

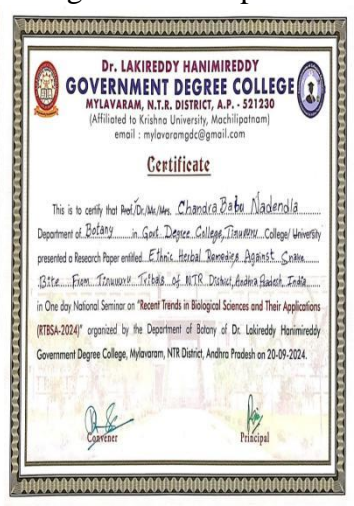
Editorial Board



Contents	PageNo
Brief Account of events	2
Photo Gallery	2-16
News Paper Clippings	

NEWSLETTE SEPTEMBER, 2024

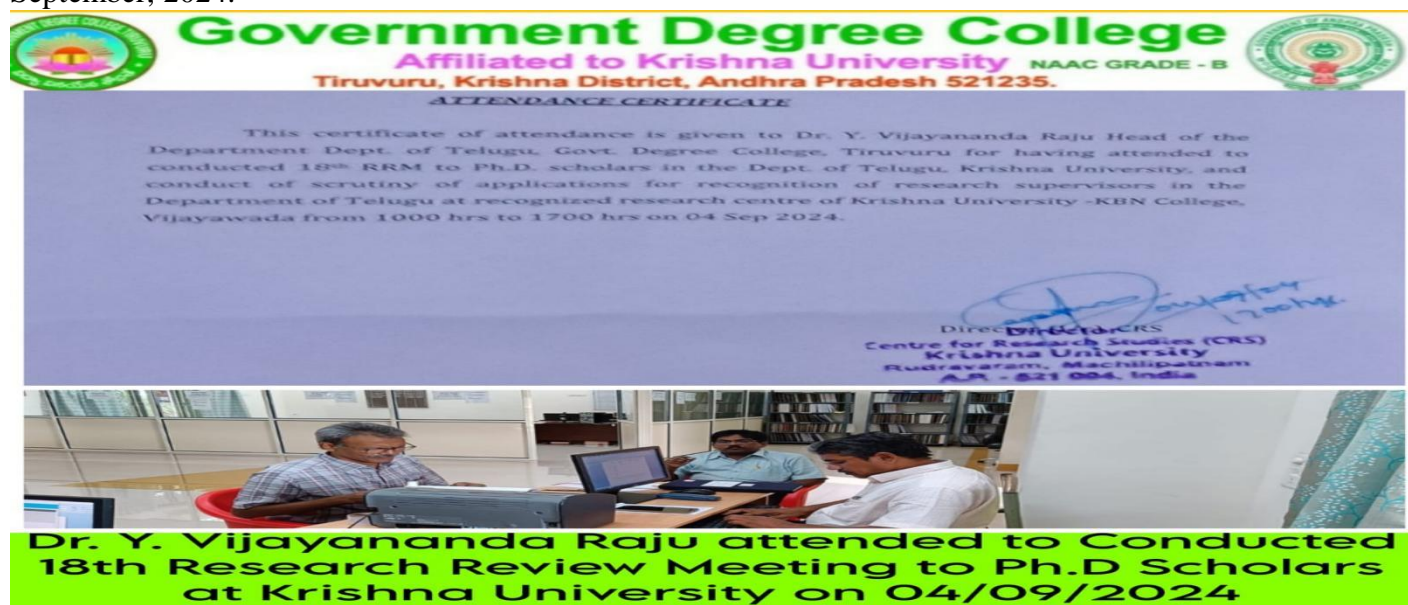
Smt. V. Sailaja, Lecturer in Chemistry, Dr. N. Chandra Babu, Lecturer in Botany, Dr. R. Praveen Dathu, Lecturer in Zoology attended One day National Seminar at GDC, Mylavaram on 20-9-2024. They gained wonderful insights from experts and Industry leaders through this seminar. They also learned new techniques, strategies and best practices in their specific area. The college Principal, Staff and Students appreciated them.



Dr. R. Praveen Dathu, Lecturer in Zoology, in Collaboration with Health Club organized Haemoglobin test program for adolescent girls on 27-09-2024 at GDC, Tiruvuru. In this program the Anm, nurses, distributed the required medicines and tonic for the girl students.



Dr. Vijayananda Raju, Lecturer in Telugu, attended 18th Research Review meeting to Ph.D Scholars at Krishna University on 04.09.2024. The purpose of the meeting is to conduct scrutiny of applications for recognition of research superiors in the Department of Telugu at recognized research centre of Krishna University on 4th September, 2024.



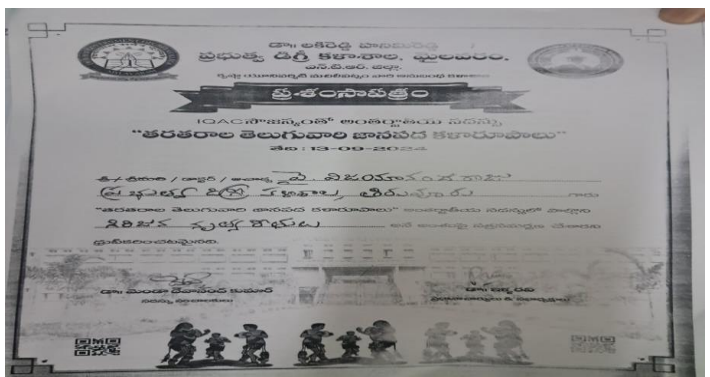
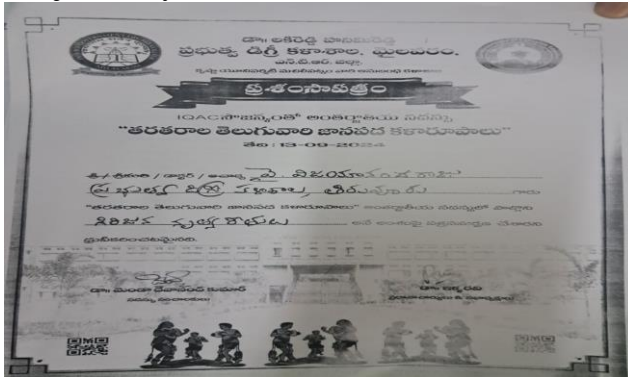
A team of Gram Schivalayam visited GDC, Tiruvuru to address the students and spoke on the awareness of Cyber Crimes that combat on line threats. It's the need of the hour and crucial to present these threats by taking necessary steps and staying vigilant to suspicious activities. The Staff and Student participated in this program.



GDC, Tiruvuru, in collaboration with CCE organizes Swarna Andhra@2047 on 26-09-2024. It is an awareness program aimed at developing Andhra Pradesh into a prosperous and vibrant state by 2047. The objectives of Swarna Andhra include, Economic, Social and Infrastructure and Environmental development. The Principal spoke on this occasion and said that every student should participate in this inclusive growth of the state and transform Andhra Pradesh into a model state.



Dr. Y. Vijayananda Raju, Lecturer in Telugu, GDC, Tiruvuru, participated in International conference on Girijana nritya reetulu on 13.9.2024.



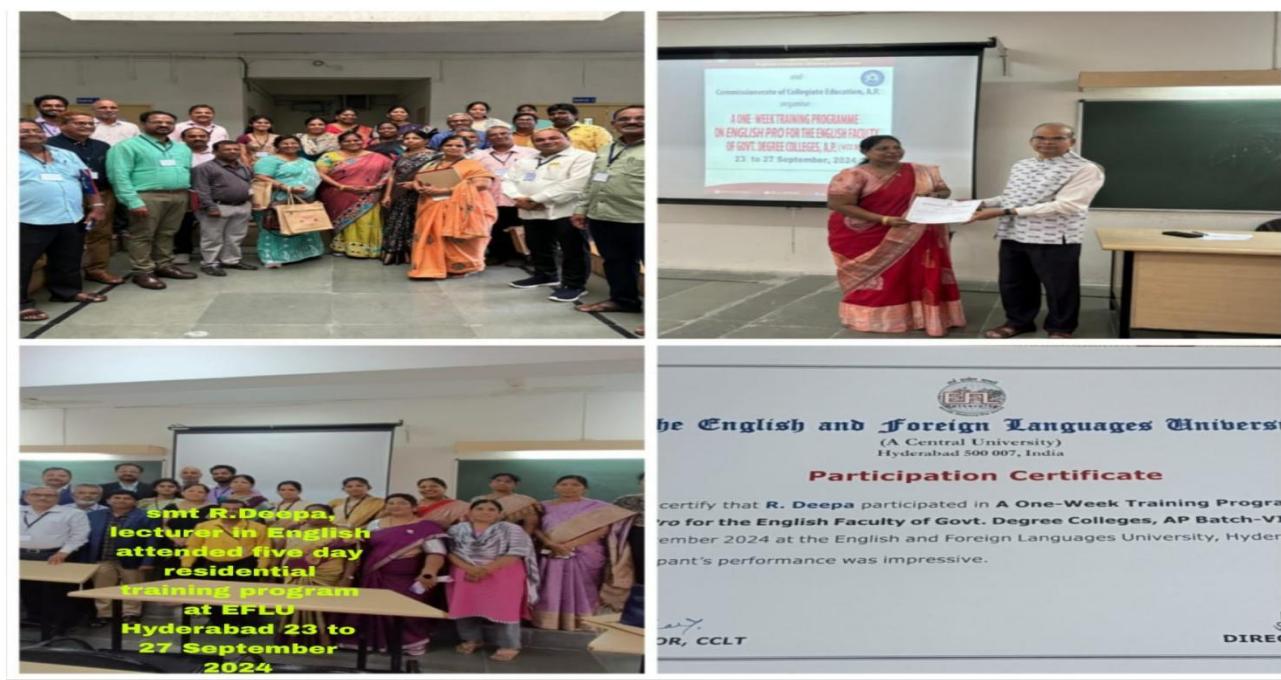
The Literary and Cultural Committee in collaboration with Sri Satya Sai Seva Samstalu, organized essay writing Zonal competition to Degree students at GDC, Tiruvuru on 27.9.2024. V. Vijayalakshmi, of II MCS, I, P. Sravani of B.Zc, II, Sk. Shabana of III B.Com got selected for District level competitions. The topic of the competition is things that I value most". The Principal and Staff appreciated the great efforts of the students. 12 students participated in this competition.

Dr. Y. Vijayanand Raju, GDC, Tiruvuru, participated in the Inspection committee for the Recognition of the Telugu Research Centre at K.B.N. College on 28th August, 2024.



The Principal, Staff and Students Felicitated Sri. Nalla. Rangarao, the Founder of the GDC, Tiruvuru, on 21.9.2024. Sri. Nalla. Ranga Rao, for the well being of the students and the development of the college, donated

the faculty of Degree College teachers organized by the Department of CCLT from 23.9.2024 to 27.9.2024 at EFLU, Hyderabad.

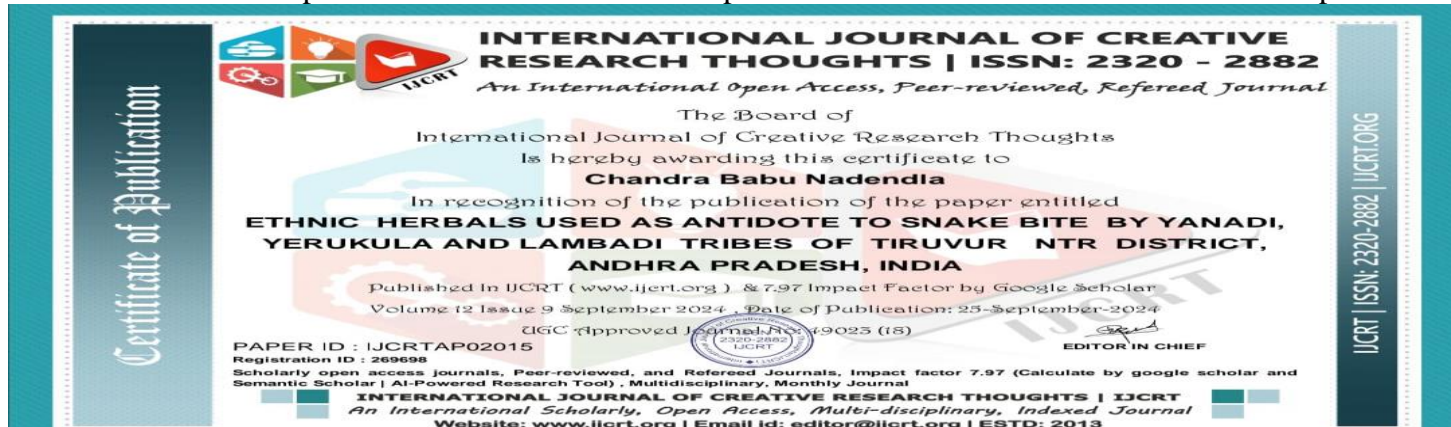


GDC, Tiruvuru, NAAC, SSR submission was uploaded on 25.9.2024, under the able leadership of principal and with great efforts of IQAC Coordinator along with members appreciated the challenging task done by the IOAC Co-ordinator the whole NAAC College Team.



Dr.N.Chandra Babu Lecturer in Botany GDC,Tiruvuru,was awarded the certificate of publication for the paper entitled ethnic herbals used as Antidote to snake bite by yanadi yerukula and Lambadi Tribes of Tiruvuru

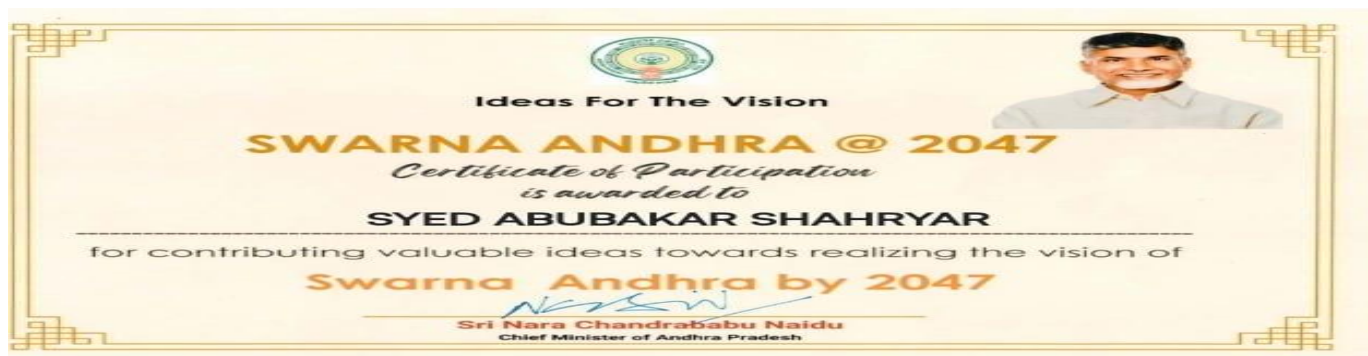
Andhra Pradesh India published in IJCRT with 7.97 impact factor volume number 12 issued on 9th Sep - 2024.



Dr.R.Praveen Dathu Lecturer in Zoology GDC,Tiruvuru,was awarded the certificate publication for the paper entitled.A review on application of Anthropometry in21st century published in Madya Bharati Humanities and social sciences with ISSN No-097-0066 with IF =6.28 vol.85, on 4th July 2024.



Sri.Syed Abubhakar Shahryar Lecturer in Commerce GDC,Tiruvuru, was awarded certificate of participation for contributing for valuable ideas towards realizing the vision of Swarna Andhra by 2047.



Smt.V.Sailaja Lecturer in Chemistry published a Research paper on Kinetics Of Oxidation Of A Few amino Acids By Gibbs Reagent in IJCRT international with ISSN: 2320-2882 Volume 12,Issue 9 September 2024.

Kinetics Of Oxidation Of A Few α -Amino Acids By Gibbs Reagent

Dr.Neeraja -V^{1*}, Sallaja -V², Dr.V.Pani kumar³,
¹ Dept. of chemistry, S.W.R. Government Degree College for Girls, Kanchikacherla,
² Dept. of Chemistry Govt Degree College, Tiruvannamalai,
³ Dept. of Chemistry Dr.LHR Govt Degree College, Mylavaram

ABSTRACT

A systematic and comparative study of oxidation of a few α -amino acids like Glycine, DL- Leucine, DL-Isoleucine, DL-alanine, DL-Phenyl Alanine by using 2,6-dichloro-quinone-4-chloro-imide has been carried out in aqueous acetic acid-sodium acetate mixtures. The kinetic orders are similar that is first order in oxidizing agent for all the substrates. The substrate dependence is first order for all the substrates. If we increase sodium acetate concentration leads to increase the reaction rate. In these analysis we observed that in these oxidations is with alanine as standard, substrates with electron releasing groups like Glycine and alanine and substrates with electron withdrawing groups like Phenyl alanine, aspartic acid exhibited higher kinetic rates. This shows that there is a dual mechanism operating in these oxidations. $\log k_1$ vs σ plot is not linear as two lines intersect giving two different slopes. The slopes are -2.45 for substrates with electron releasing groups and $+1.67$ for substrates with electron withdrawing groups. Hammett's treatment has been applied to understand the nature of entropy-enthalpy relationship on the kinetics of these reactions. Finally a synchronous oxidative decarboxylation process has been postulated to explain the oxidation of these α -amino acids. The major products are the nitriles.

Key Words: α -amino acids -electron releasing groups -First order kinetics- Electron withdrawing groups- Kinetic order- Entropy- Enthalpy relationship

1. Introduction

A great number of N-halo and metallic reagents have been shown to oxidize α -amino acids with well-documented kinetics (1-8). The current study examines how 2,6-Dichloroquinone-4-Chloro-imide oxidises a few α -amino acids under various oxidant, substrate, acidity, and solvent compositions, including acetic acid.

www.ijcrt.org © 2024 IJCRT | Volume 12, Issue 9 September 2024 | ISSN: 2320-2882

The functional groups that are already present in amino acid molecules undergo changes as part of their chemistry [R'CH(NH₂)COOH]. Due to the functional groups' high reactivity in lieu of the hydrocarbon chain's inertness, their undamaged hydrocarbon parts (R) have not been exposed to chemical reactions. The pH of the media affects how quickly amino acids dissociate. This equilibrium exists in highly alkaline or acidic media.



II Experimental

The Estimation of 2,6-dichloro-quinone-4-chloro-imide (DCQCI):

Both the reaction mixture aliquots and the 2,6-dichloro-quinone-4-chloro-imide solution are well estimated isometrically. An iodine flask holding 5 ml of 5N sulphuric acid and 5 ml of 5% potassium iodide solution is filled with 5.0 ml of 2,6-dichloro-quinone-4-chloro-imide solution in a CO₂ environment, and it is then left in the dark for three minutes. Subsequently, the mixture is titrated using a burette containing standard sodium thiosulphate until the starch. Then the solution is titrated against standard sodium thiosulphate taken in a burette to the disappearance of starch iodine blue endpoint.

III Result and Discussion

I. Effect of varying concentration of oxidant in DL- Alanine and Phenyl Alanine

In the kinetics of oxidation of DL-alanine and Phenyl Alanine by 2,6-dichloro-quinone-4-chloro-imide, the reaction is found to be first order in oxidising agent. Plot of $\log(a-x)$ vs time (s) linear. It is also confirmed

Dr.R. Praveen Dathu Lecturer in Zoology published a Research paper on A Review On The Role Of Humans Microbiota In Health And Diseases in IJCRT international journal with ISSN: 2320-2882 volume12,Issue9 September2024.

A Review On The Role Of Human Microbiota In Health And Diseases

Dr.R. Praveen Dathu
Lecturer in Zoology, Government Degree College,Tiruvannamalai

Abstract: The role of microbiota in health and diseases is being highlighted by numerous studies since its discovery. Depending on the localized regions, microbiota can be classified into gut, oral, respiratory, and skin microbiota. The microbial communities are in beneficial interaction with the have, contributing to homeostasis and directing resistant work. In any case, microbiota dysbiosis can lead to dysregulation of substantial capacities and illnesses counting cardiovascular infections (CVDs), cancers, respiratory illnesses, etc. In this audit, we talk about the current information of how microbiota joins to have wellbeing or pathogenesis. We to begin with summarize the investigate of microbiota in sound conditions, counting the gut-brain hub, colonization resistance and safe weak. At that point, we highlight the pathogenesis of microbiota dysbiosis in illness advancement and movement, basically related with dysregulation of community composition, balance of have resistant reaction, and acceptance of constant aggregation. At last, we present the clinical approaches that utilize microbiota for infection treatment, such as microbiota balance and fecal microbial transplantation.

Key words: Microbiota, cardio vascular diseases, gut brain axis.

INTRODUCTION

Microbiota are the organisms (bacteria,fungi,viruses) show in different body parts of human body and live in advantageous affiliation with man. Since its revelation, different thinks about have underlined the significance of microbiota in wellbeing and disarranges. Microbiota may be isolated into four categories: intestine, verbal, respiratory, and skin microbiota, depending on the particular zones. Human microbiota incorporates microscopic organisms, organisms, archaea, protozoans, and infections, which appear to be indeed more various compared to those contained within the human genome. The microorganisms occupying the life form accomplish a idealize common cooperative energy with its have, being frequently alluded together as a "superorganism" or a have extra-organ. The gastrointestinal tract (GIT) contains at slightest 10¹⁴ microbes, with the highest thickness accomplished within the expansive digestive tract, whereas the number of qualities (intestinal microbiome) is predominant (10⁹ to 500-fold) to human DNA. In this way, GIT microbiota may be for all intents and purposes considered the fourth organ of the stomach related framework or the "forgotten organ" living within the intestine like in a bioreactor. Microbiota and Slim down in Diabetes report more than 2,000 species, classified into 12 diverse phyla, of which 93.5long to

www.ijcrt.org © 2024 IJCRT | Volume 12, Issue 9 September 2024 | ISSN: 2320-2882

Proteobacteria, Firmicutes, Actinobacteria, and Bacteroidetes. Autonomy of birth pit, sex, age, or body weight, there are three overwhelming "enterotypes," enhanced in Bacteroides, Ruminococcus, and Prevotella

Factors influencing Composition of Microbiome

The GIT microbiota composition (differences or the plenitude of specific species) is formed by hundreds of components, counting have hereditary qualities, mode of conveyance sexual orientation, age, fatness, weight, eat less, resistant framework, gastrointestinal emissions blood levels of different particles or ruddy blood cell fallies, stool consistency, rest, restorative history, ethno-geographical and socio-economic conditions, sterile conditions, smoking, anti-microbials and antibiotics-like substances, diuretics and less natural drugs (e.g., antihistamines, antidepressants, and morphine) A profound sequencing think about of the intestine microbiomes uncovered relationships between the microbiome and 126 exogenous and laborn have variables, counting 12 illnesses, 31 natural components, 19 sedate bunches, 60 dietary variables, and 4 smoking categories.

MICROBIOTA IN HEALTH

The "healthy" intestine microbiota Intestinal microbial adjust is closely important to human illnesses and wellbeing. Compared with other locales of the body, the human gastrointestinal (GI) tract contains an plenitude microbial community which accumulates ~100 trillion microorganisms.14 Broad considers have been performed to measure the important relationship between intestine microbiota and functional human organic forms. For illustration, current progresses have appeared that human smaller scale biota is closely included in supplement extraction, digestion system, and immunity.15 Microbiota may influence organic forms by means of a few instruments. For vitality and supplement extraction from nourishment, microbiota