

International Conference on
Emerging Trends in Chemical Sciences

Thursday-Friday, 14-15th March, 2013

School of Chemical Sciences, Central University of Gujarat, Gandhinagar

Program Schedule

Screen-I (Chancellor Hall)

March 14th, 2013, Thursday

08:30 am **Arrival at the Conference Venue:** Chancellor Hall, Cambay Spa & Golf Resort, GIDC, Sector-25, Gandhinagar-382044, Gujarat, India

08.30 am onwards **Help Desk**

Inaugural Session **Venue:** Chancellor Hall, Cambay Spa & Golf Resort

09:00 am - 09:10 am **Organizing Secretary's Introductory Speech**
Man Singh, Dean, School of Chemical Sciences, Central University of Gujarat, Gandhinagar, Gujarat, India

09:10 am - 09:30 am **Welcome Address**
R. K. Kale, Vice-Chancellor, Central University of Gujarat, Gandhinagar, Gujarat, India

09:30 am - 09:40 am **Academic Cognizance**

09:40 am - 10:00 am **Chief Guest's Address**
Y. K. Alagh, Chancellor, Central University of Gujarat, Gandhinagar, Gujarat, India

10:00 am - 10:05 am **Vote of Thanks**
Man Singh, Dean, School of Chemical Sciences, Central University of Gujarat, Gandhinagar, India

10:05 am - 10:20 am **Chemistry as central science**
Janusz Lipkowski, Department of Supramolecular Complexes, Institute of Physical Chemistry, Poland

10:20 am - 10:50 am **Tea/Coffee Break**

Session 1 at Chancellor Hall

Chair: Prof. Ajai Kumar Singh, Department of Chemistry, Indian Institute of Technology, New Delhi, India

- 10:50 am - 11:10 am **Green chemistry and nanotechnology: Enhanced selectivity of formation of 2,6-bis (benzylidene) cyclohexanone (ABA product) vs. 2-(benzylidene) cyclohexanone (AB product) by micellar catalysis in aqueous solutions**
[Dinesh O. Shah](#), Department of Chemical Engineering and Department of Anesthesiology, University of Florida, USA
- 11:10 am - 11:30 am **Computational chemistry: an emerging field for chemical education and research**
[Ponnadurai Ramasami](#), Department of Chemistry, University of Mauritius, Mauritius
- 11:30 am - 11:50 am **Green chemistry in education and research**
[R. K. Sharma](#), Department of Chemistry, University of Delhi, India
- 11:50 am - 12:10 pm **Effect of high intensity focused ultrasound (HIFU) on the occurrence of induction period in crystallization of sucrose: industrial application**
[Kaman Singh](#), Advance Center of Surface Science and Nanotechnology, Department of Applied Chemistry, School for Physical Sciences, BBAU, Lucknow, India
- 12:10 pm – 12:30 pm **Porous molecules and crystals**
[Janusz Lipkowski](#), Department of Supramolecular Complexes, Institute of Physical Chemistry, Poland
- 12:30 pm - 02:00 pm **Lunch/Poster Session**

Session 2 at Chancellor Hall

Chair: Prof. Kaman Singh, Department of Applied Chemistry, School for Physical Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow, India

- 02:00 pm - 02:15 pm **Synthesis and characterization of sodium salt of partially carboxymethylated guar gum**
[Jay Kumar J. Patel](#), Department of Chemical Sciences, Natubhai V. Patel College of Pure and Applied Sciences, V. V. Nagar, Gujarat, India
- 02:15 pm - 02:30 pm **n-Alkanes as greener solvents for selective heterogeneous organic transformation**
[Kamlesh N. Tayade](#), Chemical Engg. Department, DDU, Nadiad, India
- 02:30 pm - 02:45 pm **Bioconversion of glycerol to 1,3-propanediol and its application**
[Mandar K. Karve](#), Department of Chemical Sciences, Natubhai V. Patel College of Pure and Applied Sciences, V. V. Nagar, Gujarat, India
- 02:45 pm - 03:00 pm **Heterogeneous catalysis and green chemistry**
[Manish Dixit](#), Department of Chemical Engineering and Shah-Schulman Center for Surface Science and Nanotechnology, Dharmsinh Desai University, Nadiad, Gujarat, India

03:00 pm - 03:15 pm **Selective determination of Nd³⁺ using polymeric membrane electrode and coated graphite electrode**
[Koteswara Rao Bandi](#), Department of Chemistry, Indian Institute of Technology-Roorkee, Roorkee, India

03:15 pm - 03:30 pm **ESIPT-Inspired benzothiazole fluorescein: synthesis, photophysics of microenvironment pH, viscosity and DFT approach towards its photophysical properties**
[Abhinav B. Tathe](#), Institute of Chemical Technology, Mumbai, MH, India

03:30 pm - 04:00 pm **Tea/Coffee Break**

Session 3 at Chancellor Hall

Chair: Prof. M. H. Fulekar, Dean, School of Environment and Sustainable Development Central University of Gujarat, Gandhinagar, India

04:00 pm - 04:15 pm **Preparation and characterization of SiO₂ thin films by Sol-Gel using TEOS, cationic, anionic and nonionic surfactants**
[Sanjan Choudhary](#), School of Chemical Sciences, Central University of Gujarat, Gandhinagar, Gujarat, India

04:15 pm - 04:30 pm **Suzuki-Miyaura cross-coupling reaction in aqueous media catalyzed by keggin type mono Pd(II)- substituted phosphomolybdate**
[Soyeb Pathan](#), Department of Chemistry, The M. S. University of Baroda, Gujarat, India

04:30 pm - 04:45 pm **Spectral, electrochemical and molecular modeling studies of (N₄E, N₄'E)- 3,3'-dimethyl-N₄,N₄'-bis (pyridin-2-ylmethylene) biphenyl-4,4'-diamine**
[Gudipati S. Rao](#), Department of Chemistry, National Institute of Technology, Andhra Pradesh, India

04:45 pm – 05:00 pm **Bioactive flavonoids of therapeutic importance**
[Rajpratap B. Kshatriyaa](#), Poona College, University of Pune, Pune, India

05:00 pm – 05:15 pm **Indirect chiral separation of pregabalin enantiomers by *O*-phthalaldehyde-*N*-acetyl-L-cysteine as chiral derivatizing agent followed by fluorescence detection**
[Nagesh K. Kandukuri](#), IICT, Hyderabad, India

05:30 pm – 08:00 pm **Interaction Followed by Cultural Program**

08:00 pm - 09:00 pm **Dinner at Chancellor Hall, Cambay Spa & Golf Resort, GIDC, Sector-25, Gandhinagar-382044, Gujarat, India**

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Session 4 at Chancellor Hall

Chair: Prof. R. K. Sharma, Department of Chemistry, University of Delhi, Delhi, India

09:00 am - 09:20 am **Determining antioxidant distributions between oil, water, and interfacial regions of emulsions: generalization of pseudophase kinetic models**
[Laurence S. Romsted](#), and Carlos Bravo-Díaz, Department of Chemistry and Chemical Biology, The State University of New Jersey, New Jersey, USA

09:20 am - 09:40 am **Computational Chemistry: a reliable tool to interpret the structure-dependent photophysical properties of transition metal complexes**
[Zainul A. Siddique](#), Department of Chemistry, Chittagong University, Chittagong, Bangladesh

09:40 am - 10:00 am **Organochalcogen ligands: Story of catalyst designing and metal chalcogenide nanoparticle generation**
[Ajai Kumar Singh](#), Department of Chemistry, Indian Institute of Technology, New Delhi, India

10:00 am - 10:20 am **Chitosan: A versatile material for a controlled delivery of the drugs**
[K. C. Gupta](#), Polymer Research Laboratory, Department of Chemistry I.I.T. Roorkee, India

10:20 am - 10:40 am **Green chemistry in chemical sciences**
[Kishor Bhai R. Desai](#), Veer Narmad South Gujarat University, Gujarat, India

10:40 am - 11:00 am **Bioremediation of petrochemical hydrocarbon compound in a designed and developed partitioning bioreactor**
[M. H. Fulekar](#), Dean, School of Environment and Sustainable Development, Central University of Gujarat, Gandhinagar, India

11:00 am - 11:15 am **Tea/Coffee Break**

Session 5 at Chancellor Hall

Chair: Prof. D. D. Pathak, Department of Applied Chemistry, Indian School of Mines, Dhanbad, India

11:15 am - 11:30 am **Corrosion behaviour of mild steel exposed to D. desulfuricans in marine environment**
[R. S. Dubey](#), Department of Chemistry, R. J. College, University of Mumbai, Mumbai, India

- 11:30 am - 11:45 am **Modification in dielectric and piezoelectric properties of the of PZT-CHR doped PVA 0-3 nano-composites by CNT inclusion**
[1Manmeeta](#) and [2Dhiraj Saxena](#), ¹Faculty of Science, National law University, Rajasthan, India; ²Lachoo Memorial College of Science & Technology, Jodhpur
- 11:45 am - 12:00 pm **A combined experimental and dft-tddft study of the excited-state intramolecular proton transfer (ESIPT) of 2-(2'-hydroxyphenyl) imidazole derivatives**
[Vikas S. Padalkar](#), Institute of Chemical Technology, MH, India
- 12:00 pm - 12:15 pm **Factors that influence the nuclearity/aggregation and carboxylate coordination modes in Lewis base coordinated zinc (II) carboxylate complexes**
[Umesh Kumar](#), Department of Chemistry, University of Delhi, Delhi, India
- 12:15 pm – 12:30 pm **Effect of acid hydrolysis on bioconversion of lignocellulose to biogas**
[Rajan Sharma](#), University of Petroleum & Energy Studies, Dehradun, India
- 12:30 pm – 12:45 pm **Potential sources of error in the determination of arsenic in environmental water samples by hydride generation atomic absorption spectrometry**
[A. Ramesh Kumar](#), National Institute of Occupational Health, Indian Council of Medical Research, Ahmedabad, Gujarat, India
- 12:45 pm - 02:00 pm **Lunch/Poster Session**
- Session 6 at Chancellor Hall:**
Chair: Dr. M. Kamil, Department of Petroleum Studies, AMU, Aligarh, UP, India
- 02:00 pm - 02:15 pm **Poly-N-vinylpyrrolidone oximo-l-isooleucyl-siliconate, preparation, molecular and microstructures study with IR, ¹H-NMR and SEM**
[G. Vani Padmaja](#), Chemistry Research Lab, Deshbandhu College, University of Delhi, New Delhi, India
- 02:15 pm - 02:30 pm **Fabrication of iron selective PVC membrane electrode based on newly synthesized Schiff bases as carrier**
[Anjali Upadhyay](#), Department of Chemistry, Indian Institute of Technology-Roorkee, India
- 02:30 pm - 02:45 pm **Modified dextrin based semi-IPN hydrogel: A novel matrix for colon targeted drug delivery**
[Dipankar Das](#), Department of Applied Chemistry, Indian School of Mines, Dhanbad, India
- 02:45 pm – 03:00 pm **(Diacetoxyiodo)benzene mediated facile oxidation of 4,4'-(arylmethylene)bis(1H-pyrazol-5-ols): Synthesis of spiro compounds**
[Girdharilal B. Tiwari](#), School of Chemical Science SRTM University of

- 03:00 pm - 03:15 pm [Nanded, India](#)
Development and validation of a stability indicating assay of Paliperidone by RP-HPLC: ESI-MS/MS, ¹H and ¹³C NMR spectroscopic characterization of degradation products and process related impurities
[Ch. Gangu Naidu](#), Indian Institute of Chemical Technology, Hyderabad, India
- 03:15 pm – 03:30 pm Quality analysis of Centella asiatica (Mandukparni)-A memory improving herbal drug by LCMS/MS-multiple reactions monitoring (mrm) method
[Jayanti Makasana](#), Directorate of Medicinal and Aromatic Plant Research, Gujarat, India
- 03:30 pm - 03:45 pm A Novel thermotropic liquid crystal based on azomaterial linked with zinc oxide nanoparticles and its dielectric property
[Alok Pandya](#), Department of Chemistry, Gujarat University, India
- 03:45 pm - 04:00 pm **Tea/Coffee Break**
- Session 7 at Chancellor Hall: Concluding Session /Award presentations**
Chair: Prof. Kaman Singh, Department of Applied Chemistry, School for Physical Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow, India
- 04:00 pm - 05:30 pm **Valedictory Address/Award Distribution**
- 05:30 pm - 06:30 pm **Departure to Central University of Gujarat (CUG) and High Tea at MPH, CUG**
- 06:30 pm - 08:30 pm **Local Visit**
- 08:30 pm - 09:30 pm **Dinner at Chancellor Hall, Cambay Spa & Golf Resort, GIDC, Sector-25, Gandhinagar–382044, Gujarat, India**

Screen-II (Viceroy Hall)

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08.30 am onwards Help Desk

Session 1 at Viceroy Hall

Chair: Prof. P. Nageswara Rao, Chemistry Department, National Institute of Technology, Warangal, AP, India

10:50 am - 11:10 am **Nanoadsorbents for the removal of metallic species from water and wastewaters**

[Yogesh C. Sharma](#), Department of Applied Chemistry, Indian Institute of Technology, BHU, India

11:10 am - 11:30 am **Cloud point method of extraction of heavy metal ions**

[N. V. Sastry](#), Department of Chemistry, Vallabh Vidyanagar, Gujarat

11:30 am - 11:50 am **Interactions between gemini/conventional surfactants with polymers**

[M. Kamil](#), Department of Petroleum Studies, AMU, UP, India

11:50 am - 12:10 pm **Importance of small molecule computational chemistry related to macromolecular computations**

[S. Aravamudhan](#), Department of Chemistry, North Eastern Hill University, Meghalaya, India

12:10 pm - 12:30 pm **Forensic science and criminal investigation**

[Dr. G. Rajesh Babu](#), Department of Chemistry, Institute of Forensic Science, Gujarat Forensic Sciences University, Gandhinagar, Gujarat, India

12:30 pm - 02:00 pm **Lunch/Poster Session**

Session 2 at Viceroy Hall

Chair: Prof. K. C. Gupta, Polymer Research Laboratory, Department of Chemistry, I.I.T. Roorkee, India

02:00 pm - 02:15 pm **Ionic liquid supported metal complexes—an environmentally benign catalytic approach**

[Bharti Khungar](#), Department of Chemistry, Birla Institute of Technology and Science, Pilani, Rajasthan, India

02:15 pm - 02:30 pm **Synthesis, characterization and antitubercular activity of *N*-substituted phenothiazine 1-carboxylic acid derivatives**

[Manish J. Solanki](#), Nirma University, Gujarat, India

- 02:30 pm - 02:45 pm **Development of antidotes against organophosphorus poisoning**
[Hitendra N. Karade](#), Process Technology Development Division,
 Defence Research & Development Establishment, Jhansi Road,
 Gwalior, India
- 02:45 pm – 03:00 pm **Colorimetric receptors for naked eye detection of inorganic fluoride ion in aqueous media**
[Darshak R. Trivedi](#), Department of Chemistry, National Institute of
 Technology, Manglore, Karnataka
- 03:00 pm – 03:15 pm **Thermodynamic and viscometric investigation of multicomponent liquid mixtures**
[Ranjan Dey](#), Department of Chemistry, BITS Pilani, Goa, India
- 03:15 pm - 03:30 pm **A new method for the determination of pesticide residues in fruits using ultra pressure liquid chromatography/time-of-flight mass spectrometry (UPLC/TOF-MS)**
[P. Sivaperumal](#), Pesticide Toxicology Division, NIOH, Ahmedabad, India
- 03:30 pm - 04:00 pm **Tea/Coffee Break**
- Session 3 at Viceroy Hall**
Chair: Prof. Ponnadurai Ramasami, Computational Chemistry Group, Department of Chemistry,
 Faculty of Science, University of Mauritius, Mauritius
- 04:00 pm - 04:15 pm **Dissociation of multiply charged molecular ions formed in keV electron-molecule collisions: kinetic energy release distributions**
[Pragya Bhatt](#), Atomic Physics Laboratory, Department of Physics,
 BHU, UP, India
- 04:15 pm - 04:30 pm **Development of an ion selective electrode for amitriptyline hydrochloride based on calixarene – carbon nanotube composite**
[Reena R. Gaichore](#), Department of Chemistry, University of Mumbai, Mumbai, India
- 04:30 pm - 04:45 pm **Synthesis of amide and ester derivatives of naphthopyrone 2-carboxylic acid**
[Soni J. Nareshkumar](#), M. S. University of Baroda, Varodara, Gujarat, India
- 04:45 pm - 05:00 pm **A study of why we need environmental chemistry?**
[Tushar K. Gandhi](#), Sabar Kanta, Gujarat, India
- 05:00 pm – 08:00 pm **Interaction followed by Cultural Program**
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Session 4 at Viceroy Hall

Chair: Prof. S. Aravamudhan, Department of Chemistry, North Eastern Hill University, Meghalaya, India

09:00 am - 09:20 am	Kinematics and fragmentation dynamics of multiply charged molecules of atmospheric interest under impact of keV electrons R. Shanker , Department of Physics, Banaras Hindu University, UP, India
09:20 am - 09:40 am	Multifunctional nanoparticles derived from calix-system V. K. Jain , Chemistry Department, School of Sciences, Gujarat University, Ahmedabad, Gujarat, India
09:40 am - 10:00 am	Single and mixed micelles of pluronic® polymers for a nano-sized drug delivery system Rakesh K. Sharma , Applied Chemistry Department, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India
10:00 am - 10:20 am	NISCAIR, CSIR activities and about Journal of Scientific & Industrial (JSIR) S. Sengupta , Scientist, CSIR, Ministry of Science & Technology, New Delhi, India
10:20 am - 10:40 am	Template synthesis of cyclic phosphines and phosphorus macrocycles D. D. Pathak , Department of Applied Chemistry, Indian School of Mines, Dhanbad, India
10:40 am - 11:00 am	Oxidative functionalization of alkenes by an intramolecular sulfinyl nucleophile as the key step in the synthesis of (-)-tetrahydrolipstatin (THL), analogues of mannostatin A and toward a synthesis of tetrahydroxy long chain base (LCB) K. Rathore , Natural Product Chemistry Division, Indian Institute of Chemical Technology, Hyderabad, India
11:00 am - 11:15 am	Tea/Coffee Break

Session 5 at Viceroy Hall

Chair: Prof. Kishor Bhai R. Desai, Head of the Chemistry Department, Veer Narmad South Gujarat University, Gujarat, India

11:15 am - 11:30 am	The structural properties of BaCo₂Fe₁₆O₂₇ hexaferrite materials prepared by a simple heat treatment method
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- 11:30 am - 11:45 am [Chetna Chauhan](#), Institute of Technology, Nirma University, Ahmedabad, Gujarat, India
Synthesis and characterization of core-shell structured fluorescent star polymers
[Harjinder Kaur](#), Department of Chemistry, Gujarat University, Ahmedabad, Gujarat, India
- 11:45 am - 12:00 pm **Antifouling, permeation and desalination performance of TiO₂ nanotube incorporated PSf/CS blend membranes**
[Arun Isloor](#), Chemistry Department, National Institute of Technology, Karnataka, India
- 12:00 pm – 12:15 pm **The role of medicinal chemist in drug discovery: Then and Now**
[Dhurke Kashinath](#), Department of Chemistry, National Institute of Technology, Warangal, AP, India
- 12:15 pm – 12:30 pm **Elemental composition a possible indicator of the tree survival on the rehabilitated lignite mine spoil**
[Kapil Gehlot](#), Department of Chemistry, Lachoo Memorial College of Science and Technology, Jodhpur
- 12:30 pm – 12:45 pm **Band gap bowing at nanoscale: investigation of CdS_xSe_{1-x} alloy quantum dots through cyclic voltammetry and density functional theory**
[Pravin P. Ingole](#), Department of Chemistry, Central University of Rajasthan, Rajasthan, India
- 12:45 pm – 02:00 pm **Lunch/Poster Session**

Session 6 at Viceroy Hall

Chair: Prof. Yogesh Chandra Sharma, Department of Applied Chemistry, Indian Institute of Technology, BHU, India

- 02:00 pm - 02:15 pm **Xanthan gum-g-poly (acrylamide)/silica hybrid nanocomposite: application as efficient adsorbent for removal of Congo red dye**
[Soumitra Ghorai](#), ISM, Dhanbad, India
- 02:15 pm - 02:30 pm **An efficient RP – HPL method for the quantitative determination of dobutamine in rat plasma, suitable for bioequivalence and pharmacokinetics studies in healthy rat subjects**
[T. Ramesh](#), Department of Chemistry, National Institute of Technology, AP, India
- 02:30 pm - 02:45 pm **In-silico designing of dipeptidyl peptidase (DPP)-IV inhibitors as novel anti-diabetic molecules**
[Bhumika D. Patel](#), Department of Pharmaceutical Chemistry, Institute of Pharmacy, Nirma University, Ahmedabad, Gujarat, India
- 02:45 pm - 03:00 pm **Controlled drug delivery of antileishmanial chalcones from Layer-by-Layer (LbL) self-assembled PSS/PDDAC thin films**
[Uma M. Bhalerao](#), Process Technology Development Division, Defence R & D Establishment, Madhya Pradesh, India

- 03:00 pm - 03:15 pm Investigation of ex vivo stability of fesoterodine in human plasma and its simultaneous determination together with its active metabolite 5-HMT by LC-ESI-MS/MS: Application to a bioequivalence study
[Jignesh M. Parekh](#), Chemistry Department, Kadi Sarva Vishwavidyalaya, Gandhinagar, Gujarat, India
- 03:15 pm - 03:30 pm Application of nanotechnology for detoxification of toxic effluent generated from pesticide industries
[Richa Sharma](#), Institute of Pesticide Formulation Technology Gurgaon, Haryana, India
- 03:30 pm - 03:45 pm Validated spectrophotometric methods for the estimation of paracetamol, domperidone and flunarizine in the combined tablet dosage form
[Sandip K. Sharma](#), Saraswati Institute of Pharmaceutical Sciences, Ahmedabad, Gujarat, India
- 03:45 pm - 04:00 pm **Tea/Coffee Break**
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