

Affiliated by Dibrugarh University

Supporting Documents for NAAC Self Study Report (SSR) (3rd Cycle)

Period: 2017-2022

Criterion 3	Key Indicator: 3.3
Research Innovation and Extension	Research Publication and Award
Metric Number: 3.3.1	Number of Research papers published per teacher in the Journals notified on UGC care list during the last five years

Prepared and submitted by Jorhat KendriyaMahavidyalaya



Submitted To



<u>NAAC</u>



NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL



Pranjal DuttaCoordinator, IQAC



V Principal Jorhat Kendriya Mahavidyalaya Kenduguri, Jorhat-10



Affiliated by Dibrugarh University



List of Publications in SCOPUS enlisted Journals (2017-2022)

List of publications in UGC CARE-LIST Journals (2017-2022)



*Pranjal Dutta*Coordinator, IQAC



Principal

Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

List of Publications in SCOPUS enlisted Journals (2017-2022)

butto

Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya
Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

List of Publications in SCOPUS enlisted Journals(2017-2018)



Pranjal DuttaCoordinator, IQAC



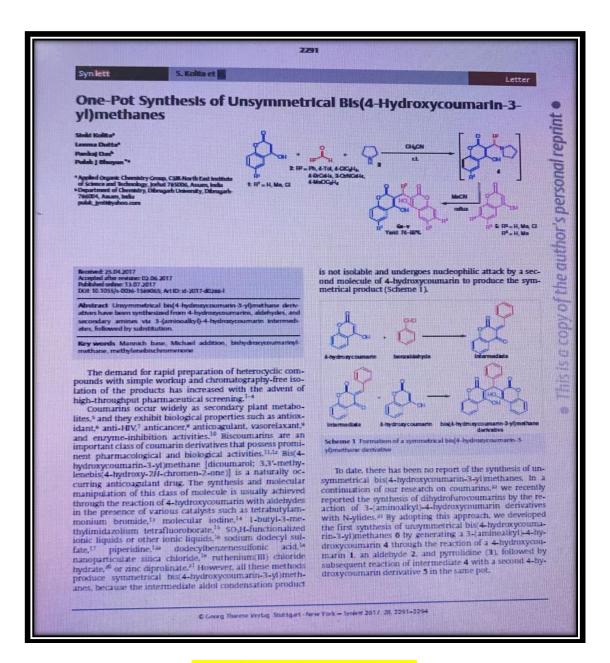
Principal

Jorhat Kendriya Mahavidyalaya
Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2017-2018)



Name of the Teacher: Dr Sinki Kolita

butto

Pranjal Dutta
Coordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2017-2018)



International Research Journal of Engineering and Technology (IRJET)

Volume: 04 Issue: 08 | Aug -2017

www.irjet.net

e-ISSN: 2395-0056 p-ISSN: 2395-0072

Amine Bearing Windows Opening Membrane for CO2 Adsorption

Panchali Bharali¹, Somiron Borthakur², Swapnali Hazarika³

1.2.3 Chemical Engineering Group. Engineering Science & Technology Division CSIR-North East Institute of Science and Technology Jorhat – 785 006, Assam, India

Abstract: Membrane technology is one of the most efficient technologies for capturing CO2 from a gaseous mixture and provides a way for minimizing the pollution problem around the whole world. Dendrimer incorporated polymeric membrane is mostly CO2 selective and this membrane can be used for separation of CO2 from a gaseous mixture. We have prepared CO2 selective Polysulfone composite dendrimer membrane and characterized by IR, XRD, TGA-DTA, SEM analysis. IR data confirms the incorporation of NH2 group in the membrane which plays an active role in the CO2 adsorption. From the XRD data it is confirmed that the membrane is completely homogeneous in nature. SEM photograph shows the morphological change of the membrane due to facilitated transport mechanism. From the results, it is established that adsorption of CO2 onto membrane is a chemical adsorption process. It is seen that the membranes have change in its crystalline structure after adsorption. The adsorption process was affected by the feed gas pressure, feed flow rate etc. The adsorption isotherm was investigated for the process and found that the adsorption behaviour for CO2 adsorption was best fit with the Langmuir isotherm model. Adsorptive interaction is strongly related to the interaction energy between adsorbate and adsorbent. It was observed that the CO2 adsorption onto the membrane follows the pseudo second order kinetics.

 $Key \ words: Dendrimer, membrane, gas \ separation, adsorption, facilitated \ transport, interaction \ energy.$

1. Introduction

The concentration of CO2 increases in the atmosphere and results numerous problems for environment which causes climate change for the whole world. Now a day, a number of technologies are developed for reducing the environmental polluting problems like global warming, greenhouse effect etc. by capturing CO2 from various gaseous mixtures. Several technologies such as nanotechnology, absorption into a solution etc. are developed for CO2 storage, but membrane technology for adsorption as well as separation of CO2 achieves higher efficiency due to simple operation, environmental friendly, low investment cost and for the most selective separation [1-4].

A few numbers of research works have been carried out on membrane separation processes by the researchers throughout the world. However, work on adsorption of CO2 onto the membrane is very limited. Sirkar et al. [5] reported that the Poly (amidoamine) (PAMAM) dendrimer and ionic liquid composite membranes provide a challenging way for CO2 selectivity over other gases at one atmospheric pressure. The (Polyvinylalcohol) PVA composite polymeric membrane is also suitable for incorporation of CO2 because of its higher gas permeability [6]. Youssef et al. [7] reported that amine bearing pore expanded MCM-41 (Mobil Composition of Matter, No 41) Silica can be used for gas purification applications by the adsorption of CO2 from a gas mixtures. Jin Huang et al. [8] reported the capture of CO2 using a CO2 selective facilitated transport membrane. Toshihino et al. [9] reported about the efficiency of Zeolite composite membrane for the separation of CO2/ CH4 gaseous mixture. The novelty of our research study lies in the performance of membrane containing Amine compound (Dendrimer) for adsorption of CO2 from CO2/ N2 gaseous mixture, as detail adsorption study for adsorption of CO2 has not been reported elsewhere.

Adsorption of CO2 occurs via Physisorption and Chemisorption processes. A large numbers of research workers carried out their studies on CO2 adsorption process. Wang et al; 2011 [10] in their previous research study reported Zeolites as the physical adsorbents for the capture of CO2. Mesoporous Silica can also be used as a suitable candidate for physical adsorption process as it has high surface area, tunable pore size and good mechanical stability. Liu et al; 2005 [11] Sun et al; [12] also reported about some Amorphous materials (SBA-n), Anionic surfactant – templated mesoporous silica (AMS) etc for physical adsorption process. Some disadvantages of physical adsorption are 1.Long range and weak van der Waals attraction between adsorbate and substrate (Δ H physisorption ~ 20 kJ mol -1) – 2. No activation barrier, fast, 3. Reversible, 4. Surface symmetry insensitive, 5.Multilayer formation possible.

To overcome the disadvantages of physical adsorption processes, solid adsorption processes can be used as an alternative process for gas separation. From the previous research on CO2 adsorption processes (Sayari et al.,2011, Choi et al.,)[13,14] it is possible to develop a suitable CO2 adsorbent which satisfies the factors like (1) low heat capacity, (2) high

© 2017, IRJET

Impact Factor value: 5.181

ISO 9001:2008 Certified Journa

Page 2060

Name of The Teacher: Dr. Panchali Bharali

butto

Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya
Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2017-2018)

eceived: 15 June 2018 Revised: 3 September 2018 Accepted: 5 September 2018 WILEY DDR RESEARCH ARTICLE Antiviral compound screening, peptide designing, and protein network construction of influenza a virus (strain a/Puerto Rico/8/1934 H1N1) Surovi Saikia¹ | Manobjyoti Bordoloi¹ | Rajeev Sarmah² | Bhaskor Kolita¹ Strategy, Management & Health Policy **Enabling Technologies** Preclinical Research & Development ¹Chemical Sciences & Technology (Natura Products Chemistry) Division, CSIR North East Institute of Science & Technology, Jorhat, Plant based antiviral therapy is the current need for holistic health care m be achieved through screening of phytochemicals and designing of antiviral peptides. There ²Allied Health Sciences, Assam Down Town University, Parikhaiti, Guwahati, Assam, India wide pandemic. A total of 177 phytochemicals from Ocimum sanctum (L.), Tinospora cordifolia (Thunb.) Miers, Cinnamomum camphora (L.), J. Presl., Allium sativum (L.), Curcuma longa (L.), and Correspondence Manobjyoti Bordoloi, Chemical Sciences & Manopyoti Berdoloi, Chemical Sciences & Technology (Natural Products Chemistry) Divisior, CSIR North East Institute of Science & Technology, Jorhat, Assam 785006, Aloe vera (L.) Burm. f. were evaluated for their affinity to all viral proteins of H1N1. Applying drug filters and keeping the threshold of such filters relative to the standards, 82 compounds were found suitable for further analysis. Consensus scoring system was used for screening top Email: m.j.bordoloj.pup@gmail.com or ligands from 82 compounds, which screened the top 12 compounds. Highly conserved regions Email: mjb_rrljt@yahoo.co.in 80%) which were hydrophilic, flexible, antigeric, and also charged were screened out as Funding information CSIR-New Delhi, Grant/Award Number: CSC-0130; NFHE fellowship , Grant/Award Number: NFST-2015-17-ST-ASS-3740 potent antiviral peptides. The viral proteins were taken as the targets for the modeled peptides for protein-protein docking. Further, host-pathogen interacting network was constructed to unveil host factors involved in viral replication, from which unique protein clusters representing their involvement in viral reproduction were selected through mapping with pathway database Twelve compounds and five peptides were found to be highly effective against all the proteins of H1N1. Based on the uniqueness, 13 clusters of proteins were obtained which are engaged in cellular process, namely, viral reproduction, fructose-6-phosphate metabolism, nitrogen compound metabolism, biosynthesis, cellular process, oligodendrocyte development, localization, multiorganism process, primary metabolism, response to unfolded protein, metabolism, and response to protein and catabolism. Abbreviations: ADMET, Absorption, distribution, metabolism, excretion, and toxicity: AOT acute oral toxicity; AVPs, antiviral peptides; BAF, Barrer-to-autointegration factor: BBB, blood-brain barrier; BiNGO, Biological Network Gene Ontology; BLOUSM, Block Substitution Matrix, Caco 2, human colon adenocarci-roma; CAPRI, Critical Assessment of Prediction Interactions; CMC, Comprehensive Medicinal Chemistry; CMV, cytomegalovirus; CNDH2, Condens n-2 complex subunit H2: COBALT Constraint-based Multiple Alignment Too; CREB3, Cyclic AMP-responsive element-binding protein; 3, DLS_cons, dragon consensus drug-like cover; DVL2 &G., disheverled homolog 2 & 3, ER, edoplasmic reticulum; FDR, Fabe Discovery Bate GO, Gene-Ortology, HA, Temagalovirus; CNDH2, Juman pagiloment Too; CREB3, Cyclic AMP-responsive element-binding protein; 3, DLS_cons, dragon consensus drug-like cover; DVL2 &G., disheverled homolog 2 & 3, ER, edoplasmic reticulum; FDR, Fabe Discovery Bate GO, Gene-Ortology, HA, Temagalovirus; HSVA, Human pagiloment-binding protein; ALP, Influence of Virus; HMCA, Human pagiloment-binding protein also virus; INMA, Importin subunit alpha-4; M, Jeda, Jeachiles cover; M1 protein, viral matrix protein; M2 protein, ion channel; MDDR, MACCSII Drug Data Report; MKOP, Mitogen-activated protein inseas ey. RNA Multiple Sequence Alignment; NA, neuraminidase Inhibitors; INFIA, Neural Action of Alignay; NR, prucleoprotein; NS1 and NS2/NEP, nonstructural proteins 1 and 2; PA, polymerase acidic protein; PAM, Point Accepted Mutations; PB1 & PB2, polymerase bas c protein 1 and 2; PKR, protein-ligand ANT cydern; PIP, pieroevise linear petential; PPIA, Peptidy-proply cis-trans inomerate &; RRPMS, RNA-inding protein with multiple splicing; REVGO, REduced Visualization of GO; RGI/TRIM25; Certinoic acid-inducble gene I / tripartite molif protein; ROS, Rule of Five; SE, Simplex Evolution; SRNA-, negative sense-single stranded RNAs; SVM, support vector machine; TCOFFEE, Tree-based Consistency Opiective Function for alignment Evaluation; TdP, T Drug Dev Res. 2018:1-19. © 2018 Wiley Periodicals, Inc. wi evonlinelibrary.com/journal/ddr

Name of the Teacher: Bhaskar Kolita

butto

Pranjal Dutta
Coordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2017-2018)

Anti-Cancer Agents in Medicinal Chemistry, 2018, 18, 87-10

RESEARCH ARTICLE



Volatile Inhibitors of Phosphatidylinositol-3-Kinase (PI3K) Pathway: Anticancer Potential of Aroma Compounds of Plant Essential Oils



Manobjyoti Bordoloi^{a,*}, Surovi Saikia^a, Bhaskor Kolita^a, Rajeev Sarmah^b, Sonali Roy^a and Bardwi Narzary^a

^aNatural Products Chemistry Group, CSIR North East Institute of Science & Technology, Jorhat-785006, Assam India; ^bAllied Health Sciences, Assam Down Town University, Panikhaiti, Guwahati 781026, Assam, India

ARTICLE HISTORY

Received: October 27, 2016 Revised: January 17, 2017

DOE:

Abstract: Background: Cancer is a grave health problem for the world as the global cancer burden rises to 14 million new cases with 8.2 million deaths every year which is expected to rise by 70% in the next 2 decades as reported by the WHO. These steady rises in death demand for rapid developments in anti-cancer agents. Essential oils, being natural and multi-component complex systems have recently attracted a lot of attention in this search for novel anti-cancer agents.

Materials and Methods: The pharmaceutical attributes of essential oil components, specifically focusing on their affinity towards COX, 5-LOX, AKT, MDM2, PDK1 and mTOR which defines the phosphatidylinositol-3-kinase (Pl3K) pathway, were assessed. 123 compounds present in essential oils of different plants were analyzed for their drug like attributes which were then allowed to dock with Pl3K dependent receptors crucial for the development of cancer malignancies. Among them, 21 compounds were filtered possessing high druglikeness with favourable metabolism offered by major cytochromeP450 isoforms. Finally, the best docked compounds with highest binding affinities were employed for building a ligand based pharmacophore.

Being inhibitors of P-glycoproteins, these molecules also exhibited good absorption profiles and non-carcinogenic properties. Further from these 21, six compounds were evaluated against A549 lung cancer cells.

Results: The pharmacophoric feature obtained can be applied for both designing and screening moieties for active inhibitors of the phosphatidylinositol-3-kinase pathway specifically from essential oil compounds and these final 21 compounds can be further promoted to studies for anti-cancer drug development. Among these, six compounds exhibited promising inhibitory results against AS49 lung cancer cells. Furthermore, immunoblotting assay confirmed the efficacy of the compounds for inhibiting mTOR and AKT enzymes which are bandmasters for downstream signaling of theP13K pathway.

Conclusion: Methyl nonanoate, (R)-citronellol, cis-carveol (L-carveol), 3-methyl-Cyclohexanone, 4-carene and thujopsene were finally screened for PL3K targeted anti-cancer therapies which may find direct application as inhalers or sprays against lung cancer as these compounds are highly volatile.

Keywords: Essential oils, anti-cancer volatile molecules, phosphatidylinositol-3-kinase pathway, pharmacophore, docking, inhaling application against lung cancer.

1. INTRODUCTION

Aroma components of essential oils may have many pharmaceutical properties and are natural, multi-component, complex systems composed mainly of terpenoids, in addition to some other non-terpene components [1]. Essential oils have therapeutic potential of diverse nature and therefore, they have attracted the attention of diverse nature and therefore, they have attracted the attention of researchers for exploring their anti-cancer profile. This is because they may have the mechanism of action quite dissimilar to classic cytotoxic chemotherapeutic agents. For example, perillyl alcohol as radio/chemosensitizer for malignant glioma, induction of cytotoxicity by myristein in human neuroblastoma SK-N-SH cells through apoptotic mechanism and monoterpens like geraniol, terpinen-4-ol, 1, 8-cineol for chemopreventive and chemotherapeutic attributes etc. [2-6]. Moreover, phenolic compounds like ellagic acid, gallolyl glucose derivative and flavonoids present in essential oils act as potential natural anti-oxidants and this potential of reducing oxida

tive stress in cells is of prime concern for cancerous conditions where imbalance is quiet obvious in the oxidation of biomolecules leading to cell or tissue damage and development of cancer growth [7-9].

The P13K pathway is inevitable for cell growth and their survival [10]. Genomic events like mutation, amplification and displacement easily disorient its normal regulation. Stimulated by several growth factors and regulators it promotes metastatic suitability and offers resistance to therapies [11]. Based on structure and function, P13Ks are grouped into three classes from which Class 1 is further subdivided as Class $1_{\rm A}$ and Class $1_{\rm B}$ owing to its sequence similarity. Class $1_{\rm A}$ are highly responsible for promoting human cancers, consisting of a regulatory subunit p85 (α , β , γ isoforms) as encoded by three mammalian genes P1K3R1, P1K3R2 and P1K3R3 respectively. The catalytic domain, collectively known as p110 (α , β , δ isoforms) are products of P1K3CA, P1K3CB and P1K3CB and p1K3CB and some solution of the p1K3CB and solution of the p1K3CB and p1K3CB

*Address correspondence to this author at the Natural Product Chemistry Group, CSIR-North East Institute of Science & Technology; P.O. Box: 785-006, Jorhat, India; Telf-Rix:++0-943-5478-853, +91-376-23700; E-mails: m.j.bordoloi.pub@gmail.com; mjb_rtljt@yahoo.co.in

1875-5992/18 \$58.00+.00

© 2018 Bentham Science Publishers

Name of the Teacher: Bhaskar Kolita

butto

Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2017-2018)



Name of the Teacher: Dr Sinki Kolita

Butto



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2017-2018)



International Research Journal of Engineering and Technology (IRJET)

Volume: 05 Issue: 02 | Feb-2018

www.irjet.net

e-ISSN: 2395-0056 p-ISSN: 2395-0072

Effect of Additives on Morphology and Permeability of Dendrimer Membrane for CO₂ Separation

Panchali Bharali 1, Somiron Borthakur 2, Swapnali Hazarika3*

123 Chemical Engineering Group, Engineering Science & Technology Division CSIR-North East Institute of Science and Technology , Jorhat – 785 006, Assam, India.

Abstract- PAMAM- Dendrimers are the molecules which selectively separated CO2 from a gaseous mixture. We have prepared PAMAM - Dendrimers are the molecules which selectively separated CO₂ from a gaseous mixture, we have prepared PAMAM - Dendrimer and Polysulfone composite membranes by using various non- solvent additives. The membranes have been prepared by phase inversion technique using different non - solvent additives with a definite amount of PAMAM - Dendrimer and Polysulfone. SEM (Scanning Electron Microscope) pictures showed that Poly (ethylene glycol) (PEG-400) containing membranes are dense membranes and homogeneous in nature. We have studied the CO₂ permeation performances of the prepared membranes. All membranes showed general efficiency for CO_2 permeation wherever the membranes containing PEG as non-solvent additive are the best membrane for CO_2 permeation.

Key Words: PAMAM -dendrimer, selectivity, phase inversion, homogeneous, CO2 permeation, dense membrane.

1. INTRODUCTION

The membrane separation for removal of carbon dioxide from natural gas has advantages over the other conventional separation methods because of it's low capital cost, high-energy efficiency and it is environmental friendly. The commercially available polymeric membranes have both high permeabilities and selectivities. One of the advantages of a gaseous membrane separation process is it's simplicity; there is no need to regenerate an absorbent/adsorbent. In addition, membranes are simple to operate, compact and can be retrofitted easily etc.

A large numbers of researchers carried out their research studies to study the effect of various additives on membrane preparation. Lang et al; studied the roles of alkali metal counter-ions in the formation of PVDF/PFSA-M composite hollow fiber membranes [1]. Tager and his coworkers studied the effect of inorganic salt additives on the cellulose acetate membranes [2]. Han et al; studied the effect of additives on the performance and morphology of co Phthalazinone ether sulfone composite UF membrane [3]. Vilakati investigated the mechanical and thermal properties of polysulfone composite membranes modified with synthetic and natural polymer additives [4]. Ismail et al; studied the effect of additives concentration on the surface properties and performance of PVDF ultrafiltration membranes for refinery produced waste water treatment [5].

PAMAM - Dendrimers are a new class of artificial macromolecules which are synthetic, highly branched, monodisperse, globular and nanopolymeric in configurations. These PAMAM- Dendrimer macromolecules have definite molecular weight, globular and nanopolymeric in configurations. These PAMAM- Dendrimer macromolecules have definite molecular weight, shape and size, which make them excellent candidates for numerous industrial applications. PAMAM- Dendrimers are globular nanostructures that are precisely engineered to carry molecules encapsulated in their interior void spaces or attached to the surface. PAMAM- Dendrimers provide polyvalent interactions between surfaces and bulk materials which makes it suitable for various applications such as surface coatings etc. Because of it's control over size and surface makes PAMAM - Dendrimers one of the smartest or customizable commercially available nanotechnologies [6]. Due to their very well defined structures PAMAM- Dendrimers are the candidates for the purpose of membrane formation which facilitates the separation of CO₂ from a gaseous mixture [7]. PAMAM- Dendrimer based polymeric membranes have been developed for variety of industrial applications including reverse osmosis, ultra-filtration and gas separation processes because of their high permeability and selectivity. One promising means of lowering the cost of CO₂ separation is the development of high performance CO₂ separation membranes shat allow CO₂ recovery via membrane separation. PAMAM-Dendrimer high performance CO_2 separation membranes that allow CO_2 recovery via membrane separation. PAMAM-Dendrimer composite membrane comprising a gas selective layer is applicable for gas separation processes [8-10]. Thus, in continuation of our activities on membrane research, we have been pursuing research on preparation and characterization of PAMAM - Dendrimer composite membranes useful for CO_2 separation from a gaseous mixture . We have studied the effect of various non-solvent additives on membranes formation with an emphasis to study the morphology and performances of the membranes for CO_2 separation.

2. EXPERIMENTAL SECTION

2.1 Materials

Polysulfone (average molecular weight 22000) was obtained from Aldrich Chemicals were used as the main membrane material. N-Methyl-Pyrollidine (NMP; > 99%) obtained from Rankem, India was added as a solvent. Commercial PAMAM-

Impact Factor value: 6.171

ISO 9001:2008 Certified Journal

Name of the teacher: Dr. Panchali Bharali

Kenduguri, Jorhat-10

Dr. DulenSaikia Principal

Pranjal Dutta Coordinator, IQAC



Affiliated by Dibrugarh University

List of Publications in SCOPUS enlisted Journals (2019-2020)



Pranjal DuttaCoordinator, IQAC



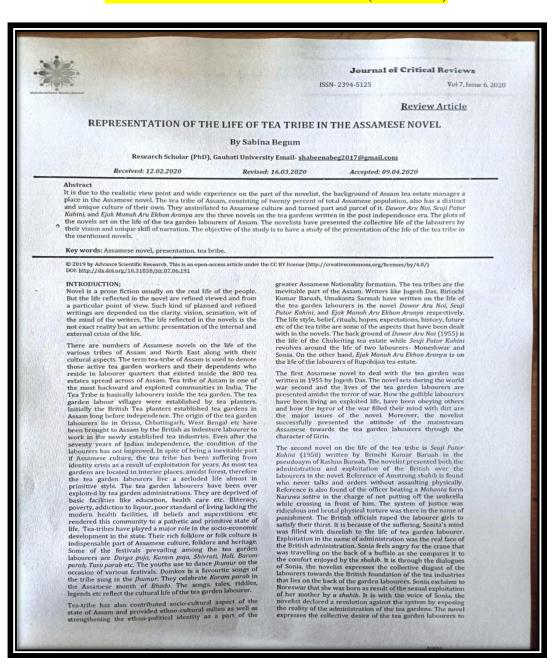
Principal

Jorhat Kendriya Mahavidyalaya
Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2019-2020)



Name of the Teacher: Sabina Begum

butto

Pranjal Dutta
Coordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2019-2020)

ISSN- 2394-5125 VOL 7, ISSUE 06, 2020

AN ANALYSIS OF SELF-ESTEEM OF ENGINEERING STUDENTS

Assistant Professor, Department of Education, Jorhat Kendriya Mahavidyalaya -mail:- pallabimalibarman353@gmail.com

Abstract: The aim of present study was to study the self-esteem of Engineering students. The study was conducted on a sample of 180 Engineering students studying in Government and private Engineering colleges of Kamrup district. Self-esteem Inventory prepared by M.S Prasad and G.P. Thakur was used to collect data. Normative survey method was used to collect the data. The study indicate that most of the Engineering students have lack of knowledge on the concept of Self-esteem. Female Engineering students and students from joint family have more negative self than balance and positive self.

Key words: Self-Esteem, Engineering students.

I. INTRODUCTION

Self—esteem can be defined as the concept one holds about himself/herself as a total perception. It is not actual fact about oneself, but a belief of the person about himself/herself. This will inturn guide his/her actions. So self-esteem of a person can be measured by the way they act. It can also be said that self-esteem is the value one put on oneself. Self-esteem is called as the central of our survival. Self-esteem is a confidence in our ability to think, to cope with the basic challenges of life and confidence in our right to be successful and happy (Nathaniel Branden). self-esteem is an evaluation of the emotional, intellectual and behavioural aspect of the self concept (Diane Frey and Jesse Carlock). High self-esteem performs and confidence about oneself and low self-esteem indicate bad opinion about oneself. A person having high self-esteem have shown satisfaction and confidence about oneself and a person with low self-esteem may show dissatisfaction and heavy self-eriticism.

Student life is one of the most important part of human life. Basically this stage determine the future of a human being. In this globalized era level of competition is very high which leads the problems like anxiety, stress, depression which create for horrible life destroying condition. To tackle life peacefully and to overcome from this problems high self-esteem is very important. Various Studies reveal that high self-esteem help in good academic achievement. Therefore this area is selected as a research problem by the investigator.

ILOBJECTIVES OF THE STUDY

- To measure the self-esteem of Engineering students.

 To study whether there is any significant difference in self-esteem of male and female students.

 To check whether there is any significant difference in self-esteem of students from joint and nuclear family.

There is no significant difference in self-esteem of male and female students.

There is no significant difference in self-esteem of students from joint and nuclear family

IV. DELIMITATIONS OF THE STUDY :--

This study is delimited to some selected Engineering Colleges of Kamrup district (urban and rural) of Assam. The study is confined to the students of 1 semester B.E/B.Tech Engineering students which comprises both the sexes.

The nature of the present study demand normative survey method. So the researcherhad adopted this survey method. Stratified Random sampling technique for selecting the sample had been adopted by the researcher. A sample of 180 Engineering students from six Engineering colleges of Kamrup district was taken for the study.

Self-Esteem Inventory constructed and standardized by M.S Prasad and G.P Thakur was used as tool to collect the data Mean, standard Deviation and t-test have been used as statistical technique for analyzing the collected data.

Name of the Teacher: Dr. Pallabi Mali

Kenduguri, Jorhat-10

Dr. DulenSaikia Principal

Pranjal Dutta Coordinator, IQAC



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2019-2020)

PJAEE, 17 (7)(2020)

PalArch's Journal of Archaeology of Egypt / Egyptology

SELF-ESTEEM OF HIGHER SECONDARY STUDENTS: A STUDY IN KAMRUP DISTRICT

Dr. Pallabi Mali,
Asssistant Professor. Department of Education
Jorhat Kendriya Mahavidyalaya, Assam
e-mail- pallabimalibarman353@gmail.com

Dr. Pallabi Mali, Self-Esteem Of Higher Secondary Students: A Study In Kamrup District – Palarch's Journal of Archaeology of Egypt/Egyptology 17(7) (2020). ISSN 1567-214X.

Key words: Self-Esteem, Higher Secondary Students, Stream, Management.

Abstract:

The purpose of the present study was to study the self-esteem of Higher Secondary students. The study was conducted on a sample of 600 Higher Secondary students studying in Govt.. private and provincialized schools/colleges from arts, science and commerce stream of Kamrup district. Self-esteem Inventory prepared by M.S Prasad and G.P Thakur was used to collect data. Normative survey method was used to collect data. The study indicate that most of the H.S. students have lack of knowledge on the concept of Self-esteem.

Introduction

Self-esteem is how people think about themselves and how much they like themselves. It is the way one feel and think about themselves. Self-esteem is the central of our survival. It is the value one put on ownself. High self-esteem is the satisfaction and confidence one have in him/her self as a person. In high self-esteem firmly believe in certain values and principles and are ready to defined when finding opposition, feeling secure enough to modify them in the light of experience, trusting their own judgement and not feeling guilty when others don't like their choice. Fully trust in their capacity to solve problems, not hesitating after failures and difficulties. Low self-esteem is the low opinion one have in him/her self. A person with low self-esteem may show the symptoms like heavy self-criticism. They feels bad about everything, and is disappointed or unsatisfied with anything.

Higher secondary education is one of the important part of a student's life. Success of this education mainly decide about career of a student. On the other hand period of Adolescence is said as the period of 'storm and stress'. Due to physical, social, emotional, intellectual development the student of this stage suffer various problems. The rate of depression, anxiety has skyrocketed over last few decades. These are horrible life destroying condition. To survive in this

1181

Name of the Teacher: Dr. Pallabi Mali

butto

Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2019-2020)

European Journal of Molecular & Clinical Medicin ISSN 2515-8260 Volume 07, Issue 06, 2020

A Study On Study Habits Of Engineering Students

Dr. Pallabi Mali

Assistant Professor, Department of Education, Jorhat Kendriya Mahavidyalaya. Assam

e-mail: pallabimalibarman353@gmail.com

Abstract: The investigation has been undertaken in order to study the study habits of Enginering students and to check whether there is any significant difference in study habits of male and female Engineering students and also to find out whether there is any significant difference in study habits of Engineering students studying in Govt. and private management of Jorhat district. A representative sample of 200 Engineering students for this purpose have been selected by using simple random sampling techniques. Descriptive survey method has been used for the present study. Self made questionnaire made by the investigator was used to collect data. Simple percentage, t-test statistical technique was used to analysis the collected data. It has been found from the study that Engineering students have a good habit of study. They read magazines/journals which is related to their course content and help for the development of their career and also suit their interest. They surf internet for different purpose including educational. They also prefer to read books on various items i,e novel, poem, short stories, books on science and technology etc. The study indicate that female Engineering students acquire good habit of study and the Engineering students studying in private management has a better habit of study than the Engineering students study in Govt. management.

Keywords: - study habits, Engineering students, male, female, management

1. INTRODUCTION

Habits are the basics of ones success or may be downfall. Habits makes it possible for us to do things without spending much mental effort. One of the important habit of human being in the modern era is study habit. Study habit is acquired by putting some effort as it is not naturally gained and it should be developed at early stage of life-at the childhood stage. Study habit include home environment and planning of work, reading and note taking habits, planning of subjects, habits of concentration preparation, general habit and attitudes, school environment (Patel 1976). Good study habits help the students in critical reflection in skills outcomes such as selecting, analyzing, critiquing and synthesizing (Fielden 2004). Study habits shapes personality, intellectually of a person and helping him to become an educated, civilized person of the society. As such good study habits are considered necessary for successful professional and personal life. A poor study habit must likely to have negative image. Study habit is the way a student plan and execute his study. One cannot be said as student if he has no habit of study. Study habit may be systematic or unsystematic, efficient or inefficient. A good study habit is not only important for higher academic achievement but also an important tool for their fruitful use of leisure time.

781

Name of the Teacher: Dr. Pallabi Mali

butto

Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2019-2020)

JOURNAL OF CRITICAL REVIEWS

ISSN- 2394-5125

VOL 7, ISSUE 02, 2020

IMPACT OF GLOBALIZATION ON TRADITIONAL FATBIHU OF DHAKUAKHANA, ASSAM

Minakshee Boruah¹, Lakhya jyoti Das², Bhagyashree Shyam²

¹Research scholar, Department of Assamese, Cotton University, Panbazar, 781001, Assam, India ³Student, Department of Assamese, Cotton University, Panoazar, 781001, Assam, India
³Student, Department of Assamese, Cotton University, Panoazar, 781001, Assam, India
³Assistant Professor, Department of Assamese, Jorhat KendriyaMahavidyalaya, Jorhat, Assam, India

Abstract: The folk festival and the folk institution highlight the cultural aspects of a community. The Fatbihu organized in Dhakuakhana area may be considered as a connecting link among various sections of the society. Making its survival through the centuries from the Ahom kingdom in Assam, this Fatbihu has been rendering the required stimulus to maintain the unity, equality and fraternity among the masses irrespective of caste or creed and hills or plain. Even till this 21st century, the glorious tradition of fatbihu has not been faded at any measure. As a consequence of the unprecedented achievements and changes in the world of science and technology, the concept of globalization has spread very fast among the nations. Though globalization seems to have its impact significantly on the economic aspect of the nations concerned, it has its effects, be it indirect, on the sociocultural and the linguistic traits of the nations. Though not have drifted away much from its origin, the fatbihu also welcomes some necessary changes brought by globalization. Thus, the aim of this paper is to highlight the various aspects of globalization and fatbihu as well as the impact of the former on the later. Keyword:Fatbihu,Globalization, Social, Culture, Ahom Period.

The culture of Assam is traditionally hybrid one, developed due to cultural assimilation of different ethno-cultural groups under various political- economic systems in different periods of time. The culture of this region is different from other states of India. So, we can name them as a multidisciplinary culture. Many people are living from ancient time on the bank of the riverBrahamputra. Because the soil quality is very fertile, of this valley, and migration towards this valley is too frequent, and therefore their culture accumulated on history of Assam. The Ahom kingdom (1228-1826) also known as kingdom of Assam was a kingdom originally in medieval India, in the Brahamputravalley, Assam. The Ahom kingdom was established in 1228 when the first Ahom king Sukapha' came from Mongmao and entered the Brahamputra valley, crossing the rugged Patkai mountain range. He was accompanied by his colleague ThaomungklingBurhagohain, ThaomungkannganBorgohain and other 8 officer with 1080 numbers of soldiers, and two horses and two clephant. There have no any ladies with him. It is well known for maintaining its sovereignty. For nearly 600 years and successfully resisting Mughal expansion in Northeast India, the befriended local groups, the Barahi and the Marans finally settled his capital at 'Charaideo' and established the office of the bureaucrats-

and the Marans finally settled his capital at 'Charaideo' and established the office of the bureaucrats-the Burhagohain and the Borgohain in upper Assam.

The people of Assam always like to enjoy their culture. So traditionally it is very rich in folk culture. One of the most famous folk cultures of Assam is the Fat 'Bihu'. Ahoms are the pioneer of this Bihu. The Bihu celebrations in every year in the month of 'Bohag' in Mohghulichapari which is just 500m away from Dhakuakhana town and almost 75km distance from Lakhimpur district. In 'Hemkosh'-It is a tradition that is celebrates in every year on the bank of the river or 'fat' of 'Charikariya'. A trade fair was held in Ahom's era which is remarkable. A Bihu of Dhakuakhana (page-892). It changes according to development of science and technology. So the effect is clearly seen on indigenous people and their languages and culture. The culture is widely distributed on the result of Globalization. The Fat Bihu also is changed with Globalization. So In this paper we can discussed about tradition of fatibihu, and the change regarding with globalization. For the preparation of this paper we take help from analytical and comparative studies. preparation of this paper we take help from analytical and comparative studies.

- 2. Objectives:
 The objectives of the paper is to—
 1) Discuss about the consequences of globalization on fatbihu.
 2) Analyze traditional strength of fatbihu in Dhakuakhana.
 3) Discuss how fatbihu may change with globalization.

3. Methodology and Materials:

For the convenience of the discussion analytical and comparative method is adopted

Name of the Teacher: Bhagyashree Shyam

Pranjal Dutta Coordinator, IQAC



Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2019-2020)

JOURNAL OF CRITICAL REVIEWS

ISSN- 2394-5125

VOL 07, ISSUE 02, 2020

About the Pathos: A Reading of Indira Goswami's "Ode to Whore"

¹Trishna Deka, ²Sabina Begum

¹Research Scholar, Department of EnglishCotton University, Assam
Email: dekatrishna10@gmail.com

²Research Scholar, Department of Folklore ResearchGauhati University, Assam
Email: shabeenabeg2017@gmail.com

Abstract:

The theme of the poem, "Ode to Whore" is self-evident. The title itself refers to the thematic concern of the poem. This poem is about the miserable conditions of life of the people socially entitled as 'whore'. Needless to mention that they are traditionally disrespected and dignity is a far-fetched adjective for them in most of the societies. In the traditional apprehension imposed upon them, the miseries they suffer from are looked down upon. The background that leads them to choose that profession and the dreadful consequences caused to them are lesser known matters for people. Endorsing a critical thrust to ponder over the rarely discussed topic, the poet addresses the veiled sorrows of the subject chosen for the poem. This paper attempts to discuss how the poet not only highlights but also dignifies the pathos of the subject chosen. The paper incorporates a line-to-line discussion of the poetic piece. To putforward an extensive illustration of the poem, this paper explains every stanza distinguishably with a highlight on the poetic devices used by the poet. It is noticeable that the poetic devices are not the mere ornamentation of the poem, rather these are well-attributed to emphasize upon the pivotal apprehensions. Even the form of the poem as an ode contributes to the illustration of the poem's argument. This paper endeavors a review of the poem with minute details.

Key Words: pathos, disrespect, poetic devices, sex workers.

1. Introduction

Indira Goswami was born in 1942in Assam. Dr Goswami wrote under the pen name of MamoniRaisomGoswami. She completed a successful career by being an editor, poet, professor and a prominent writer. She is a writer of many novels, short stories, poems, non-fictions and an autobiography. Her most-read novels include The Blue-Necked God, TheMoth-Eaten Howdah of a Tusker, Mamore DhoraTarowal, Pages Stained with Blood, The Man from Chinnamasta, The Bronze Sword of ThengphakhriTehsildar etc. To her credit goesthe famous short stories like 'Beasts', 'The Journey', 'Sanskar', 'To Break a Begging Bowl', 'UdaibhanurCharitra' etc. Her one and only poetry collection is Pain and Flesh. An Unfinished Autobiography is an autobiographical work of this writer. Ramayana from Ganga to Brahmaputra is the non-fiction of Dr Goswami. She was awarded SahityaAcademi for the novel Mamore DhoraTarowal. Jnanapith Award wasbestowed upon her in 2000. Thus, she becomes the first Assamese woman to achieve the award. She is also awarded AsomRatna, the highest civilian award in the state of

1390

Name of the Teacher: Sabina Begum

butto

Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2019-2020)



International Journal of Scientific Research in

Research Paper E-ISSN: 2347-7520

Vol.7, Issue.2, pp.51-61, April (2020)

A Search of COVID-19 main Protease Inhibitor from Plant Derived Alkaloids using Chloroquine and Hydroxychloroquine as Reference: An In-silico Approach

Bhaskor Kolita¹* Amlan Jyoti Bora² and Pinaki Hazarika³

¹Department of Botany, Jorhat Kendriya Mahavidyalaya, Kenduguri, Jorhat-785010, Assam, India
²Department of Lifescience and Bioinformatics, Assam University, Diphu Campus, Karbi Anglong, 782460, Assam, India

Department of Botany, Jorhat Kendriya Mahavidyalaya, Kenduguri, Jorhat-785010, Assam, India *Corresponding Author: bhaskorkalitabioinfo@gmail.com, Tel.: 09707446838

Available online at: www.isroset.org

Available online at: www.sroset.org

Received: 03/Apr /2020, Accepted: 17/Apr /2020, Online: 30/Apr/2020

Abstract— Coronavirus disease 2019 (COVID-19) is an infectious disease that causes respiratory illness in human and has now become a major challenge for all over the world. As no drug is approved yet for COVID-19, it is strongly demanding to search lead compounds. Therefore, the current investigation is an attempt to sereen lead molecule for inhibition of Covid-19 main protease. Herein, we considered 98 plant derived alkaloids having antimalarial activity, quinine and docked with COVID-19 main protease taking Chloroquine, hydroxychloroquine as reference. Finally, compounds Bidebiline E, Bisnordihydrotoxiferine and Thalifaberine were screened as lead molecule on the basis of Moldock score, H-bond interaction and ADMET study, and recommended for in vitro investigation.

Keywords— COVID-19; Chloroquine; Hydroxychloroquine; Alkaloids; ADMET

I. INTRODUCTION

COVID-19 is caused by a novel coronavirus severe acute respiratory syndrome coronavirus belong to genera β -CoV of subfamily Orthocoronavirinae [1, 2, 3]. The disease emerged in Wuhan city, China starting from December 2019. The World Health Organization declared this disease as pandemic, on 11th March 2020.

People infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. This disease easily attack and cause serious illness in old people, children and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer. Common symptoms include of this disease fever, tiredness, dry cough. Some other symptoms include shortness of breath, aches and pains, sore throat and very few people will report diarrhoea, nausea or a runny nose. To prevent and slowdown the transmission is to protect oneself washing our hands or using an alcohol based rub frequently and not touching our face and making social distance.

According to WHO Situation Report - 75 (4 April 2020), worldwide cases of COVID-19 climb above 1 million and deaths over 50, 000. The first COVID-19 emerged country China reached 82,875 confirmed cases and 3335 deaths. Some other highly infected Country are-Italy reached 119827 confirmed cases, 14681 deaths, United States of America reached 241703 confirmed cases, 5854 death, Spain 117710 confirmed cases, 10935 deaths. India reached 2301 confirmed cases and 56 deaths. From this

WHO report we can observe the horror image of COVID-

Although many drugs have been tried for COVID-19, no drugs are approved yet. Different study and review suggested that Chloroquine and Hydroxychloroquine can be used to treat COVID-19 [4, 5, 6]. Different study revealed that plant derived alkaloid have antiviral properties [7, 8]. FDA approved antimalarial drug Quinine is also a plant derived alkaloid. It was isolated from cinchona tree bark and named in 1820 by Pierre Joseph Pelletier and Joseph Bienaimé Caventou [9]. Taking these view in consideration Chloroquine, Hydroxychloroquine, Quinine and 98 plant derived antimalarial compound with good IC 9 value reported earlier were taken for our study Quinine and 98 plant derived antimalarial compound with good IC 50 value reported earlier were taken for our study of COVID-19 main protease inhibitor search. Liu et al. (2020) have successfully crystallized COVID-19 main protease protein from COVID-19, which has been structured and repositioned in the Protein Data Bank (PDB) and is accessible by the public. This protease may be a potential target for the inhibition of COVID-19 replication. We took COVID-19 main protease as target protein and docked 101 compounds in search of lead molecule. molecule.

Rest of the paper is organized as follows-Section I contains the introduction of Covid-19, its present status and the aim of the study. Section II contains the related works on instilico search of lead compound targeting COVID-19 main protease. Section III contains material and method. Section IV contains Result and discussion. Section V concludes research work with future directions.

© 2020, IJSRBS All Rights Reserved

Name of the Teacher: Bhaskar Kolita

Pranjal Dutta Coordinator, IQAC



Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

List of Publications in SCOPUS enlisted Journals (2020-2021)



Pranjal DuttaCoordinator, IQAC



Principal

Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2020-2021)

PIASE, 17 (6) (20)

PalArch's Journal of Archaeology of Egypt / Egyptology

GLORIFICATION OF ARCHAIC ART: A READING OF RAINA MARIA RILKE'S "ARCHAIC TORSO OF APOLLO" AND PERCY BUSSEY SHELLEY'S "OZYMANDIAS"

Trishna Deka

PhD Research Scholar

Department of English, Cotton University

Sabina Begum

PhD Research Scholar

Department of Folklore Research, Gauhati University

ABSTRACT

Writers have always adapted myth, legend and other folk elements to nurture perspectives through literary works. Many a time, folk elements work as a mechanism to develop the motif in literature. Selected poems for this paper are Rilke's "Archaic Torso of Apollo" and Shelley's "Ozymandias." In both the poems, myth of Apollo and Ozymandias have been presented with an objective of uplifting the status of art. It is noticeable that the poems are entitled about two popular figures. But the content of the poems significantly draws attention to a deeper meaning. In both the poems, there are two statues exclusively projected with minute details. Both the statues are in a dilapidated form. Irony is that even in the half broken forms the statues are extremely informative about the artistic exuberance. The artists never fail to inform readers about the intended meaningfulness of the statues. Even a shattered statue is viable of displaying the beauty of the archaic art. This paper attempts to present how the poets of these two poems have highlighted a theme of utmost importance almost in a same way in both the poems. This paper argues that the poems explore the glory of art over the two famous characters.

Key words: archaic glory, shattered statue, adaptation

Introduction:

It is a tradition in literature to adapt myth for recreation. In the literatures worldwide, different literary figures have recreated the myths in various genres. Meanwhile it is important to consider that myths also have categories according to its characteristics. This paper considers to analyze the myth of Apollo as represented by Rainer Maria Rilke in the poem "Archaic Torso of Apollo". One more focus of the paper is "Ozymandias" by Percy Bussey Shelley. Whereas the character of Apollo is a Greek myth, we can name that the popular story of Ozymandias becomes a historical myth. Apollo in

1050

Name of the Teacher: Sabina Begum

butto

Pranjal Dutta
Coordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2020-2021)

PalArch's Journal of Archaeology of Egypt / Egyptology AN ANALYSIS OF EDUCATIONAL AND ETHICAL VALUES OF BUDDHISM Purabi Kalita Assistant professor, Department of Education Mahapurusha Srimanta Sankaradeva Viswavidyalaya, Nagaon, Assam, India. Purabi Kalita. AN ANALYSIS OF EDUCATIONAL AND ETHICAL VALUES OF BUDDHISM --Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(7), 10729-10735. ISSN 1567-214x Keywords: Buddhism, axiology, educational values, ethical values. ABSTRACT Buddhist Education System is one of the prominent among ancient Indian education systems. Buddhism in India came into existence as a means to reform the deteriorating form of Hinduism. The philosophy of Buddhism was founded by Siddhartha Gautama, who later on comes to be known as Buddha (the awakened one). The Buddhist philosophy is considered as one of the most valuable ancient Indian philosophies of India that inscribe a lot of values like spiritual, social, ethical, educational ,political, economic values that have their significant importance for welfare of human race. Among these manifold, sets of values of Buddhism, paramount importance is given on Educational and Ethical values. Educational values in Buddhism implies those ideals that are practiced by Buddhist System of Education in their teaching- learning process while ethical values implies moral ideals uphold by Buddhist philosophy for regulating man's thought and conduct. The present paper is an attempt to deal with axiological aspect of Buddhistic philosophy with respect to Educational and Ethical values. The purpose of this study is to extract the educational and ethical values enshrined in Buddhism. In this regard, the researcher has opted for qualitative technique study and has undertaken a content analysis based on primary and secondary sources of information to ascertain those values. After a detailed study, the researcher was able to deduce various educational and ethical 10729

Name of the Teacher: Purabi Kalita

butto

Pranjal Dutta
Coordinator, IQAC



Principal Jorhat Kendriya Mahavidyalaya Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2020-2021)

Send Orders for Reprints to reprints a benthamscience.net

Current Computer-Aided Drug Design, 2020, 16, 0-0

RESEARCH ARTICLE

Combined CADD and Virtual Screening to Identify Novel Nonpeptidic Falcipain-2 Inhibitors

Trisha Rajguru^{a,c,*}, Dipshikha Bora* and Mahendra Kumar Modi^{b,c}

"Department of Life Sciences, Dibrugarh University, Dibrugarh, Assam; "Department of Agricultural Biotechnology, Assam Agricultural University, Jorhat, Assam; "Department of Agricultural Biotechnology, Distributed Information Center(DIC), Assam Agricultural University, Jorhat, Assam

Abstract: Background: Plasmodium falciparum is the most dangerous and widespread diseasecausing species of malaria. Falcipain-2 (FP2) of Plasmodium falciparum, is a potential target for antimalarial chemotherapy since it is involved in an essential cellular function such as hemoglobin degradation during the parasite's life cycle. However, despite their central role in the life cycle of the parasite, no commercial drug targeting Falcipain-2 has been developed to date. Prior efforts to develop peptide-based drugs against Plasmodium have been futile due to their susceptibility to being degraded by host enzymes.

RTICLE HISTORY

Received: March 16, 2820 Revised: May 25, 2820 Accepted: June 94, 2820

DOM-10.217a/575pmws/easa2mc/mj2/252a Objective: Here, we report computer-aided drug design of new nonpeptidic inhibitors against FP2, which are likely to be safe from degradation by host enzymes.

Methods: We have virtually screened for the probable FP2 inhibitors from the PubChem database by submitting the well-equilibrated 3-D structure of FP2. Furthermore, virtual screenings and dockings were carried out using PyRx and Discovery Studio.

Result: We found 15 top-ranking molecules with carbaldehyde pharmacophore having a good fit with the target protein. Based on the C-Docker values, the top 4 hits (PubChem 44138738, PubChem 20983198, PubChem 20983198, PubChem 29981461) for FP2 were identified. These four hits have been observed to bound to the active cleft of the protein. Moreover, their complexes were also found to be stable from the RMSD and Radius of Gyration analysis.

Conclusion: The selected compounds 2-(benzylamino)-8-methylquinoline-3-carbaldehyde (Pub-Chem4138738), 6-brouno-2-(3,4-dihydro-1H-isoquinolin-2-yl)quinoline-3-carbaldehyde (Pub-Chem 20983198), 2-(3,4-dihydro-1H-isoquinolin-2-yl)-6-ethylquinoline-3-carbaldehyde(PubChem 20983081)amd 2-{benzyl{methyl}mino|quinoline-3-carbaldehyde (PubChem 28951461) may be the starting point for further modification as a new type of nonpeptidic drug for malaria disease.

Keywords: Antimalarial; docking; falcipain-2; MD simulation; nonpeptidic; drug design; virtual screening; Plasmodium falciparum, CADD.

1. INTRODUCTION

Increasing resistance of malaria parasites to conventional antimalarial drugs is an essential factor contributing to the persistence of the disease as a significant health threat [1]. This burden of resistant malaria is directing many drug discovery scientists to search for new antimalarial drugs or alternative therapeutic options to contend with the problem of resistant malaria.

*Address correspondence to this author at the Department of Life Sciences, Dibrugarh University, Dibrugarh, Assam and Department of Agricultural Biotechnology, Assam Agricultural University, Johat, Assam, Tel: 8822890050; E-mail: trisha.rajgaru@gmail.com

1573-4099/20 \$65.00+.00

The Plasmodium falciparum cysteine proteases, also known as Falcipains, are involved in erythrocyte invasion, hydrolysis of host hemoglobin, and erythrocyte rupture. With the biochemical characterization of four Falcipains so far: FP2 (Falcipain-2) and FP3 (Falcipain-3) are mainly involved in hemoglobin degradation [2-5]. Therefore, they may be considered as potential antimalarial drug targets in the search for novel antimalarial therapeutic, which could fight against the burden of increasing resistance to available antimalarial drugs.

Several types of research combining synthesis and in silico approaches have been carried out in the past decade to discover and optimize inhibitors targeting parasite's proteas-

© 2020 Bentham Science Publisher

Name of the Teacher: Dr. Trisha Rajguru

Butto



Principal

Jorhat Kendriya Mahavidyalaya
Kenduguri, Jorhat-10

Dr. DulenSaikiaPrincipal

Pranjal DuttaCoordinator, IQAC



Affiliated by Dibrugarh University

List of Publications in SCOPUS enlisted Journals (2021-2022)



Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2021-2022)

Webology (ISSN: 1735-188X) Volume 18, Number 5, 2021

Impact Of COVID-19 Induced Lockdown On Research Activity: A Field Study

Sabina Begum¹, Trishna Deka²

¹Ph.D Research Scholar Department of Folklore Research, Gauhati University

²Ph.D Research Scholar Department of English, Cotton University

Abstract

It is almost a truism to state that COVID-19 pandemic has affected almost all the affairs of humankind all over the world. To be specific, these phenomena have also adversely affected the domain of research activity. Across the disciplines irrespective caste creed and gender some effects are general. And there are some specific issues per se and cannot be dismissed as a common view. This paper proposes to include if there is any particular outcome resulting from the pandemic and lockdown. The paper attempts a qualitative discussion on the basis of the interviews conducted for a few researchers across India. Finding incorporates a variety of responses received from the researchers. The discussions in the paper present both the unanimous and incoherent views of the respondents. This paper is a miniature portrayal and a stepping stone to further the research in the same context.

Keywords: COVID-19, lockdown, research activity, field work.

Introduction

On the onset of COVID-19 pandemic, mankind has come across a severely difficult time. Day today activity has come to a halt. Worldwide, phases of lockdown have been imposed. There is nothing to reiterate that specific socio-cultural and political issues break out as a consequence of the pandemic. When lockdown started, like any other field it also impacted thoroughly the teaching-learning situations. Traditional ways of teaching and learning in the classrooms have been interrupted in order to secure survival safety of the mankind. To some extent, many alternatives of digital platforms have sufficed yet foregrounding pros and cons. Creative and scientific mind of people have necessarily sought for alternatives to replicate the traditional classroom and school environment. Such a scenario extends to the domain of research activity also. Like the traditional classes, lockdown has intervened the activity of the researchers also. Basic everyday research plans and reading activities of the researchers have faced interruption inevitably. Lockdown has on the surface scene deprived the researchers of the library space in the respective institutions. Regular brainstorming conversations with peers and guides in the institutions have been scoped with a reorientation during this lockdown period as can be observed. The official research works like submission of a thesis or dissertation; Viva, pre-

1060

http://www.webology.org

Name of the Teacher: Sabina Begum

butto

Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2021-2022)

Contents lists available at ScienceDirect

Journal of Molecular Structure

journal homepage: www.elsevier.com/locate/molstr



Identification of promising inhibitors for Plasmodium haemoglobinase Falcipain-2, using virtual screening, molecular docking, and MD



Trisha Rajguru 3.5. Dipshikha Bora Mahendra Kumar Modi b.c.

- Department af Life Sciences, Dibrugorh University, Dibrugorh, Assem, India Department of Agricultural Biotechnology, Assem Agricultural University, Jorhat, Assam, India Department of Agricultural Biotechnology, Distributed Information Center(DIC), Assam Agricultural University, Jorhat, Assam, India

ARTICLE INFO

Bockground: Falcipain-2 (FP-2), the major haemoglobinase of the human malaria parasite Plusmodium Background: Falcipain-2 (FP-2), the major haemoglobinase of the human malama parasite Phinmodilum foliroparum is currently gaining clinical significance as a drug target of choice in combating malaria. But due to resistance of the malaria parasite against well-known available drugs, the chemotherapy of malaria has become more complex and challenging. Prior attempts to develop peptide-based drugs against them have been futile due to their susceptibility to degradation by host enzymes. Methods: Within this context, computational methods namely High Through-put Screening using PyRx Virtual Screening software, Molecular Decking by docking software Autodock followed by Molecular Dynamics Simulations and PCA by GROMACS simulation software were used to select, from a pool of candidate molecules in a molecular database a subset of commonster for exercitemental validation. One of the

namics simulations and PLA by GROMARCS simulation software were used to select, from a pool of can-didate molecules in a molecular database, a subset of compounds for experimental validation. One of the major goals is to increase the probabilities of identifying active compounds.

Results: We have reported a computer-aided design of four new nonopeptidic inhibitors against FP-2.

During the design, an initial virtual library of PubChem database was focused down to 800 drug-like compounds and finally, virtual screened and docked to identify four promising compounds which were further equilibriated by Molecular Dynamics Simulations.

Conclusion: These can be further analyzed in-depth to develop antimalarial drugs to treat resistant strains

© 2021 Elsevier B.V. All rights reserved.

Malaria is the world's most widespread protozoan infection, being responsible for more than 445, 000 annual deaths and 216 mil-lion new cases [1]. Among the malaria parasites, Plasmodium falciparum is the most prevalent and lethal.

Abbreviations: ADMET, Absorption, Distribution, Metabolisms, and Excretion foscisty: BA, Bonding Affinity: CADD, Computer Added Drug Design; FP, Falcipain;
2RDMACS, GROmingson Machine for Chemical Simulations; HBA, Hydrogen Bond Acputer HBD, Hydrogen Bond Dorner; ER, Einetic Energy; LINSS, LiNose Constraint
solver; MD, Molecular Dynamics; NIT, Number of Purticles, Persoure, & Absolute
femperature; NIT, Number of Particles, Volume, & Absolute Temperature; PDR, Posein Data Bank; PE, Potential Energy; Pf, Humonform Julipperare; PME, Particle Mechi
Nadif; RQ, Endino of Gyration; SMSD, Boot Mean Square Deviation; RMSDEG, Root
Mean Square Distance; RMSE, Boot Mean Square Deviation; RMSDEG, theory
dean Square Distance; RMSE, Boot Mean Square Proquency; SPCJE, Single Point
Dange/Extended; uff, Universal Force Field; PCA, Principal Component Analysis.

E-mail address: trisba.ragunus@gmail.com (T. Raggaru).

0022-2860/C 2021 Elsevier B.V. All rights reserved.

Drug discovery programs launched by the Medicines for Malaria Venture and other product-development partnerships have culminated in the development of promising new antimalarial com-pounds but due to the propensity of the parasite to become drug-resistant, the need for new antimalarial chemotypes will persist until the human-pathogenic Plasmodium spp are eventually erad-icated [2]. Thus it is pivotal to maintain early phase drug discovery to prevent the antimalarial drug development pipeline from drain-

Rational drug discovery is based on the screening of large chemical libraries - either virtually or in high-throughput screening against a given target enzyme of the parasite. A persistent bottle-neck for target-based approaches is the identification of a suitable drug target in the first place. This target enzyme should be essen-tial for the survival of the parasite and sufficiently different from its closest counterpart in the human host to be inhibited selec-

Cysteine proteases of P. falciparum represent one such attractive antiplasmodial drug target due to their essential functions for the

Name of the Teacher: Dr. Trisha Rajguru

Principal Kenduguri, Jorhat-10

> Dr. DulenSaikia Principal

Pranjal Dutta Coordinator, IQAC



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2021-2022)

ISSN: 0974-5823

International Journal of Mechanical Engineering

EMOTIONAL INTELLIGENCE OF HIGHER SECONDARY STUDENTS –A STUDY IN KAMRUP DISTRICT.

Dr. Pallabi Mali

Assistant Professor Department of Education Jorhat Kendriya Mahavidyalaya

Abstract :

The present study has been undertaken in order to study Emotional Intelligence of higher secondary students of Kamrup district. For this purpose a representative sample of 600 higher secondary students have been selected by using the stratified random sampling technique. Normative survey method has been used. This study has been undertaken in order to find out the Emotional Intelligence of higher secondary students. Emotional Intelligence Inventory was used to collect the data. The study implies that higher secondary students have lack of knowledge on the concept of emotional intelligence.

Key words: Emotional intelligence, higher secondary students.

Emotional intelligence is the ability to understand, use, and manage your own emotions in positive ways to relieve stress, communicate effectively, empathize with others, overcome challenges and defuse conflict. We all know the word IQ and many times we judge our students with the score of their I.Q. It is also said that the person who scores high in IQ, test can become success in educational and occupational carrier. But in today's world another word become more popular and that is E.Q. The researches done by Dr. Deniyal Golman prove that the person who score high in E.Q become success in every field of life. Emotions are not the traits. They are feelings towards someone or something. A person feel many emotions during his/her life, which can either positive or negative. It is necessary for anyone to control the emotions as well as to show the emotions in right way and on right time. With all this thought the researcher here tried to know the emotional intelligence of higher secondary students.

NEED AND SIGNIFICANCE OF THE STUDY :--

In today's complex world the rate of depression, anxiety has skyrocketed over last few decades. These are horrible life destroying condition. To survive in this present world and to overcome from the problems of depression, anxiety etc. the right choice of emotional intelligence is very important. Thus, the investigator select this area as a research problem.

OBJECTIVES OF THE STUDY :--

- To measure emotional intelligence of higher secondary students.

 To check whether there is any significant difference in emotional intelligence of higher secondary students from urban
- and rural area.
- To check whether there is any significant difference in emotional intelligence of the higher secondary students from joint and nuclear family

HYPOTHESES OF THE STUDY :--

Ho1: There is no significant difference in emotional intelligence of higher secondary students of urban and Rural areas.

Ho2: There is no significant difference in emotional intelligence of higher secondary students from Joint and nuclear family.

DELIMITATIONS OF THE STUDY :--

The study is delimited to some selected Govt., Private and provincialised higher secondary schools and colleges of Kamrup district of Assam. The study is confined to class XII students of Govt., Private and provincialized higher secondary schools and colleges of Kamrup district which comprises rural and urban area. It includes higher secondary students from joint and nuclear

Copyrights @Kalahari Journals

Vol. 7 (Special Issue, Jan.-Feb. 2022)

International Journal of Mechanical Engineering 500

Name of the Teacher: Dr. Pallabi Mali

Kenduguri, Jorhat-10

Dr. DulenSaikia Principal

Pranjal Dutta Coordinator, IQAC



Affiliated by Dibrugarh University

Publication in SCOPUS enlisted Journal (2021-2022)

Heat and Mass Transfer (2023) 59:299–308 https://doi.org/10.1007/s00231-022-03244-9

ORIGINAL ARTICLE



Stripping of carbon dioxide from ethanol solution of PAMAM dendrimer using hollow Fibre membrane contactor

Panchali Bharali¹ · Indumoni Das¹ · Hrishikesh Sarmah¹ · Swapnali Hazarika¹

Received: 13 December 2021 / Accepted: 5 May 2022 / Published online: 30 June 2022 © The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature 2022

Abstract

Separation of carbon dioxide was studied in microporous fiber (HF) membranes using the ethanol solution of PAMAM dendrimers. PAMAM dendrimers (Generations 0-4) are embedded in three membrane contactors called polyvinylidene fluoride (PVDF), polyvinyl chloride (PVC) and polypropylene (PP) separately and responsive. With higher flow rates in the dendrimer fluid, a faster chemical reaction occurs that can accelerate the transfer of carbon dioxide to the alcoholic solution. Flow rate and efficiency increase with increasing fluid flow rates. The emission rate was controlled by the distribution in the liquid section at moderate flow rates. The maximum acquisition flow is achieved at a flow rate in liquids and gases of approximately 0.5 mL / s. Empty fiber membranes can replace columns full of carbon dioxide removal from industrial packing power applications, greater connections between the shell side and the tube side with greater driving force, ease of sealing and easy retrieval, less expensive and smaller space requirement compared to other separation techniques.

Nomenclature List with SI Units

Hollow fiber mass transfer coefficient	$Sh_L = K_L^* \frac{d_e}{D_L}$	
	$1.62 \left(\frac{d_1^2}{LD} v_{absorbent\ tube}\right)^{0}$	33 , m/s
Fiber diameter	d ₁ ,	m
Diffusion coefficient		
of liquid	D_L ,	m^2/s
Inner fiber diameter	d _e ,	m
Width of the membrane		
module	D,	m
Fiber length	L,	m
Velocity of the suction		
tube	Vabsorbent tuber	m/s
	$V_{absorbent tube}$ $K_L = \beta K_L^*$	
Mass transfer coefficient	$\left(\beta = \frac{J_{chem}}{J_{phy}}\right)$	m/s
Mass transfer constant of		
chemical absorption	Ι.	

Swapnali Hazarika shrrljt@yahoo.com

Chemical Engineering Group, Engineering Sciences & Technology Division, CSIR-North East Institute of Science and Technology, Jorhat, 785 006 Assam, India

Mass transfer constant of		
physical diffusion	J_{phy}	
Transfer coefficient	$K_m = D_{gas-membrane}$	
of membrane	Or D _{eas-shell}	m/s
	$\frac{D_{\text{gas-shell}}}{\delta \times \tau} \times \epsilon$	
Membrane mass		
transfer coefficient	D _{gas-membrane} ,	m/s
Effective diffusion coefficient	ıt .	
inside the shell	D _{gas-shell} ,	m^2/s
Porosity of the membrane	ε,	
Thickness of the membrane	δ,	
Tortuosity of the membrane		
Gas mass transfer coefficient	$^{\dagger} Sh_g = k_g \frac{d_e}{D_{gas-shell}}$,	m/s
	$= 5.85(1 - \varphi) \frac{d_e}{L}$	
	$Re_{g}^{0.6}Sc_{g}^{0.33}$	
Outer diameter of the fiber	d _e ,	m
Packing density	φ	
Length of the membrane	L,	m
Sherwood number	Sh,	
Revnolds number	Re.	

Content courtesy of Springer Nature, terms of use apply. Rights reserved

Name of the Teacher: Dr. Panchali Bharali

Butto

Esta - 1901 Done

Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

List of publications in UGC CARE-LIST Journals (2017-2022)



Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya
Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

List of publications in UGC CARE-LIST Journals (2017-2018)



Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya
Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in UGC CARE-LIST Journals (2017-2018)

Current Trends in Pharmaceutical Research 2018, 5(1):24-33 ISSN 2310-4820

© Dibrugarh University

www.dibru.ac.in/ctpr

Molecular Dynamics Simulation of *P.falciparum* Haemoglobinase Falcipain 2, in its apo and holo structural state

T Rajguru^{1*}, D S Bora², M K Modi ³

¹Research Scholar, Department of Life Sciences, Dibrugarh University, Dibrugarh, Assam

² Professor, Department of Life Sciences, Dibrugarh University, Dibrugarh, Assam
³ Professor, Department of Agricultural Biotechnology, AAU, Jorhat, Assam

Abstract

Haemoglobinase in the food vacuole of the trophozoite stage of the malaria parasite Plasmodium falciparum are potent target for antimalarial drug discovery. In particular, falcipain 2(FP2), a cysteine protease, present in abundance in the food vacuole of the parasite is shown to be inhibited by a lead compound E64. We have performed Molecular Dynamics (MD) simulation studies of the apo structure and the referred holo structure of FP2 using Gromacs software. Structural and dynamic differences in the apo and holo structures were analyzed using pairwise distance distributions. The results were analyzed using the XmGrace package. These analyses reveal lesser backbone deviations in holo state (3.4) than that in apo state (0.25-0.35) A. Even the graphs of MD trajectories of holo state of FP2 showed decrease order of Radii of Gyration. Thus, it can be inferred that binding of the ligand leads to a more compact and stable conformations of the protein-ligand complex inducing more effective inhibition.

Key Words: Molecular Dynamics, Falcipain, RMSD, P.falciparum, apo and holo enzyme.

Introduction:

Despite important gains in some area, malaria remains to be one of the world's leading killer infectious diseases affecting around 200–300 million people and causing approximately 430,000 deaths every year globally [1]. Widespread drug resistance increasingly limits the effectiveness of available therapies. New targets are required for the development of novel classes of antimalarial drugs [2]. Trophozoite of *P. falciparum* hydrolyze hemoglobin in an acidic food vacuole to generate free amino acids essential for parasite survival [3, 4]. Among major haemoglobinase of *P. falciparum*, Falcipain-2 (FP-2) papain-family (C1A) cysteine

*Email: trisha.rajguru@gmail.com

Name of the Teacher: Dr. Trisha Rajguru

butto

Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

List of publications in UGC CARE-LIST Journals (2018-2019)



Pranjal DuttaCoordinator, IQAC



Principal

Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in UGC CARE-LIST Journal (2018-2019)

© 2018 JETIR December 2018, Volume 5, Issue 12

EMOTIONAL INTELLIGENCE AND LEADERSHIP QUALITIES AMONG POST-GRADUATE STUDENTS: A STUDY WITH SPECIAL REFERENCE TO STUDENTS OF MAHAPURUSHA SRIMANTA SANKARADEVA VISWAVIDYALAYA

Assistant Professor
Department of Education
Mahapurusha Srimanta Sankaradeva Viswavidyalaya, Nagaon Assam.

Abstract: Emotional Intelligence and Leadership Qualities are two important elements that must be cultivated among every individual in order to live a healthy social life. This study tries to find out the Level of Emotional Intelligence among the Post -Graduate students of a particular university. The study also tries to find out the relationship between Emotional Intelligence and Leadership qualities among the students undertaken in the study. With the help of the study the investigator is able to get an idea about the Emotional Intelligence Level of the respondents of the study. The study also provides guidelines as how to develop Emotional Intelligence and Leadership qualities among students.

Key Words: Emotional Students, Leadership Qualities, Post-Graduate Students.

The term Emotional Intelligence was first coined by Peter Salovey and John D.Mayer in the year 1990. They describe "Emotional Intelligence " as ' a form of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and action." From the definition it can be said that the ability to control and helperge governments and also the congritute deliver the right kind of amotion is the right limit of and balance one's emotions and also the capacity to deliver the right kind of emotion in the right situation may be termed as Emotional Intelligence.

According to Daniel Goleman, an American Psychologist who helped to popularize emotional

intelligence, there are five key elements to it:

- 1. Self- Awareness.
- Self-Regulation. Motivation.
- 4. Empathy
- The above mentioned element that contributes to Emotional Intelligence can be discussed in details as

Self- Awareness: Being aware of oneself means to be aware of one's positivity and ones weakness. It helps a person to measure his or her abilities to deal a particular situation. Self- awareness is one of the

important elements of Emotionally Intelligent person.

Self- Regulation: Self- regulation is the one of the key area of personal skill that contribute to Emotional Intelligence. It is the ability to control and manage our emotions, our resources and abilities. Self- regulation is about how we control our actions, feelings and our deeds.

JETIR1812B27 | Journal of Emerging Technologies and Innovative Research (JETIR) www.jetir.org

Name of the Teacher: Purabi Kalita

Kenduguri, Jorhat-10

Dr. DulenSaikia Principal

Pranjal Dutta Coordinator, IQAC



Affiliated by Dibrugarh University

List of publications in UGC CARE-LIST Journals (2019-2020)



Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in UGC CARE-LIST Journal (2019-2020)

ISSN: 2454-3837 Vol. VI, Issue-I, Page no-123-129

সামাজিক সংকটৰ পৰিপ্ৰেক্ষিতত সমাজ দায়বদ্ধ বুদ্ধিজীৱীৰ ভূমিকা

ক্লেৰিক ইবছেনৰ An enemy of the people নাটকৰ অসমীয়া অনুবাদ গণশত্ৰু নাটকৰ আলোকত)

চাবিনা বেগম

গৱেষক, লোক সংস্কৃতি গৱেষণা বিভাগ গুৱাহাটী বিশ্ববিদ্যালয়

সংক্ষিপ্ৰসাৰ ঃ

নৰৱেৰ ভাষাৰ দুৰৱস্থাৰ সময়ত নৰবজিম ভাষাত সাহিত্য ৰচনা কৰা নাট্যকাৰ হেনৰিক ইবচেন এজন সমাজ দায়বদ্ধ লেখক। বাস্তৱধৰ্মী তথা সমস্যা প্ৰধান নাটক ৰচনা কৰা ইবচেনৰ এখন উল্লেখযোগ্য নাটক হ'ল — An Enemy of the People এই নাটকখনক গণশক্ৰ নাম দি অসমীয়া সাহিত্যিক শশী শৰ্মাই অনুবাদ কৰিছে। নাট্যকাৰে ডাক্তৰ টমাছ স্টকমেনক এজন সমাজ দায়বদ্ধ নাগৰিক ৰূপে প্ৰতিপন্ন কৰিবলৈ প্ৰয়াস কৰিছে নাটকখনত। জনগণৰ স্বাৰ্থৰ হকে কাম কৰিবলৈ গৈ নানা বিপদ-আপদ লাঞ্জনা মূৰ পাতিও একক ভাৱে সংক্যা গৰিষ্ঠতাৰ বিপক্ষে মাত মাতি নিজৰ সাহস আৰু

দৃঢ়তা কি দৰে প্ৰদৰ্শন কৰিছে বিৰূপ পৰিস্থিতিতো কিদৰে নিজৰ স্থিতিত অটল থাকি সমাজ দায়বন্ধ বৃদ্ধিজীৱীৰ দায়িত্ব পালন কৰিছে, দিশবোৰেই গৱেষণা উক্ত গ আলোচনা কৰা হৈছে বিশ্লেষণাত্মক পদ্ধতিৰ সহায়ত

সূচক শব্দ ঃ সংখ্যাগৰিষ্ঠ, স্বাধীন, বীজাণু, পানী, টমাছ ষ্টকমেন, বুদ্ধিজীৱী

০.০ অৱতৰণিকা ঃ

মানুহ সমাজপ্ৰিয় জীৱ। সামাজিক ক্ৰমবিকাশ ঘটাৰ পিছৰে পৰা এখন সমাজত বিভিন্ন শ্ৰেণীৰ বিভিন্ন মানসিকতাৰ মানুহে একেলগে বাস কৰে। মানুহৰ জীৱন বিভিন্ন সমস্যাৰে ভাৰাক্ৰান্ত। এনে বিভিন্ন সমস্যাৰে জৰ্জৰিত সমাজৰ সংকটকালত বৌদ্ধিক পৰামৰ্শ দানৰ দ্বাৰা সমাজৰ কল্যাণ কামনা কৰা দিশ নিৰ্দেশকাৰী পণ্ডিত সকলক বুদ্ধিজীৱী বুলি কোৱা

Sampriti, Vol. VI, Issue-I+ 123

Name of the Teacher: Sabina Begum

Pranjal Dutta Coordinator, IQAC



Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in UGC CARE-LIST Journal (2019-2020)



OPEN ACCESS Freely available online

Research Article

Selective Permeation of CO₂ through Amine Bearing Facilitated Transport Membranes

Panchali Bharali, Somiron Borthakur, Swapnali Hazarika*

Chemical Engineering Group, Engineering Science and Technology Division CSIR-North East, Institute of Science and Technology, Jorhat, 785006, Assam, India

ABSTRACT

The membranes containing facilitated transport groups for Carbon dioxide had been prepared by immobilizing PAMAM (Polyamidoamine) (Generations 0, 1, 2, 3, 4) dendrimer into the polymeric membranes. The dendrimer incorporated membranes were prepared by the phase inversion method. The permeation abilities of the membranes for pure CO_2 and binary mixture of CO_2/N_2 were calculated. The effects of feed gas pressure on the permeability of the membranes were studied. The results of the permeation experiments showed that PAMAM dendrimer (Generation 4) composite membrane possessed a better CO_2 permeability and selectivity over N_2 than the any other membranes composite with other generations of dendrimer (Generations 0, 1, 2, 3).

Keywords: Facilitated transport; Membranes; PAMAM dendrimer; Phase Inversion

INTRODUCTION

The increase in the concentration of various hazardous gases in the atmosphere results in numerous environmental problems like global warming, greenhouse effect etc. A large number of research studies have been carried out on the process of capturing and storage of CO₂ from gaseous mixture [1,2]. Membranes and membrane processes are not a recent invention. The preparation of synthetic membrane and their utilization on a large industrial scale however are a more recent development which has rapidly gained a substantial importance due to the large number of practical application. Now a days; membranes are used to produce potable water from sea to clean industrial effluent and recover valuable constituent, purify or fractionate macromolecular mixture in food and drug industries and to separate gas and vapours. They are also key component in energy conversion system and in artificial organs and drug delivery devices. Membrane technology is one of the most interesting technologies for its applications in various fields including Biological applications [3-6]. Lin et al. [5] in his research study reported the substrate selectivity of Lysophospholipid Transporter (LpIT) involved in Membrane Phospholipids remodelling in Escherichia coli. Tong et al. [6] carried out their research study on the structural insight into substrate selection and catalysis of Lipid Phosphate Phosphates in the cell membrane. Besides its applications in different fields membrane

separation technology can be used for the gas separation purpose as it is one of the cost effective process and easy to operate. Because of high permeability and selectivity, the facilitated transport membranes are very useful for gas separation applications. There are various kinds of membranes containing facilitated transport groups, such as ion-exchange membrane, fixed carrier membrane and liquid membranes etc. [1]. Because of the higher permeability and selectivity fixed carrier membranes are more suitable for gas separation. A few researchers have been reported about the fixed carrier membranes for CO₂ separation [2,7]. Works on gas separation applications using membranes composite with PAMAM dendrimer are limited. However, PAMAM dendrimer immobilized liquid membranes are reported by distinguished researchers [8,9]. In this research paper, we have been emphasized on gas separation behaviour of PAMAM dendrimer (G-O, G-1, G-2, G-3, G-4) composite solid membranes due to its stability and regeneration. The dendrimer composite membranes selectively permeated CO₂ because of the reaction between -NH₂ and CO₂ producing a carbamate ion and a protonated base [8].

Thus for separation of ${\rm CO}_2$ molecules the reactions occurred as follows:

Bicarbamate: CO₂+H₂O+R-NH₂=HCO₃ (Bicarbonate)+R-NH⁺ Carbamate: CO₂+2(R-NH₃)=R-NHCOO (Carbamate)+R-NH₃⁺

Correspondence to: Swapnali Hazarika, Chemical Engineering Group, Engineering Science and Technology Division CSIR-North East, Institute of Science and Technology, Jorhat, 785006, Assam, India, Fax: +913762370011; Tel: +913762370012; E-mail: shrrljt@yahoo.com

Received: May 19, 2020; Accepted: June 04, 2020; Published: June 11, 2020

Citation: Bharali P, Borthakur S, Hazarika S (2020) Selective Permeation of CO₂ through Amine Bearing Facilitated Transport Membranes. J Membra Sci Technol 10:203. doi: 10.35248/2155-9589.2020.10.203

Copyright: © 2020 Bharali P, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

J Membr Sci Technol, Vol. 10 Iss. 2 No: 203

1

Name of the Teacher: Dr. Panchali Bharali

butto

Pranjal Dutta
Coordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya
Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

List of publications in UGC CARE-LIST Journals (2020-2021)







Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in UGC CARE-LIST Journal (2020-2021)

Journal of Interdisciplinary Cycle Research

ISSN NO: 0022-1945

INNOVATIONS FOR NEW NORMAL IN THE FIELD OF HIGHER EDUCATION

Dr. Pallabi Mali

Assistant Professor, Department of Education Jorhat Kendriya Mahavidyalaya E- mail: pallabimalibarman353@gmail.com

<u>Abstract:</u>- Innovation means introduce something new or different ideas. It is the process of making changes, large and small, radical and incremental, to products, processes and services that result in the introduction of something new to gain more effective result. In modern meaning innovation is a new idea, creative thought, new imaginations in form of device or method. It is often also viewed as the application of better solutions that meet new requirements.

Higher education is defined as the education which is obtained after completing 12 years of schooling or equivalent. It provides people with an opportunity to reflect on the critical, social, economic, cultural, moral and spiritual issues facing humanity. It contributes of national development through dissemination of specialized knowledge and skill. Higher education aims to meet the socio cultural and developmental needs of a country. It provides an opportunity for individual to develop their potential. It fulfills the needs for high level manpower in a society. It also aims for cultural and material development.

The present pandemic of covid-19 changed the whole world in all aspects of life. School/ college and all educational Institutions are remained closed from about four month. The students are out of track from their educational life. The main objectives of this paper is study about the innovations for new normal to cope up with the present situation specially in the field of higher education. The investigator also try to find out the problems associated with innovation for new normal and try to provide suggestive measures.

Key words: innovations, new normal, higher education, online teaching-learning, pandemic.

Volume XII, Issue X, October/2020

Page No:287

Name of the Teacher: Dr. Pallabi Mali

butto

Pranjal Dutta
Coordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya
Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in UGC CARE-LIST Journal (2020-2021)

Journal of Interdisciplinary Cycle Research

ISSN NO: 0022-1945

MID-DAY MEAL AND QUALITY IN PRIMARY EDUCATION: A STUDY IN EAST GUWAHATI AREA OF KAMRUP (METRO) DISTRICT

Dr. Pallabi Mali.

Assistum Professor, Department of Education

Jorha Kendriya Mahavidyalaya, Assam

F. mail: nallahimaliharman353@gmail.com

Abstroct: The main purpose of the present study was to study the mid-day meal and quality in primary education. The study was conducted on a sample of 15 Head master/Principaland 90 teachers of schools from East Guwahati area of Kamrup (metro) district. A standardized questionnaire made by the investigator was used to collect data. Primary and secondary data were used for the study. The study indicate that mid-day meal has a great impact on improving quality of primary education. It helps in enrollment of the students. MDMS also increased the attendance of the students. Akshaya Patra plays a very important role to provide fresh, hygienic meal to the students.

Key words: primary education, mid-day meal, quality, enrollment, hygiene.

Introduction

Primary education is the initial stage of education. This stage of education is the most important educational stage of one's life which covers the age group of 6-14 years. The aim of primary education is to create, establish and offer opportunities to all children regarding of age, gender or community to achieve a balance cultural, emotional, intellectual and physical skills according to the best of their abilities. Sarva Siksha Abhiyan (SSA) is implemented as India's main

Volume XII, Issue XI, November/2020

Page No:973

Name of the Teacher: Dr. Pallabi Mali

butto

Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publications in UGC CARE-LIST Journal (2020-2021)



Name of the Teacher: Dr. Ananta Tamuli



Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in UGC CARE-LIST Journal (2020-2021)



Name of the Teacher: Dr. Ananta Tamuli



Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publications in UGC CARE-LIST Journal (2020-2021)

Sampriti

Vol : Vol.-VII, Issue-1, March 2021

ISSN: 2454-3837 Pages: 217-222

> সময়ৰ পৰিৱৰ্তনৰ প্ৰভাৱত হীৰা সম্প্ৰদায়ৰ লোকাচাৰ আৰু হীৰা মৃৎ শিল্প ঃ এক বিশ্লেষণাত্মক অধ্যয়ন

> > চাবিনা বেগম

গৱেষক, লোক সংস্কৃতি গৱেষণা বিভাগ, গুৱাহাটী বিশ্ববিদ্যালয়

সংক্ৰিপ্তসাৰ

অসমত মৃৎ শিল্পক জীবিকা হিচাপে বাচনি কৰি জীবন নিৰ্বাহ কৰা মৃৎ শিল্পীসকলক প্রধানকৈ দুটা ভাগত ভাগ কৰিব পাৰি। কুমাৰ আৰু হীৰা সম্প্রদায়। এই হীৰা সম্প্রদায়টোৰ বংশ পৰিচয় সন্দর্ভত পোৱা তথ্য অনুসৰি এই সম্প্রদায়টো হীৰা দেবী নামৰ এগৰাকী ব্রাহ্মাণীৰ পৰা সৃষ্টি হোৱা। ব্রাহ্মাণ কোলৰ লোক হ'লেও মৃৎ শিল্পক জীবিকাৰ পথ হিচাপে বাচনি কৰাত এই হীৰা সম্প্রদায়টো নীচ কুলৰ বুলি বিবেচিত হ'ল। পোচাক, পৰিচ্ছদ, খাদ্যভাস, কলা-কৃষ্টি সকলোতে ইন্দো- আর্যৰ বৈশিষ্ট্য দাঙি ধৰা এই হীৰা সম্প্রদায়টোৰ পূজা-পার্বন, মৃতকৰ সকাম, বিবাহ আদি কার্য সম্প্রদা কৰিবলৈ হীৰা সমাজত পৃথক পুৰোহিত থাকে। হীৰাসকলে পালন কৰা শিল্পকেন্দ্রিক এক সামাজিক অনুষ্ঠান হ'ল— 'পুতুলী বিয়া'। জাতি-ভেদ প্রথাৰ পৰা পৰিত্রাণ বিচাৰি বর্তমান সময়ত এক শ্রেণীৰ হীৰা লোকে শংকৰদেবৰ ঘাৰা প্রবর্তিত একশবণ নামধর্মৰ পত্নাত অন্তর্ভুক্ত হোৱাও পৰিলক্ষিত হৈছে। কামৰূপ, নলবাৰী, বৰপেটা, নগাওঁ, মৰিগাঁওকৈ আদি কৰি অসমৰ বিভিন্ন জিলাত এই সম্প্রদায়টোৱে গাওঁ পাতি বসবাস কৰে। এই শিল্পীসকলে মৃৎ শিল্পৰ নির্মাণ কার্যত হীৰা নামৰ এক গ সম্পন্ন মাটিৰ ব্যৱহাৰ কৰে। অসমৰ হন্তশিল্পৰ পথাৰখনলৈ যথেষ্ট অবিহণা বা এই শিল্পসকল বজাৰত ধাতৱ বাচন-বর্তনৰ চাহিলা বৃদ্ধিৰ ফলত বর্তমান

Sampriti, Vol. VII, Issue-I+ 217

Name of the Teacher: Sabina Begum

butto

Pranjal DuttaCoordinator, IQAC

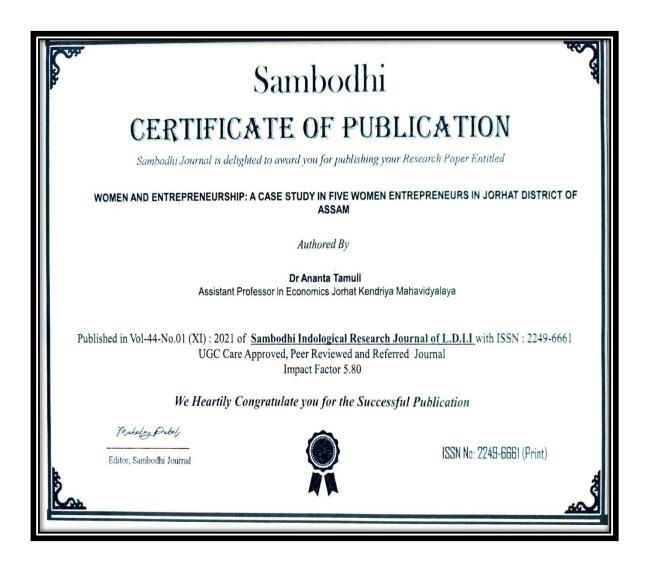


Principal Jorhat Kendriya Mahavidyalaya Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

publication in UGC CARE-LIST Journal (2020-2021)



Name of the Teacher: Dr. Ananta Tamuli

butto

Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

publication in UGC CARE-LIST Journal (2020-2021)



An UGC-CARE Approved Group II Journal

ISSN NO: 1869-9391 / Website: www.gisscience.net / Email: editorgsjournal@gmail.com

Certificate of Publication

Paper ID: GSJ/4178 This is to certify that the paper titled

Role of Women Rights Institutions in the Protection and Promotion of Human Rights: A Study based on Two Women Rights Institutions of Assam

Authored by

Dr Ananta Tamuli

From

Jorhat Kendriya Mahavidyalaya, Assam.

Has been published in

GIS SCIENCE JOURNAL Volume 8, Issue 6, June 2021.









Name of the Teacher: Dr. Ananta Tamuli

butto

Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in UGC CARE-LIST Journal (2020-2021)

Dogo Rangsang Research Journal

TEACHING APTITUDE OF ELEMENTARY SCHOOL TEACHERS OF DIBRUGARH UGC Care Group I Journal

Mrs. Purabi Kalita, Assistant Professor, Department of Education. Mahapurusha Srimanta Sankaradeva Viswavidyalaya, Nagaon, Assam.

1.0 Introduction:

It is very appropriately said that "The destiny of a country is being shaped by its teachers." It is seen that in every society the teachers have been playing a vital role in shaping the destiny of the society and bringing peace and prosperity to the society. In Indian culture from ancient leader of the society and everybody seeks his guidance. As such the teacher has lots of responsibility to perform.

A teacher must be an adorable person, and he must be respected by everyone. He must act as a pathfinder to the society, and must be able to transform the culture and tradition of the society from one generation to the other. He must be a person of values and inspiration. The teacher is a social leader and therefore he has to deliver his social responsibilities in an appropriate manner. He has to recognize that by educating his students he is building up the future of the nation.

Teaching is considered as one of the noblest profession. It is termed as the profession Teaching is considered as one of the noblest profession. It is termed as the profession of the prophets. Any person serving in a particular profession must have aptitude and competence to perform his respective task. In simple words, teaching aptitude means the interest of a teacher in teaching. However before undertaking the task of teaching, the teacher must fulfill the criteria of a good teacher. Only a good academic qualification cannot make a good teacher until he or she posses their desire to derive pleasure and satisfaction from his teaching. The word teaching aptitude usually means ability to dedicate in teaching in an effective and accepted manner. Importance of studying teaching aptitude:

Teacher is the main pillar in the process of education. Only an efficient teacher can develop his pupils to be better human being. With the increasing demand of education, nowadays it is seen that many people have entered into the teaching profession. And it has become necessary to check whether those people engaged in the task of teaching really posses all the skills of a good teacher. The teaching aptitude of a teacher is therefore an inseparable part of a teacher's teaching profession. The extent to which a teacher shall be able to perform in his task reflects his teaching aptitude. To be a successful teacher it is important that a teacher develops the correct teaching aptitude.

Elementary Education is considered as the foundation of a child's entire It can be regarded as the building block of a child's entire future. It is in this stage that the child learns the three 'R's of learning and exposes the child to the outer world. Therefore an Elementary level teacher has lots of responsibility to deliver. The Elementary level teachers must try to fulfill the objectives of elementary education such as bringing about overall development of the child which includes physical, mental, moral, emotional, aesthetic and spiritual development.

1.03 Statement of the problem:

The problem which has been undertaken for the study is as under:

'Teaching Aptitude of Elementary School Teachers of Dibrugarh District, Assam'

1.04 Significance of the study:

Teaching is a noble profession and the teachers are the most important person in the field of The responsibility of imparting the right kind of education to the pupils entirely depends on the teacher. A teacher can never compromise with his duty, so it is important that the teacher develop the correct teaching aptitude to bring out the best. The Elementary level is considered as the base for a student's formal education. The kind of education acquired at the Elementary level forms the foundation of an individual's entire formal journey of education. Hence it is important that the teachers of the Elementary level must be skilled and competent

Copyright @ 2020 Authors

Name of the Teacher: Purabi Kalita

Kenduguri, Jorhat-10

Dr. DulenSaikia Principal

Pranjal Dutta Coordinator, IQAC



Affiliated by Dibrugarh University

List of Publications in UGC CARE-LIST Journals (2021-2022)



Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in UGC CARE-LIST Journal (2021-2022)



Name of the Teacher: Beauty Baruah

butto

Pranjal DuttaCoordinator, IQAC

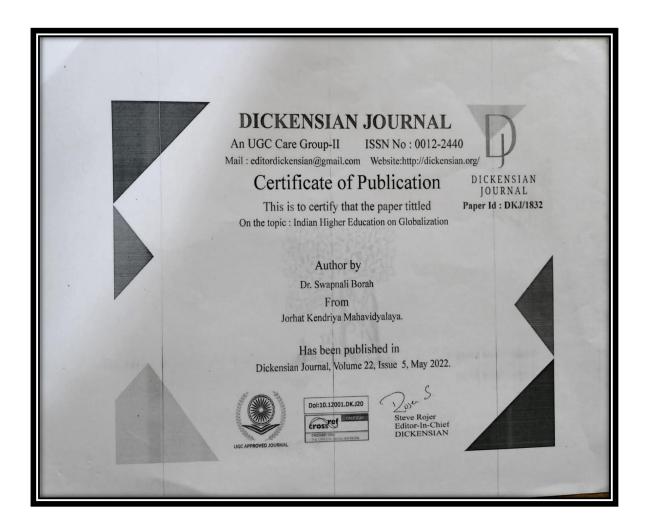


Principal Jorhat Kendriya Mahavidyalaya Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in UGC CARE-LIST Journal (2021-2022)



Name of the Teacher: Dr. Swapnali Borah

butto

Pranjal DuttaCoordinator, IQAC



Principal

Jorhat Kendriya Mahavidyalaya

Kenduguri, Jorhat-10



Affiliated by Dibrugarh University

Publication in UGC CARE-LIST Journal (2021-2022)

IJCRT.ORG

ISSN: 2320-2882



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Quest of Self-Discovery: A Psychoanalytical Study of Christ Gardner's novel- The PURSUIT of HAPPYNESS

CINTHIYA BORAH

Designation

English Teacher

New Look Academy, Sivasagar, Assam, India

Abstract

Psychoanalysis is one of the modern theories that can be applied to modern English literature texts. Literature is the product of human thoughts, which talks about human life and their behavior in various circumstances expressed through the author's feelings inspired by reality and imagination. It displays an accurate picture of a society in a fictional form. Literature deals with human behaviors, expressions, thoughts, and motivations. The behavior of human beings is firmly related to psychological aspects such as anxiety, phobia, depression, frustration, etc. However, it's a behavioral pattern; the human mind can be identified seemed to be the father of psychoanalysis because his revolutionary remarks frazzled the established views about childhood, sexuality, and femininity. He disclosed the darkest tunnels and revealed the mysteries of the human mind-Freud divided our consciousness into different parts. The theory is made divisions regarded as a theory of personality organization and personality dynamics that guides psychoanalysis. It is known that the closest connection between literature and psychoanalysis has always been deployed by the academic field of literary criticism or literary theory. Among the critical approaches to literature, psychoanalysis has been one of the most controversial and, for many readers, the least appreciated. The proposed research work titled "Quest of Self-Discovery: A Psychoanalytical Study of Christ Gardner's novel-The PURSUIT of HAPPYNESS" explores where psychoanalysis has been used and how it has changed his ways of thinking in different directions.

Keywords: psychoanalysis, mental issues, anxiety, depression, motivation, discrimination

IJCRT2210082 International Journal of Creative Research Thoughts (IJCRT) www.ijcrt.org | a713

Name of the Teacher: Cinthiya Borah

Kenduguri, Jorhat-10

Dr. DulenSaikia Principal

Pranjal Dutta Coordinator, IQAC