

EIGHTH NATIONAL CONVENTION OF CHEMISTRY TEACHERS NCCT - 2008

The eighth National Convention of Chemistry Teachers (NCCT-2008) along with National Conference on "Emerging Trends in Chemistry" was organized on November 8 and 9, 2008 in the Department of Chemistry, H.N.B. Garhwal University, Srinagar Garhwal under the convenorship of Prof. M.S.M. Rawat. Prof. Geeta Joshi nee Pant worked as the organizing secretary. Prof. S. K. Singh, the Honourable Vice Chancellor, H.N.B. Garhwal University was the patron and Prof. D. M. Joshi was the Convener.

The Souvenir contained message of felicitations and good wishes from His Excellency, the Governor of Uttarakhand Sri. B.L. Joshi, Chief Minister Shri. B.C. Khanduri, Chairman, University Grants Commission, Prof. S. Thorat, Director General CSIR, Prof. Samir Brahmachari & Vice Chancellor H.N.B. Garhwal University, Prof. S.K. Singh. Prof. Dr. Ganesh Pandey, F.N.A., Head, Organic Chemistry Division, National Chemical Laboratory, Pune was the Chief Guest and Prof. Ravindra K. Pandey, Distinguished Professor, Roswell Park Cancer Institute, Buffalo, US was the Guest of Honour, and inaugurated the Convention and Conference. In his keynote address, Prof. Ganesh Pandey emphasized the focused approach to the synthesis of natural products, outlining the importance of Stereochemistry in Organic Chemistry.

Prof. M.S.M. Rawat, Chairman, NCCT-2008 and National Conference accorded a warm welcome to the dignitaries, IACT executive council members and delegates and Prof. Geeta Joshi nee Pant appraised the delegates of the theme of the conference. Prof. Sudha Jain, Vice-President, IACT (Northern Zone) appealed to the educators to join hands in strengthening IACT for promotion of Chemistry in India. Dr. D.V. Prabhu, General Secretary appraised the dignitaries and the delegates of the activities of Indian Association of Chemistry Teachers.

Prof. Ganesh Pandey, Prof. R.K. Pandey, Prof. S. K. Singh, Dr. Sudha Jain and Dr. D.V. Prabhu released the souvenir.

Prof. Vijay Singh, Coordinator, Indian Olympiad Programme also graced the occasion and chaired a technical session.

The following lectures were organized :

1. Asymmetric Desymmetrization : Conceptual Creation to Synthetic Explorations- Dr. Ganesh Pandey, NCL, Pune.
2. Photodynamic Therapy of Cancer - Dr. Ravindra Kumar Pandey, Roswell Park Cancer Institute, Buffalo, USA.
3. Natural Products Chemistry, Opportunities & Challenges- Dr. D. S. Rawat, Delhi University.
4. Biosynthesis of 1-Benzylisoquinoline Alkaloids in Cell Free System.-Prof. Sudha Jain, Lucknow University, Lucknow.
5. Green Chemistry and Synthesis of Biologically Active Molecules.- Prof. M.P.S. Ishar, GuruNanak Dev University, Amritsar
6. Indian Olympiad Programme- Dr. Savita Ladage, HBCSC (TIFR) Mumbai.
7. Nanoscience and Nanotechnology: Potential and Challenges.- Prof. Anil Kumar, I.I.T., Roorkee.
8. Nanomaterials: Global Technological Revolution- Dr. M.R.R. Prasad, VSSC, Trivandrum.

9. Molecules on Si for Hybrid Nanoelectronics.- Dr. D.K. Aswal, Prototype Engineering Division, B.A. R.C., Mumbai.
10. Chirality- Dr. Ibrahim Ibnu Saud, M.G. University, Kottayam.
11. Challenges and Innovations in Chemistry Education at Tertiary Level- Dr. D. V. Prabhu, Wilson College, Mumbai.

On the evening of November 8, 2008, a cultural programme was organized by Adi Nad Cultural Group of Srinagar that gave a glimpse of the cultural diversity of Uttarakhand. The delegates appreciated and enjoyed the performances.

At the Valedictory function, feedback was taken from the participants. Prof. Sudha Jain, Prof. M.S.M. Rawat and Dr. D.V. Prabhu awarded prizes to the participants who excelled in the oral and poster presentations.

Best Oral Presentation:

1. Mr. Deepak Kumar Semwal and Dr. Usha Rawat , H.N.B. Garhwal University, Srinagar Garhwal.
2. Dr. Anjali Goel and Sonia Sharma, Kanya Gurukul, Haridwar.
3. Dr. M.K.N. Yenkie and Dr. Hemant Pande, Laxminarayan Institute of Technology, Nagpur.

Best Poster Presentation:

1. Dr. Gyanendra Awasthi, Vinit Mehrotra, Ajay Singh and Prof. M.S.M. Rawat, Dolphin Institute of Paramedical Sciences, Dehradun.
2. Dr. Veena Joshi and Dr. R.P. Chamoli, Tehri Campus, H.N.B. Garhwal University, Srinagar Garhwal.
3. Mrs. Mona Semalty, Ajay Semalty, Devendra Singh, Tanu Chamoli and Prof. M.S.M. Rawat, Department of Pharmaceutical Sciences, H.N.B. Garhwal University, Srinagar Garhwal.

IACCT appreciates the dedicated efforts put in by Prof. M.S.M Rawat, Dr. Geeta Joshi nee Pant and all their colleagues to organize NCCT-2008 and the National Conference on such a grand scale. They have spared no efforts to make the event a great success.



IACT MEETINGS EXECUTIVE COUNCIL MEETING

ECM-1 of 2007-2008 was held on November 8, 2008 at Department of Chemistry, H.N.B. Garhwal University, Srinagar Garhwal under the Chairpersonship of Prof. Sudha Jain, Vice President IACT-North Zone. Dr. D.V. Prabhu, General Secretary, IACT presented the minutes of ECM-1 of 2006-2007 held on October 27, 2007 at Hislop College Nagpur and the report of IACT activities during 2007-2008 and Prof. M.A. Tandel, Treasurer, IACT presented the audited statement of accounts and balance sheet for the year ended March 31, 2008. The minutes and accounts were approved and passed unanimously. It was suggested that IACT should organize an International Conference on "Chemistry Education" during 2010.

ANNUAL GENERAL BODY MEETING

AGM-8 was held on November 8, 2008 at Department of Chemistry, H.N.B Garhwal University, Srinagar Garhwal under the Chairpersonship of Prof. Sudha Jain, Vice President, IACT- North Zone, Dr. D.V. Prabhu, General Secretary, IACT presented the minutes of AGM-7 held on October 27, 2007 at Hislop College, Nagpur and the report of IACT activities during 2007-2008 Prof. M.A. Tandel presented the audited statement of accounts and balance sheet for the year ended March 31, 2007. The minutes and accounts were approved and passed unanimously.

IACT membership :	Life Members	- 610
	Annual Members	- 20
	Institutional Members	- 04

IACT ACTIVITIES AT ZONAL LEVEL

IACT organized/cosponsored the following activities in different parts of the country.

A lecture on "Green Chemistry" by Dr. Brijesh Pare, Vice President, IACT- Central Zone at Government Autonomous KPG Post-graduate College, Gwalior on November 27, 2007 Dr. Kishor Arora, Member IACT Executive Council organized the lecture under the aegis of IACT – Central Zone.

National Seminar on "Water and Health" organized by Prof. P.V.S. Machiraju, Member, IACT-EC and Founder President, SCIENCE VISION on September 6 and 7, 2008 at Chaitanya P.G. College, Kakinada AP. Prof. S.A. Patil of Karnataka University, Dharwad delivered the keynote address. The seminar was organized under the aegis of IACT- South Zone.

A workshop on "Challenges of Modern Synthetic Chemistry and Reactivity" was organized at Wilson College, Mumbai and IIT- Bombay on September 29-30, 2008 under the banner of IACT- West Zone. The workshop included demonstration of sophisticated instruments like NMR and X-ray diffractometer at IIT- Bombay. Prof. Pradeep Mathur (IIT-Bombay) and Dr. D.V. Prabhu (Wilson College, Mumbai) served as the convenors. 50 teachers actively participated in the workshop. Prof. Dr. A.D. Sawant, Honorable Prof. Vice-Chancellor, University of Mumbai delivered the Valedictory Address.

National Seminar on "Instrumental Techniques applied to Chemical Sources" (ITACS-2009) was organized on April 2 - 3, 2009 at Department of Chemistry, A.D.M. College for Women (Autonomous), Nagapattinam, Tamil Nadu in collaboration with Department of Chemistry, Annamalai University, Annamalainagar under the aegis of IACT- South Zone. Dr. (Mrs.) G. Madhurambal, Dean of Sciences and Head, Department of Chemistry, A.D.M. College for Women served as convenor. Prof. P.K. Sai Prakash, President, IACT and CSIR Emeritus Scientist, Osmania University, Hyderabad delivered the keynote address :

An International Chemistry Olympiad awareness programme was also organized on April 4, 2009 in which a large number of teachers and students participated.

A Chemistry Olympiad Workshop was organized by Dr. Brijesh Pare, Vice President, IACT- Central Zone on July 29-30, 2009 at Sri Satya Sai Vidya Vihar, Indore.

International Symposium on Inorganic Ring Systems (IRIS-12) was held on August 16-21, 2009 at Goa. The prestigious Symposium was organized by the Chemistry Department of IIT- Bombay under the able leadership of Prof. P. Mathur. Dr. D. V. Prabhu served on the National Organizing Committee of IRIS - 12.

A Chemistry Olympiad awareness programme was organized at Gujarat Council of Science City, Gandhinagar- Ahmedabad during September 7-11, 2009 by Dr. Narottam Sahoo, Secretary IACT-West Zone. A large number of Std. XI Science Students participated. Prof. P. K. Sai Prakash served as the faculty of the programme.

NATIONAL CHEMISTRY DAY CELEBRATIONS DECEMBER 10, 2008

1. National Chemistry Day celebrations were organized by Dr. Prem Mohan Mishra, Member, IACT-EC at D.P.M.Gurukul, Dighi West, Darbhanga, Bihar State under the banner of IACT-East Zone. Dr. B.M. Mishra, Director, Women's Institute of Technology, Darbhanga was the Chief Guest. A discussion was held on the present day Chemistry Education scenario. A Chemistry Quiz was organized for Std. XI and Std. XII students. Five eminent chemists were honored on the occasion. The programme was widely covered by the print and electronic media.
2. Professor S. Ramasesha of Indian Institute of Science, Bangalore delivered lectures on "Organic molecular materials" and "Role of electron exchange in Chemistry and Physics" at Department of Chemistry, Gauhati University, Guwahati. Prof. O.K. Medhi, Honorable Vice-Chancellor, Gauhati University and IACT life member inaugurated the celebrations which were ably organized by Dr. D.C. Deka, Secretary, IACT- North East Zone. More than 200 students and teachers participated in the event which was organized by IACT- North East Zonal Council.
3. National Seminar on "Chemistry Education- Personality enrichment" was organized by Dr. K. Sudhakar Babu, Secretary IACT- South Zone at S.K. University College, Anantapur. Prof. P. Kusuma Kumari, Honorable Vice Chancellor, S.K. University, Anantapur inaugurated the seminar organized by IACT-South Zone. More than 200 students and teachers participated in the event which was given good coverage in the print media.
4. Prof. P.V. S. Machiraju, Member, IACT-EC organized National Chemistry Day Celebrations at P R Government College (Autonomous) Kakinada, AP under the aegis of IACT-South Zone.
5. National Chemistry Day was celebrated in a big way at H.N.B Garhwal university, Srinagar Garhwal under the banner of IACT – North Zone. Prof. Geeta Joshi nee Pant delivered an interesting lecture on "Fascinating Chemistry" in which she emphasized the relevance of stereochemistry citing several examples. Dr. Deepak Kumar Semwal spoke on "Green Chemistry"
Students made presentations on NMR spectroscopy, Nucleophilic Substitutions, Elimination reactions and Term symbols used in Electronic Spectroscopy.
Chart and Cartoon competitions based on Chemistry themes were also organized. Prizes were awarded to the winners of these competitions at the august hands of Prof. M. S. M. Rawat, Secretary, IACT – North Zone and Head, Department of Chemistry, HNB Garhwal University, Srinagar Garhwal.

6. Dr. G. Relhan, Former Secretary BRNS, BARC, Mumbai gave talks on “Neutron Activation Analysis” and “Funding From BRNS” at Wilson College, Mumbai. The talks were organized by Dr. D. V. Prabhu under the aegis of IACT – West Zone. 120 Teachers, Ph.D Scholars and researchers participated.

NATIONAL STANDARD EXAMINATION IN CHEMISTRY NSEC – 2008

Indian Association of Chemistry Teachers conducted the National Standard Examination in Chemistry (NSEC – 2008) on November 23, 2008 at over 900 centers all over the country. 29165 students of Std XI and Std XII Science and CBSE enrolled for NSEC – 2008 which is the first stage examination leading to participation in the Indian National and International Chemistry Olympiads. Dr. D. V. Prabhu served as the Chairman of the NSEC – 2008 Examination Board. Subsequently 314 students were selected for the Indian National Chemistry Olympiad (INChO) held in January 2009. These 314 toppers of NSEC-2008 were awarded Chemistry book prizes and merit certificates by IACT. All the 35 students selected for the orientation cum selection camp held at HBCSE (TIFR) Mumbai in May 2009 were awarded IACT gold medals and merit certificates.

IACT acknowledges and appreciates the valuable help received from Indian Association of Physics Teachers (IAPT) at all stages of the Chemistry Olympiad Programme especially NSEC. Grateful thanks go to Prof. R. M. Dharkar, Chief Coordinator, IAPT Examinations and Prof. M. L. Ogalapurkar, Coordinator, NSEP for their unstinted help and support at all times.

40TH INTERNATIONAL CHEMISTRY OLYMPIAD - BUDAPEST

The 40th IChO was held at Budapest Hungary during July 2008.

The Indian team won 3 Silver and 1 Bronze medal.

Mr. Gautam Agrawal (Mumbai) – Silver

Mr. Praneeth Srikanti (Hyderabad) – Silver

Mr. M. Srujan (Hyderabad) – Silver

Mr. Anupam Dev Goel (Sangrur, Punjab) – Bronze

Dr. D. K. Maity (BARC, Mumbai) and Prof. A. A. Natu (IISER, Pune) were the delegation leaders and Mrs. Swapna Narvekar (HBCSE) (TIFR), Mumbai accompanied the Indian team as Scientific Observer IACT. IACT congratulates the Indian team on this great achievement.

41TH INTERNATIONAL CHEMISTRY OLYMPIAD - CAMBRIDGE

The 41th IChO was held at Cambridge, UK during July 2009. The Indian team won 4 silver medals.

Miss. Shruti Khatri (Jaipur) – Silver

Mr. Abhishek Padmanabhan (Mumbai) – Silver

Mr. Manikanta Kotaru (Hyderabad) – Silver

Mr. Vinayak Gagrani (Jaipur) – Silver

Prof. A. A. Natu (IISER, Pune) and Prof. A. Srinivasan (National College, Bangalore) were the delegation leaders and Dr. Savita Ladage (HBCSE(TIFR), Mumbai) accompanied the Indian Team as Scientific observer.

IACT congratulates the Indian team on this great success.

NANOMATERIALS - THE GLOBAL TECHNOLOGICAL REVOLUTION

M. R. R. Prasad

Retried Scientist, VSSC Trivandrum

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Nanoworld lies midway between the atomic scale and the scale of bulk materials. Nanomaterials can be metals, ceramics, polymeric materials or composite materials. These are of great fundamental interest due to their exceptional optical, electrical and magnetic properties, which are markedly different from bulk materials. These properties are strongly dependent on the size and shape of the particle owing to their very small dimension (<100 nanometers) and fundamental change in the coordination, symmetry and confinement. The field of nanotechnology is highly interdisciplinary, and involves concepts from Chemistry, Physics, Biology and Engineering.

The variety of nanomaterial is great, and their range of properties and possible applications appear to be enormous. Commercial developments of nanomaterials fall into three broad categories of – metal oxides, nanocalys, and carbon nanotubes. In the case of metal oxides, the near atomic size of nanomaterial, combined with the dynamic properties of their surface atoms, make them suitable for altering and enhancing the performance of raw materials such as Zinc, Aluminum and Iron, yielding materials with chemical, mechanical, electrical and optical behavior that goes beyond the capability of the original materials. Such nanomaterials provide improved catalysis, dispersion, transparency, surface smoothness and gloss, finer abrasiveness, ceramic toughness in applications ranging from high-tech coating, chemical/mechanical polishing slurries, to fuel cell and multi-layer ceramic capacitors.

Coming to nanocalys, which are naturally occurring plate-like clay particles, on blending into plastics form composites with improved strength, heat resistance, barrier properties and flame retardancy. The difficult part of the technology is to get the clay plates, which tend to stack up like a pack of cards, to exfoliate in the polymer matrix. Many companies including Toyota have developed their own methods of exfoliation. These approaches usually involve special coating on the clays and adjustments of plastic extrudes.

Synthesis of different types of nanoparticles over past two and half decades include carbon-rods, fibers, tubes with single or double walls, open or closed ends, and straight or spiral forms. These are 56 varieties with subtle differences in diameter or physical structure. These subtle difference lead to marked differences in electrical, optical and chemical properties. For example, about one-third is metals, and the rest are semiconductors. The development and commercialization of different types of nanomaterials has focused applications – as better insulation materials, thermoelectric devices, nanocatalysts, cutting tools, laptops, improved resolution of television an monitors, sensors made of nanocrystalline material, and staelites. This is only a small part of long story of Nanomaterials.

Currently, nanotechnology generates \$385 million in business per year in the U. S. a number that will swell to about \$3.5 billion by 2008 and \$20 billion by 2013, according to a report by Consulting Resources Corp. (CRC), a Massachusetts-based market research firm. In 2005, the worldwide usage of nanoparticulate silver was in the region of 200-400kg but that this may well rise to perhaps 4-6 tonnes per annum by 2010. The American estimate of the Nanotechnology Market in 2012 industrial sector wise is projected to be : Semiconductors – 54%, Electronics – 8%, Food – 1%, Pharmacy / Health – 16%, Conglomerate – 1%, Chemicals – 13%, Automotive – 2%, Aero /Defense – 5%.

In the United States, the Government's investment in nanotech research for the fiscal year 2000 was \$ 270 million, which rose to \$ 710 million in the year 2002, indicating the potential hidden in emerging technological arena. Venture capitalists, institutional investors and individual investors have begun to see the potential in nanotech, and over 50US venture capital firms invested in nanotech-related companies in the year 2000. Some of the world's largest companies include – IBM, Motorola, Hewlett Packard, Lucent, Hitachi, Corning, Dow Chemicals and 3M. If the analysts are correct, the total global market for nanotech products and services could reach \$ 1-2 trillion by the year 2015, or more than 10% of the total global industrial output.

World Environment Day

World environment day is commemorated on 5th June every year since 1974. World Environment Day was established by the United Nations General Assembly in 1972 to mark the opening of the Stockholm Conference on the Human Environment. Another resolution, adopted by the General Assembly on the same day, led to the creation of United Nations Environment Programme (UNEP). Every year UNEP gives a slogan for the celebration.

2008 – Kick the Habit! Towards a Low Carbon Economy

2007 – Melting Ice-A hot topic

2006 – Deserts and Desertification

2005 – Green Cities : Plan for the Planet

2004 – Seas and Oceans – Wanted Dead or Alive ?

2003 – Water – Two Billion People are Dying for It

2002 – Give Earth a Chance

2001 – Connect with the World Wide Web of Life

2000 – The Environment Millennium – Time to Act

1999 – Our Earth – Our Future

1998 – For Life on Earth – Save Our Seas

1997 – For Life on Earth

1996 – Our Earth, Our Habitat, Our Home

1995 – We the People : United for the Global Environment

1994 – One Earth One Family

1993 – Poverty and the Environment – Breaking the Vicious Circle

1992 – Only One Earth : Care and Share

- 1991 – Climate Change, Need for Global Partnership
- 1990 – Children and the Environment
- 1989 – Global Warming, Global Warning
- 1988 – When People Put the Environment First, Development Will Last
- 1987 – Environment and Shelter : More Than A Roof.
- 1986 – A Tree for Peace
- 1985 – Youth : Population and the Environment
- 1984 – Desertification
- 1983 – Managing and Disposing Hazardous Waste : Acid Rain and Energy
- 1982 – Ten Years After Stockholm (Renewal of Environmental Concerns)
- 1981 – Ground Water, Toxic Chemicals in Human Food Chains
- 1980 – A New Challenge for the New Decade : Development Without Destruction
- 1979 – Only One Future for Our Children – Development without Destruction
- 1978 – Development Without Destruction
- 1977 – Ozone Layer Environment Concern; Land loss and Soil Degradation
- 1976 – Water : Vital Resource for Life
- 1975 – Human Settlements
- 1974 – Only one Earth



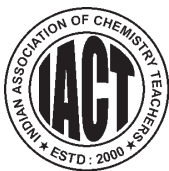
Twelve Steps To Help Kick The CO₂ Habit

1. **Make a commitment to move towards carbon neutrality.**
2. **Assess where you stand** : knowing where and how one generates greenhouse gases is the first step to reducing them.
3. **Decide and plan where you want to go** : A strategy and action plan can be developed to reduce energy by 10%, which always results in a 10% reduction in greenhouse gas emissions.
4. **De-carbon your life** : Everything that is done or used, embodies some form of carbon, either in products themselves or in the energy and materials it takes to make them. 'carbon copies' can be chosen on the least amount of impact they will have on the climate. Integrating climate- friendly criteria into decision making can trigger a ripple effect.
5. **Get energy efficient** : Improving efficiencies of buildings, cars, computers etc, is the fastest and most lucrative way to save money, energy and carbon emissions.
6. **Switch to low carbon energy** : Switch to energy sources that emit less carbon and can reduce costs and emissions of gas.
7. **Invest in offsets and cleaner alternatives** : There is limit to how much efficiency one can squeeze from one's lifestyle or how much renewable energy one can employ. To compensate for emissions is to fund an activity by another party that reduces emissions, called 'carbon offset' or 'carbon credit'. Carbon credits can be generated by emission-free energy generation, reduced demand, including energy efficiency, or sequestration in the form of underground and forestry storage.
8. **Get efficient** : Integrate the 3R approach-reduce, reuse and recycle-into one's thinking.
9. **Offer or buy-low carbon products and services** : The market for climate friendly products and services is growing rapidly, from energy efficient products to renewable energy systems. Ecodesign is an important" strategy to improve the environment performance of their products, reduce waste and improve their competitive position on the market.
10. **Buy green and sell green** : Consumers should buy green products , if given the choice.
11. **Team up** : Private sector companies should increasingly work with non-governmental organizations to reduce emissions.
12. **Talk** : Companies and organizations will need to communicate to their stake holders about importance of climate change.

NEWLY ENROLLED LIFE MEMBERS OF IACT

L.M.	Name	Institution	City
600	Dr. Varkhede Ramesh Shiram	H.P.T. Arts and R.Y.K. Science College	Nashik
601	D. Anitha Ranga Sree	Osmania University College for Women	Hyderabad
602	Dr. V. K. Subramaniam	Annamalai University	Annamalai Nagar
603	Dr. Anjali Goel	Kanya Gurukul Mahavidyalaya	Hardwar
604	Dr. Mahendra Singh Panwar	Govt. P. G. College	Rudraprayag, Uttarakhand
605	Prof. Parinita Umesh Madan	Vivekanand College of Arts, Science & Commerce	Mumbai
606	Dr. Meeta Rakesh	G. N. Khalsa College	Mumbai
607	Dr. Veena L. Khilnani	K. J. Somaiya College of Science & Commerce	Mumbai
608	Prof. Prema Narayan	R. K. T. College	Ulhasnagar
609	Dr. Mrs. K. N. Radhamani	R. K. T. College	Ulhasnagar
610	Miss Lakhe Dipti Raghunath S.	All India Institute of Local Self Govt.	Ulhasnagar
611	Dr. Usha Rawat	HNB Garhwal University	Santacruz (W), Mumbai
612	Dr. Ravindara K. Pandey	P D T Centre, Roswell Park Cancer Institute	Buffalo, New York, USA
613	Dr. Ajay Singh	Dolphin (PG) Institute of Biomedical & Natural Sciences	Monduwala, Dehradun
614	Prof. V. S. Singh	HNBGU - Campus	Pauri
615	Dr. Dixa Bhatt	HNBGU - Campus	Pauri
616	Dr. Prabhakar Prasad Badoni	HNBGU - Campus	Pauri
617	Dr. Shailendra Prakash Madhwal	Govt. Post Graduate College	Kotdwara - Garhwal
618	Dr. Shalini Joshi	K L DAV (PG) College	Rooke
619	Dr. D. M. Joshi	HNB Garhwal University	Srinagar, Uttarakhand
620	Dr. Veena Joshi	HNB Garhwal University	Badshahithaul, Uttarakhand
621	Dr. J. S. Jangwan	HNB Garhwal University	Badshahithaul, Uttarakhand
622	Dr. Inder Mohan Premnath Sarin	Shri. M. M. College of Science	Nagpur
623	Dr. Satish Chandra Sati	HNBGU - Campus	Srinagar, Uttarakhand
624	Dr. Prasant Singh	D A V PG College	Dehradun
625	Dr. Raman Bahuguna	HNB Garhwal University	Srinagar Garhwal, Uttarakhand
626	Miss. Namrata Ghildiyal	HNB Garhwal University	Srinagar Garhwal, Uttarakhand
627	Dr. D. Madhava Sarma	Govt. Degree College	Tadepalliguda
628	Prof. K. Vishwanadha Raju	DR. R. G. Govt. Degree College	Tadepalliguda
629	Dr. Narendra Sigh Bhandari	Kumaun University	Almora, Uttarakhand
630	Dr. Suresh Kumar Nishad	Government P. G. College	Uttarkhand
631	Dr. G. Himavathi	Department of Basic Science and Humanities	Vishakhapatnam
632	Dr. A. V. L. N. S. H. Hariharan	GITAM University	Vishakhapatnam
633	Dr. A. V. D. Nagendra Kumar	GITAM University	Vishakhapatnam
634	Dr. Arvind Anant Natu	Indian Institute of Science Edu. & Research	Pune
635	Dr. Abu Taleb Khan	IIT, Guwahati	Guwahati
636	Prof. Subhashish Chattopadhyay		Bangalore
637	Dr. Jayashree A. Parikh	D. J. Sanghvi College of Engineering	Mumbai
638	Dr. (Mrs) A. John Merina	Govt. College for Women	Kumbakonam
639	Dr. K. Pandiarajan	Annamalai University	Annamalai Nagar
640	Dr.(Mrs.) G. Madhurambal	ADM College For Women	Nagapattnam
641	Prof. Mrs. S. Malathy	ADM College for Women	Nagapattnam
642	Prof. Mrs. N. Prabha	ADM College For Women	Nagapattnam
643	Dr. V. Harikrishna	Sree Vidyaniketan Degree College	Tirupati
644	Dr. Ajitha Priya N. Jammala	Sree Vidyaniketan Degree College	Tirupati
645	Dr. Amlan Kumar Das	Sikkim Manipal Institute of Technology	Sikkim
646	Dr. N. Kannan	Ayya Nadar Janaki Ammal College	Sivakashi
647	Dr. G. S. Thakral	GNG Classes	Indore
648	Prof. Sharif Khan	GNG Classes	Indore

Newly Enrolled Institutional Member of IACT
India First Foundation, Mumbai.



INDIAN ASSOCIATION OF CHEMISTRY TEACHERS [IACT]

Homi Bhabha Center for Science Education
Tata Institute of Fundamental Research
V. N. Purav Marg, Mankhurd, Mumbai – 400 088.

Date : _____

To,
The General Secretary, IACT
HBCSE-TIFR
Mumbai - 400 088.

LM / IM No.				
Receipt No. _____				
For Office Use Only				

Dear Sir,

I/We wish to join IACT as Life / Institutional Member.

[Fees : Life Rs. 1000/- and Institutional (one time payment) Rs. 10,000/-]

I am remitting a fee of Rs. _____ through Cheque*/Demand Draft bearing No. _____

dated _____ drawn on _____ Bank, payable at par at Mumbai,
in favour of "Indian Association of Chemistry Teachers." I give below the necessary particulars.

1. Name : _____

2. Qualifications : _____

3. Designation : _____

4. Date of Birth : _____

5. Office address : _____

_____ PIN

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Telephone : _____ Fax : _____ Email : _____

6. Residential Address : _____

PIN

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 Telephone : _____

7. Areas of interest : _____

Yours sincerely,

(Signature) _____

[*Outstation members should remit through demand draft only]

All correspondence should be made to :

Dr. D. V. Prabhu, General Secretary (IACT)
Department of Chemistry, Wilson College, Mumbai - 400 007.

INDIAN ASSOCIATION OF CHEMISTRY TEACHERS (IACT)

Received _____

a sum of Rs. _____ by Cheque / DD No. _____ dated _____

drawn on _____ bank being the _____ membership fees of IACT.

Membership No. : _____

General Secretary

Treasurer