



ISSN:2319-6602
*International
Journal of
Chemical and
Physical Sciences*



State Level Seminar on
Emerging Trends in Physics
6th -7th Feb 2015

ISSUE Volume 4, Special Issue
Sp-5, ETP - May 2015



www.ijcps.org

PVK Graphics

An Open Access Online Bimonthly Journal
dedicated to Chemical and Physical Sciences



Editorial Board of IJCPS

Editor-in-Chief:

Dr. M. E. Shelke

Associate Professor of Chemistry, HVPM College of Engg. & Tech. Amravati, India

Executive Editor:

Er. P. V. Khandve

Assistant Professor in Civil Engineering, Prof Ram Meghe College of Engineering and Management, Badnera.

Special Issue Editorial Board:

Dr. Balkrishna N. Zaware

Convener, ETP – 2015

Principal, Anantrao Pawar College, Pirangut, Tal. Mulshi, Pune - 412 115.

Dr. Vijay H. Ghadage

Co-ordinator, ETP - 2015

Head, Department of Physics, Anantrao Pawar College, Pirangut, Pune - 412 115.

Dr. Y. B. Kholam

Organizing Secretary and Journal Guest Editor, ETP – 2015

Department of Physics, Anantrao Pawar College, Pirangut, Pune - 412 115.

Editorial Board:

Dr. A. S. Aswar

Professor of Chemistry, SGB Amravati University, Amravati, India

Dr. D. T. Tayade

Associate Professor of Chemistry, GVIH & S Amravati, India

Dr. R. E. Shelke

Principal, Govt. ITI Daryapur, Amravati, India

Dr. R. R. Deshmukh

Associate Professor of Physics, Institute of Chemical Technology, Mumbai, India

Dr. Dhiman Bhattacharyya

Postdoctoral Associate, Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, USA

Dr. Roman Dabrowaski

Head of Organic Chair and Liquid Crystal Laboratory, Military University of Technology, Warsaw, Poland

Bensafi Abd-El-Hamid

Associate Professor of Chemistry and Physics, Abou Bekr Belkaid University of Tlemcen/Tlemcen, Algeria

Dr. Santosh K. Mishra

INTEL TD Senior Process Engineer Scientist, INTEL, D1D Fab, Thin Films module, Hillsboro, Oregon, USA

Dr. R. K. Jadhao

Principal, Scientist Analitika Eco Lab Pvt. Ltd. Gwalior, India



Dr. Ramakrishna Edupuganti

Postdoctoral Research Fellow Cancer Prevention and Research Institute of Texas (CPRIT),
University of Texas, Austin, TX

Dr. Arezu Jahanshir

Assistant Professor Bueinzahra Technical University, Department of Physics, Islamic Republic of Iran Kazakh
National University, Department of Physics, Almaty, Kazakhstan

Dr. Ho Soon Min

Senior Lecturer & Faculty of Applied Sciences
INTI International University, Persiaran Perdana BBN, Putra Nilai, 71800 Nilai, Negeri Sembilan, Malaysia

Associate Editors:

Dr. R. B. Lanjewar

Associate Professor in Chemistry Dharampeth M.P.Deo Memorial Science College, Nagpur, India

Dr. (Mrs.) M. R. Lanjewar

Associate Professor in Physical Chemistry Department of Chemistry, Rashtrasant Tukdoji Maharaj
Nagpur University, Nagpur, India

Dr. Pushpinder Gupta Bhatia

Associate Professor in Physics
GN College of Arts, Science and Commerce, G.T.B. Nagar, Mumbai-37, India

Dr. (Mrs.) Vrushali R. Kinhekar

Associate Professor in Chemistry Department of Chemistry
G. H. Raison Institute of Engineering and Technology for Women, Nagpur, M.S. India

Dr. S. M. Kanawade

Professor in Chemical Engineering
Sir Visvesvaraya Institute of Technology, Chincholi, Dist-Nashik, M.S. India

Dr. Madhavrao K. Deore

Associate Professor of Physics, Department of Physics,
M.V.P. Samaj's, Arts, Science and Commerce College, Ozar(Mig), Tal.- Niphad, Dist.-Nashik, M.S. India



TABLE OF CONTENT

Paper No.	Title of Paper	Page No.
1]	Study of Stability Constant of Transition Metal Complexes with 7-Hydroxy Flavones Author: V. M. SHINDE, G. R. PANDHARE	1-6
2]	Study of Electrical Properties of Eucalyptus Sp. Plant Leaves Author: V. D. KULKARNI, P. D. KAD, V. N. NIGHOT, P. S. KULKARNI	7-9
3]	Analysis of Electro-kinetic Properties of NiFe ₂ O ₄ Nanoparticles Synthesized by Co-precipitation Method and its Effect on the Adsorption of BSA Author: S. V. BHOSALE, V. C. HOLKUNDE, S. V. BHORASKAR, V. L. MATHE	10-15
4]	Experimental Study of Glass Plate as a Nuclear Fission Track Detector for Fast and Slow Neutron Flux Measurement Author: G. R. PANSARE, S. R. PAPAT, P. A. KHARDEKAR S. D. DHOLE, V. N. BHORASKAR	16-21
5]	A Prototype Eco-farming model: Quantization of Biomass energies Author: U. K. MOHITE	22-27
6]	Investigating effects of Geopathic Stress on Health Parameters in Young Healthy Volunteers Author: S. D. AGHAV, P. S. TAMBADE	28-34
7]	Study of Nutrient Stresses in Plants by FTIR Spectroscopy Author: A. D. SURYAWANSHI, R. B. BHISE, D. D. SURYAWANSHI	35-39
8]	Measurement and Study of Soil pH and Conductivity in Grape Vineyards Author: S. F. DHAKANE	40-44
9]	Synthesis and Characterization of Ge-related Microstructures and Nanostructures Author: A.S. KATKAR, P. N. SHELKE, Y. B. KHOLLAM	45-49
10]	Synthesis and Characterization of Ni-Cu-Zn Ferrite Materials by Auto Combustion Technique Author: V. V. AWATI	50-59
11]	Structural and Electrical Properties of (1-x)Ni _{0.90} Co _{0.05} Mn _{0.05} Fe ₂ O ₄ + (x)BaTiO ₃ Magnetoelectric Composites Author: S. A. LOKARE, Y. B. KHOLLAM	60-68
12]	Enhancement of Photovoltaic Properties of Dye Sensitized Solar Cell using Nanocrystalline TiO ₂ Films Author: M.T. SARODE, Y. B. KHOLLAM, S. D. GUNJAL, P. N. SHELKE, B. B. KALE, K. C. MOHITE	69-77
13]	Measurement of Cross-Sections of (n, ?) Nuclear Reactions Induced by Thermal Neutrons for Sodium, Copper, Arsenic and Potassium Author: G. R. PANSARE, S. R. PAPAT, P. A. KHARDEKAR, S. D. DHOLE	78-82
14]	Solar Photocatalytic Activity of Hydrothermal treated P25 TiO ₂ Powder Author: H. P. SURYAWANSHI, K.M. SARODE, S. G. BACHHAV, D. R. PATIL	83-87



15]	Effect of Low Frequency Mechanical Vibrations on Human Blood (in vitro) Author: V. K. GHODAKE, G. R. KULKARNI	88-95
16]	Edible Oil Deterioration Analysis via. Optochemical Spectrum Analyzer Author: A.V. SHELKE, P. S. MORE, Y. B. KHOLLAM	96-103
17]	Pt Embedded Porous Aluminum based Gas Sensor Author: C. S. GHUGE, P. S. MORE, Y. B. KHOLLAM	104-109
18]	Soil Character Analysis via. Wide Band Optical Wave Guide Sensor Author: H. R. KHAMBAYAT, P. S. MORE, M. T. SARODE, Y. B. KHOLLAM	110-114
19]	Preparation of MgO nanostructure powder by sol-gel method Author: M. S. WAGH, A. M. PATIL, H. M. BAVISKAR, M. M. WAGH	115-117
20]	Doping Effects on LPG Gas Sensing Properties of Spray Pyrolyzed ZnO:Cu/CuO Films Author: P. S. MORE, Y. B. KHOLLAM	118-124
21]	Mass Absorption Coefficient of Gamma Radiations for Aluminum, Copper, Lead and Plastic (LDPE) Material Author: G. R. PANSARE, S. S. MORE, T. P. PANDIT, S. R. PAPAT	125-129
22]	Structural, Optical and Morphological Properties of Sprayed CuInS ₂ (CIS) films for solar cells Author: S. D. GUNJAL, Y. B. KHOLLAM, P. N. SHELKE, K. C. MOHITE	130-139
23]	Optical Properties of Co ₃ O ₄ Films Deposited by DC Electrochemical Method Author: P. N. SHELKE, S. D. GUNJAL, P. S. MORE, K. C. MOHITE, Y. B. KHOLLAM	140-147
24]	He-Ne Laser Irradiation of Blood in vitro and FTIR Spectral Analysis Author: V. H. GHADAGE, G. R. KULKARNI, B. N. ZAWARE	148-153
25]	Structural and Electrical Properties of BaTiO ₃ prepared by Solid State Route Author: S. A. LOKARE	154-161