EuroSciCon

# 8th Edition of International Conference on Chemistry Education and Research

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# AGENDA

Biography

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## Peer-Led team learning and the living workbook

**Mahesh Narayan**
**The University of Texas at El Paso, USA**

Dr. Narayan has completed his PhD in Biophysics at The Ohio State University and pursued postdoctoral studies at Cornell University. Currently, he is a Professor of Chemistry at The UTEP and serves on the Editorial Board of PLOS One and Cell Biochemistry and Biophysics. He has published extensively in the areas of protein folding, Parkinson's disease and pedagogical inroads in Chemistry.

## Three dimensional solar cells

**M Jasim Uddin**
**University of Texas Rio Grande Valley, USA**

Dr. M Jasim Uddin obtained his PhD degree (PhD-Materials Science, BS-Chemical Engineering and Polymer Science) from University of Turin, Italy. He has been elected as an academic council member of the Department of Chimica IFM at the University of Turin (2007-2008). After completion of his PhD research, he joined as a postdoctoral research scholar (2008-2009) to Department of Physics and Chemical and Biomolecular Engineering at Tulane University, LA, USA. He was an Associate Professor (2010-2011) of Chemical Engineering and Polymer Science at Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh. He was working as a Postdoctoral Research Fellow (2011-20143 at High-Performance Materials Institute, Florida State University. Among his pioneer research contributions, he discovered self-cleaning, Photochromic textiles, Power Wires etc. He authored/co-authored 37 ISI journal articles (Impact factor: 2~13.5, Citation: ~2000) and 5 book chapters. In recognition of his outstanding contribution in research, UGC Scientist Award 2010 by the Government of Peoples Republic of Bangladesh, Excellence in Research and Education by The University of Texas Rio Grande Valley, etc.

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## Exploring the flipped chemistry classroom: A qualitative study to characterize the elements used in supporting a flipped learning environment

**Jack Barbera**
**Portland State University, USA**

Dr. Barbera is a chemistry education researcher at Portland State University (Portland, Oregon USA) who specializes in assessment. His work seeks to better understand how educators define and measure student success in an academic setting. His group has developed a number of assessment tools to more effectively, and efficiently, gauge students' chemistry content knowledge and various factors important for student motivation such as attitude, self-efficacy, interest, and effort beliefs. Their assessment instruments and related studies have been published in the Journal of Chemical Education as well as Chemistry Education Research and Practice. Current projects are investigating the motivational impacts of various teaching practices including Flipped Learning, Deliberative Democracy Practice, and Process Oriented Guided Inquiry Learning (POGIL).

## Incorporating Active learning Component in Teaching Organic Chemistry Courses

**Lana Mikhaylichenko**
**University of Toronto, Canada**

Svetlana (Lana) Mikhaylichenko graduated with first class honors from the Kuban State Technological University (Russia, Krasnodarskiy kray) in 1985. She completed her Doctoral Program at Kuban State Agrarian University in 1996 and joined the Department of Organic and Physical Chemistry in the same year as a Lecturer. In 2003 her family immigrated to Canada. Dr. Mikhaylichenko joined the Department of Physical and Environmental Sciences (DPES) University of Toronto Scarborough (UTSC) in early 2004 as a Chemistry Technician. In 2008 Dr. Mikhaylichenko hired by DPES in a rank of a full time Lecturer. Lana Mikhaylichenko is currently an Associate Professor, Teaching Stream at this department. She serves DPES as an Associate Chair Undergraduate studies staring from September 2016. Whilst teaching a range of undergraduate courses, she was nominated for several awards since joining UTSC. Dr. Mikhaylichenko is a recipient of University of Toronto Scarborough Outstanding Teaching Award in 2014, UTSC D.R. Campbell Merit Award in 2008, and numerous University of Toronto Scarborough Dean's Merit Excellence Awards.

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## Chemistry education for undergraduate and high-school students: Using biofuel analysis to learn theory from experimental

**Omar A El Seoud**
**University of São Paulo, Brazil**

Dr. Omar A El Seoud is a full professor of organic chemistry at the Institute of Chemistry, the University of São Paulo, and the author of 240 scientific papers and a recent book on Cellulose Derivatives: Synthesis, Structure, and Properties; Springer Series on Polymer and Composite Materials, 531 pp (https://doi.org/10.1007/978-3-319-73168-1). He did postdoctoral work/teaching at Texas A&M University (USA) and the University of Bayreuth (Germany). His main interests are colloid chemistry; the chemistry of natural polymers; chemical education with emphasis on developing new experiments with socio-economic relevance and promoting high school-University contact. He is a full member of the Brazilian Academy of Science and holder of the Presidential Medal for Scientific Achievements.

## Visible light photoinitiators of polymerization: Towards high efficiency, low cost and nontoxic

**Frederic Dumur**
**Aix-Marseille University, France**

Frederic Dumur received his PhD in chemistry in 2002 from the University of Angers (France) under the supervision of Professor Pietrick Hudhomme. After Post-Doctoral studies at the University of Groningen (The Netherlands) in the group of Prof. Ben L. Feringa, at the University of Reims Champagne-Ardennes (France) and Versailles Saint-Quentin-en-Yvelines (France), he joined the Faculty of Sciences at the Aix-Marseille University in 2008, where he is currently working as an Associate Professor. His research interests include the synthesis of phosphorescent dopants for OLEDs and photoinitiators of polymerization. He co-authored about 190 publications, 10 book chapters and 5 patents.

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## Magnetoelectropolishing and high-voltage electropolishing of metals and alloys

**Tadeusz Hryniewicz**
**Koszalin University of Technology, Poland**

Prof. Tadeusz Hryniewicz, DSc PhD ME CE, has completed his PhD in Mechanical Engineering, Wrocław University of Technology, postdoctoral studies from Chemical Engineering, University of California, Berkeley CA, and worked at Lawrence Berkeley Laboratory; then he obtained DSc habilitation from Wrocław University of Technology. As a Full Professor he has worked as a head of Surface Electrochemistry Division, now BioEngineering and Surface Electrochemistry at the Department of Engineering and Informatics Systems, Faculty of Mechanical Engineering, Koszalin University of Technology. He is Editor-in-Chief of two international journals, serves as Associate Editor to 12 journals, and Lead Guest Editor to METALS, issue on Plasma Electrolytic Oxidation. He has published a number of articles, over 90 papers in reputed journals, and has been serving as a reviewer to over 50 international journals.

## Organic nanosynthesis of macroscopic window grids at molecular scale

**Linghai Xie**
**Nanjing University of Posts & Telecommunications, China**

Dr. Linghai Xie has completed his PhD in Macromolecular Chemistry and Physics by Fudan University in 2006 and senior visiting scholar studies at Nanyang Technological University (NTU) during 2012.09-2013.09. He won the “NSFC Award” for Excellent Young Scholar in 2013. He has worked as professor of Organic Hierarchical Chemistry at Nanjing University of Posts & Telecommunications (NJUPT). He serves as a director of the Center for Molecular Systems & Organic Devices (CMSOD) at the Institute of Advanced Materials (IAM). His research contributions include one-pot protocol to spirofluorenes (especially spirofluorenexanthene, SFX), Synergistically Molecular Attractor-Repulsor Theory (SMART), nano-grid[n]arenes and molecular multimedia. He has published more than 180 papers in reputed journals and has been cited by more than 2900.

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## Evolutionary Model of Sustainable Chemistry

**Istvan T Horvath**
**University of Hong Kong, Hong Kong**

Dr. Istvan T Horváth received a Diploma in Chemical Engineering (1977) and Ph.D. in Chemistry (1979), both at the University of Pannonia. He was an Assistant Professor at the Veterinary University Budapest (1979 - 1981). He was a Postdoctoral Research Associate at Yale University (1982 - 1984), a Scientific Co-worker at ETH-Zürich (1984 - 1987), a Senior Staff Chemist at Exxon (now ExxonMobil) Corporate Research (1987-1998), and a Professor at Eötvös University (1999-2009). He has been a Chair Professor of Chemistry at City University of Hong Kong since May, 2009. He has published over 170 scientific papers, book chapters and patents. He received the 1st Fluorous Technology Award in 2005, the Senior Humboldt Research Award in 2006, and he is a Fellow of the Royal Society of Chemistry (2013), the American Chemical Society (2014), and the American Association for the Advancement of Science (2016).

## 20 years after the Nakhodka oil spill accident in the sea of Japan

**Kazue Tazaki**
**Kahokugata Lake Institute, Japan**

Dr. Kazue Tazaki has completed her PhD in Doctor of Science (Geology, Mineralogy), Tokyo Kyoiku University, Japan. She has worked as Post Doctorate Visiting Fellow at Geological Survey of Canada, ISPG in Calgary, Research Associate at McGill University in Montreal, and Senior Research Associate at The University of Western Ontario, London, Ontario, Canada. She has worked as Associate Professor, at Shimane University, and as Professor, at Kanazawa University, Japan. Visiting Professor at Lac Hong University, in Viet Nam, Visiting Professor at the University of Dodoma, Tanzania. She has published more than 500 papers of environmental sciences. She got many awards from the Geological Society of Japan, Natural Sciences and Engineering Research Council of Canada, Mineralogical Society of Japan, Clay Mineralogical Association of Japan, Ishikawa TV, the Earth Science Award of Chigaku Dantai Kenkyu-Kai, and the award of International Solopetitmist Society Contribution.

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# Design and practice of a discovery-based learning (DBL): An example in the classroom of analytical chemistry

**Hongying Zhong**
**Central China Normal University, China**

Dr. Hongying Zhong has completed her PhD in Analytical Chemistry from Department of Chemistry, University of Alberta, Canada and postdoctoral studies from School of Public Health, Harvard University, USA. She has been working as a full professor of Analytical Chemistry at Central China Normal University, P. R. China. Her research is mainly focused on the development of mass spectrometry techniques for structural analysis of biological molecules. She has published more than 30 papers in journals of Nature Biotechnology, Nature Protocols, Nature Communications, Analytical Chemistry, Analytica Chimica Acta, ACS Medicinal Chemistry Letters, Teaching in Chinese Universities and so on.

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## Computational materials design for energy and environmental applications

**Ki Chul Kim**
**Konkuk University, South Korea**

Dr. Kim has completed his PhD in Computational Chemistry by Georgia Institute of Technology, USA in 2010 and postdoctoral studies from Northwestern University, USA and Georgia Institute of Technology, USA. He has worked as professor of Chemical Engineering at Konkuk University, South Korea since 2017. He has published more than 30 papers in reputed journals such as JACS, Environmental and Energy Science, and Angewandte Chemie-International Edition. His primary research area is the computational energy harvest and storage technologies.

## Molecular dynamics simulations of oxygen species in a native skin membrane of interest for plasma medicine

**Dharmendra Yadav**
**Gachon University of Medicine and Science, Korea**

Dr. Dharmendra Kumar Yadav has completed his PhD in Biological Science from CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow, India and postdoctoral studies from Hanyang University Korea and University of Delhi, India. He has worked as Young Scientist at All India Institute of Medical Science Jodhpur, India. He has published more than 40 papers in reputed journals, 03 Book Chapter and US Patent. He is presently working as a Research Professor at Gachon University of Medicine and Science, Incheon city, Korea.

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## Agronanochemical for ganoderma fungal disease management

**Mohd Zobir Hussein**
**Institute of Advanced Technology, Malaysia**

Prof. Dr. Mohd Zobir Hussein has completed his PhD in Physical Chemistry at the University of Reading, UK and postdoctoral studies from Pennsylvania State University, USA, University of Southampton, UK, Victoria University of Wellington, New Zealand and University of Western Australia. He has worked as professor of Chemistry at Universiti Putra Malaysia (UPM). He has published more than 300 papers in reputed journals and 6 patents and has been serving as a research fellow at the Institute of Advanced Technology, UPM.

## Study of changes in the hydrochemical regime of drinking water source - gegharot river, Armenia

**Liana Margaryan**
**Yerevan State University, Armenia**

Dr. Margaryan has completed her PhD in Chemistry by Institute of Water Problems and Hydro-Engineering after I.V.Yeghiazarov, Yerevan, Armenia and postdoctoral studies Institute for Water Education -UNESCO-IHE. She was awarded the "Commonwealth of Debuts - 2013" in the nomination for Scientific and practical achievements and socially significant activity in the field of ecology in the CIS member-countries. She has published more than 78 papers in reputed journals and received a degree of Associate Professor in Geo-Ecology. She has over 13 years of professional experience in water resources management and planning, including water quality monitoring and assessment. Currently, she has been served as a senior researcher and has consult UNIDO, USAID, UNOPS, EU on water quality assessment.

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## Nonlinear Hammett equation applied to partition coefficients of benzoic acids

**V Jagannadham**
**Osmania University**

Prof. Jagannadham had all his university education right from BSc (1973), and MSc (1975) to PhD (1979) from Osmania University campus. Then he obtained his DSc from Sambalpur University, Orissa in 2009. Prof. Jagannadham joined Osmania University in 1983 after a brief serving as lecturer during 1978-83 at Sardar Patel College, Secunderabad. He was a CSIR-New Delhi - Junior Research Fellowship Holder - 1976-1978. He visited Germany as Post Doctoral Fellow (Max-Planck-Institute for Radiation Chemistry) and USA (University of Kentucky), (University at Buffalo). He was a Summer Professor (Rutgers University, New Jersey, USA) and Visiting NSF(USA)-DST(India) Summer Research Professor at the University of Connecticut, USA). He has published 126 papers and 4 review articles with an average impact factor of 2.1 and more than 2000 citations. His research interests were reaction kinetics and mechanisms (India), radiation chemistry and fast reaction kinetics (Germany), organic cation reactivity (USA). After retirement in 2010 he shifted his research interest toward "Chemical Education". Since 2010 he has published over 60 research papers in the field of "Chemical Education" alone.

## Purification of single wall carbon nanotube (SWNT) produced by arc-discharged method by simple air oxidation and acid reflux methods

**Somdutta Singha**
**Indian Institute of Technology**

Dr. Somdutta Singha has completed his Ph.D. in Chemistry emphasized on Environmental Chemistry from Jadavpur University, Kolkata and postdoctoral research in Material Science from CSIR-Central Glass & Ceramic Research Institute, Kolkata. He also did his MPhil in Environmental Studies from Jadavpur University, Kolkata. His specialized area is in wastewater treatment by suitable chemical path way. He is also experienced with purification, characterization, functionalization etc. of materials like activated carbon, carbon nanotube. He is presently recruited as Junior Technical Superintendent in Indian Institute of Technology, Kanpur in Department of Chemistry.

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## Greener methodologies in the synthesis of new classes of isoxazolidine and isoxazoline derivatives via 1,3-dipolar cycloaddition reactions and their further applications

**Bhaskar Chakraborty**
**Sikkim Government College**

Professor and Head of the department of Chemistry at Sikkim Government College (Sikkim State University),Gangtok, Sikkim, India with 23 years of teaching experience in teaching undergraduate and post graduate Chemistry students. Has active research experience of 22 years in synthetic organic chemistry in the field of "Nitrone cycloaddition reactions and their further applications following green chemistry methodologies". Has established few environment friendly greener methodologies along with atom efficient reactions in the synthesis of few novel isoxazolidine and isoxazoline derivatives using new nitrones via 1,3-dipolar cycloaddition reactions. These novel isoxazolidine and isoxazoline derivatives are found to have vast synthetic potential as they could be used as precursor for the synthesis of a variety of new organic molecules including peptides with potential biological activities. Supervisor of research scholars leading to Ph.D degree for 14 years. Has 17 years of administrative experience as "Head of Department" in the institution. Has sufficient expertise in conducting DST/CSIR/UGC research projects. Has published 60 nos of research publications in international and national journals of high repute and impact factors. Honorary referee for reviewing research manuscripts for various international and national journals with good impact factors. Has authored two books on the "Synthetic applications of nitrone cycloaddition reactions". Has been awarded with many international and national awards. Has been associated as "Life member" with various international and national scientific organizations. Has presented research papers in various international and national conferences in UK, Germany, Greece and India.

## Investigation of the antibacterial activity of modified reduced graphene oxide (MRGO) nanosheets against S. aureus

**Ronojoy Sen Gupta**
**Genobiotek**

Dr. Ronojoy Sen Gupta, has completely his PhD degree in Physiology from the Department of Physiology, University of Calcutta, Kolkata, India. He has worked as Postdoctoral fellow in Molecular Endocrinology laboratory, Hormone Research Center, Chonnam National University and Department of Life Sciences, Gwangju Institute of Science and Technology, Gwangju, South Korea. He has worked as faculty in Department of Biotechnology and Bioinformatics, SMMTR, Sikkim Manipal University, India. At present he is working as Director, Genobiotek, Kolkata, India.

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## A novel chemosensor acting as a fluorescent "Off-On" $Zn^{2+}$ sensor: Experimental, logic gate behavior and TD-DFT calculations

**Marzieh Sohrabi**
**Isfahan University of Technology**

Currently PhD student in Inorganic Chemistry, Isfahan University of Technology, Isfahan, Iran. Bsc. Azad University of Shahr-e-Rey, Tehran, Iran, 2003; MSc. Azad University of Shahr-e-Rey, Tehran, Iran, 2008. Research interest: Synthesis and characterization of emissive ligands and their metal complexes with their application as sensors for detection of biologically important ions such as Co2+, Cu2+, Zn2+. Construction of molecular probes for application in live cell imaging. Construction of molecular logic gates from chemical light switches based on emission properties of small molecules. Synthesis and characterization of emissive organometallic complexes and their application in biology as anticancer drugs, and computational chemistry.

## Electromembrane extraction combined with capillary electrophoresis for the determination of metoclopramide and ondansetron in urine samples

**Ehsan Sadeghi**
**Shahid Beheshti University**

He received the B.S. degree in applied chemistry from Khajeh Nasir Toosi University of Technology and was started analytical chemistry at Shahid Beheshti University under the guidance of prof. Alireza Fakhari in 2015. The Fields of research in prof. Fakhari's lab include sample preparation, enantioseparation, microextraction, electrochemistry, capillary electrophoresis and chromatography. Ehsan has experiences in the field of several extraction and purification techniques such as electromembrane extraction, Headspace solid-phase and dispersive liquid–liquid microextraction in real samples such as urine and plasma and waste water. His current research interests include evaluation and separation of achiral and chiral drug by variety chiral selector such as cyclodextrin, maltodextrin, antibiotic compounds and so on as additive to background electrolyte in CE-based analysis.

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## Assessment of chemistry teachers' stoichiometry pedagogical content knowledge and its implication chemistry students' achievement in stoichiometry

**Ayodeji Omilani Nathaniel**
**Federal College of Education**

Dr Nathaniel, Ayodeji Omilani has completed his PhD in Science Education from the University of Ibadan, Ibadan, Oyo State, Nigeria. He currently holds an adjunct position in the department of science mathematics and technology education in the same university. He has supervised many undergraduate and graduate students in the area of chemistry education and elementary science education. He has also taught courses preparing preservice chemistry and elementary science teachers both at the Department of Integrated Science, Federal College of Education, Osiele, Abeokuta and University of Ibadan. He has published 12 papers in reputed journals and has also read more than 9 papers in national and international conferences. His areas of interest and expertise in science/chemistry education are conceptual change and misconceptions in chemistry, integration of information communication and technology to science and chemistry, development of science teachers' pedagogical content knowledge and science curriculum (secondary and primary). He is also vast in data analysis in education research and instrumentation.

## Phytochemical and antioxidant assessments of three fractions from methanol extract of *spathodea campanulata* beauv. leaves

**Ojah Emmanuel Onah**
**Ibadan University**

Ojah Emmanuel Onah is a doctoral student of the department of chemistry, University of Ibadan, Nigeria. He obtained his M.Sc. from the university of Ibadan, Nigeria in 2016.His masters research work was published last year in Journal of Alternative and complementary Medical research.

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# Phytochemical studies and *in vitro* antioxidant, antiproliferative and antifungal activities of the stem bark of *boswellia dalzielii* hutch

**Yves S Kafuti**
**University of Kinshasa**

Yves S. Kafuti is a lecture in the Department of Chemistry and Industry, Faculty of Sciences, University of Kinshasa. He has a Master's degree in Pharmaceutical Chemistry at the University of Jos/Nigeria and he also done training at National Veterinary Research Institute (NVRI) VOM. Jos Plateau State/Nigeria. His research work is focused on natural product antioxidant and anticancer. He has one article already published and other articles are in the processes to be published.