, dietary preferences, place of residence etc. The Indian constitution promises to treat all the citizens of the country equally and aims at creating equal opportunities for all to progress in life. However, our socio-political and economic system favors the capitalist bourgeois class and works for their interests. Consequently, even after more than seventy years of independence we have not succeeded in eradicating the evil of poverty from our country. The working class in our country is subjected to severe exploitation and slavery at the hands of the unruly bourgeois. This trap of slavery is so strong and inevitable that it is not possible to overthrow it even though one desires to do so. The social conditioning of our people keeps them unaware of the degree of injustice thrust upon them. The present paper proposes to analyze a story from Aravind Adiga's Between the Assassinations, a collection of stories set in the years between the assassinations of two prime ministers of India, namely Indira Gandhi and Rajiv Gandhi. Through the experiences of the protagonist Chenayya, the author throws light on the exploitation of the working class in India. The pathetic condition of the labourers is the result of the thriving capitalist economy as shown in the story.*

Keywords*: class struggle, division, capitalist economy, bourgeois, exploitation*

The materialistic view of history considers class struggle as an inevitable part of any era. According to Marx and Engels "The history of all hitherto existing society is the history of class struggles" (35). As human beings have a tendency to group themselves for certain reasons, they form the classes. However, only coming together and forming a group is not sufficient for class formation. Along with certain similarities in their interests and pursuits, there should be some psychological elements for class formation. Once formed, these classes enter into a constant interaction with one another, mostly a conflicting one. As members of each class struggle for material progress and political power, the subjugation of one class by the other superior class becomes rampant. This domination of one class over the other has always been there in the Indian society. The so called upper classes based on their religious, caste-based, economic, political and social power exploit the other classes.

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Postcolonial Reflections in South Asian Literature

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Abstract:

Postcolonial literature in South Asia stands as a vibrant testament to the enduring impact of colonial rule on the cultural, social, and literary landscape of the region. Emerging from the aftermath of colonialism, South Asian literature reflects the complexities of a postcolonial world, where nations once subjugated by imperial powers grapple with issues of identity, nationhood, language, and cultural hybridity. This body of literature serves as a powerful mirror, capturing the myriad ways in which the legacy of colonialism continues to shape the lives and narratives of the people of South Asia. Three novels selected to study Postcolonial Reflections in South Asian Literature are *Midnight's Children* by Salman Rushdie, *Things Fall Apart* by Chinua Achebe, and *The Reluctant Fundamentalist* by Mohsin Hamid. These literary works explore the complex aftermath of colonialism and its impact on identity, culture, and society in the South Asian region. Through the works of renowned authors and emerging voices, it explores the multifaceted experiences of those who lived through and after colonial rule, shedding light on the resilience, creativity, and resilience of a postcolonial society seeking to define itself amidst the ruins of empire. In this exploration of postcolonial effects in South Asian literature, the rich tapestry of narratives that illuminate the ongoing struggle for self-definition, cultural reclamation, and social justice in the wake of colonialism's enduring footprint will be studied.

Keywords: subaltern, colonialism, hybridity, societal, othering, etc.

Introduction:

The profound and lasting effects of colonialism on South Asian literature serve as a compelling testament to the intricate interplay of history, culture, and identity. This region, comprising nations such as India, Pakistan, Bangladesh, Sri Lanka, and Nepal, has a rich literary tradition that was profoundly transformed by centuries of colonial rule, primarily under the British Empire. The legacy of colonization, marked by the imposition of foreign languages, the disruption of indigenous cultural practices, and the systematic exploitation of resources, indelibly etched itself onto the narrative fabric of South Asia. Consequently, postcolonial literature in this region emerges as a dynamic and multifaceted response to the enduring impacts of colonialism, embodying the aspirations, struggles, and triumphs of a region forging its identity in the crucible of postcoloniality. As we embark on a comprehensive exploration of postcolonial effects in South Asian literature, it becomes evident that this literary tradition is not merely a repository of historical experiences but a living testimony to the resilience and adaptability of cultures under the duress of imperialism. This research seeks to unravel the intricate tapestry of themes, styles, and voices that have emerged in the wake of colonial domination. It delves into the nuanced expressions of

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2-chlorobenzaldehyde thiocarbohydrazone: a novel reagent for liquid-liquid extractive spectrophotometric determination of copper(II) from environmental and real samples

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ABSTRACT

2-Chlorobenzaldehyde thiocarbohydrazone (2-CBTCH) is proved as a novel analytical chelating reagent to developa simple, fast and selective liquid–liquid extractive spectrophotometric method for trace level determination of copper(II). The method was based upon the complexation reaction of copper(II) with 2-CBTCH in ethanol. It instantly forms orange coloured [Cu(II)-2 CBTCH] complex at room temperature, which was quantitatively extracted in 1-butanol and shows maximum absorption at 470 nm. The values of molar absorptivity and Sandell's sensitivity of [Cu(II)-2CBTCH] complex are found to be 0.3429×10^4 $Lmol^{-1}$ cm^{-1} and 0.01851 $\mu g cm^{-2}$, respectively. The system follows Beer's law up to 17.5 $\mu g mL^{-1}$. The stoichiometry of the [Cu(II)-2CBTCH] complex in 1-butanol is determined by Job's method, mole ratio method is 1:2 and was confirmed by log-log plot method. To intuit the peak extraction conditions several experimental factors such as pH, reagent concentration, selection of solvent, shaking time, interference of cations and anions has been studiedwell. The usage of masking agent lifts the selectivity of the present method. The method has been effectively used for the determination of copper(II) in alloy samples, pharmaceutical samples, fertiliser samples and environmental samples such as leafy vegetables and water samples.

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Alloys; 2-chlorobenzal dehydethiocarbohydrazone; copper(II); spectrophotometeric determination; environmental samples

1. Introduction

Copper is extensively dispersed in nature and one of the crucial elements in the human body. Lack of copper in the body creates different health problems like anaemia, hair kinky and Wilson's disease [1]. As a micronutrient, it plays a dynamic role in many biological systems during cell respiration in the blood invertebrate animals and the formation of haemocyanin and important respiratory protein is found in the lymph of most animals belonging to the phyla Mucosa and Arthropoda. Naturally, copper exists in various meat, grains and vegetables. In biological system, copper counteracts the harmfulness of Zn suggesting Cu-Zn antagonism [2]. In recent years copper-based

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Newly synthesized triazole-based Schiff base ligands and their Co(II) complexes as antimicrobial and anticancer agents: Chemical synthesis, structure and biological investigations

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ABSTRACT

The new Schiff base ligands 4-(2′/3′/4′-nitrobenzelideneimino)-3-methyl/ethyl-5-mercapto-1,2,4-triazole and their Co(II) metal complexes were synthesized and characterized by elemental analysis, magnetic moment measurements, thermal studies, electronic absorption and NMR spectroscopy. The ligands were synthesized by condensation of 4-amino-5-mercapto-3-methyl/ethyl-1,2,4-triazole with 2/3/4-nitrobenzaldehyde. On the basis of electronic absorption spectral data and magnetic susceptibility measurements, the octahedral geometry has been proposed for all the Co(II) complexes. Further, the ligands and Co(II) complexes have been screened for their antimicrobial activities against bacteria (*Staphylococcus aureus, Pseudomonas aeruginosa*) and fungi (*Aspergillus niger* and *Candida albicans*). Furthermore, the synthesized compounds were also screened for anticancer activity on human cancer cell lines such as breast (MCF7), lung (NCI-H226), prostate (PC-3) and ovary (OVCAR-3) by sulforhodamine-B (SRB) colorimetric assay.

Introduction

Nowadays, heterocyclic chemistry has become a separate field of chemistry for present society and for future prospects in scientific field, as nitrogen, oxygen and sulphur are most well-known hetero atoms with significant role in biological systems. Due to implications in drugs and industrial studies, heterocyclic compounds are considered as one of the important class of organic compounds [1,2]. The most important type of heterocyclic compounds are five membered triazoles with three nitrogen atoms and two carbon atoms [3]. Amine and thione-substituted triazoles have been studied as antibacterial, antifungal, anticancer, antitumor, anticonvulsant, anti-inflammatory and analgesic properties [4–9]. Triazoles contain both hard nitrogen and soft sulphur atoms in the form of thio amide, hence they act as good coordinating ligands [10]. Such type of ligands have donor group that can coordinate with wide range of metal ions [11]. The potential coordinate sites are i) nitrogen of primary amino group ii) sulphur of thiol group and iii) two nitrogen atoms at position 1 and 2 in triazole ring system [11]. These ligands contain S=C-N-N unit that allows for bidentate coordination with metal ions through amine and thio substitution to form a stable five membered ring [12]. Thus ligand is polydentate and complexes derived from it are called chelate complexes. These factors prompted us to carry out a study on triazoles. The aim of present study is to modify bioactivities of 1,2,4-triazole Schiff base and obtain the relative derivatives with better curing effect and improve bioavailability by coordinating them with Co(II) ion.

Cobalt has a pronounced affinity for coordination because of its smaller size and higher nuclear charge. Literature survey reveals that, cobalt complexes are important as medicine and show variety of biological activities [13–19]. Our earlier report [20] suggest that Co(II) complexes derived from 4-amino-5-mercapto-3-methyl-1,2,4-triazole and 2/3/4-nitrobenzaldehyde exhibit excellent anticancer activity Also, no work has been reported on the synthesis of Co(II) complexes

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Design and optimization of sensitive analytical spectrophotometric method for micro determination of copper(II) from e-waste by using of novel chromogenic extractant

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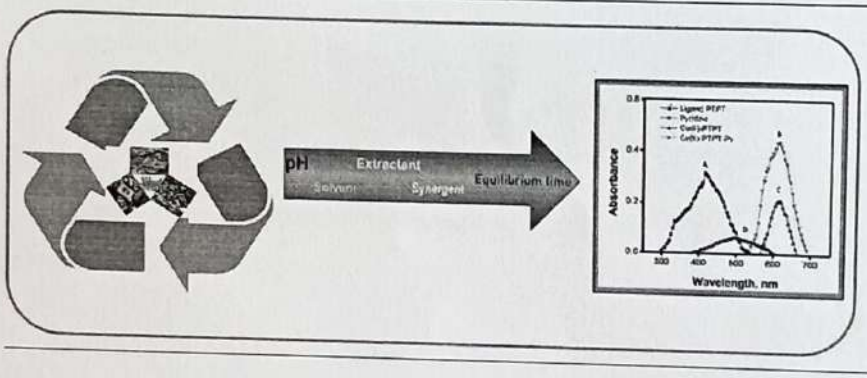
HIGHLIGHTS

- Easy synthesis of chromogenic ligand.
- The method has to be showed the synergistic effect on extraction and spectrophotometric determination of copper(II).
- Dilute pyridine used as an auxiliary extractant.
- Successfully applied for real sample analysis.
- The developed method is reliable for determination of copper(II) from e-waste.

GRAPHICAL ABSTRACT



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ABSTRACT

In this article, a novel spectrophotometric reagent 1-(pyrimidine)-4, 4, 6-trimethyl-1,4-dihydropyrimidine-2-thiol [PTPT] has been synthesized for liquid–liquid extraction and spectrophotometric determination of copper(II). The as-synthesized ligand has been selectively forms stable complex with copper(II) in basic medium (pH 9.0), in presence of mild pyridine the extraction and color stability has found to be synergistically enhanced. The equilibrium time is 10 min for effective extraction of copper(II) from organic phase and absorbance of colored organic complex in carbon tetrachloride is measured spectrophotometrically at λ_{max} 615 nm against reagent blank. The ternary complex of Cu(II)-PTPT-Py having molar ratio 1:2:2 (M:L:Py) showed green colored complex. The main factors influencing the achievement of synergistic extraction; i.e. pH, ligand concentration, type and volume of the dispersive organic solvents, equilibrium time, synergent concentration and foreign ions were investigated.

The Beer's law was obeyed in the concentration range 1–20 μg mL^{-1} of copper(II) and optimum concentration range is evaluated by Ringbom's plot and it is found that 2.5–25 μg mL^{-1}. In presence of pyridine, molar absorptivity and Sandell's sensitivity of copper(II)-PTPT complex is 2.80 × 10^3 L mol^{-1} cm^{-1} and 0.226 μg cm^{-2}, respectively and in absence of pyridine, molar absorptivity and Sandell's sensitivity of

Abbreviations: PTPT, 1-(pyrimidine)-4, 4, 6-trimethyl-1,4-dihydropyrimidine-2-thiol; PAR, 4-(2-Pyridylazo) resorcinol; Py, Pyridine; Sy, Synergent.

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Cobalt selenide thin film: photovoltaic and impedance spectral studies by simple chemical grown technique

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ABSTRACT

A thin film of cobalt selenide is deposited on the fluorescence tin oxide-coated glass surface material using a simple chemical growth technique. In this article, we report on the study of photoelectrochemical characteristics (PEC), including current–voltage, capacitance–voltage characteristics, photovoltaic power output, and spectral response in dark and light conditions. For the above parameter study, we prepared using cobalt selenide and carbon electrode (using polysulfide as electrolyte), the battery configuration is expressed as *n*-CoSe/NaOH (1 M) + Na_2S (1 M) + S (1 M)/C (graphite). The performance of the cobalt selenide thin film material the resulted values of respective series (R_S) and shunt (R_{Sh}) resistance 2.280 kΩ and 1.224 Ω, respectively. The efficiency and fill factor of these PEC cells were found to be 0.899 and 28.72%. The junction ideality value are found to be (n_D) is 0.69 in the dark and 2.72 in the light (n_L). The M–S plots are constructed using C^{-2} against applied bias voltage (with respect to SCE) for CoSe PEC cell. The positive slope of the M–S plot confirms *n*-type conductivity of the CoSe films. The carrier density values of the samples obtained from the M–S plots varied from 3.48×10^{14} cm^{-3}.

1 Introduction

Today, we are working on the extreme issues of the energy crisis. These serious problems are affecting the global economy directly or indirectly in our lives and environmental situations. The improvement of heating, fuel resources and global pollution concerns require the situation that there is a maximum urgency to develop green and sustainable energy resources [1–4].

To provide an alternative source of renewable energy in the future, research is an important

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Data Article

Statistically designed extractive spectrophotometric determination scheme for bismuth(III) with 2-chlorobenzaldehyde thiocarbohydrazone: Analysis of environmental and real resources

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ABSTRACT

The principle of liquid-liquid extraction followed by spectrophotometric determination of bismuth(III) was elaborated. The yellow complex of bismuth(III) with 2-chlorobenzaldehyde thiocarbohydrazone in presence of potassium iodide is soluble in chloroform and was extracted from HCl-KCl buffer having pH 1.2. The concentration of 2-chlorobenzaldehyde thiocarbohydrazone and potassium iodide ensuring maximum absorbance were optimized well. The effect of foreign ions was also thoroughly elucidated. The maximum absorbance of the complex is witnessed at 420 nm having the values of molar absorptivity and Sandell's sensitivity as 1.086×10^4 L mol^{-1} cm^{-1} and 0.01923 μg cm^{-2}, respectively. The Beer's law is obeyed for bismuth(III) concentrations over the range of 4.80 to 16.0 μg mL^{-1}. The composition of [Bi(III)-2CBTCH-iodide] complex was found to be 1:1:1.

The scheme has been applied for the determination of bismuth(III) in environmental and real resources.

Specifications table

Subject area	Separation and analytical chemistry, spectroscopy.
Compounds	2-Chlorobenzaldehydethiocarbohydrazone
Data category	Solvent extraction, synthesis, spectral data, environmental samples.
Data acquisition format	UV–visible spectrophotometer and atomic absorption spectrophotometer for data analysis.
Data type	Separated and analyzed.
Procedure	Synthesis, liquid-liquid extraction, separation, determination and application.
Data accessibility	Data is with this article.

Abbreviations: 2-CBTCH, 2-Chlorobenzaldehydethiocarbohydrazone; RSD, Relative standard deviation; UV–Vis, Ultraviolet visible; LOD, Limit of detection; LOQ, Limit of quantification.

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Thermodynamic study of interaction effects in aqueous solutions of purine and pyrimidine nucleobases ionic liquids at 298.15 K

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ABSTRACT

We report herewith experimental density and osmotic pressure measurements for aqueous 1-ethyl-3-methylimidazolium ([Emim]), and 1-*n*-butyl-3-metylimidazolium ([Bmim]) based nucleobases ionic liquids [NBILs] at 298.15 K to gain thermodynamic understanding of NBIL – water mixtures. Molar volumes (V_m), standard entropies (S^0) and lattice potential energies (U_{POT}) are reported at 298.15 K using density data of pure state NBILs. Large values of S^0 and small U_{POT} explains the existence of NBILs in liquid state at ambient conditions. Experimental density data of aqueous NBIL solutions were used to obtain apparent, partial and electrostricted volumes from which electrostricted hydration numbers were obtained. It was found that observed hydration numbers are solely due to anion hydration as cation shows negligibly small hydration. Negative magnitudes of excess molar volumes confirm the hydrophobic nature of NBILs. Using experimental osmotic coefficients, water activity (a_w), mean molal activity coefficient ($\gamma_\pm$) of NBILs, excess Gibbs free energy change (ΔG^E) due to mixing etc. were obtained and found that these aqueous systems show negative deviation from limiting law. At low concentration hydrophobic hydration is dominant whereas hydrophobic ion-association occurs at higher concentration revealed from minimum in osmotic coefficients. Application of McMillan–Mayer theory of solutions yielded osmotic second virial coefficients which are found to be negative indicating attractive type of ion-ion – ion-pair interactions.

1. Introduction

Ultimate goal of human being is to completely understand and explore the entire single biological living cell i.e., structure, function, transport, signaling, effect of environment, etc. for each constituent in the live cell and the day when we are able to achieve this, we will succeed to not only trace and treat any type of the disease but also able to predict the future trajectory of living things. However, this long-run path can be completed only after passing variety of hurdles in which the important one is of course the complete exploration of structure of water in presence of additives. In this regards, extensive research has been reported on aqueous solutions containing simple alkali ions, organic ions, osmolytes, monomers of biopolymers, large biological assemblies and/or their mixtures [1–3] in addition to understand osmotic stress through Hofmeister series [4]. The functional organic molecules or ions play an important role in hydration and conformational behavior of biopolymers and in turn their structure and function which demands in-depth understanding of physicochemical properties in aqueous medium. In this direction, ionic liquids (ILs) constituting organic ions are extensively researched as they have applications in many fields of science and technologies and most importantly in the protein chemistry and drug formulations besides the above-mentioned significance [5–7]. Physicochemical nature of ILs can be finely tuned by systematic structural modifications in the constituent ions and one of such modification extensively studied is hydrophobicity tuned by alteration in the alkyl-chain length of ions forming ILs which gets reflected in the alteration in various physical properties [8–16]. Due to dual hydrophobic and hydrophilic nature as well as ability to form strong H-bonding, ILs are acting as potential candidates in protein chemistry for solubilization and stabilization of poorly water-soluble biomolecules like nucleobases, nucleic acids, peptides, proteins, etc. [17–20]. Use of ILs in biomolecular stabilization, storage, drug formulations and in medicinal applications are limited due to the toxicity index of many ionic liquids which can be surmounted if the material chosen to design ILs is of biological origin i.e., chosen from natural bioresources or from the metabolites of bioprocesses in the living organisms, then the resultant

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१३. संत तुकाराम यांचे विद्रोही विचार

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प्रस्तावना

१५ व्या शतकामध्ये ज्ञानदेवांनी रचलेल्या भागवत संप्रदायाच्या इमारतीवर कळस होण्याचे भाग्य संत तुकाराम यांना लाभले. तुकारामांच्या अभंगातून लौकिक व पारलौकिक भावजीवन अविष्कृत झालेले दिसते. संपूर्ण मानवतेशी संवाद साधणारा तुकोबा हा मराठीचा नव्हे तर मानवतेच महाकवी आहे. संत हे जीवनाचे भाष्यकार आहेत. तयांनी समाज जीवनाच निरीक्षण आणि परीक्षण तटस्थपणानं करुन त्यावर आपली अर्थपूण्र प्रतिक्रिया आपल्या रचनेतून व्यक्त केलेली आहे. तुकोबाची अभंगगाथा ही महाराष्ट्राची वाङमयीन आणि सांस्कृतिक संपत्ती आहे. ती त्यांची आत्म कहाणी आहे.

'तुका म्हणे झरा । आहे मूळचाचि खरा'

संत स्थिर बुद्धीनं विचार करतात. सर्वार्थानं ते सत्यवादी आहेत. सत्याशेधनातून जे सापडलं ते समाजकक्ल्याणासाठी सडेतोडपणानं सांगून टाकल. त्यामूळे तुकोबाचा साक्षात बोध व कीर्तनश्रवण असा लाभ झालेली 'बहिणी' वारकरी संप्रदायाचा कळस झालेल्या तुकोबांची साक्षात फडकती ध्वजा बनली.

"संतकृपा झाली । इमारत फळा आली ।।
ज्ञानदेवे रचिला किंकर । तेणें रचिले ते आवार ।।
जनार्दन एकनाथ । खांब दिधला भागवत ।।
तुका झालासे कळस । भजन करा सावकारा ।।
बहिणी म्हणे फडकती ध्वजा । निरुपणा केले वोजा ।।१।।

समाजस्थिती

तत्काळीन समाजातील सामान्य जलता धार्मिक सामाजिक व आर्थिकदृष्टया पिडित व वंचित होती. थत्कालीन अनेक प्रश्नांचे मूळ चुकीच्या धार्मिक कल्पनांमध्ये होते. याची तुकारामांना जाणीव होती. शमाजातील विषमता ही सामान्य आपल्या अभंगातून व कीर्तनातून सामाजिक सुधारणेच्या विचार केला सामाजिक विषमतेची झळ त्यांनीही सोसली. त्याकाळी ब्राम्हण व शुद्र हे दोष वर्ण आहेत हे ब्राम्हण पंडितांनी केलेले. त्यामुळे सर्व ब्राम्हणेत्तर शूद्र या वर्गात गणले जात होते.

चातुर्वर्ण्यव्यवस्था

चातुर्वर्ण्यव्य हे भारतीय समाजव्यवस्थेचे विशेष. येथील अर्थव्यवस्थाही या चातुर्वर्ण्यावर आधारित होती. भारतीय समाज चातुर्वर्ण्यामुळे सामाजिक, आर्थिक, धार्मिक क्षेत्रामध्ये न्याय, समता, स्वातंत्र्य यांचा अभाव प्रदीर्घकाळ राहिला. भक्तीचा

वामनदादा कर्डक : आंबेडकरी गीतकार

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आधुनिक युगात मानवमुक्तीचा विचार मांडणारे थोर समाजक्रांतीकारक म्हणजे जोतीराव फुले आणि डॉ भीमराव आंबेडकर. डॉ. बाबासाहेब आंबडेकरांनी महात्मा फुले यांना गुरु मानण्याचे कारण म्हणजे फुल्यांच्या विचारप्रणालीत दलित चळवळीचा दिशानिर्देश होता. जोतीबांचे कार्य हे आंबेडकरांच्या जीवन तत्वज्ञानाची प्रेरणा होती विचारच जेव्हा हत्यार होतो तेव्हा लढाई सुरु होते. आंबेडकर म्हणतात- "Since the Buddhist People Cannot rule with arms and weapons they should learn to rule with Brain and pen."[1] शिवाय फ्रेडरिक एंगल्सने म्हटले आहे की, जेव्हा अवतीभोवतीच्या राजकीय परिस्थितीत घडामोडी घडतात आणि सामाजिक परिस्थितीत उलथापालथ होते, तेव्हा त्याची स्पंदने प्रथम साहित्यात आणि विशेषत: कवितेत उमटतात. कारण प्रत्यक्ष कोणतीही राजकीय कृती करणे शक्य नसते, म्हणून संवेदनशील माणूस आपल्या भावना, आपले विचार, आपले अनुभव साहित्याद्वारे विशेषत: कवितेद्वारे व्यक्त करतो. 2

जातीव्यवस्थेचे निर्मुलन करणे आणि अस्पृश्यतेचे उच्चाटन करणे हा डॉ. आंबेडकरांच्या तत्वविचारातील कृतिनिष्ठ असा भाग होता.याचे पडसाद वामनदादा कर्डक यांच्यावर पडलेले होते. त्यामुळे त्यांची एकूण कविता ही समाजहितैषी आहे दिसते त्यांनी आंबेडकरांच्या तत्वज्ञानाचा प्रसार आपल्या गीतामधून प्रबोधनाच्या रुपाने केलेला पहावयास मिळतो

वामनदादा कर्डक यांचा जीवनपट :-

नाशिक जिल्ह्यातल्या सिन्नर तालुक्यातील देशवंडी या गावी 15 ऑगस्ट 1922 मध्ये तबाजी व सईबाई यांच्या पोटी वामनदादांचा जन्म झाला. मोठा भाऊ सदाशिव व बहिण सावित्री. वामन तीन वर्षाचे असतानाच वडिलांचे निधन. बालपण खुप हलाखीत गेले. पाच वर्षाचा वामन गावातील तमासगीरांची गाणी ऐकून गाऊ लागला. गळ्यात संबळ अडकवून मोहल्ल्यात गात फिरु लागला. घरी कष्ट व उपासमार पीछा सोडत नव्हती. गावात शाळाच नसल्याने शिक्षणाचा संबंधच आला नाही नंतर ते कुटुंब मुंबईला आल्यावर वामन कोळसा वेचण्याचे काम, गिरणीतील काम, मातीकाम, सिमेंट क्रॉकीटचे काम, आईसफ्रुटस विकणे. चिकी विकणे, खडी फोडणे अशी विविध स्वरुपाची कामे करुन पोट भरत होते. टाटा ऑईलमध्ये 60 रु. पगाराची नोकरी मिळाली. बी.डी.डी. चाळीत खोली घेतली. अनुसया तरुणीबरोबर विवाह होऊन संसार सुरु झाला मुलगी मीराचा जन्म झाला. कालांतराने पत्नी सोडून गेली व मुलगी मीरा लहानपणीच वारली.

नंतर समता सैनिक दलात जाऊन काठीचे, लेझीमचे शिक्षण घेऊन तो इतर मुलांनाही शिकवू लागला. मास्तर झाला. एका व्यक्तीचे पत्र वाचून दाखवता न आल्याने त्याला दु:ख झाले. देहलवी साहेबांच्या प्रेरणेने वाचन लेखनकरुन हिंदी -मराठीचे खुप वाचन केले. वामनला चित्रपट, कथाकार, नट व्हावे वाटत होते. पण तसे झाले नाही. मेकअपमन, सल्लागार झाला.1943

साठोत्तरी चरित्र वाङ्मयातील सौ. लक्ष्मीबाई भाऊराव पाटील यांचे व्यक्तिचित्रण

- प्रा. विजयश्री गवळी

भारतामध्ये विशेषत: महाराष्ट्राच्या सामाजिक सुधारणेच्या इतिहासामध्ये शिक्षणासाठी ज्यांनी स्वत:चे संपुर्ण जीवन समर्पित केले आहे, त्यामध्ये महात्मा जोतीबा फुले, वि.रा. शिंदे, कर्मवीर भाऊराव पाटील, कर्मवीर मामासाहेब जगदाळे, बापूजी साळुंखे यांची नावे अग्रेसर आहेत. परंतु त्यांच्या इच्छित कार्यांमध्ये ज्यांनी अत्यंत सहनशीलतेने, स्वत:ला बदलून, एकरुप होऊन या परिवर्तनाच्या वाटेवर साथ देऊन वाटचाल त्या सावित्रीबाई फुले, लक्ष्मीबाई पाटील यांच्या नावाची दखल प्रामुख्याने घेतलीच पाहिजे.

बहुधा पुरुषसत्ताक कुटुंबपध्दतीमध्ये स्त्रियांच्या कर्तृत्वाकडे दुर्लक्ष होण्याची शक्यता असते आणि तसे घडलेली आहे. तसे पाहता ,लक्ष्मीबाई पाटील यांचे सबंध आयुष्य म्हणजे कर्मवीर भाऊराव पाटील म्हणजे 'अण्णांची' 'सावलीच' आहे. कर्मवीर भाऊराव यांच्या बरोबरीने त्यांनी स्विकारलेला हा शिक्षणाचा वसा म्हणजे एक अग्निपरीक्षाच होती कारण एकाच वेळी त्यांना आपली माहेरची मंडळी, सासरची मंडळी आणि सदोदीत चांगल्या कामाचा विरोध, त्याकाळचा समाज यांचा जाच सहन करावा लागला. हे वास्तव सत्य समजून व जाणून घेतले पाहिजे.

भाऊराव पाटील यांचे शैक्षणिक तत्वज्ञान

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प्रस्तावना —

भाषा हे आत्माविष्काराचे प्रमुख साधन असून, आपण बोली भाषेतून संवाद साधतो व व्यक्तही होतो. साहित्यातही बोलीभाषेतुनच प्रमाण भाषेला भिडत असतो. एखादया समाजघटकाचे कार्य, साहित्य, त्याला त्याच्या समाजात सांस्कृतिक, सामाजिक प्रतिष्ठा प्राप्त करून देत असते. ज्या बोलीत जे साहित्य निर्माण होते त्या बोलीभाषेलाही ते प्रतिष्ठीत करते. महाराष्टातील महात्मा फुले, शाहु महाराज, कर्मवीर भाऊराव पाटील, क्रांतिसिंह नाना पाटील हे सुशिक्षित असूनही त्यांनी ग्रामीण बोली स्विकारलेली होती. तिच बोलीभाषा त्यांच्यावरील ग्रंथातून अविष्कृत होऊन साहित्यरूपात परावर्तित झाालेली आहे.

उपरोक्त महापुरूषांचा सत्यशोधकीय विचारसरणीवर व कृतीवर भर होता. त्यामुळे त्यांचे कार्य हे समाजाला दिशादर्शक असे आहे. मराठी साहित्यावर मार्क्सवादी, आंबेडकरवादी तत्वविचारांचा प्रभाव आहे. तसेच प्राचीन साहित्यात महानुभावीय तत्वज्ञान, संत ज्ञानेश्वरांचे तत्वज्ञान, संत तुकारामांचे तत्वविचार तर आधुनिक साहित्यात शाहु, फुले, आंबेडकर यांचे तत्वज्ञान अविष्कृत झाालेले पहावयास मिळते.

याच परंपरेचे वारसदार कर्मवीर भाऊराव पाटील यांचे शिक्षण विषक तत्वविचार त्यांच्या कार्यातून, भाषणातून आणि चरित्रामधून दृग्गोचर होतात.

तत्वज्ञान म्हणजे काय?

'तत्वज्ञान'या संज्ञेचा अर्थ जीवनाविषयीच्या मार्गदर्शक तत्वांची व्यवस्था. म्हणून साहित्याचे तत्वज्ञान म्हणजे साहित्याविषयीच्या मार्गदर्शक तत्वांची व्यवस्था होय.

साहित्याचे तत्वज्ञान— या तत्वज्ञानात आपण साहित्याची स्वरूप वैशिष्टये, साहित्याचे प्रयोजन, साहित्यातून व्यक्त होणारा अनुभव, अनुभवाचे विविध घटक, त्यांची कलात्मक संघटना, भाषा या साहित्यमाध्यमाच्या विविध रुपांची एकसंघ रचना इत्यादींविषयी सैध्दान्तिक ज्ञान अपेक्षित असते. साहित्याचा जीवनाशी संबंध असतो. म्हणून साहित्यातील मार्गदर्शक तत्वांचा जीवनातील मार्गदर्शक तत्वांशी संबंध असतो. नीती, बोध, श्लील—अश्लील इत्यादींना जीवनाविषयीच्या मार्गदर्शक तत्वव्यवस्थेत स्थान असते. म्हणूनच साहित्याच्या तत्वज्ञानात कला आणि नीती, कला आणि ज्ञान, कला आणि बोध, कला आणि अश्लीलता इत्यादी संबंधीच्या विचारांना प्राधान्य असते. म्हणून साहित्याच्या तत्वज्ञानात विचारवंतांच्या, चिंतकांच्या तत्वविचारांनाही स्थान असते. साहित्य— निर्मितीच्या प्रेरणा अशा तत्वविचारात असतात. प्लेटो, ॲरिस्टॉटल, हेगेल, कांट, मार्क्स इत्यादींच्या तत्वविचारांच्या अनुषंगाने साहित्यविषयीच्या मार्गदर्शक तत्वांची व्यवस्था लावली जाते.[१]

शिक्षणाच्या पद्धती— शिक्षणाच्या तात्विक व उपयोजित अशा दोन पद्धती आहेत. तात्विक पद्धती मध्ये मूलभूत सिद्धांत मांडण्याचा प्रयास असतो तर उपयोजित पद्धतीमध्ये कृतीवर भर असतो.भाऊरावांनी आपल्या शिक्षण प्रसाराच्या व सामाजिक उत्थानाच्या चळवळीत कृतीवर जास्त भर दिला. त्या कृतीतून इतरांना अनुकरणासाठी जे निष्कर्ष निघाले आहेत ते भाऊरावांचे शैक्षणिक तत्वज्ञान होय. शाळा, महाविदयालये व वसतिगृहे यांत केलेल्या प्रयोगातून हे तत्वज्ञान निर्माण झाले आहे.

रयतशिक्षण संस्था— कमवा व शिका योजना — महात्मा फुले, छत्रपती शाहू महाराज, डॉ बाबासाहेब आंबेडकर, सयाजीराव गायकवाड यांच्या सत्यशोधकीय विचारांचा प्रभाव भाऊरावांच्या मनावर होता. हेच महापुरुष त्यांचे प्रेरणास्थान होते. बहुजन समाजातील मुले, शेतकऱ्यांची मुले, स्त्रिया शिक्षित झाल्या पाहिजेत असे त्यांना वाटत होते. भाऊरावांनी रयत—

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प्रस्तावना :–

जागतिकीकरणामुळे आज जग जवळ आले. जगातील भिन्न प्रदेशातल्या, भिन्न भाषा बोलणाऱ्या भिन्न [illegible]च्या, भिन्न संस्कृतीचा, भिन्न आर्थिक स्तरावरच्या समाजाशी आपला संपर्क येणे अपरिहार्य बनले आहे. [illegible] समाजाची ओळख करून घेणे, सुसंवाद साधणे गरजेचे असल्यामुळे भाषांतराची मोठी मदत होणार आहे. [illegible]प्रमाणेच फ्रेंच, लॅटीन, जर्मन, चिनी, जपानी, रशियन, स्पॅनिश, अरेबिक, पर्शियन इत्यादी परभाषेतील ग्रंथ [illegible]तरीत करून मराठीत आणणे ही काळाची गरज आहे. साहित्य संस्कृती मंडळ या दृष्टीने आज प्रयत्नशील [illegible] छंजपवदंस ठववा ज्तनेज ची स्थापना यादृष्टीनेचे झाली आहे. राष्ट्रीय एकता व वैश्विक एकता, सांमजस्य [illegible]चे असेल तर साहित्यातील भाषांतरे होऊन देवाण –घेवाण झाली पाहिजे. ही वर्तमान काळाची गरज आहे.

महाराष्ट्रातील भाषांतर युगास 'इंग्रजी गद्याची मराठी अवतार' असे म्हटले जाते. हिंदी, बंगाली, पंजाबी, [illegible]नी, तामीळ, तेलगु, कानडी या भारतीय तर इंग्रजी, फ्रेंच, जपानी चिनी, पोर्तुगीज यासारख्या परदेशी [illegible]तुनही आलेले कथा, कादंबऱ्या, कविता चरित्र, आत्मचरित्र हे ललित साहित्य आणि इतर ललितेतर [illegible]तरीत साहित्याने मराठी साहित्याच्या कक्षा वाढविण्यास मदत झाली. १८०० ते १८७४ ह्या कालखंडातील [illegible]ग साहित्य, भाषांतरित, रूपांतरित किंवा यावर आधारित स्वरूपाचे आहे.

बुकीश नाटके, अरेबियन नाईट्स यांची भाषांतरे अधिक झाली. इसाप नीतिकथा, पंचतंत्र, बृहतकथासागर [illegible]ची साहित्याची रूपांतरित, भाषांतरित देवाण –घेवाण सुरू झाली लोकांचा प्रतिसाद अधिक मिळाल्यामुळे या [illegible]डाला भाषांतर युग म्हटले गेले. इंग्रजी राजवटीत मुद्रणशोधामुळे भाषांतरित साहित्य मोठ्या प्रमाणावर [illegible] गेले.

[illegible]तर :–

अन्य भाषेतील मजकूर समजावून घेऊन विचाराचा गाभा न बदलता, शैलीला कमीत कमी धक्का बसेल [illegible] काळजी घेत स्वभाषेत पुन्हा लिहिणे ही भाषांतराची प्रक्रिया आहे. या प्रक्रियेत मुळ शब्दाला केवळ [illegible]ब्द देणे अपेक्षित नसेत, शब्दामागील अर्थाचा नेमका संदर्भ, अर्थाच्या छटा [illegible]ीकमद्ध भाषांतर प्रक्रियेत [illegible]यक असते.

'भाषांतराबद्दल सामान्य माणसाची धारण असते की, भाषांतर म्हणजे मजकूर तोच ठेवायचा, फक्त [illegible] भाषेचा पोशाख उतरवून ठेवायचा आणि दुसऱ्या भाषेचा पोशाख चढवायचा'[१]

[illegible]द्र नेमाडे म्हणतात– 'भाषांतर ही एका संहितेचे भाषिक सांस्कृतिक आवरणातून दुसऱ्या भाषिक सांस्कृतिक [illegible]यात स्थानांतरण करणारी द्वैभाषिक प्रक्रिया आहे'[२]

[illegible] माटे यांच्या मते मुळ वस्तुतील सर्वच्या सर्व अभिप्राय प्रसादयुक्त वाणीने अन्य भाषेत सांगणे हे [illegible]रकाराचे मुख्य लक्षण होय.'[३]

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डॉ. सुब्राव नामदेव जाधव

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एक और आबादी बढ रही हैं, बेकारी बढ रही है तो दुसरी और ग्रामांचलिक जीवन में श्रम के लिए मजदूर नहीं मिल रहे हैं। ग्रामीणों में शारीरिक श्रम करने की प्रकृति कम होती जा रही है। कम श्रम में अधिक धन पाने की लालसा के कारण वे श्रम करना उचित नहीं मानते हैं। शिक्षित बेकारों मे श्रम करना इज्जत के खिलाफ माना जाता हैं। इन कारणों से खेतीवाली के काम तथा अन्य कष्टप्रद काम करने के लिए ग्रामांचलों में मजदूर नहीं मिल रहे हैं। ग्रामांचलों के लोग कम मेहनत में अधिक दाम देने वाले सरकारी कामों की तरफ आकर्षित हो रहे हैं । इस मजूदर समस्या को विवेकी राय ने अपने उपन्यासों में चित्रित किया है। 'समर शेष है' में मजूदर समस्या का चित्रण मिलता हैं। राम गुलाम शर्मा के घर बनवाने के कार्य में मजदूर न मिनले के कारण बाधा निर्माण हो रही हैं। इस व्यथा को वे पंडित संतोषी के पास व्यक्त करते हुए कहते हैं, मजदूर नहीं मिल रहे हैं, नींव खोदने के लिए। सभी चले जाते हैं सडक पर मिट्टी फेंकने।''[१७२] सरकारी कामपर कामचोर बनकर काम किया जाता है और मजदूरी प्राप्त की जाती है इसलिए इसी काम को अधिक पसन्द करने वाले मजदूर बाकी काम के लिए उपलब्ध नहीं हो पाते हैं।

नगरीय प्रभाव तथा शिक्षा प्रसार आदि के कारण भी ग्रामांचल में बोआई, कटाई तथा खेते के अन्य कामों के लिए मजदूर मिलना कठिन हो गया हैं। मजदूर भी जागृत हो रहे है, उनके संगटन बन रहे है, मजदूरी बढ रही है, काम करने की प्रवृत्ति काम हो रही हैं। इस समस्यया को 'मंगल भवन १९९४ में मास्टर विक्रम के द्वारा स्पष्ट किया गया है। मास्टर विक्रम अवकाश प्राप्ति के बाद अपनी खेतीवाडी स्वयं देखते हैं। इसमें आने वाली कठिनाइयों के बार में ये कहते है, ''आषाढ चलते जैसे सारे गॉव में अफरा दृ तफरी मची है। एक आदमी तक खोजने पर काम के लिए नहीं मिल रहा है। इधर ढेरे सारे काम सामने पड है... इन्हें पुर्ण करने के लिए मजूरे चाहिए। तो क्या सचमुय अब गॉव में गरीबी नहीं रही जो बीस – पचीस रूपए नकद और भोजन देन पर भी कोई मजूर नहीं मिल रहा

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भारतीय कृषक व्यवस्था प्रकृति पर निर्भर रही हैं। प्राकृतिक प्रकोपों के कारण किसानों की आर्थिक स्थिति दयनीय हो जाती हैं। ऐसी स्थिति में परिवार को चलनाने के लिए, विवाह तथा बिमारी आदि के लिए ऋण निकालना किसानों को आवश्यक बन जाता हैं। यह ऋण अधिकतर साहकर तथा महाजनों लेना पडता हैं। ये महाजन अपने व्यापार आदि से प्राप्त रूपये गरजमंद लागों को मूद पर देते है, इस ऋण के लिए कृषकों को जमीन, घर और गहने रेहन तथा गिरवी रखना पाडता हैं। सूद और ऋण वसुली के लिए जमीन शिकमी करवाना, किसान के घर का अनाज, वर्तन जप्त करवाना सूद पर सूद वसुलना आदि कारणों से किसानों का ऋण वढता जाता हैं।

यह महाजनी सभ्यता ब्रिटिश काल में बएती गई, जमींदारी प्रथा पहले से ही थी। जमीदार और महाजन मिलकर किसानों का शोषण करने लगे। सूदखोर महाजन किसानों को तथा सामानय जनों को ऋण के जाल में उलझाते थे, उनके घर – द्वार नीलाम कराते थे, उनका अनाज खलिहान से उठा लेते थे। डॉ. उत्तम पटेल के मतानुसार, ''कृषि पैदावार बेचने के लिए कृषक महाजन आदि के अधीन हो गया महाजन आदि ने किसान की दयनीयता का लाभ उठाया। वह कृषक को चूसता रहा और जव किसान को जरूरत हुई ऋण देता रहा और व्याज के रूप में उसका खून पीता रहा और इसी तरह किसान साहूकार के ऋण में फॅसा रहा।''[१५८] महाजनीशोषण की समस्या का चित्रण विवेकी राय के विवेच्य साहित्य में देखने को मिलता हैं।

''श्वेत पत्र' १९७९, में बुधन काका गरजचंद लोगों को सूद पर ऋण देते समय उनको जमीन – जायदाद तो गिरवी रखते ही हैं, इतना नहीं कर्जदार को या उसके बेटे को वेठविगारी करने के लिए भी बाध्य बनाते हैं। हरिजन बहारनराम बुधन चाचा से कर्ज लेने जाता हैं तो बुधन काका कोरे कागज पर उसका अॅगूठा लेते हैं, उसके बेटे को चरवाह के रूप मेंरख ले ते हैं तमी उसके हाथ पर पचास रूपया कर्ज वह भी पॉच रूपया सूद काटक रखते हैं और कागज पर पॉच सौ रूप्ये कर्ज लिखते हैं। बहरानराम का बेटा जब भाग जाता है तब दुधन काका उसकी पाच पर नजर रखते हुए उसे धमकाते हैं, ''रूपये लुटना खिलवाड हैं? ऐसे तरह दे जाएँ तब तो गॉव में रहतब कठिन हो जाए। पॉच सौ रूप्ये गए सूद – दर – सूद के हजार के माथ पर पहुॅचे । सीधे से दे दे तो ठीक, नही तो दोहनी नीलाम पर चढवा कर दम लूॅगा।'' [१५९] यहॉ शोषण के बहुआयामी रूप को स्पष्ट किया हैं।

'मंगल भवन' – १९९४, में रणविजय और जगदीश के संघर्ष को कोर्ट – कचहरी में चलाने के लि एबनवारी ठाकुर तुलसी की जमीन रेहन रखवा लेकर सूद पर ऋण देता रहता है वैसे ही जगदीश भी रामपुर के साहूकार जमुना प्रसाद के पास जमीन रेहन कर ऋण लेता रहता है। मास्टर विक्रम का बेटा सुरेश नौकरी पाने के लिए बिचौलिये को पन्द्रह हजार रूप्ये देने के लिए अपनी पत्नी के गहने मामा के पास गिरवी रखकर पैसे लेता है। बहुत दिनों तक उसका सूद नहीं दिया जाता है इसलिए मामा मास्टर विक्रम को पत्र लिखते हैं, ''बबुआ सुरेश गहने लाया था और पन्हद्र हजार ते गया।... फिर इतने दिन हो गए। व्याज कितना बढ गया। ... खैर, गहने मेर यहॉ सुरक्षित हैं। आपके यहॉ रहें या मेरे यहॉ... ।''[१६०] यहॉ सूदखोर महाजन अपने रिश्तेदारों को भी छोडते नहीं है यही स्पष्ट होता हैं।

लोककवी वामनदादा कर्डक यांची गझल रचना

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डॉ. बाबासाहेब आंबेडकर यांची जीवनगाथा गंभीरपणे शब्दांच्या माध्यमातून मांडणारे कवी म्हणून वामनदादा कर्डक यांची संपूर्ण महाराष्ट्राला ओळख आहे. आंबेडकरी चळवळीला व्यापक आत्मभान मिळवून देण्याचे काम त्यांच्या कवितेने केले आहे. स्वातंत्र्योत्तर कालखंडात आंबेडकरी समूहाचा आत्मस्वर अधिक ताकदीने मांडण्याचे काम वामनदादांची कविता करते. डॉ. बाबासाहेब आंबेडकर हीच प्रेरणा मानून त्यांच्या कवितेने शेवटपर्यंत दलितांच्या व्यथा, वेदनांना अत्यंत टोकदारपणे मांडण्याचा प्रयत्न केला. डॉ. बाबासाहेबांचा सहवास लाभलेल्या वामनदादांनी आयुष्याच्या अखेरपर्यंत आंबेडकरी चळवळीसाठी लेखन आणि गायन केले. बाबासाहेबांचे व्यक्तिमत्त्व, जीवनकार्य, तत्त्वज्ञान, चळवळीवर जवळपास पाच हजारांहून अधिक गीते त्यांनी लिहिली त्यात अस्सल गझलांचाही समावेश आहे. काही मराठी चित्रपट गीते, लोकगीते आणि हिंदी, मराठी आंबेडकर, बुध्द्गीगीते अशी विपुल काव्यसंपदा त्यांच्या नावावर आहे वामनदादांचे 'मोहळ', 'वाटचाल', 'समग्र वामनदादा कर्डक', 'हे गीत वामनाचे' हे काव्यसंग्रह प्रसिध्द आहेत. प्रमोद वाळके यांनी 'संग्रामपिटक' (वामनदादा कर्डक यांची गझल, भाग-1) हा गझलसंग्रह संपादित करुन युगसाक्षी प्रकाशन नागपूरकडून प्रकाशित केलेला आहे.

गझलेच्या प्रांततही चौफेर मुशाफिरी करणारे वामनदादा आंबेडकरवादी गझलेचे आरंभबिंदू मानले जातात पण दुर्देवाने मराठी गझलेच्या इतिहासाच्या पानांवर या 'महाकवी'ची कुठेच दखल घेतलेली आढळत नाही. मराठभ् गझलेपुरते बोलायचे तर, माधव ज्युलियनांपासून सुरु झालेल्या मराठी गझ्लेचा प्रवास सुरेश भटांपर्यंत अधिकाधिक व्यापक होत गेल्याचे दिसून येते. मराठी गझलेच्या प्रवासात माधव आणि सुरेश हे दोनच संप्रदाय अधिक ठळकपणे मांडले जातात या दोन संप्रदायांच्या मधल्या काळात वेगळया जाणिवेची गझल लिहिली जात होती त्या गझलेचे प्रणेते वामनदादा कर्डक होते. ऊर्दू गझलकारां प्रमाणेच शब्दांवरची हुकुमत, तांत्रिक अचूकता, गेयता आदी वौशिष्टयांनी वामनदादा कर्डक यांची गझल समृध्द्व आहे. प्रस्तुत शोधनिबंधाच्या माध्यमातून लोककवी वामनदादा कर्डक यांच्या गझल रचनांविषयी आपण जाणून घेण्याचा प्रयत्न करणार आहोत.

'विचारु नका माझी जात आणि धर्म
मनात माझ्या एक वेडाच संत आहे,
मी झुरु कशाला चार दोन पावलांसाठी

उच्चशिक्षणातील मराठी भाषेच्या विकासाचे आव्हान

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भाषा हे मानवीजीवनाचे अविभाज्य अंग आहे. भाषेचा विकास हा पर्यायानेमानवी जीवनाचा, समुहाचा विकास असतो. पुरातन काळापासूनमानवीजीवनबेगबेगळ्याकारणांनीभाषेने प्रभावित केलेले दिसूनयेते. म्हणून तर भाषा अनेक शतकांपासूनमानवाची साथ-सोबत करत प्रवाही होत राहिलेली आहे. भाषेतूनचमानवीजीवनाचा अस्सलपणा जपला जात असल्यानेबदलत्या काळात तिची उपयोगिता, तिचा विकास या गोष्टी जाणून घेणे आता आवश्यक ठरते. "भाषेचा भूतकालीन, वर्तमान आणि भावी उत्कर्ष आणि अपकर्ष ती भाषा बोलणाऱ्यांच्या उत्कर्षा-अपकर्षाशी निगडित आहे."दैनंदिनजीवनात विशिष्ट भाषकानेसातत्याने विशिष्ट भाषेचा केलेला सक्षम उपयोग, तिचे भवितव्य, समाजाच्याशेवटच्याघटकापर्यंत तिचे अभिसरण निश्चित करत असते. समकालीनजीवनाचा विचार करता विज्ञान, तंत्रज्ञान, स्थलांतर, अतिक्रमण आदि घटकांमुळे भाषेच्या विकासाला अडथळे निर्माण होतात असे जाणवते. प्रत्येक कालखंडात भाषेसमोर नवीनआव्हाने उभी ठाकताना दिसतात. भाषा जशी कलेकलेने विकसित होत असते, अगदी समांतरपणे तिचा ऱ्हासही सुरु असतो. विशिष्ट भाषा बोलणाऱ्याभाषकांकडूनत्याभाषेविषयीचीआत्मीयता, उपयुक्तता दिवसेंदिवस विभिन्न कारणांनी कमी होत जाते, तसतसे ती भाषा काळाच्या प्रवाहात आपले स्वायत्तपण, मोठेपण गमावू लागते. नव्वदनंतरच्या दशकात पाश्चात्त्य संस्कृतीच्या, भाषेच्यावाढत्या अतिक्रमणाने भारतातील सर्वच भाषांसमोर स्वविकासाचे आव्हान उभे राहिलेले दिसून येते. मराठी भाषाही याआव्हानास अपवाद नाही. माहिती तंत्रज्ञानातील इंग्रजीच्यावाढत्याप्रभावाने मराठी भाषेची विभिन्न पातळीवर होणारी पिछेहाट, स्वत:चा वेगळेपणा किंवहुना मोठेपणा टिकवूनठेवण्यासाठी सुरु असलेला जीववेधा संघर्ष, तिच्याविकासापुढे उभी असणारी विभिन्न आव्हाने आणि त्या सर्वांतून मार्गक्रमण करत भाषावृद्धीसाठी करता येणारे मूलभूत उपायइत्यादीघटकांना प्रस्तुत शोध-निबंधातून स्पर्श करण्याचाप्रयत्न केला गेला आहे.

भाषावार प्रांतरचनेच्याआग्रहातून महाराष्ट्र राज्याचीनिर्मिती झाली. महाराष्ट्र राज्याच्यानिर्मितीनंतर'मराठी' भाषेच्या विकासासाठी विभिन्न प्रकारे प्रयत्न करण्याचीआश्वासने दिली गेली. त्यातील काही पाळलीही गेली. 'राज्य मराठी विकास संस्था', 'साहित्य संस्कृती मंडळ'हे त्याचेच एक भाग होते. स्वतंत्र राज्याच्यानिर्मिती नंतरज्या वेगाने आणि आस्थेने मराठी भाषेच्या विकासासाठी प्रयत्नव्हायला हवे होते, त्या प्रमाणात ते झाले नाहीत. राजकीयअनास्था, शिक्षणाचा विशिष्ट वर्गापुरता झालेला प्रसार, इंग्रजी भाषेविषयीअनाठायी आकर्षण आदि घटकांमुळे मराठीचा अपेक्षित विकास होऊ शकला नाही. महाराष्ट्र राज्याच्या निर्मितीला अर्धशतक उलटूनगेल्यानंतरही'लोकभाषा' मराठीला 'ज्ञानभाषा' होता आले नाही, ही फार मोठी शोकांतिका आहे. आणि आता तर ती ज्ञानभाषा होण्याचीशक्यता अधिकाधिक धुसर होऊ लागलेली आहे. मराठी भाषकांनीचतिच्यासमोर उभाकेलेल्या अल्पउच्चआव्हानांनीच मराठी भाषेला आजची अवकळा प्राप्त झालेली दिसून येते.

शतकांची परंपरा असलेल्या मराठीचे अस्तित्त्व आज धोक्यातयेऊलागल्याचे आपणास जाणवत आहे. कुठलीही भाषा जिवंत ठेवण्यासाठी तिची लोकभाषेकडूनज्ञानभाषेकडे वाटचाल व्हायला हवी. स्वातंत्र्यानंतरकिंवहुना स्वतंत्र महाराष्ट्राच्यानिर्मितीनंतर मराठीला ज्ञानभाषा म्हणून दर्जा प्राप्त करता आला नाही. त्याची परिणिती आज मराठी भाषेची मौलिकता कमी झालेली दिसूनयेते. माणसाला जगण्यासाठी भाषा आवश्यक असते, परंतु आज भाषेहुनहीपैसा अधिक अत्यावश्यक झालेला आहे. मानवीजीवन अर्थकेंद्रित झाल्याने आणि मराठी भाषा अर्थ-निर्मितीचीआवश्यकता परिपूर्त करत नसल्याने मराठी भाषक, व्यक्ति इतर भाषांच्या विशेषत: इंग्रजीच्याआश्रयाला जावू पाहत आहे. "भाषेचा प्रश्न हा मूलत: आर्थिक प्रश्न आहे. प्रत्येक समाजाला स्वभाषेविषयी प्रेम असते. पण ते प्रेम ती भाषा जगण्याला उपयोगी पडते व भौतिक प्रगतीच्या आड येत नाही तोवरच कार्यरत असते. आपण आपली भाषा सोडतो ती अन्य भाषेविषयी प्रेम वाटते म्हणूननव्हे, तर आपली भाषा आपणास आर्थिक

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AN EVALUATION OF POSTMODERNIST AESTHETICS IN KURT VONNEGUT'S *SLAUGHTERHOUSE-FIVE*

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ABSTRACT

As a postmodern criticism of contemporary literary forms, Kurt Vonnegut's Slaughterhouse-Five (1969) is examined in this article. Postmodernism's literary experimentation may be seen in this book as a narrative that recapitulates within itself a postmodern view on reality A fictional criticism of creative fatigue, Vonnegut plays with the novel's narrator, location, and characters. In this way, experimentation is a replenishment for authorial meets fictitious intrusions into the text that have exhausted the Author. As a result, the essay examines the novel's experimental method using Patricia Waugh, Gérard Genette, and Mikhail Bakhtin's narrative theory. Not only is the metafictional approach prevalent in the book, but its portrayal of the American individual's suffering following World War II makes it distinctive. To emphasize the Author's critical voice, the novel's self-justifying method extrapolates textual dialogic connections. It is called focalization, and it comes from the primary narrative point of view of the text.

Keywords: Discourse, Focalization, Metafiction, Postmodernism, Vonnegut.

Kurt Vonnegut wrote *Slaughterhouse-Five*. It is a novel with the category of science fiction. It comprises the different stories of World War II and the journeys experienced by a soldier named Billy Pilgrim. Billy is an American soldier imprisoned by Germans throughout the *Battle of the Bulge* (1944) and then shifted to Dresden Slaughterhouse. Billy, along with the other prisoners, was kept in a Slaughterhouse by Germans amid animal carcasses. The building was named Slaughterhouse number 5. German guards and POWS were kept hidden in a deep cellar, and it was a secure hiding location for them as they would easily tackle firebombs of Dresden amidst World War II.

This novel entirely relies on met fiction, and its 1st chapter is the preface of the writer mentioning how he wrote this novel. A writer's apology as the book is "so short, jumbled and jangled" as "there is nothing intelligent to say about a massacre". This story starts in the 2nd chapter, even though it cannot be said that the 1st chapter is non-fiction. It is the way to convert the artificiality of art and the fictionality of fiction to the ones reading. The postmodern writers use this method so they would highlight the primacy in the text. To take an example, in the first sentence of the novel: "All this happened more or less" [1] Author also makes an appearance in this book as a sick prisoner, which is noted by the narrator mentioning, "That was I. That was me. That was the author of this book".[2]

A majority of the work in Vonnegut's books is about his experiences throughout the firebombing of Dresden. There are constant instances where the highlights of the functionality of central narrative arcs can be seen with the fictional aspects like extraterrestrial creatures and

A STUDY ON MODERNIZATION LEADING TO CATASTROPHIC CONSEQUENCES*

BY

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ABSTRACT

The article reads Vonnegut's first novel, Player piano (1952), as a remarkable fiction in the dystopian novel tradition in which the learner uses what he learned to study anthropology at the University of Chicago and what he experienced as a publicist in the work of General Electric and their well-known Schenectady Research Laboratory. The paper then examines how Vonnegut generates an intriguing new variation that shifts the standard dystopic denunciation from institutional repression to the level of individual failure, and stresses that the real enemy is not the machines but the integrated defects of its human inventors, making the traditional dystopian denunciation a sceptic exploitation. The essay examines also how Vonneguts debut book already shows the origins of many of the unique methods that would later grow into the characteristics of his work despite its still poor structural execution and its unfulfilled personal style. This article analyses how the guy is handed over in the player piano of Kurt Vonnegut. The book seeks to restore man's dignity by making him understand that robots govern everything in this world and he does not have free choice. The Ghost Society struggles against the society controlled by machines, but it does not recover the human being from engine reforms. Vonnegut describes the suffering of the man throughout the whole book by emphasizing his surrender to machines yet ends this work with a hopeful note by portraying mechanical failure. The conclusion of the news shows that in future people will be resurrected from machines.

***Keywords:** Player Piano, Kurt Vonnegut, American literature, Mechanization, Industrial Revolution, technological development*

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I. INTRODUCTION

Kurt Vonnegut was an American writer who published his first novel entitled Player Piano in the year 1952. In the novel, there is a fantasyland of automation that tells us about the negative effects on life quality. This story is based on a society that is a little ahead of us. It is completely mechanized and there are no human workers anymore. Mechanization has spread so much that it has led to a clash between rich upper class people such as managers and engineers as they keep the society functioning

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Population Structure and Regeneration status of *Xylocarpus granatum* Koen. at Revadanda Mangrove forest (Maharashtra)

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Abstract:

Xylocarpus granatum is most important medicinal plant. Population structure of *Xylocarpus granatum* was studied by observing number of individuals of species at the Revadanda mangrove forest. Individuals were categorized on the basis of diameter class i.e. seedling (0-2 cm), sapling (>2-6 cm) and adult (>6 cm). The stand density of tree species is calculated from the mangrove area of Revadanda. The diameter distribution pattern of adult indicates decrease in number of individuals in higher diameter class. As per IUCN category, *Xylocarpus granatum* is least concern plant. The policy should be made to protect this species legally to make awareness about this plant to people with its importance and need of conservation by addressing the prevalent factors which affects natural regeneration of the species.

Index Terms: Conservation, density, diameter, distribution, Population structure, regeneration status

I. INTRODUCTION:

The existence of species completely depends on its regeneration status under available environmental condition. Regeneration is critical phase of forest management because it maintains species composition. The regeneration status of community can be assessed from the population dynamics of seedling and sapling in the forest community. Regeneration status of tree species based on the age and diameter structure of the population (Pritts et al. 1983; ; Khan et al., 1987; Bhaiyan et al., 2003). The population structure was characterized by the sufficient number of seedling, sapling and young trees which represents satisfactory regeneration while inadequate number in seedling and sapling of tree species in a forest indicates poor regeneration (Saxena, 1984). The successful regeneration of species depends on its ability to produce large number of seedlings and the ability of seedling and sapling to survive and grow (Good and Good, 1972). However the presence of sufficient number of seedling, sapling and young trees is greatly influenced by interaction of biotic and abiotic factors of environment (Akasamit et al., 1984; Khan et al., 1986). The intensity magnitude and frequency of disturbance determine the structural composition of forest (Khan et al., 1987; Armestô et al., 1985). The disturbance has negative impact and disturbing the climax (Clement, 1936). The studies on population structure and regeneration status were carried out by several workers (Cao, et al., 1996; Uma et al., 1998; Veblen et al., 1979).

Xylocarpus granatum is belongs to family Meliaceae. It is most frequently occurs in the world and rarely found in the Maharashtra. It is locally known as 'Samudrafal'. It is medium sized tree occurs in the mangrove forest. The fruits of *X. granatum* used in pharmaceutical industries. This plant is least concern as per IUCN data (Ellison et al, 2010). Various researchers from Maharashtra reported this species from very few localities with least number and reported as critically endangered plant (Bhosale, 2002, Jugale, et al. 2009; Chavan and Gokhale, 2013). Fisherman collects seeds and fruits from flowing water for medicinal purpose. So regeneration and distribution is very less.

This study represents regeneration and population status of *X. granatum* at the Revadanda mangrove forest.

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LETTER ARTICLE

Stereospecific Synthesis of (4E,10Z)- 4,10-Tetradecadienyl Acetate, the Major Sex Pheromone of Apple Leaf Miner Moth, *Phyllonorycter ringoniella*

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ARTICLE HISTORY

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Abstract: The main component of the sex pheromone of many lepidopteran pests, (4E,10Z)-4,10-tetradecadienyl acetate (1) has been synthesized stereoselectively by using a simple route with 4-pentynol as a starting material. The stereoselective formation of the 4E double bond is based on the stereospecific reduction of internal alkyne with lithium aluminium hydride (LAH) while Wittig reaction was used to achieve 10Z double bond in the target pheromone component. The GC purity of the final acetate was achieved 97.87% while isomeric purities are more than 99%. The green chemistry principle shows a new concept towards the multistep pheromone synthesis *via* green metrics calculations.

Keywords: Stereoselective synthesis, Apple leaf miner, *Phyllonorycter ringoniella*, Wittig olefination, Reduction, Gram scale synthesis, Green metrics calculations.

1. INTRODUCTION

An apple is one of the most widely cultivated fruit trees, which originated from central Asia and Europe and all around the world. An apple is regularly consumed because of its nutritional contents and rich phytochemicals; it has become an important fruit in the human diet. An apple is full of antioxidants, anti-proliferative and cell signaling effects. The consumption of an apple and apple juice/products may reduce the risk of chronic diseases. Also, beneficial effects on risks of Alzheimer's disease, asthma, cancer, as well as, cardiovascular diseases and diabetes [1,2]. All around the world, the apple orchards are mostly infested by various insect pests like apple leafminer moth (Phyllonorycter ringoniella), codling moth (*Cydia pomonella*), light brown apple moth (*Epiphyas postvittana*) and tufted apple bud moth (*Platynota idaeusalis* (Walker). The apple leafminer, *Phyllonorycter (Lithocolletis) ringoniella* Matsumura (Lepidoptera: Gracillariidae), is an important insect pest on apple trees and has four to six generations a year in Korea, Japan, and China [3,4]. The infestation of this insect generally has shown on narrow host fruit trees to some of the pomes and stone fruits such as apple, cherry, peach, pear, and plum. Ever since 1990s, the outbreak of infestation caused by *P. ringoniella* has been widely observed in some outbreak years to be more than 80% leaf damage into the major apple-growing regions in China [5]. The larvae of *P. ringoniella* mine on the underside of the leaf and also pupate inside it. The early infestations of this insect shows a greenish-white appearance on the upper surface and the irregular shape of silvery-green spots on the lower surface of the leaf [6]. Reduction in the photosynthetic area, inhibits the growth of new buds, defoliation of plants and premature ripening and fruit droppings are the damages caused by the mines done by the larvae of *P. ringoniella* [6,7]. To control the infestation of the apple leaf miner by chemical sprays of insecticides have a limited effect as the larva of *P. ringoniella* is an internal feeder of the leaf and has disadvantages owing to less nutrition. The organic growers all around the world demand non-chemical tactics to reduce the population of the apple leaf miner as well as the other lepidopteran insects. In Integrated Pest management, the use of semiochemical has a great potential in controlling, suppressing or eradicating the insect population by monitoring, mass trapping, mating disruption, lure and kill techniques [8]. In the insect sex pheromones, the (*E*,*Z*)-diene isomers are well-known, and responsible for special functions and the efficacy for the attraction of moths in the field [9,10]. The synthetic pheromone's efficiency is entirely based on its stereoisomeric purity [11].

The sex pheromone of the apple leaf miner *P. ringoniella* was identified by Ujiye *et al.* (1986) to be a blend of 10-tetradecenyl acetate and a non-conjugated tetradecadienyl acetate, with a double bond in position 10 [12]. The synthesis of the geometrical isomers of the pheromone was carried

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Swachh Bharat Mission : A Public Policy

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Introduction:

Broadly defined, sanitation means interventions for the safe management and re-use of excreta and solid and liquid waste. It includes both infrastructures, for example, latrines, compost pits etc. and behavior, for example, improved hygiene practices, habit formation to switch from open to fixed point defecation.

In India, lack of adequate sanitation and the linked burden of disease take an immense toll on life in India. Children are particularly vulnerable ; each day, an estimated 1,000 children under five die in the country because of diarrhoea, a preventable disease, alone. According to National Family Health Survey III, 2005-06, prevalence of child under-nutrition in India is 47 percent. It is among the highest in the world and nearly double that of Sub-Saharan Africa. Aggravated by diarrheal disease, child under-nutrition, is estimated to be responsible for 22 percent of the country's burden of disease. Sanitation related illnesses deplete productivity and resources, ultimately contributing to deprivation in both children and adults. Disaggregating the impacts of sanitation by gender reveals that the privacy afforded by access to adequate sanitation facilities imparts a sense of dignity, especially to women and young girls. Access to safe sanitation in schools is also linked to continued education enrolment by young girls and teenage women, particularly at puberty. Therefore, sanitation is appropriately considered a policy priority in India. The next section describes the evolution of the policy response to this issue.

The Evolution of the Policy framework for Rural Sanitation in India:

The responsibility for provision of sanitation facilities in India is decentralized. It primarily rests with local government bodies – GPs in rural areas and municipalities or corporations in urban areas. Both the state and central governments have a facilitating role that takes the form of framing enabling policies, guidelines, providing financial and capacity-building support, and monitoring progress. In the central government, the Planning Commission, guides investment in the sector by allocating funding for strategic priorities through Five Year Plans.

The Ad-hoc Investments through Five Year Plans before 1986:

Rural sanitation did not feature on the investment horizon during the first five plan periods as reflected in its negligible funding share. However, it received prominence from the Sixth Plan (1980-85) onwards amid the launch of the International Drinking Water Supply and Sanitation Decade in 1980. In addition to it, the responsibility for rural sanitation at the central level was also shifted from the Central Public Health and Environmental Engineering Organization to the Department of Rural Development Government of India.

Central Rural Sanitation Programme (1986-1998): A Conventional Approach:

The Rural Development Department initiated India's first national programme on rural sanitation, the Central Rural Sanitation Programme (CRSP) in 1986. The Central Rural Sanitation Programme interpreted sanitation as construction of household toilets, and it focused on the promotion of a single technology model i.e. double pit pour-flush toilets through hardware subsidies to generate demand. But contributing to the programmer's failure, the key issue of motivating behavior change to end open defecation, and use toilets was not addressed. Throughout the 1990s, although more than Rs. 660 crore[2] was invested and over 90 lakh[3] latrines constructed, rural sanitation grew at just 1 percent annually and the Census of 2001 found that only 22 percent of rural households had access to toilets.

Total Sanitation Campaign (Nirmal Bharat Abhiyan) (1999-2012): Sector Reforms

The Government of India restructured the programme, In light of the relatively poor performance of the Central Rural Sanitation Programme (CRSP) leading to the launch of the Total Sanitation Campaign (TSC) in 1 April, 1999. A key learning that informed TSC design was that toilet construction does not automatically translate into toilet usage, and people must be motivated to end open defecation, if rural sanitation outcomes are to be achieved. The second key learning was the recognition of the 'public good'

THE MANIPULATIVE POWER OF MONEY: A MARXIST READING OF ARAVIND ADIGA'S *LAST MAN IN TOWER*

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Abstract

The Man Booker Prize (2008) winning author of The White Tiger, Aravind Adiga, is one of the leading fiction writers not only in Indian English Literature, but on the world literary horizons. His novels are replete with the analysis of modern world issues and expose, in a very straightforward manner, the various conflicts going on in the society all the time. His second novel Last Man in Tower depicts the struggle of a retired teacher, Mr. Yogesh Murthy, who tries to his last breath to resist the oppressive and manipulative power of money exercised by the capitalist and morally degraded business tycoon Mr. Dharmen Shah. This struggle represents the eternal struggle between the social classes in the Indian society- one attempting to control all the spheres of life with the power of money and the other resisting and subverting the power. The novel exposes the various direct and indirect ways of domination deployed by the capitalists to exploit the working class people. The present research paper proposes to analyse the class struggle depicted in the novel with the objective to expose the ideology of oppression and present day moral degradation in the Indian society.

Keywords*: capitalism, class struggle, Marxism, ideology, oppression, exploitation*

Introduction: Aravind Adiga as a Social Critic of Modern Life

Aravind Adiga (Born 1974), is one of the most significant novelists of 21st century India. Since his debut as a novelist in 2008 with his Man Booker Prize winning novel, *The White Tiger,* he has contributed substantially to the corpus of world English Literature, popularly known as New Literature. Through his novels and short stories, he has touched upon a variety of themes drawing upon the modern day life. Using irony, satire, sarcasm and wry humour as his weapons, he strikes hard at the hypocrisies and moral degradation of modern human life. All his novels and short stories deal with characters drawn from the different social strata. These characters are found struggling for survival and entering into conflict with one another for different reasons. The novels by Adiga like *The White Tiger* (2008) and *The Selection Day* (2016) depict the dark side of India, where corruption, exploitation, favouritism and cut-throat competition have become an inseparable part of life. The story collection by Adiga, *Between the Assassinations* (2009), describes the transitions taking place in the lives of the people of Kittur, a small city on the west coast of south India. The stories are replete with the theme of corruption and social injustice- the characteristics of

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Dr. Babasaheb Ambedkar's Influence on the Indian Literature

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Abstract:

Dr. Babasaheb Ambedkar (1891-1956) wasthe most influential twentieth century Indianscholar,thinker, philosopher and a prolific writer. His thinking and thought provoking writings and a critique of the ancientIndic scriptures and literatures paved a way for the countless Indian writers to express themselves in their own language. His writings and a ceaseless struggle for the eradication of the casteism inspired the writers to raise a voice against the inhuman treatment rendered down the ages to the untouchables. His struggle for the upliftment, education, equality, political representation for the Dalit's in India is unique and it has awakened and inspired the writers across the languages, castes, religions. His seminal books like *The Annihilation of theCaste* (1936) and *Who Were the Shudras*? (1946) have had a far-reaching impact on the modern and postmodern Indian writer's .The afore mentioned books exclusively deal with the deeply rooted casteism,injustice, exploitation of the untouchables in the Hindu culture. He through his writings and speeches raised a protest against the cruelty done to the untouchables. There are hundreds and thousands of Indian writers who freely and extensively fought against the unequal Indian social system.

Dr. B R Ambedkar's struggle for equality, education, respect, fair treatment to the untouchables led many Indian and foreign writers to take to the writings. All Indian writers irrespective of state, caste, religion, ethnicity, and language expressed their suffocation, humiliation, disrespect and exploitation they lived with. In Marathi literature Daya Pawar set a trend of the Dalit autobiographies by writing his *Baluta* in 1978. This sensational and path breaking book brought to the fore the age old humility and the difficult life his community has lived with. Daya Pawar seems to be highly influenced and inspired by the Ambedkerite struggle for the annihilation of the caste. This book deal with the life of a Dalit protagonist and his struggle for the education, employment. The protagonist of the Baluta is fighting against the all odds. His focus is on how difficult it is to untouchables to get education and fair treatment in the school days and subsequently in the employment. The protagonist of the Baluta is a representative untouchable in an Indian Hindu culture one who is struggling to settle and earn bread and butter. Daya Pawar has faithfully and accurately narrated the struggle of the Indian Dalit man against the casteiest society. Dr. Ambedkar's fierce struggle for the eradication of the caste system and liberation of the untouchables seems to be the backbone of Baluta. In this Dalit autobiography it is pertinent that the writer has been inspired by the movement and demonstrations of the Dalit iconic and legendry leader Dr. Ambedkar. The writer has absorbed the spirit and energy of narrating the injustice, the pain and pangs that the untouchable has to suffer with. Dr. Ambedkar's influence on the writer's writing is very visible. The writer seems to be awakened by the Ambedkerite philosophy and endless struggle for the justice and equality in a prejudiced society. It is quiet understandable that Dr. Ambedkar's demand of education, respect,fair treatment, equality,and justice is what is Daya Pawar is talking aboutin his autobiography. The writer writes about the hunger of the untouchables. The Dalit community does not have any landed property nor do they have a source of livelihood. They have to survive on the dead cattle's meat dumped in the cemetery. The whole Dalit community shares the rotten meat of the cattle'sdied of some desease for their survival. This book has been translated into many Indian and foreign languages. This Dalit autobiography has further inspired many Dalit peoples who got inspiration from the writer and penned similar experiences. The protagonist of the Baluta narrates the painful and unforgettable childhood as well as adulthood experiences for which Dr. Ambedkar fought throughout his life.

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TOTAL STEREOSPECIFIC SYNTHESIS OF (3*E*,7*Z*)-TETRADECADIENYL ACETATE, THE MAJOR SEX PHEROMONE COMPONENT OF THE POTATO PEST *Symmetrischema tangolias*

Ramchandra Awalekar,[1] Priyanka Mohire,[1] Ajinkya Patravale,[2] Shilpa Salunkhe,[3] Shams Usmani,[4] Dattatray Jamale,[3] Shankar Hangirgekar,[3] Govind Kolekar,[3] and Prashant Anbhule[3]*

(3E, 7Z)-Tetradecadienyl acetate, the major sex pheromone component of the potato pest Symmetrischema tangolias *(Gyen), was stereoselectively synthesized from the commercially available 3-bromo-1-propanol via the stereospecific reduction of alkyne with lithium aluminum hydride (LAH) and the Wittig reaction.*

Keywords: (3*E*,7*Z*)-tetradecadienyl acetate, pheromones, *Symmetrischema tangolias*, reduction, Wittig reaction, green metrics calculation.

Solanum tuberosum L. (potato) is cultivated all around the world because of its significance in human consumption and one of the cheapest staple food materials and richest sources of starch, dietary fibers, vitamins, and minerals. Thus, such a noteworthy crop is produced predominantly throughout the world, but this crop is severely damaged by various pests. To overcome such problems, researcher are making efforts towards controlling such pests by various measures such as use of chemical pesticides, biopesticides, and pheromones [1].

For environment friendly agriculture, two best practices are accessible, such as integrated crop management (ICM) and integrated pest management (IPM) [2]. Among them, in the ICM system the pheromones are the most frequently used and the most rapid technique for mating disruption, controlling pest, and mass trapping [3].

A literature review reveals that significant effort has been focused on the eco-friendly synthesis of sex pheromones by multistep reaction pathways, among which are protection [4], alkylation [5], reduction [6], acetylation [7], oxidation [8], and the Wittig reaction [9]; these are most widely used reactions towards the synthesis of various sex pheromones of the female moth.

The potato tuber moth *Symmetrischema tangolias* (Gyen) is recognized as a severe pest on potatoes in the field as well as in storehouses [10].

The use of insect pheromones by mass trapping and mating disruption techniques has shown promising results in controlling distressing insect pests [11].

There are very few reports on identification and synthesis of sex pheromone. In 1995 the Griepink et al. [10] isolated and identified the sex pheromone components from the female moth's gland. The main chemical components of the sex pheromones of *Symmetrischema tangolias* are (3*E*,7*Z*)-tetradecadienyl acetate and *E*-3-tetradecenyl acetate, which were identified in the pheromone in the ratio 2:1, while Ragoussis et al., effectively investigated the synthesis of (3*E*,7*Z*)-tetradecadienyl acetate with the help of the Wittig and Knoevenagel reactions [12].

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