3.2.1 Research Paper Publications

INDEX

Sr. No.	Title of paper	Name of the author/s	Page No.
1.	Cobalt oxide doped hematite as a petrol vapor sensor	**Vikas V. Deshmane** , Arun V. Patil	3
2.	Effects of Additives on Structural and Magnetic Properties of Iron Oxide	**Vikas V. Deshmane** , Arun V. Patil	3
3.	Dielectric relaxation and hydrogen bonding interaction of polyethylene glycol dimethyl ether in water mixture	RN Mathpati, **PG Hudge**, KS Kanse, YS Joshi, AC Kumbharkhane	4
4.	MoO3:In2O3 binary oxide thin films as CO gas sensor	Nimba Kothawale, **Vikas V. Deshmane** , Arun V. Patil	5
5.	Role of Librarian in 21st Century	Dr.Sangharsh S. Gajbe	6
6.	Microwave Dieelectric Properties of aqueous solution of polymers using time domain technique	M.B. Swami, **P. G. Hudge** & A. C. Kumbharkhane	7
7.	Orthorhombic molybdenum trioxide micro-planks as carbon monoxide gas sensor	Dharma K.Halwar, **Vikas V. Deshmane** , Arun V. Patil	8-9
8.	Synergy of semiconductor (Hematite) & catalytic (Ni) properties enhance gas sensing behavior to NO2	**Vikas V. Deshmane** , Arun V. Patil	10
9.	Dielectric relaxation and molecular interaction investigation of glycolic acid-water mixture using time domain reflectometry	P Senthilkumar, T Ganesh, K Vinoth, M Maria Sylvester, DJS Anand Karunakaran, **Praveen Hudge**, AC Kumbharakhane	11
10.	Green synthesis of silver nanoparticles from Punica granatum l. and study of its antimicrobial and antioxidant activity	Rajguru Shubhangi A, Humbarwadi Shweta V, Kutty Prajitha N & Pauldas Kirubha	12-13
11.	Glucose Phosphate isomerase (GPI) variation in triploid Oyster-An indicator for climate change	Dr.Jyothi V. Mallia	14-16
12.	Analysis of water quality of chikhloli lake of Ambernath, District Thane, Maharashtra, by using some physico – chemical parameters	Mudaliar Shanti L. and Patel Alpa K.	17
13.	Spiritual wellbieng : Yoga and meditation	Dr.D.M.Sapkal	18-19
14.	Study in relation to Biodiversity of Aeromycological species in chikhloli, Ambernath, MS, India	Patel Alpa K. & Patil Vivekkumar V.	20
15.	Green synthesis and study on antimicrobial activity of nanoparticles from floral extract of Chrysenthemum.indicum	Mrs. Shweta Vinayak Humbarwadi and Dr.Alpa K.Patel	21
16.	Information Seeking Behavior in SICES Degree College of Arts, Science & Commerce Ambernath	Dr.Sangharsh S. Gajbe	22-23
17.	Website Analysis of Emgineering Colleges in Sant Gadge Baba Amravati University, Amravati	Dr.Sangharsh S. Gajbe	24-25
18.	Study of In2O3 and α-Fe2O3 nano-composite as a petrol vapor sensor	**Vikas V. Deshmane** , Arun V. Patil	26
19.	Dielectric relaxation behaviour of triethylene glycol [TEG]+ water mixture as a function of composition and temperature using TDR technique	**PG Hudge**, RN Pawar, BD Watode, AC Kumbharkhane	27
20.	Dielectric dispersion, relaxation and molecular interaction of pyrazine binary mixtures	P Senthilkumar, T Ganesh, K Vinoth, M Maria Sylvester, DJS Anand Karunakaran, **Pravin G Hudge**, AC Kumbharkhane	28
21.	Dielectric dispersion and thermodynamic behavior of stearic acid binary mixtures with alcohol as co-solvent using time domain reflectometry	M Maria Sylvester, T Ganesh, DJS Anand Karunakaran, P Senthilkumar, Pravin G Hudge, AC Kumbharkhane	29
22.	Dielectric properties of benzylamine in 1, 2, 6-hexanetriol mixture using time domain reflectometry technique	MB Swami, **PG Hudge**, VP Pawar	30
23.	Mapping of Leprocy literature : A Bibliometric Study	**Sangharsh S. Gajbe** , Dr.Sashank S. Sonawane	31
24.	Authership pattern and degree of collabration in the leprosy research : A Scientometrics study	**Sangharsh S. Gajbe** , Dr.Sashank S. Sonawane	32

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Road, Ambernath (W) - 421 505.

S.I.C.E.S. Degree College of Arts, Science & Commerce

I/c Principal 3/12/21
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

ScienceDirect

Access through your institution to view subscribed content from home

Get Access

Materials Chemistry and Physics
Volume 246, 1 May 2020, 122813

Cobalt oxide doped hematite as a petrol vapor sensor ☆

Vikas V. Deshmane [a], Arun V. Patil [b]

Show more

Outline | Share | Cite

https://doi.org/10.1016/j.matchemphys.2020.122813

Get rights and content

Highlights

- Efficient petrol vapor sensor was tested in the study
- Doping of cobalt oxide modified the structural and electrical properties of iron oxide
- Co1 films showed 84% sensitivity to petrol vapors at 250 °C
- Very few reports of petrol vapor sensor are available hence study was important

Abstract

The study analyzed and interpreted variations in structural, electrical & gas sensing properties of iron oxide (n-type semiconductor) films due to the addition of cobalt oxide (p-type semiconductor). Iron Oxide was synthesized by co-precipitation method. The synthesized iron oxide and readymade cobalt oxide were mechanically mixed in various weight percentages. The screen printing method was used to prepare films. These films were characterized using XRD, SEM, EDS and static gas sensing apparatus. XRD proved the existence of α-Fe_2O_3 (JCPDS #860550) and cobalt oxide (JCPDS #801543). SEM micrographs demonstrated porous film surface. EDS demonstrated non-stoichiometric elemental distribution in films. Variation in electrical properties (resistivity, TCR, activation energy in high temperature and low-temperature region) were quantitatively and qualitatively discussed. Due to cobalt oxide addition petrol vapor sensitivity and selectivity improved as compared to bare iron oxide films. Co1 films showed 84% sensitivity to petrol vapors at 250 °C. Study tested efficient petrol vapor sensor.

Previous

Next

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

S.I.C.E.S. Degree College of Arts, Science & Commerce Jambhul Phata Ambernath (W) Thane Dt. Pin 421 505.

I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

FEEDBACK

World Scientific
International Journal of Nanoscience | Vol. 19, No. 04, 1950025 (2020)

No Access

Effects of Additives on Structural and Magnetic Properties of Iron Oxide

Vikas V. Deshmane and Arun V. Patil

https://doi.org/10.1142/S0219581X1950025X | Cited by: 0

Figures References Related Details

Next >

Abstract

This paper analyzes the effects of additives on the properties of Iron oxide. The Iron oxide was synthesized using the co-precipitation method. The X-ray diffraction (XRD) peaks of resultant Iron oxide perfectly matched with JCPDS #860550 (α phase of Iron oxide / Hematite). The additives like Cobalt oxide, Nickel metal, Indium oxide and Tin metal with diverse properties procured in readymade forms were mechanically mixed with Iron oxide in 1:99, 3:97, 5:95 and 7:93 weight ratios, respectively. The XRD peaks for additives were prominent for 7:93 (Additive: Base Material) weight % ratio samples. Therefore, for further studies, only these samples were used. In this study, variations in XRD intensity, lattice parameters, unit cell volume, grain size, micro-strains (W-H analysis), dislocation density and stacking fault probability were analyzed. The specific surface area of particles was calculated by scanning electron microscope analysis. The presence of additives was also confirmed by energy dispersive spectra (EDS). The M-H loops (Vibrating Sample Magnetometer analysis) for samples under investigation showed rare vertical shifts. The weak magnetic behavior of bare Hematite (1.0 emu/gm) sample improved to antiferromagnetic behavior due to the addition of Cobalt oxide (7.89 emu/gm) and Nickel metal (2.76 emu/gm). The addition of Indium oxide (0.65 emu/gm) and Tin metal (0.73 emu/gm) samples showed a decreased magnetic saturation.

Keywords: Iron oxide • XRD • W-H analysis • VSM • saturation magnetization



Vol. 19, No. 04

Metrics

Downloaded 12 times

History
Received 7 July 2019
Accepted 31 October 2019
Published: 24 March 2020

Keywords

Iron oxide
XRD
W-H analysis
VSM
saturation magnetization

PDF download

We recommend

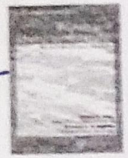
20/03/2021

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

S.I.C.E.S. Degree College of Arts, Science & Commerce
Jambhul Phata
Ambernath (W)
Thane Dt. Pin 421 505.

I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)
26/03/2021



Physics and Chemistry of Liquids ›
An International Journal
Volume 58, 2020 - Issue 5

71
Views
0
CrossRef citations to date
0
Altmetric

S.I.C.E.S. Degree College of Arts, Science & Commerce
Jambhul Phata
Ambernath (W)
Thane Dt. Pin
421 505.

Articles

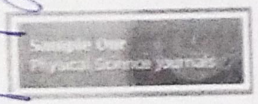
Dielectric relaxation and hydrogen bonding interaction of polyethylene glycol dimethyl ether in water mixture

R. N. Mathpati, P. G. Hudge, K. S. Kanse, Y. S. Joshi & A. C. Kumbharkhane

Pages 664-674 | Received 23 Mar 2019, Accepted 15 Jun 2019, Published online: 30 Jun 2019

Download citation https://doi.org/10.1080/00319104.2019.1633527 Check for updates

Select Language
Translator disclaimer



I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

ABSTRACT

The complex permittivity spectra of binary mixtures of polyethylene glycol dimethylether [PEGDME: Molecular Weight 250 g.mol^{-1} & 500 g.mol^{-1}] with water over entire concentrations and at different temperatures (5°C, 15°C and 25°C) have been

Related articles
People also read Recommended articles Cited by

Sign in | Register | Mobile | Help | Cart | Contact

INDERSCIENCE Online
The online platform for Inderscience Publishers journal content

Home Browse Inderscience Publishers Orders Authors Librarians

Enter words / phrases / DOI / ISSN / authors / keywords / etc. This Journal Search Advanced search

Home > International Journal of Microstructure and Materials Properties > List of Issues > Volume 15, Issue 3 > MoO_3:In_2O_3

< Previous article Next article >

MoO_3:In_2O_3 binary oxide thin films as CO gas sensor

Nimba B. Kothawade , Vikas V. Deshmane , Arun V. Patil

https://doi.org/10.1504/IJMMP.2020.110525

Published online 12 October 2020

Abstract PDF

Abstract

The aim of the study was to understand gas sensing properties of thin films of molybdenum trioxide and indium oxide (MoO_3-In_2O_3) indifferent normality proportions. Thin films were prepared by spray pyrolysis technique on glass substrates at 400°C. The films were characterised using X-ray diffraction, scanning electron microscope and energy dispersive analysis by X-ray spectra. The electrical and gas sensing properties of the films were studied using static gas sensing apparatus. The resistivity of films increased by adding MoO_3 as the dopant in In_2O_3. The maximum resistivity of film was found 1.75×10^4 Ωm for 0.3N (MoO_3) and 0.1N (In_2O_3) binary oxide films. The films were tested against five different target gases. The composition ratio 0.3N:0.1N films showed the 70.50% sensitivity for 300 ppm CO gas at 150°C. The response time (15s) and recovery time (25s) was found to be quick.

Keywords: molybdenum trioxide, indium oxide, spray pyrolysis, carbon monoxide gas sensor, binary oxides, XRD, X-ray diffraction, SEM, scanning electron microscopy, activation energy

SHARE

Purchase this article Subscribe this journal

Click 'Add to cart' to add this article to the shopping cart. This article price is $40.00. You may review the list of added articles prior to making the actual purchase on the shopping cart page.

Add to cart

International Journal of Microstructure and Materials Properties



Print ISSN: 1741-8410 Online ISSN: 1741-8429

- Current issue
- List of issues
- Subscribe
- Get TOC alerts
- About this journal

Article / Chapter Tools

Add to Favourites Email to a Friend Send to Citation Mgr Track Citations

Related Content Search

By Keyword

- molybdenum trioxide
- indium oxide
- spray pyrolysis
- carbon monoxide gas sensor
- binary oxides
- XRD
- X-ray diffraction
- SEM
- scanning electron microscopy
- activation energy

By Author

- Nimba B. Kothawade
- Vikas V. Deshmane
- Arun V. Patil

Search

Most Read Most Cited

Effect of input parameters on friction stir processing of AA2014-T6 using response surface methodology

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)
20/03/2024

S.I.C.E.S. Degree College of Arts, Science & Commerce
Jambhul Phata Ambernath (W) Thane Dt. Pin 421 505.

I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

Studies in Indian Place Names
(UGC Care Journal)

ISSN: 2394-3114
Vol-40-Issue-49-March -2020

Role of Librarian in 21st Century

Dr. Sanghrsh S. Gajbe
Librarian
S.I.C.E.S. Degree College of Arts, Science & Commerce
JambhulPhata, chikloli, Ambernath (W) Thane Maharashtra
gajbesangharsh10@gmail.com

ABSTRACT

Today, the walls of a library are giving way to digital environments to establish the links with information and virtual. Information is a valuable resource. The traditional libraries should be transformed into hybrid libraries focused on providing information collected in the form of books and electronic sources to survive and to meet the need of end users. This paper describes the role of librarian in libraries, which have collection in form of e- books, digital documents and various databases and common access to the internet. Modern libraries are creating the society of knowledge. The librarians are constantly open to any changes in their field and eager to improve their skills and knowledge.

INTRODUCTION:-

Information Technology is rapidly changing the whole world and creating new challenges and opportunities. The Global changes particularly in digital environment/ ICT have had an impact on the functioning of libraries. The development in ICT has changed the user expectations from the libraries in many ways. In this age of information, the LIS plays not only just an important learning supporting function but the library itself is emerging as a site of learning sometimes more important than even the class-room. The library and Information services of higher education institutions play a central role in enhancing the quality of academic and research environment. The digital environment has changed the functions and duties of LIS Professionals; they are not only to extend assistance to users in searching information in a place called library but also to provide services and instruction regardless of place, time or format. Now librarian is an information provider, Website designer, Database developer, Services provider, Collection developer, Consortia manager, Information consultant, content manager and so on.

INFORMATION SOCEITY:-

The information age has arrived and modern society is commonly referred to as the "Information Society ".Still, this term does not have a commonly accepted interpretation. Information society is described by the modern researchers as "the society in which the information is intensely used in economic, social, cultural, and political life it is a society with abundant means of communication and of information processing, the society being the basis for serving as a major part of the national income and ensuring the source of income for majority of the population. This information society, the popularity of the internet and electronic mass media is spreading very fast. The use of internet and e-resources created a new type of society and the analog technology has been abandoned in favors of digital technology within a couple of year. This new society is also referred to as the digital, Web, Internet or computer society. Information is the most sought-after and valuable merchandise in the society. It becomes indispensable for one

S.I.C.E.S. Degree College of Arts, Science & Commerce
Jambhul Phata
Ambernath (W)
Thane Dt. Pin 421 505.

13/03/2021
IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

Copyright © 2020Authors

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN:2277-7881; IMPACT FACTOR :6.514(2020); IC VALUE:5.16; ISI VALUE:2.286
Peer Reviewed:VOLUME:9, ISSUE:4(1), APRIL :2020

MICROWAVE DIELECTRIC PROPERTIES OF AQUEOUS SOLUTION OF POLYMERS USING TIME DOMAIN TECHNIQUE

M.B. Swami
Department of Physics and
Electronics, M. U. Mahavidyalaya
Udgir, Udgir, (MS), India

P.G. Hudge
Department of Physics
S.I.C. E.S. Degree College
Ambarnath (W) (MS), India

A.C. Kumbharkhane
School of Physical Sciences
S.R.T. M. University, Nanded (MS), India

Abstract
The time domain reflectometry technique was used to evaluate Microwave dielectric properties of polymers (2,3-butanediol, 1,2,4-butanetriol, 1,2,5-pentanetriol, 1,2,6-hexanetriol) in the frequency range of 10 MHz to 30 GHz at different temperature. The complex permittivity spectra for 1,2,4-butanetriol, 1,2,5-pentanetriol, 1,2,6-hexanetriol were fitted in Cole-Davidson model using non - linear least square fit method. The dielectric parameter such as, static dielectric constant and relaxation time has been determined for 2,3-butanediol, 1,2,4-butanetriol, 1,2,5-pentanetriol, 1,2,6-hexanetriol. The hydrogen bonding interactions for the aqueous solution of 1,2,6-hexanetriol have been discussed through the determination of Kirkwood Correlation factor.

Keywords: Complex permittivity; Dielectric relaxation; Kirkwood Correlation factor, Time domain reflectometry.

Introduction

The microwave dielectric properties of a material such as dielectric constant, dielectric loss, relaxation time have provided an insight into the structure of the molecules of the system. The molecular interaction through hydrogen bonds in molecular complex liquids results in different dynamical properties. In liquids, the molecule has rotational freedom and its dispersion occurs at high frequency. Hence studying the dielectric properties at high frequency will reveal the dielectric relaxation of polar molecules and polymers and its variation with respect to the interaction with the neighbouring molecules.

The time domain reflectometry (TDR) is one of the major dielectric measurement technique and provides constructive information regarding the molecular complex formation in solution [1]. The hydrogen bounded water molecule has permanent dipole moment and dielectric relaxation of pure water

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambarnath (W) - 421 505.

IOPscience

PAPER

Orthorhombic molybdenum trioxide micro-planks as carbon monoxide gas sensor

Dharma K Halwar[1], Vikas V Deshmane[4,2] and Arun V Patil[3]

Published 11 September 2019 • © 2019 IOP Publishing Ltd

Materials Research Express, Volume 6, Number 10

Citation Dharma K Halwar *et al* 2019 *Mater. Res. Express* **6** 105913

halwardk9@gmail.com
desh8299vv@gmail.com
aruptl@gmail.com

[1] Thick and thin film laboratory, M.S.G. College, S P Pune University, Malegaon, Maharashtra, India

[2] SICES Degree College of ASC, University of Mumbai, Ambarnath, Maharashtra, India

[3] Research center in electronics,LVH College, S P Pune University, Nashik, Maharashtra, India

[4] Author to whom any correspondence should be addressed.

Vikas V Deshmane https://orcid.org/0000-0001-6351-4162

Received 9 May 2019
Revised 9 August 2019
Accepted 1 September 2019
Published 11 September 2019

Check for updates

Method: Single-anonymous
Revisions: 1
Screened for originality? Yes

https://doi.org/10.1088/2053-1591/ab403e

Buy this article in print
This site uses cookies. By continuing to use this site you agree to our use of cookies. To find out more, see our Privacy and Cookies policy.
Journal RSS

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

S.I.C.E.S. Degree College of Arts, Science & Commerce Jambhul Phata Ambernath (W) Thane Dt. Pin 421 505.

20/3/21
I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

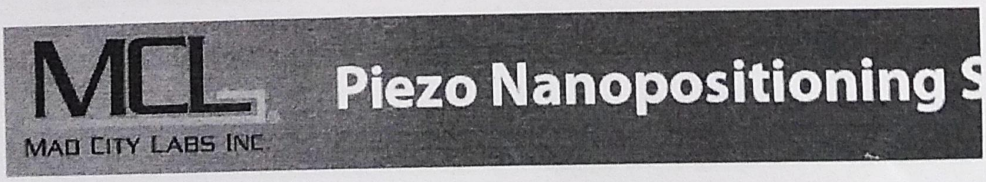
Sign up for new issue notifications

Create citation alert

Abstract

Study was aimed at analyzing gas sensing properties of copper oxide doped molybdenum trioxide. Screen printing method was used to prepare thick films of five different weight percent of copper oxide. XRD confirmed that material consists pure alpha phase of ortho-rhombic molybdenum trioxide (JCPDS 21-0569). FE-SEM micrographs showed plank-like structure having all three dimension in microns. Hence authors used term micro-planks. EDS analysis showed that all sample were having excess oxygen. Electrical measurement showed n-type semiconductor behavior of films. TCR also showed negative values for all films. Resistivity of the films reduced from 80 Ω m to 25 Ω m as copper oxide percentage increased. Activation energy in high temperature region also decreased from 0.6 eV to 0.25 eV due to addition of copper oxide dopant. 9 Wt% copper added molybdenum trioxide films (Cu9) showed 74.87% response to carbon monoxide gas at 150 °C. Response time (80 s) and recovery time (110 s) was quick. The synergy between thermal energy, oxygen excess samples, the activity of micro-planks and catalytic property of copper oxide dopant accelerated the reduction of carbon monoxide. Hence selectivity to carbon monoxide gas as compared with NH_3, NO_2, Ethanol vapor and LPG improved due to copper oxide dopant.

Export citation and abstract BibTeX RIS



Access this article

The computer you are using is not registered by an institution with a subscription to this article. Please choose one of the options below.

This site uses cookies. By continuing to use this website you agree to our use of cookies. To find out more, see our Privacy and Cookies policy.

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

S.I.C.E.S. College of Arts, Science & Commerce Jambhul Phata Ambernath (W) Thane Dt. Pin 421 505.

20/3/21
I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

IOPscience

PAPER

Synergy of semiconductor (Hematite) & catalytic (Ni) properties enhance gas sensing behavior to NO_2

Vikas V Deshmane[1,3] and Arun V Patil[2]

Published 17 April 2019 • © 2019 IOP Publishing Ltd

Materials Research Express, Volume 6, Number 7

Citation Vikas V Deshmane and Arun V Patil 2019 *Mater. Res. Express* **6** 075910

desh8299vv@gmail.com
aruptl@gmail.com
[1] SICES Degree College of Arts, Science and Commerce, Ambarnath, Thane, Maharashtra, India
[2] LVH College, Panchavati, Nashik, Maharashtra, India
[3] Author to whom any correspondence should be addressed.

Vikas V Deshmane https://orcid.org/0000-0001-6351-4162

Received 15 February 2019
Revised 21 March 2019
Accepted 5 April 2019
Published 17 April 2019

Check for updates

Method: Single-anonymous
Revisions: 1
Screened for originality? Yes

https://doi.org/10.1088/2053-1591/ab165e

Buy this article in print

Journal RSS

Sign up for new issue notifications

Create citation alert

Abstract

In current study we analyzed changes in structural, morphological, electrical and gas sensing properties of hematite due to incorporation of nickel. We characterized screen printed samples using XRD, SEM, EDS techniques. Electrical and gas sensing properties were studied using static gas sensing method. XRD clearly showed that as Nickel% in hematite (PDF#860550) increased, the (011) peak became prominent (PDF#451027). SEM confirmed porous nature of films. EDS showed that the films were oxygen excess. Electrical properties showed that increase in Nickel percentage lowered resistance of films at room temperature. All samples showed n-type semiconductor behavior. Resistivity was maximum (6650 Ω. m) for Ni5 & activation energy was minimum (0.04924 eV) for Ni5 in high temperature region. Same Ni5 sample showed maximum response (106%) to NO_2 gas at 250 °C with good selectivity. Response time (100 s) was quick but recovery was slower (230 s). We discussed probable mechanisms.

This site uses cookies. By continuing to use this site you agree to our use of cookies. To find out more, see our Privacy and Cookies policy.

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

Jambhul Phata Ambernath (W) Thane Dt. Pin 421 505.

I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

Indian Journal of Pure & Applied Physics
Vol. 57, March 2019, pp. 180-187

Dielectric relaxation and molecular interaction investigation of glycolic acid-water mixture using time domain reflectometry

P Senthilkumar[a], T Ganesh[b]*, K Vinoth[b], M Maria Sylvester[c], D J S Anand Karunakaran[c], Praveen Hudge[d] & A C Kumbharkhane[e]

[a]Department of Physics, Saranathan College of Engineering, Tiruchirappalli 620 012, India
[b]Microwave Research Lab, Department of Physics, Rajah Serfoji Government College, Bharathidasan University, Thanjavur 613 005, India
[c]PG & Research Department of Physics, Bishop Heber College, Bharathidasan University, Tiruchirapalli 620 017, India
[d]Department of Physics, S I C E Society's Degree College of Arts, Science and Commerce Ambernath (West) Thane 421 505, India
[e]School of Physical Sciences, Swami RamanadTeerth Marthwada University, Nanded 431 606, India

Received 30 July 2018; accepted 26 December 2018

The complex spectra of glycolic acid (GA) and water mixture have been measured by time domain reflectometry (TDR) in the frequency range 10 MHz to 30 GHz at various temperatures for entire concentration. Dielectric relaxation time (τ), static dielectric constant (ε_0) and dielectric permittivity at low frequency (ε') and at optical frequency (ε'') have been determined from measured complex spectra (ε^*) using non-linear square fit method. Conductivity, Kirkwood and effective Kirkwood correlation factor of mixture calculated from the determined dielectric parameters have been used to find the alignment of dipoles between molecules. Thermodynamic parameters enthalpy, entropy and Gibb's free energy have been determined which enable the direction of reaction. Excess permittivity of glycolic acid-water mixture has also been determined which confirms the molecular interaction. Macroscopic parameters such as density and viscosity of mixture have been determined at room temperature. FTIR spectral characterization concedes the solute-solvent interaction.

Keywords: Dielectric parameters, Dielectric relaxation, Excess properties, Thermodynamic parameters, TDR

1 Introduction

Hydrogen bonding plays considerable role in many life processes. Hydrogen bonded molecular interaction in biological structure, importance, key process and applications were discussed earlier[1-4]. Dielectric relaxation is a significant parameter to determine molecular interaction between the molecules[5,6]. Dielectric relaxation spectroscopy (DRS) is an efficient tool to study the dielectric behaviour of liquid mixture. Glycolic acid (GA) is the simplest carboxylic acid which contains highly polar organic groups. The carbonyl C=O and hydroxyl O-H are the two important H-bonding sites of GA. In addition to this methyl group of the structure possibly produces bonding. Relatively electro negative of oxygen creates permanent dipole moment even it is covalently bonded with carbon.

GA is an important intermediate in the photo respiratory carbon oxidation cycles in plant and algae[7]. The structure of GA chemically potent has wide range of applications in industries, pharmaceutical and cosmetics. GA predominantly used in chemical peeling of skin[8]. GA is available naturally in sugar beet. The crystal structure of GA was studied by Pijper *et al.*[9]. Blom and Bauder studied the microwave spectrum of GA in the frequency range 48-60 GHz[10,11]. Godfrey *et al.*[12] studied the structure of GA with jet expansion spectroscopy and AAT conformer. The lowest energy conformers of GA studied theoretically by Flock and Ramek[13]. The microwave spectroscopy and IR spectroscopy study show diversified rotamers and distinctive structural conformations[14,15]. IR and Raman calculations on these rotamers and conformations with frequency assignment of glycolic acid are given by Mary *et al.*[16]. In recent study Gu *et al.* studied the H-bonds in alpha hydroxy carboxylic complexes and also studied interaction of GA with dimer[17,18].

2 Experimental Method

2.1 Material and sample preparation

Glycolic acid was obtained from sigma Aldrich, having a purity of 99.9% and used without further

*Corresponding author (E-mail: tgsastra@gmail.com)

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

S.I.C.E.S. Degree College of Arts, Science & Commerce
Jambhul Phata (W), Ambernath, Dist. Thane 421 505.

I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

Journal of Emerging Technologies and Innovative Research
(An International Open Access Journal, Peer-reviewed, Refereed Journals)

ISSN: 2349-5162 | UGC approved journal no 63975

Current Issue Details

Call for Paper
Volume 8 | Issue 3
Submit Your Paper Anytime, no deadline
Publish Paper within 2 days - No deadline submit any time

5.87 Impact Factor
Click Here For More Info

ISSUE DETAILS

- Current Issue
- Archive
- Important Resource (Third party ads)

Find help with any tech scinces at Domyhomework123.com

Mypaperwriter.com has unique term paper and research paper samples on more than 5000 topics for you to use.

For Authors

- Call for Paper
- Research Area
- Author Guidelines
- Check Your Paper status
- Submit Manuscript online
- Sample Paper format
- Donation
- Hard Copy and DOI Details
- Copyright & Undertaking from
- Paper statistics
- Impact factor
- FAQ

For Reviewers

Welcome to JETIR | Peer-reviewed or Refereed Journals

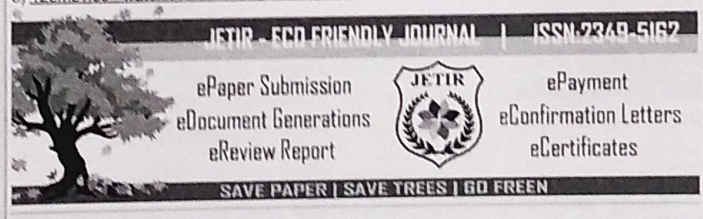
Call for Paper
Volume 8 | Issue 3 | Submit Your Paper Anytime, no deadline
Publish Paper within 2 days - No deadline submit any time

Call For Paper	Submit Paper
Review Process Policy	Open access Publishing Policy
Publication Ethics Policy	UGC Approval Details
Check Paper Status	Join as Reviewers

1)Please visit Write My Paper Hub online to get expert help with writing your papers.

2) 'Do My Economics Assignment' Service and 5 Other Ways to Make Time for a Hobby' Website:do my economics assignment

3) 123movies - watch the best movie today free Website:123movies



Important Dates Related to Publication Procedure:

- » Paper Submission Till: 29 Submit Your Paper Anytime, no deadline Publish Paper within 2 days - No deadline submit any time.
- » Review (Acceptance/Rejection) Notification: Within 03-04 Days.
- » Paper Publish:Within 03-04 Days after submitting the all documents.
- » Publication Charge 2100 | Impact Factor: 5.87
- » Frequency: Monthly (12 issue Annually)
- » Journal Type : Open Access
- » Publication Guidelines : COPE Guidelines

Journal type: Online
eISSN: 2349-5162
Membership and indexing
Publication Guidelines : COPE Guidelines
Indexing In Google Scholar, ResearcherID, Mendeley : reference manager, Academia.edu, arXiv.org, Research Gate, CiteSeerX, DocStoc, ISSUU, Scribd, and many more.

About JETIR (An International Open Access Journal) :

- » International Journal of Emerging Technology and Innovative Research
- » An International Open Access Journal
- » ISSN - 2349-5162

ISSN Number

ISSN INTERNATIONAL STANDARD SERIAL NUMBER
ISSN : 2349-5162
9 772349 516207

Impact Factor

5.87
Impact Factor

DOI

doi
figshare

Important L...

Contact Us
Click Here

Call f...

- Publication Guidelines
- Submit Paper Online
- Track Your Paper
- Join As Reviewer
- Join As JETIR Team
- Conference Proposal

Archives

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

GREEN SYNTHESIS OF SILVER NANOPARTICLES FROM *PUNICA GRANATUM L.* AND STUDY OF ITS ANTIMICROBIAL AND ANTIOXIDANT ACTIVITY

Rajguru Shubhangi A,Humbarwadi Shweta V, Kutty Prajitha N&Pauldas Kirubha
Department of Microbiology, SICES Degree College of Arts, Science & Commerce, Ambarnath (W), University of Mumbai, M.S; India.

Abstract: Pomegranate (*Punica granatum* L.), a rich red coloured fruit is found in arid and semiarid parts of the world. Although the fruitoriginated in Iran, it is now widely cultivated. India is one of the leading producers of Pomegranate in the world. Enriched nutritional & medicinal values, exquisite fruit quality has led to a huge demand for this fruit in domestic and international market. In the present investigation, green synthesis of Silver nanoparticles from the seed extract of Pomegranate fruit was performed. The green synthesis method was less expensive, convenient and was monitored by UV-Vis spectroscopy. The antibacterial activity of the nanoparticles was studied by Agar cup method. These biologically synthesized nanoparticles exhibited good antibacterial activity against both Gram positive, Gram negative and yeast test isolates. Antioxidant activity of the extract was checked by ABTS & Reducing power assay. The seed extract exhibited high antioxidant activity. These particles can therefore be further exploited to study their therapeutic applications.

Key words: Green synthesis, Pomegranate extract, Silver nanoparticles, Antimicrobial activity, Antioxidant activity.

I. INTRODUCTION

In the last few decades, there has been a growing amount of research on nanotechnology, particularly involving the green synthesis and characterization of nanoparticles, as nanoparticles less than 100 nm in size are ideal agents for drug delivery and biomedical applications(Dipankar & Murugan.,2012;Banse & Ledwani;2016)

Three methods of nanoparticle production exist today-chemical, physical and "green" routes, with the green route involving the employment of biological reducing agents, including plant extracts and microbial filtrates (Sharma & Dev., 2014; Arokiyaraj & Kim., 2014). The first two methods are often costly and generate toxic by-products (Kesharwani & Rai., 2009; Padalia & Chanda.,2015) but the green nanosynthesis method has been recognized as an inexpensive and eco-friendly process (He & Zhao., 2013; Sharma & Lin., 2009). Metal Oxide nanoparticles have attracted worldwide attention because of their increased use in a variety of fields such as electronic, cosmetic, biomedicine, energy, environment, catalysis and material science (Bar & Misra.,2009;Ahmed & Ikram.,2016). Among the noble metal nanoparticles, AgNPs have received considerable attention due to their attractive physicochemical properties and applications in medicine (Mallikarjuna & Raju., 2011; Chauhan & Rishi., 2011)

Pomegranate can be divided into several anatomical compartments including seed, juice, peel, leaf, flower, bark and root with each possessing interesting pharmacological and toxicological activities (Gnanajobitha & Annadurai., 2013) The edible fruit is a berry, about 5-12 cm in diameter with a rounded hexagonal shape, thick reddish skin and around 600 seeds, each surrounded by a water-laden pulp (aril) ranging in color from white to deep red or purple, aril is the edible part of the fruit. Antioxidants are extensively studied for their capacity to protect cell from damage induced by oxidative stress. A number of synthetic antioxidants like butylated hydroxyl anisole, toluene and gallic acid esters are also available but

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Mankivali Phata, Ambernath (W)

Volume 6, Issue 2 (VI)
April - June 2019

ISSN 2394 - 7780



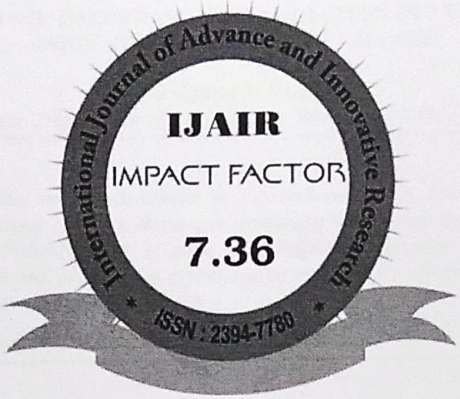
University Grants Commission
Journal No.: 63571

International Journal of
Advance and Innovative Research

(Part - 2)

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Janbhol Phata, Ambernath (W)

Indian Academicians and Researchers Association
www.iaraedu.com

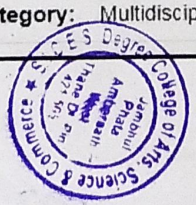




Journal - 63571

UGC Journal Details

Name of the Journal :	International Journal of Advance & Innovative Research
ISSN Number :	
e-ISSN Number :	23947780
Source:	UNIV
Subject:	Multidisciplinary
Publisher:	Indian Academicians and Researchers Association
Country of Publication:	India
Broad Subject Category:	Multidisciplinary



IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

Jambhul Phata, Ambernath (W) - 421 505.

International Journal of Advance and Innovative Research
Volume 6, Issue 2 (VI): April - June, 2019 Part - 2

ISSN 2394 - 7780

GLUCOSE PHOSPHATE ISOMERASE (GPI) VARIATION IN TRIPLOID OYSTER-AN INDICATOR FOR CLIMATE CHANGE

Dr. Jyothi V. Mallia
Assistant Professor, Department of Zoology, SICES Degree College, Ambernath (W)

ABSTRACT
In present study triploid edible oysters produced in lab and reared in Tuticorin bay were analysed and compared with diploid for Isozyme Glucose phosphate isomerase which is an important enzyme for controlling glucose level in eukaryotes. Polymorphism in gene level help the organism to survive the climate change especially at high temperature and pH and the expression of the gene by allozyme analysis can be used as an indicator for organism selection during aquaculture

Keywords: Polymorphism, Triploidy, climate change, GPI, Edible oyster

INTRODUCTION

Climate change is harmfully affecting aquaculture systems all around the world as it mainly effects on species physiology (De Silva 2012). It is therefore imperative that vulnerable aquaculture industries are identified, thereby allowing researchers, managers and stakeholders to optimally allocate financial and human resources to address the key challenges and develop adaptation strategies

In the present study main objective was to note the specific relationships between triploids, population fitness and climatic stress in edible oyster, *Crassostrea madarasensis* (Preston) a filter feeding bivalve mollusc by subjecting diploid and triploid populations produced in lab condition and cultured in tuticorin bay. We specifically tested whether the tendency for triploids dominate more extreme, aquatic condition. Triploid organisms have limited capacity to mature and in most species where triploid individuals do not produce gametes or viable larvae and are considered to be sterile. An advantage of sterile organisms is that they transfer less biochemical energy to the gonad, so the other tissues can gain more weight over time. Induction of triploidy and its evaluation has been carried out in India (Mallia, 2004) and other molluscs of commercial interest (Guo and Allen 1994; Utting *et al*., 1996),

Allozymes are mostly primary products of transcriptionally active genes and it is assumed that a specific enzyme profile is the reflection of the genetic makeup of a given species. They may be used to "fingerprint" a species/stock/individual considering all other variables as constant (Sarangi and Mandal, 1996). Allozymes offer a potentially powerful and reliable tool for resolving genetic relatedness/divergence questions by employing the degree of polymorphism of diverse alleles at different loci involved in translating specific enzymes and their varied multiple molecular forms. They have been used widely as molecular tags in genetic, phylogenetic, taxonomic and evolutionary studies and in strain or type identification (Richardson *et al.,* 1986).

Electrophoretic separation of allozymes provides a visual presentation of the products of a single gene. The application of electrophoretic techniques on genetically controlled polymorphic enzymes can also be used to confirm gynogenesis and polyploidy (Ryman and Utter, 1986). Electrophoresis is particularly applicable for diagnosis of ploidy because it allows direct visualization of gene duplication at discrete structural gene loci (Allen *et al.,* 1982). It has also been applied effectively to a considerable array of studies to determine gene dosages in polyploid vertebrates (Balasano *et al.,* 1972).

Glucose phosphate isomerase (GPI) is one of commonly used isozymes in molluscs, (Allen *et al.,* 1982; Hawkins *et al.,* 1994; Magoulas *et al.,* 2000). According to Allen *et al.* (1982) these enzymes were found to be sufficiently heterozygous for screening of diploids from polyploids. According to Balasano *et al.* (1972) it is also possible to determine the frequency of triploidy by screening albumin phenotypes in natural populations. Beaumont and Kelly (1989) point out that triploid mussels can serve as a useful research tool to address current genetic phenomena such as heterozygosity with growth correlations and heterozygote deficiencies in marine bivalves. In the induction of triploidy by targeting meiosis I, the homologous chromosomes that normally separate from each other at this stage of cell division are prevented from doing so, and thus, all of the heterozygosity of the female parent is retained in the egg. The addition of the male haploid chromosome set further increases heterozygosity beyond that of meiotic II induced triploids or diploids. It has been suggested by Stanley *et al.* (1984) that I meiotic triploids have higher heterozygosity levels than II meiotic triploids.

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

International Journal of Advance and Innovative Research
Volume 6, Issue 2 (VI): April - June, 2019 Part - 2
ISSN 2394 - 7780

ANALYSIS OF WATER QUALITY OF CHIKHLOLI LAKE OF AMBERNATH, DISTRICT THANE, MAHARASHTRA, BY USING SOME PHYSICO -CHEMICAL PARAMETERS

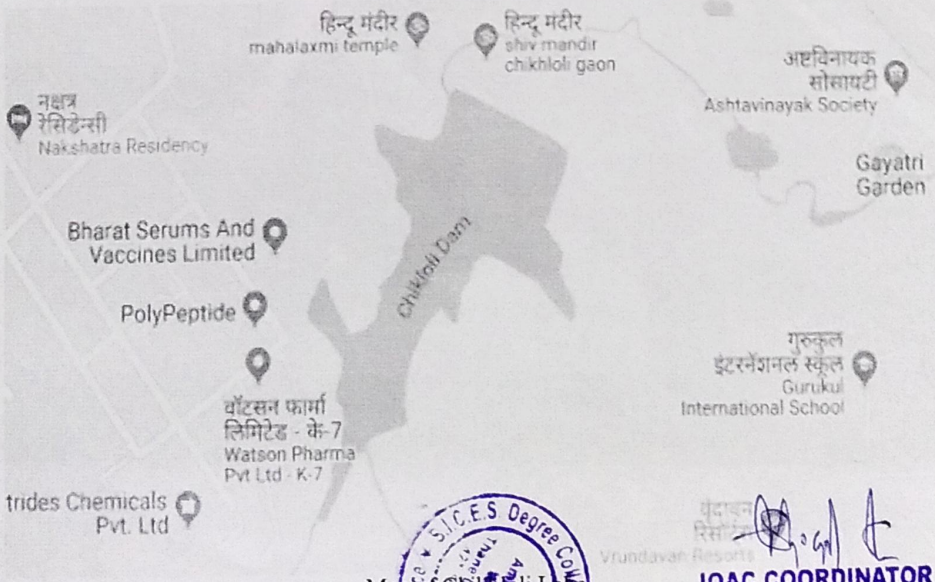
Mudaliar Shanti L.[1] and Patel Alpa K.[2]
Assistant Professor, Department of Botany, S. I. C. E. S. Degree College, Ambernath (W)

ABSTRACT
Ambernath Taluka is located in Thane district and has a varied geographical structure with hills which descend from Matheran ranges. The area has wide range of Plant Biodiversity & few water bodies like lakes and Ulhas River flowing through it. With this Ambernath also has a semi urban and well developed residential area, as well as heavily polluted industrial areas. Present investigation deals with the study of physico-chemical parameters of Chikhloli Lake of that area. The Parameters selected were Temperature, pH, BOD, Alkalinity, Hardness etc. The lake water is not used for drinking, agriculture and other domestic purpose. By observing the result it can be concluded that the readings are not within a range of permissible limit of standards (BIS, IS-10500, FAO). The result shows that overall water quality was found unfit for drinking and irrigation purpose.

Keywords: Chikhloli Lake, Physicochemical parameter, BOD, Hardness.

INTRODUCTION

Water is a vital and unique element as it is can be naturally found as a solid, liquid or gas. India receives about 1400-1800mm of rainfall annually. About 96% of this water is used for agriculture, 3% of domestic use and 1% for industrial activity. An analysis revealed that about 70% of all the available water in our country is polluted due to the discharge of effluent from the industries, domestic waste, land and agricultural drainage [1]. Water resources are of critical importance to both natural ecosystem and human development. It is essential for agriculture, industry and human existence. The healthy aquatic ecosystem is depended on the physico-chemical and biological characteristics [2]. The quality of water in any ecosystem provides significant information about the available resources for supporting life in that ecosystem. Good quality of water resources depends on a large number of physico-chemical parameters and biological characteristics. To asses that monitoring of these parameters is essential to identify magnitude and source of any pollution load. These characteristics can identify certain condition for the ecology of living organisms and suggest appropriate conservation and management strategies. Water is universal solvent dissolving a number of substances that it comes in contact with. However water for human consumption and other domestic purposes should be free from disease causing organisms, poisonous substances, excessive amount of minerals and organic matter. It should also be free from color, turbidity, taste and odour. [3] Now a day due to rapid industrialization, deforestation and over population most of our natural water bodies are gradually becoming degraded to a great extent. Unplanned and excessive exploitation resulted.



Map Of Chikhloli Lake

S.I.C.E.S Degree College of Arts, Science & Commerce
IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

P - ISSN 2347 - 5021
e - ISSN 2347 - 503X

Research Chronicler

International Multidisciplinary Research Journal

ol VI Spl. Issue II : August - 2018

Guest Editor
Dr. R. J. Solomon





Special issue of the
International Conference on
"Wholistic Health and Wellbeing:
Unifying Body, Mind and Spirit"

S.I.C.E.S. Degree College of Arts, Science & Commerce
Jambhul Phata
Ambernath (W)
Thane Dt. Pin 421 505.

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W) - 421 505.

University Grants Commission, New Delhi Recognized Journal No. 41311
ISSN: Print: 2347-5021 www.research-chronicler.com ISSN: Online: 2347-503X

Spiritual Wellbeing: Yoga and Meditation

Dr. D. M. Sapkal

S.I.C.E.S. Degree college of Art's Commerce and Science College Ambernath

Abstract

Health is a state of complete physical, mental and social wellbeingness and not merely the absence of any disease. Today's life being very fast and competitive, due to which we cannot get enough time for exercise. Lifestyle includes the daily routine and deferent types of food that can be consumed by the human being. Nowadays the consumption of junk foods like Burgers, Pizza, Chinese foods etc. are easily available in the fast-food shops and our young generation is attracted towards it. Due to this such people are getting sick frequently. The habits like staying on bed till late morning and going to bed late night frequent changes in meal timings, lack of physical exercise like morning walk, jogging, cycling, swimming, outdoor sports games will affect on physical and mental health of the peoples. If peoples fall to sick frequently, people should follow right lifestyle. It must include sufficient sleep, right and hygienic food, Yogasanas, Pranayam and physical exercise. The physical exercise should also be depending on as per one's own capacity. Pranayam and yogasanas should be performing under the expert supervision. India has spiritual culture around thousands of years. Yoga and meditation have been used as a different form of exercise to keep the mind and body healthy and very happy. Yoga is a common group of spiritual, physical and mental practices those are originated in ancient India. The origins of yoga have been speculated to date back to pre- Vedic Indian traditions, it is mentioned in the Rig-Veda, but mostly developed in the fifth and sixth centuries BCE, In Ancient India's ascetic and sramana movements. The daily practicing of yoga it improves physical health and relaxes the mental stress of human being. Yoga improves balance, flexibility, endurance and strength. Mediation is a technique, such as focusing our mind on a particular object, thought or activity to achieve a mentally clear and emotionally clam state, can be defined as a practice where an individual uses. Meditation has been practiced since antiquity in numerous religious traditions and beliefs. Since the 19th century, it has spread from its origins to other cultures where it is commonly practiced in private and business life. Mediation helps to keep the mind sharp, relieves stress and anxiety, and can strengthen your immune system of human being. Meditation

S.I.C.E.S. Degree College of Arts, Science & Commerce Jambhul Phata Ambernath (W) Thane Dt. Pin 421 506

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE

International Journal of
Life Sciences
International Peer Reviewed Open Access Refereed Journal

Special Issue A 9: January 2018
UGC Approved Journal No 48951

Original Article | Open Access

Study in relation to Biodiversity of Aeromycological species in chikhloli, Ambarnath, MS, India

Patel Alpa K and Patil Vivekkumar V

Botanical Research Laboratory, Department of Botany, S.I.C.E.S. Degree College of Arts, Science and Commerce, Ambernath (W), University of Mumbai, Mumbai, MS, India.
Email: alpap25@gmail.com

Manuscript details:

Available online on
http://www.ijlsci.in

ISSN: 2320-964X (Online)
ISSN: 2320-7817 (Print)

Editor: Dr. Arvind Chavhan

Cite this article as:
Patel Alpa K and Patil Vivekkumar V (2018) Study in relation to Biodiversity of Aeromycological species in chikhloli, Ambarnath, MS, India, *Int. J. of. Life Sciences*, Special Issue, A9: 111-113.

Copyright: © Author, This is an open access article under the terms of the Creative Commons Attribution-Non-Commercial - No Derives License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

ABSTRACT

The present investigation is carried out in Chikhloli area of Ambarnath, which has varied geographical structure. Climate is comparatively less humid and temperature is variable. Extramural aerobiological research includes aero microbial survey at various places of chikhloli region. The Aeromycologocal survey was carried out from March 2016 to February 2017 by using Petri – plate exposure method. Total Twenty two micro fungi trapped from the air. This study is very important with respect to qualitative and quantitative information about the airborne fungi. The prevalence of dominant airspora was found to be correlation with the metrological parameter like Temperature and Humidity. The maximum mycoflora was registered during the monsoon period between July to October, which is gradually decreased during summer from March to June.

Keywords: Aeromycologocal, Metrological parameter, Petriplate exposure method, Micro fungi.

INTRODUCTION

Aerobiology is a scientific and multidisciplinary approach focused on the biodiversity of biological significant materials. It is deal with the science which provides information from various disciplines like ecology, mycology, plant pathology, palynology, bio-chemistry, immunology and clinical medicine. Fungi are the most important aero allergens. Fungal spores constitute a significant fraction of air borne particles. They occur in varying concentration in the atmosphere depending upon the climatic factors, locations.

The present study was carried out to identify prevalence of dominant airspora at the various location of Ambarnath and to study the correlation with the metrological parameter like Temperature and

International Journal of Pharmacy and Biological Sciences
ISSN: 2321-3272 (Print), ISSN: 2230-7605 (Online)
IJPBS™ | Volume 8 | Issue 4 | OCT-DEC | 2018 | 1121-1126
Research Article | Biological Sciences | Open Access | MCI Approved | ज्ञान-विज्ञान विमुक्तये
|UGC Approved Journal |

GREEN SYNTHESIS AND STUDY ON ANTIMICROBIAL ACTIVITY OF NANOPARTICLES FROM FLORAL EXTRACT OF *CHRYSANTHEMUM INDICUM*

S. V. Humbarwadi*[1] and A. K. Patel[2]

[1]Department of Microbiology, S.I.C.E.S. Degree College of Arts, Science and Commerce, Jambhul Phata, Chikhloli, Ambarnath (W.)- 421505, Dist. Thane. University of Mumbai

[2]Department of Botany, S.I.C.E.S. Degree College of Arts, Science and Commerce, Jambhul Phata, Chikhloli, Ambarnath (W.) - 421505, Dist. Thane. University of Mumbai

*Corresponding Author Email: shwetapatil2189@gmail.com

ABSTRACT

Chrysanthemum indicum widely available flowers have long been used in traditional Korean and Chinese medicine to treat inflammatory diseases. C. indicum is well known for its use in food additives for enhancing flavors, in teas and alcoholic beverages from the ancient times. Now a day's C. indicum has been used as an herbal medicine, which is prescribed for anti-inflammatory, analgesic, antipyretic purposes and the treatment of eye diseases. The bioactive components in C. indicum are glycosides and flavonoids has the ability to act as antibiotic against many species of disease causing bacteria. However, the pharmacological activity and bioactive constituents of this natural medicine are left uncharacterized. C. indicum can be used in the form of ethanolic extract, essential oil and air dried and processed flowers. The present study reveals the medicinal use and antibacterial properties of ethanolic extract of Chrysanthemum indicum and its nanoparticles against oral, skin, enteric and Nosocomial bacteria. It shows effectivity against oral, skin and enteric bacteria while nosocomial bacteria shows resistance.

KEY WORDS

antibacterial properties, Chrysanthemum indicum, glycosides and flavonoids, herbal medicine, Silver nanoparticles

INTRODUCTION

Chrysanthemum indicum is an erect, aromatic, perennial plant, which is harvested from the wild for local use as a food and medicine. It is a plant of temperate origin; it can be grown successfully in tropical areas. The phytoconstituents isolated from plants have chemical substances which bind to effective target sites in human body. The most important bioactive compounds from plants are alkaloids, glycosides, terpenoids, steroids, flavonoids, tannins, saponins, sugars, cumarins, proteins, and phenols [1]. Flavonoids are proved to be important bioactive in herbal plants Several flavonoids and glycosides have been isolated from medicinal plants and which play a vital role in healthcare systems of the most traditional and modern medicines. *Chrysanthemum indicum* has been used as a herbal medicine, which is prescribed for anti-inflammatory, analgesic, antipyretic purposes and the treatment of eye and skin diseases. The *C. indicum* has a long history using as an Oriental traditional medicine for the treatment of several infectious diseases such as pneumonia, colitis, stomatitis, cancer, fever, and used to treat migraine, pertussis, and hypertensive symptoms. The phytochemicals of *C.indicum* leaves are also responsible for anti-proliferative effect in yeast can be purified and explored for anticancer potential in humans. [2]

Edible parts of Chrysanthemum indicum:

The flower heads are pickled in vinegar. Young leaves - cooked. An aromatic tea is made from the leaves. [3]

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

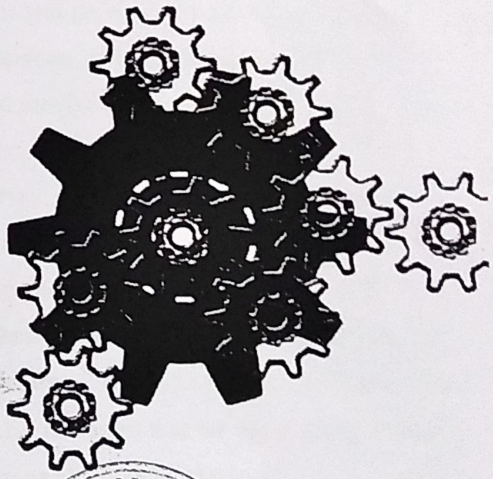
ISSN 2277 - 5730
AN INTERNATIONAL MULTIDISCIPLINARY
QUARTERLY RESEARCH JOURNAL

AJANTA

Peer Reviewed Referred and
UGC Listed Journal
(Journal No. 40776)

Volume - VII, Issue - II
English Part - III
April - June - 2018

IMPACT FACTOR / INDEXING
2017 - 5.2 www.sjifactor.com



AJANTA PRAKASHAN

S.I.C.E.S. Degree College of Arts, Science & Commerce
Jambhul Phata
Ambernath (W)
Thane Dt. Pin 505.

13/03/2021
IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

Scanned by CamScanner

6. Information Seeking Behavior in Sices Degree College of Arts, Science & Commerce, Ambarnath (West)

Dr. Sanghrsh S. Gajbe
Librarian, S.I.C.E.S. Degree College of Arts, Science & Commerce, Jambhul Phata, Chikloli, Ambernath (W)

Abstract:

Aim of this study was to investigate the availability and utilizations of existing resources of the libraries in the study. Students were selected as sample on the basis of their availability The data for this survey was collected through questionnaires of students. The results revealed that libraries are. Lack of human and material resources was the main reason for underutilization Student mostly visit library for reading books, preparation of assignment and consume spare time. It is concluded that improved library services and provisions can enhance the relevance and utilization of libraries.

Keywords: libraries, library resources, user servey,

Introduction:

The academic libraries have been described as the "heart" of the learning community, providing a place for students and faculty to conduct their research and advance their knowledge. In the education system, an academic library is the centre of academic life. Understanding the needs of the target group will help to develop the diverse strategies that are appropriate to obtain effective results. For user –centered service the library needs to know the users and user needs. One of the main tools that can be used to evaluate and assess the library services is the user survey. It is impossible to assess the changing needs of the clientele unless user surveys are conducted to determine user needs and their reading interests.

1. User surveys:

Library services stated that library surveys are shifting their emphasis toward the library user, patterns of library use, and the degree to which user needs are being met. Busha and Harter (1980),

S.I.C.E.S. Degree College of Arts, Science & Commerce Jambhul Phata Ambernath (W) Thane Dt. Pin 421 505.

13/03/2021
IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

Scanned by CamScanner

Impact Factor – 6.261 ISSN – 2348-7143

INTERNATIONAL RESEARCH FELLOWS ASSOCIATION'S

RESEARCH JOURNEY

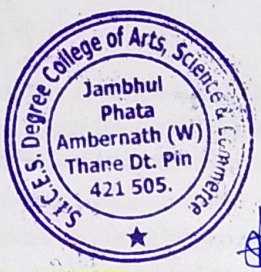
Multidisciplinary International E-research Journal

PEER REFREED & INDEXED JOURNAL
December-2018 Special Issue – LXXVIII

Guest Editor :
Dr. C. S. Kakade
Principal
Anandibai Raorane Arts, Commerce & Science College,
Vaibhavwadi, Dist. Sindhudurg [M.S.] INDIA

Chief Editor -
Dr. Dhanraj T. Dhangar,
Assist. Prof. (Marathi)
MGV'S Arts & Commerce College,
Yeola, Dist – Nashik [M.S.] INDIA

Executive Editor of the issue:
Prof. Kishor Waghmare
Librarian
Anandibai Raorane Arts, Commerce & Science College,
Vaibhavwadi, Dist. Sindhudurg [M.S.] INDIA



13/03/2021
IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)



This Journal is indexed in :
- University Grants Commission (UGC)
- Scientific Journal Impact Factor (SJIF)
- Cosmoc Impact Factor (CIF)
- Global Impact Factor (GIF)
- International Impact Factor Services (IIFS)

For Details Visit To : www.researchjourney.net

SWATIDHAN PUBLICATIONS

INTERNATIONAL RESEARCH FELLOWS ASSOCIATION

'RESEARCH JOURNEY' International Multidisciplinary E- Research Journal
Impact Factor - (SJIF) - 6.261, (CIF) - 3.452(2015), (GIF)-0.676 (2013)
Special Issue 78 :
UGC Approved Journal
ISSN : 2348-7143
December-2018

Website Analysis of Engineering Colleges in Sant Gadge Baba Amravati University, Amravati.

Mr. Sangharsh S. Gajbe
Librarian
S.I.C.E.S. Degree College of Arts, Science & Commerce Ambernath (W)
Dist- Thane, Maharashtra State, India
gajbesangharsh10@gmail.com

Abstract-

This study examines the 27 engineering college of Sant Gadge Baba Amravati University, Amravati. Investigates the domain systems of the websites, analysis the number of web pages and link pages and calculates the simple web impact factor, self link web impact factor, external link web impact factor and revised web impact factor and ranks the websites as per the WIF.

Keywords: Webpage, Website, Webometric, Link analysis, web impact factor, Engineering Colleges, Sant Gadge Baba Amravati University, Amravati.

Introduction

The world wide web has now become one of the main sources of information to academic and research activities, and therefore, is an excellent platform to test new method of evaluating webometrics. Webometrics research has been conducted by both information scientists and computer scientists, with different motivations. Within information science, webometrics has expanded from its initial focus on bibliometric-style investigations to more descriptive and social science oriented research. It seems likely that webometric techniques will continue to evolve in response to new web developments.

Definitional Analysis

Webometrics:

the study of quantitative aspect of web/web site. The science of webometrics (also cybermetrics) tries to measure the World Wide Web to get knowledge about the number and types of hyperlinks, structure of the World Wide Web and usage patterns. According to Björneborn and Ingwersen (2004), the definition of webometrics is "the study of the quantitative aspects of the construction and use of information resources, structures and technologies on the Web drawing on bibliometric and informetric approaches."

Link analysis

ss Link analysis is the quantitative study of hyperlinks between web pages. The use of links in bibliometrics was triggered by Ingwersen's Web Impact Factor (WIF), created through analogy to the JIF, and the potential that hyperlinks might be usable by bibliometricians in ways analogous to citations . The standard WIF measures the average number of links per page to a web space (e.g., a web site) from external pages. The hypothesis underlying early link analysis was that the number of links targeting an academic web site might be proportional to the research productivity of the owning organisation, at the level of universities, Essentially the two are related because more productive researchers seem to produce more web content, on average, although this content does not attract more links per page. Nevertheless, the pattern is likely to be

S.I.C.E.S. Degree College of Arts, Science & Commerce Jambhul Phata Ambernath (W) Thane Dt. Pin 421 505.

13/03/2021
IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

IOPscience

PAPER

Study of In_2O_3 and α-Fe_2O_3 nano-composite as a petrol vapor sensor

Vikas V Deshmane[1] and Arun V Patil[2]

Published 14 November 2018 • © 2018 IOP Publishing Ltd

Materials Research Express, Volume 6, Number 2

Citation Vikas V Deshmane and Arun V Patil 2019 *Mater. Res. Express* **6** 025904

desh8299vv@gmail.com

[1] Department of Physics, SICES Degree College, Ambarnath (W), Thane, Maharashtra, India

[2] L. V. H. College, Panchavati, Nasik, Maharashtra, India

Vikas V Deshmane https://orcid.org/0000-0001-6351-4162

Received 23 August 2018
Revised 23 October 2018
Accepted 1 November 2018
Published 14 November 2018

Check for updates

Method: Single-anonymous
Revisions: 2
Screened for originality? Yes

https://doi.org/10.1088/2053-1591/aaed90

Buy this article in print

Journal RSS

Sign up for new issue notifications

Create citation alert

Abstract

In this experiment we studied morphological, structural and gas sensing properties of the In_2O_3-α-Fe_2O_3 nanocomposite films prepared by mechanical mixing. Iron oxide (α-Fe_2O_3) was prepared by co-precipitation method. We added 1 wt%, 3 wt%, 5 wt% and 7 wt% of In_2O_3 in synthesized iron oxide by mechanical mixing. Films of In_2O_3 additive and iron oxide were prepared using screen printing method. XRD study was employed to find out content and structure of the films. SEM analysis was carried out to understand film morphology. EDS analysis was carried out to understand elemental constituents of the films. Static gas sensing apparatus was used to study response of films for various gases. Properties like sensitivity, selectivity, response and recovery time were calculated. Petrol vapor sensors are not reported yet. At 250 °C these In_2O_3-α-Fe_2O_3 nano-composite films showed good response of 50% for petrol vapors as compared to other four gases. We discussed probable mechanisms for gas sensing.

This site uses cookies. By continuing to use this site you agree to our use of cookies. To find out more, see our Privacy and Cookies policy.

Export citation and abstract BibTeX RIS

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

S.I.C.E.S. Degree College of Arts, Science & Commerce Jambhul Phata Ambernath (W) Thane Dt. Pin 421 505.

I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

Indian Journal of Pure & Applied Physics
Vol. 56, April 2018, pp. 269-275

Dielectric relaxation behaviour of triethylene glycol [TEG]+water mixture as a function of composition and temperature using TDR technique

P G Hudge[a], R N Pawar[b], B D Watode[c] & A C Kumbharkhane[b]*

[a]Department of Physics, S I C E S Degree College of Arts, Science and Commerce, Ambernath 421 505, India
[b]School of Physical Sciences, S R T M University, Nanded 431 606, India
[c]Department of Physics, Phulsing Naik Mahavidhyalaya, Pusad 445 216, India

Received 13 March 2018

The complex dielectric spectra of binary mixture of triethylene glycol [TEG] + water have been carried out at different concentrations and temperatures (0 °C, 5 °C, 10 °C, 15 °C, 20 °C and 25 °C) in the frequency range of 10 MHz to 30 GHz using time domain reflectometry technique. The static dielectric constant (ε_0), relaxation time (τ), Kirkwood correlation factor (g^{eff}), excess permittivity (ε_0^E), thermodynamic parameters (activation enthalpy and entropy) and Bruggeman factor (f_B) have been determined for binary mixtures. The Bruggeman model for the nonlinear case has been fitted to the dielectric data. These dielectric parameters confirm that the intermolecular homogeneous and heterogeneous hydrogen bonding vary significantly with the increase in concentration of the triethylene glycol in water mixtures.

Keywords: Triethylene glycol, Time domain reflectometry, Dielectric relaxation, Kirkwood correlation factor, Thermodynamic parameter

1 Introduction

It is known that in heteromolecular interactions of solutions of aliphatic compound with water an important role is played by number of hydroxyl groups in the alcohol. Aqueous solutions are fundamentally involved in the chemical processes of life and all of biological chemistry takes place in an aqueous environment and have found extensive applications, mostly because of their wide application in the field of biochemistry and biochemical engineering. Aqueous solutions are perplexing since they adopt some of the eccentric behaviour of water. The eccentricities of aqueous solutions are closely tied to the structure and dynamics of the liquid.

Triethylene glycol [TEG] [$C_6H_{14}O_4$] is a straight-chain. It has dihydric alcohol aliphatic compound on both ends by hydroxyl group. Due to the presence of ends hydroxyl groups, the molecules of these liquids can enter into intra and intermolecular hydrogen bonding giving rise to several conformations in water mixture[1-4]. TEG molecules are soluble in water in a wide concentration range and are the most useful pharmaceuticals and industrial polymers. TEG is used in the oil and gas industry to dehydrate natural gas. Although TEG compound finds important applications in the chemical industry, their structural behaviour and dielectric relaxation have not been systematically studied and only few authors reported concerning these aspects[4]. Dielectric spectroscopy is one of the most scientific method for studying hydrogen bonding in liquid mixtures and has great potential to investigate intermolecular interaction between them. The dielectric relaxation studies of ethylene glycol, diethylene glycol and their binary mixtures were investigated in water and 1,4-dioxane solutions to understand molecular interaction[1,2]. Dielectric relaxation studies of binary mixtures of ethylene glycol-water carried out by Zahn *et al.*[5]. The same study was done by Shinyashiki *et al.*[6]. This work confirms the solute-solvent interaction and dynamical behaviour of water[6-9]. Also the dielectric studies carried out by Joshi *et al.*[10] and Sastry *et al.*[11]. Extensive dielectric relaxation studies were carried out in the frequency range from 10 MHz to 10 GHz on the associating molecules for their molecular conformations[12-14]. The dielectric parameters of EG-water and DEG-water mixtures predict that polymeric hydrogen bonded structures involving unlike molecules in DEG is more dominant than in EG[15]. No attempt, so far, seems to have been made to study the

*Corresponding author (E-mail: akumbharkhane@yahoo.co.in)

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

S.I.C.E.S. Degree College of Arts, Science & Commerce
Jambhul Phata
Ambernath (W)
Thane Dt. Pin
421 505.

I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

IOPscience

PAPER • OPEN ACCESS

Dielectric dispersion, relaxation and molecular interaction of pyrazine binary mixtures

P Senthilkumar[1], T Ganesh[2], K Vinoth[2], M Maria Sylvester[3], D J S Anand Karunakaran[3], Praveen G Hudge[4] and A C Kumbharkhane[5]

Published 27 March 2018 • © 2018 The Author(s). Published by IOP Publishing Ltd

Journal of Physics Communications, Volume 2, Number 3

Citation P Senthilkumar *et al* 2018 *J. Phys. Commun.* **2** 035042

tgsastra@gmail.com

[1] Department of Physics, Saranathan College of Engineering, Anna University, Tiruchirapali-620012, Tamil Nadu, India

[2] PG & Research Department of Physics, Rajah Serfoji Government College, Bharathidasan University, Thanjavur-613 005, Tamil Nadu, India

[3] PG & Research Department of Physics, Bishop Heber College, Bharathidasan University, Tiruchirapalli –620 017, Tamil Nadu, India

[4] Department of Physics, S.I.C.E. Society's Degree College of Arts, Science and Commerce Ambernath (west) Dist: Thane-MS, India

[5] School of Physical Sciences, Swami Ramanad Teerth Marthwada University, Nanded—431606, MS, India

T Ganesh https://orcid.org/0000-0003-2263-0356

Received 29 October 2017
Revised 25 January 2018
Accepted 13 February 2018
Published 27 March 2018

Check for updates

Method: Single-anonymous
Revisions: 2
Screened for originality? Yes

https://doi.org/10.1088/2399-6528/aaaee6

Buy this article in print

Journal RSS

Sign up for new issue notifications

Create citation alert

Abstract

The dielectric depressiveness, absorption and orientation behavior is investigated in relation to solution properties of pyrazine with water, methanol and ethanol for varying temperature and mole fraction. This behavior is discussed in terms of inter molecular bonding. Orientation effects and their dielectric properties are indicated by surface dipole potential changes by displacement of oriented solvent. The change dependence of polar structure with organic molecular orientation

Cookies policy.

IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

S.I.C.E.S. Degree College of Arts, Science & Commerce Jambhul Phata Ambernath (W) Dist. Thane Dt. Pin 421 505.

I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

World Scientific
Journal of Advanced Dielectrics | Vol. 07, No. 04, 1750027 (2017) | Research Papers

Open Access | CC

Dielectric dispersion and thermodynamic behavior of stearic acid binary mixtures with alcohol as co-solvent using time domain reflectometry

M. Maria Sylvester, T. Ganesh, D. J. S. Anand Karunakaran, P. Senthilkumar, Praveen G. Hudge and A. C. Kumbharkhane

https://doi.org/10.1142/S2010135X17500278 | Cited by: 6

< Previous Next >

Abstract

Dielectric permittivity and relaxation dynamics of binary and ternary mixture of stearic acid on various concentration and their thermodynamic effects are studied. The static dielectric constant (ε_0), dielectric permittivity (ε') and dielectric loss (ε'') are found by bilinear calibration. The relaxation time (τ), dielectric strength ($\Delta\varepsilon$) and the excess permittivity (ε^E) are found. The thermodynamic parameters such as enthalpy (ΔH), entropy (ΔS) and Gibb's free energy (ΔG) are evolved. The significant changes in dielectric parameters are due to the intramolecular and intermolecular interactions in response to the applied frequency. The permittivity spectra of stearic acid–alcohol in the frequency range of 10 MHz to 30 GHz have been measured using picoseconds Time Domain Reflectometry (TDR). The dielectric parameters (ε_0, ε', ε'') are found by bilinear calibration method. Influence of temperature in intermolecular interaction and the relaxation process are also studied. The FT-IR spectral analysis reveals that the conformation of functional groups and formation for hydrogen bonding are present in both binary and ternary mixtures of stearic acid.

Keywords:

20/03/2024
IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

College of Arts, Science & Commerce
Jambhul Phata
Ambernath (W)
Dt. Thane Pin 421 505.
S.I.C.E.S.

20/3/24
I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

World Scientific
Journal of Advanced Dielectrics | Vol. 06, No. 04, 1650034 (2016) | Research Papers
Open Access |

Dielectric properties of benzylamine in 1,2,6-hexanetriol mixture using time domain reflectometry technique

M. B. Swami, P. G. Hudge and V. P. Pawar

https://doi.org/10.1142/S2010135X1650034X | **Cited by:** 0

< Previous Next >

Abstract

The dielectric properties of binary mixtures of benzylamine-1,2,6-hexantriol mixtures at different volume fractions of 1,2,6-hexanetriol have been measured using Time Domain Reflectometry (TDR) technique in the frequency range of 10 MHz to 30 GHz. Complex permittivity spectra were fitted using Havriliak–Negami equation. By using least square fit method the dielectric parameters such as static dielectric constant (ε_0), dielectric constant at high frequency (ε_∞), relaxation time τ (ps) and relaxation distribution parameter (β) were extracted from complex permittivity spectra at 25 °C. The intramolecular interaction of different molecules has been discussed using the Kirkwood correlation factor, Bruggeman factor. The Kirkwood correlation factor (g_f) and effective Kirkwood correlation factor (g^{eff}) indicate the dipole ordering of the binary mixtures.

Keywords: Dielectric properties ▪ time domain reflectometry ▪ Kirkwood correlation factor ▪ Bruggeman factor

20/03/2021
IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

S.I.C.E.S. Degree College of Arts, Science & Commerce
Jambhul Phata
Ambernath (W)
Thane Dt. Pin
421 505.

20/3/21
I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath - 421 505.

Impact Factor (IIFS) - 0.331 http:// www.klibjlis.com eISSN No. 2394-2479

MAPPING OF LEPROSY LITERATURE: A BIBLIOMETRIC STUDY

Sangharsh S. Gajbe* **Dr. Shashank S. Sonawane****

***Librarian**
Degree College of Arts, Science & Commerce,
Ambernath (W),
Dist: Thane ,
Maharashtra,
India.

****Assistant Professor,**
Dept. of Library and Information Science,
Dr. Babasaheb Ambedkar Marathwada University,
Aurangabad,
Maharashtra,
India.

QR Code

ABSTRACT: - *The paper has done a bibliometric analysis of leprosy research. The data for the study has been downloaded from national centre for Biotechnology (NCBI) Pub Med. The study analyses literature growth trends. It also examines research activities in different countries worldwide. To identify the core journal, this published Leprosy research literature. The study also identifies the active institutions, which published the Leprosy literature the most.*

1. INTRODUCTION

There has been significant growth in the research literature on leprosy. Searching the literature in this area from the International database gives an insight into the pattern of growth of this literature. The paper intends to make a bibliometric study of leprosy-based literature. Bibliometric study is a simple statistical method of bibliography counting to evaluate and quantify the growth of a subject.

1. The data for the study was downloaded from the National Center for Biotechnology Information (NCBI) *Pub Med.*

2. *Pub Med* (Published Medical Literature) is an online version of *MEDLINE*, available free to anyone with internet access. *MEDLINE* is the National Library of Medicine's

SICES College of Arts, Science & Commerce Ambernath (W) Thane Dt. Pin 421 505.

13/03/2021
IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)

"KNOWLEDGE LIBRARIAN"
AN INTERNATIONAL PEER REVIEWED BILINGUAL E-JOURNAL OF LIBRARY AND INFORMATION SCIENCE
Volume: 02, Issue: 06, Nov. – Dec. 2015 eISSN NO. 2394-2479
Impact Factor (IIFS) - 0.331

AUTHORSHIP PATTERN AND DEGREE OF COLLABORATION IN THE LEPROSY RESEARCH: A SCIENTOMETRICS STUDY

Sangharsh S. Gajbe
Librarian
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambernath (W) Dist: Thane
Maharashtra, India.

Dr. Shashank S. Sonawane
Assistant Professor
Dept. of Library and Information Science Dr. Babasaheb Ambedkar Marathwada University
Aurangabad, Maharashtra, India

ABSTRACT

Abstract: In this study, we examine the authorship pattern and Degree of collaboration in Leprosy Research literature. For this purpose, the required data has been collected from the PUB Med Data Base published from 2003 to 2012. Scientometric tools such as, Authorship pattern, Degree of collaboration, collaboration co-efficient and dominance factor have been used. Applicability of Lotka's law has been tested. The study reveals that the coauthored papers are dominated and the author productivity follows the Lotka's law.

KEYWORDS: Bibliometrics, Scientometrics, Lotka's law, Authorship pattern, Degree of collaboration.

1.1 INTRODUCTION

Authorship studies provide valuable information concerning characteristics of authors, their collaboration, assessing and monitoring research activities among others. Some specific

S.I.C.E.S. Degree College of Arts, Science & Commerce
Jambhul Phata
Ambernath (W)
Thane Dt. Pin 421 505.

13/03/2021
IQAC COORDINATOR
SICES DEGREE COLLEGE OF ARTS, SCIENCE & COMMERCE
Jambhul Phata, Ambernath (W)