

# Journal of Applicable Chemistry

**2015, 4 (5): 1561-1573** (International Peer Reviewed Journal)



### Seminars, Conferences & Others

#### 9th Annual Convention & International Conference at KL University on 14-16 December, 2015

The arrangements for 9th Annual Convention of Association of Biotechnology and Pharmacy & International Conference are going on well, which is being organized at KL University on 14-16 December, 2015.

#### **CONTACT:**

Prof.K.R.S.Sambasiva Rao, PhD, DSc General Secretary, Association of Biotechnology and Pharmacy Editor, Current Trends in Biotechnology and Pharmacy (www.abap.co.in) Professor and Head Department of Biotechnology Acharya Nagarjuna University, Nagarjunanagar - 522 510 Guntur, A.P., India Phone -91-863-2346172(O), 2346355 (D)

### CCRS Third Annual International Conference & Industry-CCRS Congress (ICC) 2015, on 16 & 17th December, 2015

Coastal Chemical Research Society ,Visakhapatnam, Andhra Pradesh, India & Dr. B.R. Ambedkar University, Srikakulam, Andhra Pradesh are Jointly organizing Coastal Chemical Research Society (CCRS) THIRD ANNUAL INTERNATIONAL CONFERENCE & Industry-CCRS Congress (ICC) 2015, on 16 & 17<sup>th</sup> December, 2015 at Conference Hall, Dr. B.R. Ambedkar University, Srikakulam, INDIA.

**CONTACT:** 

Prof. K.V.V.Satyanarayana Secretary,CCRS Visakhapatnam Andhra Pradesh +91-9642269598 Webpage: www.ccrs.org.in

### 34th National Conference of Indian Council of Chemists on 26<sup>th</sup>-28<sup>th</sup> December 2015 at Surat

34th National Conference of Indian Council of Chemists going to be held at Department of Chemistry, UKA Tarsadia University, SURAT, on 26<sup>th</sup> -28<sup>th</sup> December, 2015.

#### **CONTACT:**

Prof. R.K.S. Dhakarey Secretary, ICC Dean Research University Department of Chemistry Dr.B.R.Ambedkar University, Agra Website: www.chemicc.com E-mail: iccsurat15@gmail.com

### Seminar on Chromatographic Techniques in Pharma (API ) on 7<sup>th</sup> October 2015

CSI is very pleased to conduct yet another important event, "Seminar on Chromatographic Techniques in Pharma (API)" on Wednesday, October 07, 2015 at the SIES Institute of Chromatography and Spectroscopy.

#### **CONTACT:**

Dr.G.Ramakrishnan , Ph.D. President, Chromatographic Society of India (CSI) Mobile +91 98200 93260; E Mail: ramakrishnan.g@chromsocindia.org Website: www.chromsocindia.org

# 2nd International Conference on Control, Instrumentation, Energy and Communication (CIEC16) at Kolkata on 28<sup>th</sup>-30<sup>th</sup> January 2016

2<sup>nd</sup> International Conference on Control, Instrumentation, Energy and Communication (CIEC 16) to be held during 28<sup>th</sup> to 30<sup>th</sup>January, 2016 at Kolkata, West Bengal, India.

#### CONTACT:

Dr. Sumana Chowdhuri, +91-9433123854 Dr. Saurabh Pal, +91-9434144460 Website: www.ciec16.caluniv.in E-mail; cu05sumana@gmail.com Available online at www.joac.info

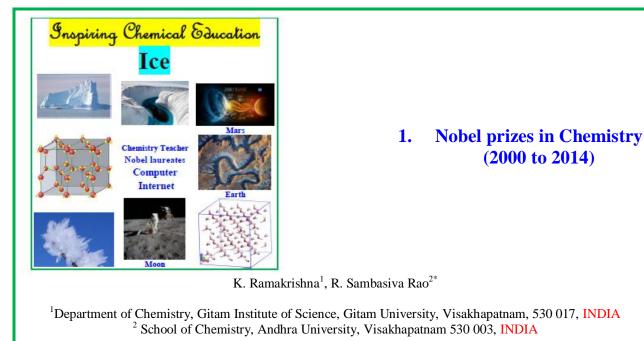
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Information Source: http://www.nobelprize.org/

(2000 to 2014)

The consequences of dynamic interactions in the universe over space and time are how it is today. Chemical reactions cover a subsection of these tiny to mega phenomena, awakening that chemical science is not the whole. Yet, chemical moieties play a vital role for activities in life and lifeless domains on the earth, the mother planet, too. The stability, instability and chemical interactions are comprehended as making and breaking of chemical bonds between atoms, molecules in all three phases (solid, liquid, and vapour/ gases states) of matter.

Learning the role of molecules in life and lifeless worlds through equations/ experiments/ simulations endorses that Chemistry continues and is not a passing phase in visible four dimensional (space-time) frame. It is the Oueen of sciences and enjoys a niche in the galaxy of knowledge. The one millionth image of Sun from Solar Dynamics Observatory (SDO), earth in night from satellite picture, ocean dynamics from aerial photography, terrestrial greenery are all eye catching and beautiful. If we respect the proverb 'Beauty is in the eyes of beholder', what is not beautiful or what else is beautiful? The traditional/ classical/ artificial intelligence of 1960s as well as that of 2010s is like a pebble on the ocean floor of Natures' evolution emanating knowledge. NASA's new eye on Sun and focus of CERN at dark matter and dark energy are artefacts of evolved human brain with the internal model of external universe. Going a level deeper, the adaptability of brain developed from birth till that date, evolved genetic and phenotype code, expressed amidst so many odds and laying through path has a key role in innovation/discovery/ breaking even time tested long nourished/cherished laws of sciences. The discovery of boson, darkEnergydarkMatter research, chemical biology, preliminary results of SDO, peta scale computations, self-adaptive automatic model development without intervention of human expert, reactions at zero gravity are through a new evolved eye of science endeavors. The scientists rewrite now physico-chemical-biological laws through this third eye (hyper intelligence sparkled from state-of-knowledge) for the posterity.

Alfred Nobel was born in Stockholm, Sweden in 1895. Nobel was a chemist, engineer and spent most of the career in researching with explosives mainly nitroglycerine. He was a fluent speaker of five languages at the age of 17 and got 355 patents worldwide in his life time including 29 Swedish and 58 English ones. He established Nobel prizes in 1885 for novel contributions in physics, chemistry, medicine, literature and peace with a noble cause of benefit for the mankind. The Nobel prize in Economics added in 1969.

The first Nobel Prize in chemistry was awarded in 1901 to Jacobus Henricus van 't Hoff for his laws of chemical dynamics and osmotic pressure in solutions. Here, table1 briefly depicts the noble prize contributions during the period 2000-2014 in chemistry along with major disciplines. Table 2 is incorporates the names of Nobel Laureates, date of birth and the country.

	Nobel prizes in chemistry			
Year of award	Contribution		Disciplines	
2014	Super-resolved fluorescence Microscopy	Physical chemistry	Florescence Spectroscopy	Microscopy
		The principle of STED-	microscopy	
		Reputar optical microscope	STED-microscopy are	3
2013	Multiscale models for complex Chemical systems	Biochemistry	Models_multiscale	Chemical systems
2012	Studies of G-protein-coupled receiptors	Proteins	Biology	Receptors
2011	Discovery of quasicrystals	Physical chemistry	Crystallography	
			2011 Quasicrystals	
2010	Palladium-catalyzed cross couplings in Organic synthesis	Organic synthesis	Catalysis	Cross couplings

2000		Dischargister	D'1	
2009	Structure and function of ribosome	Biochemistry	Ribosome	
2008	The discovery and development of the green fluorescent protein	Biochemistry Spectroscopy	Macromolecules	Fluorescent protein
2007	Chemical processes on solid surfaces	Surface cheistry	2008 Green fluorescen protein Solid surfaces	
2006	Molecular basis of eukaryotic transcription	Structural biochemistry	Molecular	Eukaryotic transcription
2005	Metathesis in organic synthesis	Organic synthesis		Metathesis
2004	Ubiquitin-mediated protein degradation	Proteins	Protein degradation	
2003 2003	Discovery of water channels Structural and mechanistic studies of ion channels	Biochemistry Biochemistry	Water channels Ion channels	Cell membranes Cell membranes
2002	Soft desorption ionization methods for mass spectrometric analyses of biological macromolecules	Physico-chemical methodology	Biological	Macromolecules
	Development of nuclear magnetic resonance spectroscopy for determining three-dimensional structure of biological Macromolecules in solution	Macromolecules	Biological	MRI- 3D-structure
2001	Chiral catalysed hydrogenation reactions	Industrial chemistry	Catalysis	Chiral catalysis
2000	Discovery and development of Conductive polymers	Physical chemistry	Polymers	Conductive

Table	Table2: Biographic sketch of Nobel Laureates in chemistry (2000-1014)				
Year	Nobel Laureate	Country	Photo	DOB	
2014	Eric Betzig	US	The second	1960-01-13	
2014	Stefan W. Hell	Germany	C.	1962-12-23	
2014	William E. Moerner	US	T	1953-06-24	
2013	Martin Karplus	US		1930-03-15	
2013	Michael Levitt	US	<b>E</b>	1947-05-09	
2013	Arieh Warshel	US		1940-11-20	
2012	Robert Lefkowitz	US		1943-04-15	

2012	Brian Kobilka	US	1955-05-30
2011	Daniel Shechtman	Israel	1941-01-24
2010	Ei-ichi Negishi	Japan	1935-07-14
2010	Akira Suzuki	Japan	1930-09-12
2010	Richard Heck	US	1931-08-15
2009	Venkatraman Ramakrishnan	UK,India, US	1952
2009	Thomas A. Steitz	United States	1940-08-23

2009	Ada E. Yonath	Isreal		1939-06-22
2008	Shimomura Osamu	Japan		1928-08-27
2008	Martin Chalfie	US		1947-01-15
2008	Roger Y. Tsien	US		1952-02-01
2007	Gerhard Ertl	Germany		1936-10-10
2006	Roger D. Kornberg	US		1947-04-24
2005	Yves Chauvin	France	Ø.	1930-10-10
2005	Robert H. Grubbs	US		1942-02-27

2005	Richard R. Schrock	US	1945-01-04
2004	Aaron Ciechanover	Israel	1947-10-01
2004	Avaram Hershko	Israel	1937-12-31
2004	Irwin Rose	US	1926-07-16
2003	Peter Agre	US	1949-01-30
2003	Roderick MacKinnon	US	1956-02-19
2002	John Bennett Fenn	US	1917-06-15
2002	Koichi Tanaka	Japan	1959-08-03
2002	Kurt Wüthrich	Switzerland	1938-10-04

2001	William S. Knowles	US		1917-06-01
2001	Ryoji Noyori	Japan		1938-09-03
2001	Karl Barry Sharpless	US	S.	1941-04-28
2000	Alan J. Heeger	US	T	1936-01-22
2000	Alan G. MacDiarmid	US		1927-04-14
2000	Hideki Shirakawa	Japan	R	1936-08-20
	I (eye, instrument) see(s) evolution			



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# ADVANCED APPLICATION ANNOUNCEMENT

New Chemistry News N=C=N <sup>-</sup>	
New News of Chem (NNC)ChemNewsNew (CNN)	

# **Editors' choice**

#### Chemical biology

Scoping biology-inspired chemical engineering	Chinese Journal of Chemical Engineering
	(online 15 July 2015)
Kiao Dong Chen	
Chemical chronobiology: Toward drugs manipulating time	FEBS Letters
	589, (14) 2015,1530-1538
Thomas Wallach, Achim Kramer	
Fowards a systematic analysis of human short-chain	Chemico-Biological Interactions
lehydrogenases/reductases (SDR): Ligand identification and	234, 2015, 114-125
structure–activity relationships	254, 2015, 114-12.
Chitra Bhatia, Stephanie Oerum, James Bray, Kathryn L. Kavanagh, Naeem Shaf	qat, Wyatt Yue, Udo Oppermann
Helix mimetics: Recent developments	Progress in Biophysics and
	Molecular Biology
	Corrected Proof, (3 June 2015)
Andrew J. Wilson	
How chemistry supports cell biology: the chemical toolbox at your	Trends in Cell Biology
ervice	24(12) (2014)751-760
Ruud H. Wijdeven, Jacques Neefjes, Huib Ovaa	24(12)(2014)131-100
nferring reaction systems from ordinary differential equations	Theoretical Computer Science,
	(In Press)
François Fages, Steven Gay, Sylvain Soliman	

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The use of small molecules in somatic-cell reprogramming	Trends in Cell Biology,
The use of small molecules in somade con reprogramming	24, 3, March 2014, 179-187
Alexander J. Federation, James E. Bradner, Alexander Meissner	
Next generation 1536-well oligonucleotide synthesizer with on-the- ly dispense	Journal of Biotechnology, 171, 10 (2014, 76-81
Michael Jensen, Lester Roberts, Andrew Johnson, Marilyn Fukushima, Ronald	1 Davis
The sector of th	
The systems perspective at the crossroads between chemistry and piology	Journal of Theoretical Biology, 381(21) (2015), 11-22
Andrés de la Escosura, Carlos Briones, Kepa Ruiz-Mirazo	
Dual synthetic pathway for 3-hydroxypropionic acid production in engineered Escherichia coli	Journal of Bioscience and Bioengineering, 120 (2) (2015)199-204
Hiroshi Honjo, Keigo Tsuruno, Tsuneyuki Tatsuke, Masaki Sato, Taizo Hanai	Abstract
Modular optimization of multi-gene pathways for fumarate production	<i>Metabolic Engineering,</i> (Uncorrected Proof, online 1 August 2015)
Xiulai Chen, Pan Zhu, Liming Liu	
Single cells get together: High-resolution approaches to study the dynamics of early mouse development	Seminars in Cell & Developmental Biology, Corrected Proof (online 13 July 2015)
Néstor Saiz, Berenika Plusa, Anna-Katerina Hadjantonakis	1
Signaling and stress: The redox landscape in NOS2 biology (Review)	Free Radical Biology and Medicine, Accepted Manuscript (online 24 June 2015)
Douglas D. Thomas, Julie L. Heinecke, Lisa A. Ridnour, Robert Cheng, Aparr Daniel W. McVicar, David D. Roberts, Sharon Glynn, Jon M. Fukuto, David A	
Dynamical model for thyroid	Communications in Nonlinear Science and Numerical Simulation, 22(1–3) (2015) 297-313
Gholam Reza Rokni Lamooki, Amir H. Shirazi, Ali R. Mani	
After 1952: The later development of Alan Turing's ideas on the mathematics of pattern formation	Historia Mathematica Corrected Proof (online 15 May 2015)
Jonathan H.P. Dawes	
The chemical basis of morphogenesis	Phil. Trans. R. Soc. Lond. B 237, 37–72 (1952)
Alan Turing	
Biochemical Space: A Framework for Systemic Annotation of	Electronic Notes in Theoretical Computer
Biological Models	Science, 306(2014)31-44
M. Klement, T. Děd, D. Šafránek, J. Červený, S. Müller, R. Steuer	1
CBK searching (chemistry-biology-keyword): Performing cross- discipline collaborative searches	World Patent Information, 41(2015)11-14
Kimberly Miller, Seth Mendelson	

### Seminars, Conferences & Others Journal of Applicable Chemistry, 2015, 4 (5): 1561-1573

Chemical analysis: Double core-hole spectroscopy with free-electron	Journal of Electron Spectroscopy and Related
asers	Phenomena,
Free-electron lasers with their femtosecond pulse duration- high	Corrected Proof (online 16 June 2015)
pulse energy - tunable photon energy in a regime from XUV to hard-	
X-ray	
N. Berrah, L. Fang	
Using Ambystoma mexicanum (Mexican axolotl) embryos, chemical	Comparative Biochemistry and Physiology Part
genetics, and microarray analysis to identify signaling pathways	C: Toxicology & Pharmacology
associated with tregeneration	Corrected Proof (online 16 June 2015)
Driginal Research Article	
Larissa V. Ponomareva, Antony Athippozhy, Jon S. Thorson, S. Randal Voss	
A Combined NMR and Computational Approach to Investigate	Journal of Molecular Biology,
Peptide Binding to a Designed Armadillo Repeat Protein	427(10) (2015) 1916-1933
optide Dinding to a Designed Furnadino Repeat Frotein	127(10) (2013) 1910 1933
Christina Ewald, Martin T. Christen, Randall P. Watson, Maja Mihajlovic, Tin	g Zhou. Annemarie Honegger, Andreas
Plückthun, Amedeo Caflisch, Oliver Zerbe	
Modelling from the experimental developmental biologists viewpoint	Seminars in Cell & Developmental Biology,
Review)	35(2014) 58-65
Reaction-Diffusion as the archetype of a model in developmental	
biology	
Andrew D. Economou, Jeremy B.A. Green	
Probing membrane protein structure using water polarization transfer	Journal of Magnetic Resonance,
solid-state NMR	(247)2014(118-127)
water-protein; water-membrane; water-carbohydrate interactions;	(2.7)201 ((110 127)
Solid-state- heteronuclear- NMR	
Ionathan K. Williams, Mei Hong	
Prediction of drug target groups based on chemical-chemical	
similarities and chemical-chemical/protein connections	and Proteomics
	1844(1), Part B, (2014) 207-213
ei Chen, Jing Lu, Xiaomin Luo, Kai-Yan Feng	
Deadly Gasses as a Source of Life, HIF-Independent Hypoxia Story,	Chemistry & Biology,
and a More Radical SAM Enzyme	22(5) (2015) 561-562
chemical reactions that might have ruled the prebiotic Earth	
Synthetic biology expands chemical control of microorganisms	Current Opinion in Chemical Biology
Review)	28(2015)20-28
microorganisms' responses to chemical stimuli Fyler J Ford, Pamela A Silver	

Every year approximately 1.8 million research papers are published in about 28,000 reviewed journals