



VOLUME 16, JANUARY 2016

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I would like to extend my best wishes and warm greetings to all the members of the CRSI fraternity. This newsletter brings to you several events and new initiatives that we have been undertaking to make CRSI relevant and grow further. The local chapters are playing important roles to make the society strong and we want the local chapters to take up more activities involving a larger section of the chemistry community. As the chemical science changing globally over



the years, it is a great responsibility of CRSI to spread the message of changing face of chemistry, both in terms of teaching, research and connecting with industry on relevant problems. While CRSI has continued to emphasize the chemical education with several outreach programs by CRSI and its local chapters, we recognize that CRSI must play an important role in strengthening academia-industry interactions. We have proposed new initiatives in this regard.

Earlier last year, we had a very successful 17th CRSI National Symposium in Chemistry (NSC-17) during February 6-8, 2015 at CSIR-National Chemical Laboratory (NCL), Pune in association with Indian Institute of Science Education Research (IISER), Pune and Savitribai Phule Pune University (SPPU). The conveners Dr Anil Kumar and Dr C S Gopinath, with help of an active team from NCL, IISER and SPPU made excellent arrangements and the symposium was very well attended with about 1000 participants. We place on record our appreciation to the organizing team. In the annual event, we had a number of award lectures, medal lectures, special mini-symposium. The CRSI also organized a successful CRSI-RSC symposium on February 5, 2015 which had a session devoted to Chemistry Education involving teachers & students.

The mid-year symposium of CRSI was organized by National Institute of Technology, Trichy during July 23-25, 2015. As with the trend of previous year, the number of participants has continued to grow in the mid-year meeting. The meeting was attended by many participants from all over India, in particular, many young students and scientists from the region around Trichy. This meeting marked the largest attendance in a mid-year meeting. We saw in the 2014 mid-year meeting a very healthy attendance at North East Institute of Science and Technology, Jorhat. The convener R. Karvembu and his team made excellent arrangements and we indeed place on record our appreciation.

In the mid-year meeting at Trichy, general body took some important matters of discussion which were initiated during NSC-17. One of the major decisions taken was to change the structure of the mid-year meeting and have both February and July meetings as National Symposia. We felt that this would help in keeping the number of participations for both these meetings nearly at same level. In fact, this new proposal has been put to effect from this year (2016), when NSC-18 will be held in Panjab University, Chandigarh jointly with Institute of Nano Science and Technology and IISER, Mohali between February 5-7, 2016, with CRSI-RSC meeting being held on 4th February 2016. NSC-19 will be held in North Bengal university, Siliguri during July, 2016.

The year 2016 is a very special year of celebration of 100 years of theory of chemical bond proposed by G N Lewis in 1916. To celebrate this, CRSI will take up special programs separately as well as with collaboration of other scientific bodies. One of these is planned in collaboration with Indian National Science Academy (INSA). I also request local chapters of CRSI to undertake activities to celebrate this landmark event.

The CRSI continues its international collaboration with Royal Society of Chemistry and Asian Chemical Editorial Society (ACES). As you are aware, the CRSI supports the chemical community in India through its co-ownership of two major chemistry journals, Chemistry-An Asian Journal and Asian Journal of Organic Chemistry. CRSI has also entered into another agreement with ACES and Wiley-VCH to bring out a new journal ChemNanoMat in the area of nanomaterials. I am sure many of you will publish your high quality papers in these journals.

We have also proposed in Trichy meeting to initiate special symposia with the German Chemical Society. In the forthcoming NSC-19 at Siliguri, we have decided to expand our international collaboration by inviting German Chemical Society to participate and arrange special sessions. We expect the collaboration with German Chemical Society to be successful in future.

This year marks tenth year of collaboration with RSC and thus special events are proposed to be held in Chandigarh on 4th February, 2016 on the tenth anniversary of CRSI-RSC collaborations, where future of this cooperation will be discussed.

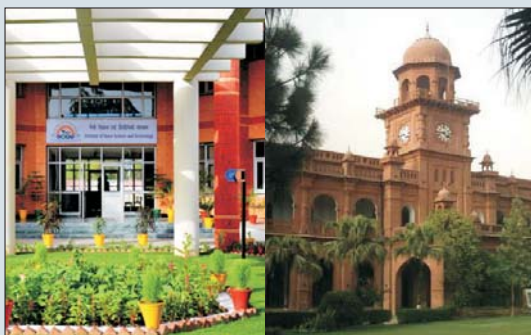
With best wishes,

Sourav Pal

News & Announcements:

The 18th CRSI National Symposium in Chemistry and 10th CRSI-RSC Symposium

The 18th National Symposium in Chemistry (NSC-18) will be organized by the Institute of Nano Science and Technology (INST) Mohali and Panjab University, Chandigarh, with support from the IISER Mohali during February 5-7, 2016. The 10th CRSI-RSC joint symposium will be held on February 4, 2015. The next General Body Meeting will be held at Panjab University, Chandigarh on February 6, 2016. Members may contact the convener (Email: crsi2016@gmail.com) for further information. The list of speakers include: C. N. R. Rao, B. M. Deb, K. J. Rao, J. Paul Attfield, Devarajan Thirumalai, Toshiaki Enoki, Shinobu Itoh, R. Murugavel, S. Thayumanavan, S. Chandrasekhar, Henry F. Schaefer, III, Rene Gree, G. K. Lahiri, D. B. Ramachary, Swagata Dasgupta, Anil Kumar, K. Srihari, P. S. Mukherjee, A. J. Bhattacharyya, Thomas J. Colacot, G. Lahiri, F. A. Khan, D. Srinivasa Reddy and Sankar Prasad Rath.



Institute of Nano Science and Technology (INST)
Mohali and Panjab University, Chandigarh

The 19th CRSI National Symposium in Chemistry and 1st CRSI-GDCh Angewandte Symposium

The 19th CRSI National Symposium in Chemistry will be held at North Bengal University, Siliguri, during July 14-16, 2016. The first Angewandte joint symposium with the German Chemical Society (GDCh) will be held on July 13, 2016. These two symposia will be convened jointly by Pranab Ghosh and Anirban Misra. Further details about NSC-19 and CRSI-GDCh symposia will be sent to all the members in March 2016.



Highlights of the 17th CRSI National Symposium in Chemistry (NSC-17)

The 17th National Symposium in Chemistry (NSC-17) and 9th CRSI-RSC joint symposium was held at CSIR-National Chemical Laboratory (NCL), Pune, during February 6-8, 2015. These two meetings were convened by Anil Kumar and C. S. Gopinath. The purpose of this symposium was to provide a forum for the scientists, teachers and students in the country to participate and discuss the recent development in chemistry. The symposium was very well attended with over 1200 registered participants and about 80% of them were young Ph.D. and Masters' students. The inaugural session started with welcome remarks by C. S. Gopinath, Convener of the Symposium. G. Mugesh gave the welcome address on behalf of the CRSI and mentioned about the rapid increase in the number of participants in the annual and mid-year meetings.



NSC-17 at CSIR-National Chemical Laboratory, Pune

During the inauguration, a book titled "The Peacock in Splendour - Science, Literature and Art in Ancient & Medieval India", authored by B. M. Deb was released by C. N. R. Rao. This was followed by Presidential address and scientific lecture by Sourav Pal, President, CRSI. In the end of inaugural session, C. S. Gopinath, convener, NSC-17, proposed vote of thanks.



B. M. Deb's book Release by C. N. R. Rao

The symposium comprised of various special, medal and award lectures, a mini theme symposium and two poster sessions. The second session started with a keynote lecture by C N R Rao, Founder President of CRSI. He delivered lecture on artificial photosynthesis and the generation of hydrogen by water splitting. Toshiaki Enoki delivered the C N R Rao award lecture. He discussed his research activities on graphene nanostructures. He also talked about edge geometry and electronic structures of graphene. The session ended with the first S. Chandrasekaran Endowment Lecture, delivered by Dieter Enders, RWTH Aachen, Germany. He presented his group's work on asymmetric organocatalysis and carbenes via proline to domino reactions. The first poster session was held after lunch and ~280 students enthusiastically presented their posters on their research work in all areas of chemistry. After the poster session, the council meeting was held at the board room, CSIR-NCL, Pune.



Sourav Pal presents a memento to Dieter Enders, RWTH Aachen, Germany

The third session started with silver medal lecture delivered by Anunay Samanta, University of

Hyderabad. He discussed his group research activities on fluorescence properties of molecular systems in ionic liquids. This was followed by Darshan Ranganathan memorial lecture, delivered by Sandeep Verma from the Indian Institute of Technology, Kanpur. He discussed about the modified nucleobases and amino acids for bioimaging and delivery vehicles.



Gopinath presents a memento to the chairperson S. H. Mashraqui, Mumbai University

The session continued with three bronze medal lectures delivered by R. B. Sunoj, Indian Institute of Technology-Bombay, Mumbai, D. K. Maity, Bhabha Atomic Research Centre, Mumbai and M. Eswaramoorthy, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore. Sunoj discussed asymmetric catalysis using transition state modeling. Maity presented theoretical studies on size selected solvated clusters to understand the macroscopic properties and Eswaramoorthy delivered his lecture on aminoclay-based organic-inorganic hybrids.

The second day of the symposium was held at the IISER, Pune. The morning session began with a CRSI medal lecture by Sankar Balasubramanian, University of Cambridge, UK on chemical biology of the genome. He presented how to elucidate and manipulate mechanisms that control the expression of genes. In particular, he highlighted the role of non-canonical nucleic acid structures that control gene expression. This was followed by the C. N. R. Rao National Prize lecture, which was given by Balaji R. Jagirdar, Indian Institute of Science, Bangalore. He talked about the various approaches to sigma methane complexes of transition metals. The morning session ended with another CRSI Medal Lecture by Ram Seshadri, University of California, Santa Barbara, USA, who discussed rational design of phosphors for solid-state lighting.



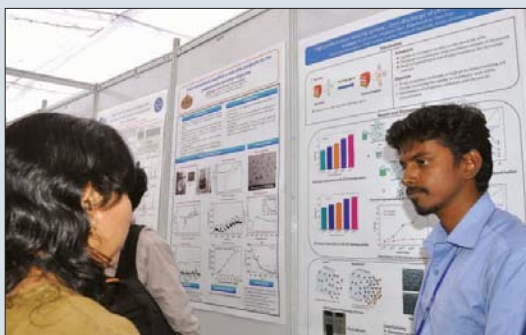
Sankar Balasubramanian, University of Cambridge, UK delivered a lecture on chemical biology of the genome

In the next session, Amit Basak, Indian Institute of Technology, Kharagpur delivered a silver medal lecture. He presented his group research work on reactive intermediates and its applications. This was followed by four bronze medal lectures delivered by G. Sekar, Indian Institute of Technology-Madras, Chennai, S. K. Srivastava, Manipur University, Manipur, Subi J. George, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore and Amiya K. Panda, North Bengal University, Darjeeling. G. Sekar highlighted the role of Metal Nanoparticles to Stabilize by Metal-Carbon Covalent Bonds and its role as an efficient and reusable nanocatalyst. S. K. Srivastava spoke on luminescent magnetic hybrid nanomaterials for hyperthermia application. Subi J. George discussed chiroptical probing and amplification of chiroptical functions in helical assemblies. The session ended with a lecture by Amiya K. Panda on effect of fibrinogen on the mono-/bi-layer form of bovine lung surfactant. The second poster session was held after lunch and ~280 students presented their posters on their research work in all areas of chemistry.



K. N. Ganesh presents a memento to Amit Basak, IIT Kharagpur

After the poster session, the third session started with a silver medal lecture by P. K. Bharadwaj, Indian Institute of Technology, Kanpur. He highlighted his group research activities on supramolecular chemistry. This was followed by two bronze medal lectures. Vandana Bhalla, Guru Nanak Dev University, Amritsar discussed about aggregation induced emission enhancement materials and its applications for sensors. K. R. Prabhu, Indian Institute of Sciences, Bangalore spoke on C-H bond functionalization reactions.



Poster session of the annual symposium 2015 at CSIR-NCL, Pune

The session ended with a presentation by D. G. Schmidt, President, American Chemical Society. She highlighted the academic benefits of CRSI-ACS cooperation and future plans. The CRSI general body meeting was held and all the medal winners received their medals in the General Body meeting. In the last session, lifetime achievement lecture (Gold Medal lectures) was delivered by Bidyendu Mohan Deb, Kolkata. He highlighted the contribution of his research group on electron density based concepts and theories in chemistry.



D.G. Schmidt, President, American Chemical Society discussed about benefits of CRSI-ACS cooperation and its future plans

The third day started with a lecture by CRSI Honorary Fellow Keiji Maruoka, Kyoto University, Kyoto, Japan. He discussed on the rational design of high-performance organocatalysts for asymmetric catalysis. His lecture was followed by another C. N. R. Rao National Prize lecture, which was delivered by K. P. Kaliappan, Indian Institute of Technology-Bombay, Mumbai. He highlighted the contribution made by his research group in the area of syntheses of natural products and new molecular scaffolds. This was followed by two bronze medal lectures by T. Punniyamurthy, Indian Institute of Technology, Guwahati and D. K. Dutta, CSIR-North East Institute of Science and Technology, Jorhat. Punniyamurthy spoke about the multicomponent tandem carbon-carbon/heteroatom bonds formation and their application for the synthesis of medicinally significant heterocyclic compounds. His lecture was focused on the development of new reagents and methods for organic synthesis, with an emphasis on asymmetric catalysis. Dutta spoke on potential of metal complexes and metal nanoparticles for efficient catalytic applications.



Sourav Pal presents a memento to CRSI Honorary Fellow Keiji Maruoka, Kyoto University Kyoto, Japan

The second session began with a mini-symposium on bio-inspired catalysis. The leading scientists in the area of catalysis and bio-inspired systems were invited to share their expertise. The first invited lecture was delivered by V. Chandrasekhar, National Institute of Science Education and Research, Bhubaneswar. He discussed the structure and properties of polynuclear lanthanide complexes. This was followed by a lecture by Samir Maji, Indian Institute of Technology-Bombay, Mumbai, who spoke about the role of amyloids for biomaterial applications. Tapan K. Paine, Indian Association of

Cultivation of Sciences, Kolkata described the pathways for dioxygen activation and oxyfunctionalization of C-H and C=C bonds by bio-inspired nonheme Iron Complexes and P. I. Pradeep Kumar, Indian Institute of Technology-Bombay, Mumbai demonstrated the role of DNA as a Catalyst: An Odyssey in the World of RNA Cleaving DNA Enzymes and finally Pradyut Ghosh, Indian Association of Cultivation of Sciences, Kolkata delivered a lecture on anion recognition and extraction by synthetic hosts.



D. D. Dhavale presents a memento to V. Chandrasekhar, NISER, Bhubaneswar

In the last session of the symposium, four Bronze Medal Lectures were presented. Ashwini Phukan, Tezpur University, Tezpur presented his research work on the theoretical investigations of effect of annulation and carbonylation on the ligand properties of N-heterocyclic carbenes and its heavier analogs. Srinivas Hotha, Indian Institute of Science Education and Research, Pune described various synthetic pathways and methods for the synthesis of glycochemicals. He also described its significance in mycobacteriology.



Sourav Pal presents Bronze Medal to S. K. Asha, CSIR-National Chemical Laboratory, Pune

The bronze medal lecture delivered by Chhanda Mukhopadhyay, University of Calcutta, Kolkata was mainly focused on exploitation of dual nature of cyanide moiety towards uniquely decorated [1,6] naphthyridines, 3H-pyrroles and pyridines. Finally, S. K. Asha, CSIR-National Chemical Laboratory, Pune, delivered a bronze medal lecture on Self-Assembly in Comb Polymers for Improved Charge Carrier Mobility. The last bronze medal lecture was delivered by Rama Kant, University of Delhi, New Delhi, who spoke on theories for molecular walks through a rough electrode terrain. In the concluding session, the President presented best poster awards to students.



S. Chandrasekhar presents a memento to Chhanda Mukhopadhyay, University of Calcutta

Minutes of the General Body Meeting held at NIT, Trichy

The meeting began with a welcome by the secretary Satish Patil to all the members of the society. The secretary thanked the local organizers from National Institute of Technology (NIT) and Bharathidasan University, Tiruchirappalli, for the excellent organization and hospitality during the 10th Mid-Year CRSI Symposium in Chemistry. The President, Sourav Pal, confirmed the minutes of the previous council meeting.

The Secretary General, G. Mugesh, then presented a brief report on the activities of the CRSI during the year 2014-15. The audited statement of accounts and copies of the newsletter were circulated among the members. Mugesh thanked, Dr. Anil Kumar and Dr. Gopinath for conducting the 17th CRSI national symposium in chemistry at NCL, Pune during February 6-8, 2015, which was very successful. Mugesh informed the members about the successful cooperation between the CRSI and the Royal Society

of Chemistry (RSC), the CRSI-RSC partnership scheme and benefit to CRSI members.



Inauguration of the Mid-Year Symposium 2015 at NIT Trichy, Trichy

He also mentioned about the CRSI-ACES cooperation and the activities that could disseminate the importance of chemistry to society. Reiterating that the 'Chemistry – An Asian Journal', 'Asian Journal of Organic Chemistry' and 'ChemNanoMat' is a collaborative venture between ACES (of which CRSI in a key member) and Wiley-VCH. He urged members to consider submitting some of their exciting findings to these journals to further enhance the visibility of Indian Science. Mugesh also presented the audit report and statement of accounts as the Treasurer and Joint Treasurer were unable to attend the meeting due to prior commitments.



General Body Meeting during Mid-Year CRSI symposium at NIT Trichy

This was followed by the presentation of medals by the President to those who could not receive the medals during the 17th NSC at NCL, Pune. The President also announced the names of the medal winners, honorary fellows and endowment lectures for the year 2016. The list is enclosed at the end of

this document. After making a few brief remarks on the growing activities of the CRSI, the President urged all the members to plan various activities in their local regions to bring out the importance of chemistry. He then highlighted the discussions and recommendations of the council meeting held on February 6, 2015. He informed the members of the following points:

1. The council recommended different formats for the annual and mid-year meetings. Council proposed to organize both the annual and mid-year meetings as National Symposium in Chemistry (CRSI-NSC) with similar number of participants to be held in February and July respectively. Some of the medal lectures will be moved to the July meeting and the medal winners will receive the medals during the GBM of the respective meetings. This will allow the Society to accommodate more invited lectures as part of the thematic mini-symposium and to provide more time for the poster sessions. In this new format, the council meeting will be held during the February meeting and Audit report will be presented during the July meeting. GBM will be held during both the meetings. The number of participants to each meeting is expected to be around 600-700.
2. It was also proposed to continue the RSC-CRSI joint symposia series along with the February meetings and initiate a new symposia series with German Chemical Society and the American Chemical Society along with the July meeting. Initially, it is planned to have a symposium with these two societies every alternate years.
3. The members were informed about the 18th CRSI National Symposium in Chemistry and 10th RSC-CRSI symposium, which will be held at INST Mohali and Panjab University during February 4-7, 2016. The Conveners of the symposium will be A. K. Ganguli (INST) and S. K. Mehta (Panjab University).
4. From the proposals received for the organization of future symposia, North Bengal University, Darjeeling, has been selected as the venue for the 19th National Symposium in Chemistry (NSC-19) to be held in July 2016. This symposium will have both medal and invited lectures.

The president then invited suggestions from the members. The members made valuable suggestions and in particular, some of the student participants requested the Society to have short oral presentations by students. The President welcomed the remarks and said due consideration would be given in the future meetings. The president then closed the meeting by thanking NIT Trichy and Bharathidasan University for a very successful organization of the symposium with more than 450 participants. He also thanked all the members once again for their active participation.



Sourav Pal presents Best Poster Prize during Mid-Year Symposium 2015 at NIT Trichy, Trichy

Medals/Award Lectures 2016

Lifetime achievement award (CRSI Gold Medal):

K. J. Rao Bangalore

CRSI Medals:

Thomas J. Colacot (New Jersey); S. Thayumanavan (Amherst); Devarajan Thirumalai (College Park)

Silver Medals:

Amalendu Chandra (Kanpur); S. Chandrashekar (Hyderabad); K. C. Kumaraswamy (Hyderabad); G. K. Lahiri (Mumbai)

Bronze Medals:

Swagata Dasgupta (Kharagpur); Ashutosh Ghosh (Kolkata); Atul Goel (Lucknow); T. Govindaraju (Bangalore); Rajiv Gupta (Delhi); Niranjan Karak (Tezpur); Anil Kumar (Mumbai); P. S. Mukherjee (Bangalore); S. Pandey (Delhi); K. V. Radhakrishnan (Trivandrum); D. B. Ramachary (Hyderabad); Mahipal Reddy (Hyderabad); D. Srinivasa Reddy (Pune); Palwinder Singh (Amritsar); K. Srihari (Kanpur); S. G. Tilve (Goa)

Prof. C. N. R. Rao Award Lecture:

J. Paul Attfield (Edinburgh)

Prof. Animesh Chakravorty Endowment Lecture:

Shinobu Itoh (Osaka)

Prof. C. N. R. Rao National Prize for Chemical Research:

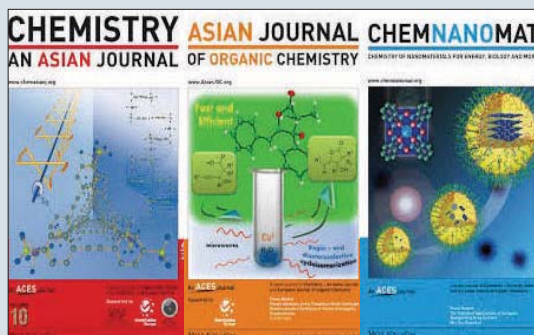
F. A. Khan (Hyderabad), A. J. Bhattacharyya (Bangalore)

Mizushima - Raman Lecture:

Toshiaki Enoki (Tokyo)

CRSI-Asian Chemical Editorial Society Cooperation:

CRSI is a member of the Asian Chemical Editorial Society (ACES), a unique association of thirteen major chemical societies of Asia and the Pacific regions. ACES, in collaboration with Wiley-VCH, publishes top-quality journals in chemistry with an international readership. ACES was founded in 2005 and currently publishes two major journals in chemistry: Chemistry – An Asian Journal (CAJ) and Asian Journal of Organic Chemistry (AJOC). The participating societies of ACES and Wiley-VCH are committed to provide scientific excellence, high publishing ethics and highest standards in publications. CAJ is supported by ChemPubSoc Europe, German Chemical Society (GDCh) and Federation of Asian Chemical Societies (FACS). CAJ has become a top chemistry journal. Through its co-ownership of CAJ and AJOC, the CRSI is strengthened by each article that gets published in either ACES journal and can in turn do more to support the chemical community in India. In addition, CRSI members get special benefits, including reduced rates for personal subscriptions to ACES journals.



ACES, in collaboration with Wiley-VCH, now publishes three international journals, Chemistry – A Asian Journal, Asian Journal of Organic Chemistry and ChemNanoMat.

New Membership

Institutional and Corporate Membership

An Institutional and Corporate Members are those who make one-time contribution of an amount of not less than Rs. 1 lakh and 5 lakhs, respectively. Once enrolled as a member, the Institution/Industry will be invited to participate in the CRSI annual and mid-year meetings and will be given a special discount on the registration fee. Every Institutional/Corporate Member can nominate a maximum of three persons to be members of the General Body in any given year and to participate in the annual and mid-year meetings of the Society. Recently, CSIR-National Chemical Laboratory (CSIR-NCL), Pune, CSIR-Central Leather Research Institute (CSIR-CLRI), Chennai, CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur, Indian Institute of Science Education and Research (IISER), Mohali and Shiv Nadar University (SNU), Dadri have become Institutional Members and SABIC Research & Technology Pvt. Ltd., Bangalore has become Corporate Member.

For membership applications, please write to: G. Mugesh, Department of Inorganic & Physical Chemistry, Indian Institute of Science, Bangalore 560012, Tel : +91-80-2360-2566; Fax: +91-80-2360-2566; Email : mugesh@ipc.iisc.ernet.in or Raji Subramanyam, Email : raji.subramanyam@gmail.com. One can become a lifetime member of CRSI by paying Rs 10,000.- (Rupees Ten Thousand Only) as membership fee. The payment can be made by electronic transfer or demand draft. Details can be found at the CRSI website (<http://crsi.org.in>).

The Chemical Research Society of India has been granted with effect from 26/01/99 the status of Wholly Charitable Trust (certified under section 12A(a) of the Income Tax Act of 1961).