

Indian Journal of Pure & Applied Physics

<http://www.niscair.res.in>; <http://nopr.niscair.res.in>; Impact Factor: 0.521 (JCR 2016)

VOLUME 56

NUMBER 4

APRIL 2018

CODEN : IJOPAU 56(4) 253-356

ISSN : 0019-5596 (print); 0975-1041 (Online)

Special Issue

on

Dielectric Relaxation and Spectroscopic Techniques

[This special issue is based on the research papers presented in the National Conference on Dielectric Relaxation and Spectroscopic Techniques (NCDRAST-2017) at School of Physical Sciences, S R T M University, Nanded 431 606, India during December 14-15, 2017]

CONTENTS

Preface

A C Kumbharkhane & Ajay Chaudhari 255

Papers

- | | |
|---|-----|
| FTIR spectral studies and dielectric relaxation studies on binary solutions of ethyl acetate with bromobenzene
N K Karthick, G Arivazhagan, P P Kannan & A Mahendraprabu | 261 |
| Vibrational spectra for closoborate and metal doped closoborate using <i>ab initio</i> method
Ravinder Konda & Ajay Chaudhari | 265 |
| Dielectric relaxation behaviour of triethylene glycol [TEG]+water mixture as a function of composition and temperature using TDR technique
P G Hudge, R N Pawar, B D Watode & A C Kumbharkhane | 269 |
| Thermo acoustic and optical properties of aqueous polyvinyl pyrrolidone (PVP-40) using spectroscopic techniques
Kunal H Wananje, Komal B Kabara, Rahul P Sonsale, Mahesh S Kanshette & Arvind V Sarode | 276 |
| Study of dielectric relaxation and hydrogen bonding interaction in binary mixtures of methoxy polyethylene glycol and water
R N Mathpati, S B Shinde, D G Rathod, K S Kanse & Y S Joshi | 282 |
| Dielectric dispersion and thermodynamical effect of aqueous morpholine by using picosecond TDR
P Senthilkumar, T Ganesh, K Vinoth, M Maria Sylvester & D J S Anand Karunakaran | 288 |
| Temperature of the disc integrated sunlight from the intensity measurements of rotational lines of the bands of A-X system of CH molecule
Supriya Behere, Bhagawan Deshmukh, Sunil Patil & S H Behere | 294 |
| Dielectric dispersion study of glycol ethers and their binary mixtures with water
J B Shinde, D N Rander, S B Jadhav, S M Sabnis, Y S Joshi & K S Kanse | 301 |

Relaxation dynamics in crab hemolymph protein: A biophysical approach through dielectric spectroscopy K Kabara, K Wananje, R Sonsale, S Padghane & A Sarode	307
Microwave spectroscopy modelling for geophysical parameter retrieval using synthetic aperture radar (SAR) dataset M A Shaikh, S M Anpat, A K Dongare, P W Khirade, S B Sayyad	311
Time domain dielectric spectroscopic studies of interaction of rat tail tendon collagen with potassium oleate and cetylpyridinium chloride in aqueous acetate buffer solution D Gopalakrishnan & R Sampathkumar	315
Dielectric relaxation studies in water mixtures of dipropylene glycol using a time domain reflectometry technique P A Chalikwar, A W Pathan, A R Deshmukh, M P Lokhande & A C Kumbharkhane	321
Angle tunable trapped mode in a THz metamaterial Bagvanth Reddy Sangala, Harshad Surdi, Prathmesh Deshmukh, Goutham Rana, Venu Gopal Achanta & S S Prabhu	327
Spectroscopic analysis of sulphur dioxide adsorbed C_2H_4Ti complex: A first principles study Nilesh Ingale & Ajay Chaudhari	331
Dynamics and interactions in aqueous polyvinylpyrrolidone (PVP K-30): An approach using dielectric relaxation spectroscopy Arvind V Sarode, Ashok C Kumbharkhane & Suresh C Mehrotra	335
Spectroscopic characterization of metal decorated benzene and boron/nitrogen substituted benzene Priyanka Tavhare & Ajay Chaudhari	341
Dielectric relaxation and hydrogen bonding interaction of solvents using time domain reflectometry technique from 10 MHz to 50 GHz A R Deshmukh, R V Shinde, S A Ingole, A W Pathan, M P Lokhande, A V Sarode & A C Kumbharkhane	346