Summary of the Science Academies’ Lecture Workshop on

Workshop Title - Science Academies’ Lecture Workshop on “FRONTIERS IN ADVANCED BIO-CHEMICAL SCIENCE”

Convener:

Prof. B.C. Ranu

INSA Sr. Scientist & J C Bose National Fellow
Department of Organic Chemistry
Indian Association for the Cultivation of Science
Jadavpur, Kolkata - 700032, India

Co-ordinator:

Dr. Banti Ganguly Chakraborty
Assistant Professor (Chemical Science)
Dasaratha Deb Memorial College
Khowai, Tripura-799201
Email: banti.gangulyy@gmail.com

Summary:

Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi, The National Academy of Sciences India, Allahabad, in the association with Dasaratha Deb Memorial College, Khowai, Tripura had successfully completed the three days Academies Lecture Workshop on “FRONTIERS IN Advanced Bio-Chemical Science” in different emerging areas of chemical and biological sciences. The delegates from under graduation, postgraduate University teachers, students and research scholars had attended the workshop. The workshop went for three days including of 10 seasons- morning session 11–1:30pm, lunch 1:30-2:20 pm, and an afternoon session 2:20–4:30 pm. A total of 130 student and teacher delegates attended the workshop. The delegates came from Tripura University, different Govt. Degree colleges such as Ramkrishna Mahavidyalaya, Kailasahar, Tripura, Swami Vivekananda Mahavidyalaya, Mohanpur, Tripura, Netagi Subhas Mahavidyalaya, Udaipur, Tripura and also from host institute. The resource persons came from IACS Kolkata, IIT Kharagpur, IISER Kolkata and Tripura University.

The workshop was started at 9 am on 25-02-2015 with registration of students, delegates and teachers. Program was inaugurated by our Chief Guest Prof. Anjan Kumar
Ghosh, Vice-Chancellor, Tripura University and coordinator had given a brief introduction about the academic science workshop program and theme of the workshop and the Chief Guest of Honor and Special Guest Prof. R.K.Nath, Head Department of Chemistry, Tripura University, spoke about the importance of such workshop in a state like Tripura and a small place like Khowai where the students do not get any modern facility to open up their talent. The mixing of chemical and biological science is important and also a gate for the research innovation. First session led by Prof. B.C.Ranu delivered a lecture on Green Catalysis and Green Tools in Organic Synthesis and in the latter session he has discussed its importance on social being. Prof. P.K. Chattaraj put some light on All-metal aromaticity and conceptual DFT and also on the Quantum Fluid Density Functional Theory.

On the 2nd day the workshop started at 10:30 am with the lecture of Alfred Werner: Founder of Coordination Chemistry and also Activation of Dioxygen by Nonheme Iron Enzymes and Model Complexes by Dr. T.K. Paine followed by Dr. Balaram Mukhopadhyay with his topic on Sweet Chemistry: Synthesis and Applications of Small Molecule Carbohydrates. The 3rd day started on 10:30 am with a lecture by Dr. Swapan Majumdar of topic recent advances of various protection and deprotection techniques in amino acids and peptide chemistry.

In the concluding session the feedbacks were given by student delegates they told that the program was helpful to them to learn recent inventions in the science spheres and all the speakers motivated them to learn lot of things in science. The three days program highlighted the basic aspects in biological and chemical sciences with recent ongoing research in the field. The workshop has been a very helpful for our young generations to learn the scientific achievements and to increase the scientific temper in the students. Our college is located in backward areas of the district, by conducting this program many of the students are delighted that they have got a bit of awareness about scientific research and inspired to take their career as a scientist in the future life. Finally the program was concluded after cordial vote of thanks from the Principal of the college. Principal, Staff and Management of Dasaratha Deb Memorial College, Khowai, Tripura are very thankful to all the three academies for the support through their sponsorship to the Science workshop and we hope you will be supporting us in future to conduct this type of useful and encouraging workshops to inspire the students of all areas.
**Science Academies’ Lecture**

**Workshop on**

**“FRONTIERS IN ADVANCED BIO-CHEMICAL SCIENCE”**

**Wednesday, February 25, 2015**

**Inaugural Session:**

- 09:00 to 10:00 hours  |  Registration
- 10:00 to 10:45 hours  |  Inauguration with lighting of lamp

**Patron:** Smt. Kalpana Das, Principal In-charge, DDM College, Khowai

**Chief Guest:** Prof. Anjan Kumar Ghosh, Hon’ble Vice Chancellor, Tripura University

**Guest of Honour:** Smt. Saini Sarkar, Sabhadhipati, Khowai Zilla Parishad

**Special Guest:** Prof. R.K. Nath, Dept. of Chemistry, Tripura University

- 10:45 to 11:00 hours  |  High Tea

**Lecture Session 1:**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title of the Topic</th>
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<tbody>
<tr>
<td>11:00 -12:15 hours</td>
<td>Prof. B.C. Ranu</td>
<td>Green Catalysis and Green Tools in Organic Synthesis-I</td>
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**Lecture Session 2:**

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<tr>
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</thead>
<tbody>
<tr>
<td>12:15-13:30 hours</td>
<td>Prof. P.K. Chattaraj</td>
<td>All-metal aromaticity and conceptual DFT</td>
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**Lunch Break** - 13:30-14:20 hours

**Lecture Session 3**
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<tr>
<th>Time</th>
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<th>Title of the Topic</th>
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</thead>
<tbody>
<tr>
<td>14:20-15:20 hours</td>
<td>Prof. B.C. Ranu</td>
<td>Green Catalysis and Green Tools in Organic Synthesis-II</td>
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**Tea break:** 15:20-15:30 hours

**Lecture Session 4-**

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<th>Time</th>
<th>Speaker</th>
<th>Title of the Topic</th>
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<tbody>
<tr>
<td>15:30-16:30 hours</td>
<td>Prof. P.K. Chattaraj</td>
<td>Quantum Fluid Density Functional Theory</td>
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**Tea break:** 15:20-15:30 hours

**Lecture Session 5-**

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<tbody>
<tr>
<td>10:30-11:15 hours</td>
<td>Dr. T. K. Paine</td>
<td>Alfred Werner: Founder of Coordination Chemistry</td>
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**Tea break:** 11:15-11:40 hours

**Lecture Session 6-**

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<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title of the Topic</th>
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<tbody>
<tr>
<td>11:40-12:55 hours</td>
<td>Dr. Balaram Mukhopadhyay</td>
<td>Sweet Chemistry: Synthesis and Applications of Small Molecule Carbohydrates-I</td>
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**Lunch Break -** 13:00-14:00 hours

**Lecture Session 7-**

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<tr>
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<tbody>
<tr>
<td>14:00-15:15 hours</td>
<td>Dr. T. K. Paine</td>
<td>Activation of Dioxygen by Nonheme Iron Enzymes and Model Complexes</td>
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**Tea break:** 15:15-15:25 hours
Lecture Session 8-

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<th>Time</th>
<th>Speaker</th>
<th>Title of the Topic</th>
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<tbody>
<tr>
<td>15:25-16:35 hours</td>
<td>Dr. Balaram Mukhopadhyay</td>
<td>Sweet Chemistry: Synthesis and Applications of Small Molecule Carbohydrate-II</td>
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Lecture Session 9-

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<tbody>
<tr>
<td>10:30-11:15 hours</td>
<td>Dr. Swapan Majumdar</td>
<td>Recent advances of various protection and de-protection techniques in amino acids and peptides chemistry-I</td>
</tr>
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</table>

Tea break: 11:15-11:45 hours

Lecture Session 10-

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<tbody>
<tr>
<td>11:45-13:00 hours</td>
<td>Dr. Swapan Majumdar</td>
<td>Recent advances of various protection and de-protection techniques in amino acids and peptides chemistry-II</td>
</tr>
</tbody>
</table>

Lunch Break: 13:00-14:00 hours

Valedictory session - 14:00-14:30 hours
Science Academies’ Lecture Workshop on

FRONTIERS IN ADVANCED BIO-CHEMICAL SCIENCE

February 25-27, 2015

Sponsored by

INDIAN ACADEMY OF SCIENCES (BANGALORE)

INDAİN NATIONAL SCIENCE ACADEMY (NEW DELHI)

THE NATIONAL ACADEMY OF SCIENCES INDIA (ALLAHABAD)

Organized by

Department of Chemistry
Dasaratha Deb Memorial College
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ddmc.khowai@gmail.com
Organizing Committee

Patron
Dr. Dipannita Chakraborty
Principal, DDM College
Khowai

Convener
Prof. B.C. Ranu FASc, FNA
IACS, Kolkata

Coordinator
Dr. Banti Ganguly Chakraborty
Assistant Professor (Chemistry)
DDM College, Khowai

Members
Dr. Subhajit Dinda
Dr. Saikat Das Sharma
Mr. Tamojay Deb
Dr. Ashish Bhattacharjee
Dr. C.B. Nagar
Dr. Madhumita Bhowmik
Dr. Goutam Ghoshal
Dr. Sudipto Mondal
Smt. Smita Das
Mr. Debashish Bhowmik
The Workshop:

Joint Science Education Panel, a body under the umbrella of Indian Academy of Sciences (Bangalore), Indian National Science Academy (New Delhi) and The National Academy of Sciences India (Allahabad) met towards creating an opportunity for undergraduate, postgraduate students and Ph.D scholars, along with inspiring young teachers to interact with eminent and renowned scientist and academicians all over country who would deliver lecture on recent trends in modern chemistry and biochemistry. Till date this Joint Science Education Panel has organized several annual meetings, public seminars, discussion meetings, refresher courses and also lecture workshops towards this mission. To augment this idea, the Department of Chemistry, Dasaratha Deb Memorial College, is propose to organize a workshop entitled Science Academies’ Lecture Workshop on “FRONTIERS IN ADVANCED BIO-CHEMICAL SCIENCE” during February 25-27, 2015.

Topics to be covered:

- Organic synthesis
- Green Catalysis
- Biomimetic Chemistry
- Bioinorganic Chemistry
- Theoretical Chemistry
- Analytical Chemistry

Resource Persons:

- Prof. Brindaban C. Ranu, FASc, FNA
  IACS, Kolkata
- Prof. Pritam K Chattaraj, FASc, FNA, FTWAS
  Dean, IIT, Kharagpur
- Dr. Balaram Mukhopadhyay
  Associate Professor, Dept. of Chemical Science, IISER, Kolkata
- Dr. Tapan K Paine, INSA Young Scientist
  IACS, Kolkata
- Dr. Swapan Majumdar
  Associate Professor, Dept. of Chemistry, Tripura University
**Invitation:**

The organizing committee of the workshop takes the privilege to cordially invite you to participate in this lecture workshop. The workshop will provide an open forum to exchange the ideas among the participants for fostering advancement in the field of modern biochemical science.

**The Host:**

The Chemistry Department of Dasaratha Deb Memorial College was established in 1991. It has been one of the best departments in terms of infrastructural facilities and faculties. Presently, it is fully fledged Department with undergraduates students. Faculty members of this Department actively participate in teaching and research.

**Registration:**

THERE WILL BE NO REGISTRATION FEE, AS THE PROGRAM IS SPONSORED BY JOINT SCIENCE EDUCATION PANEL OF THE ACADEMY. HOWEVER, TO ENSURE THE PARTICIPATION, PRIOR REGISTRATION IS NECESSARY. LIST OF SELECTED PARTICIPANTS WILL BE UPLOADED ON COLLEGE WEBSITE.

Last date of registration is on 7th February 2015

**How to Reach:**

DDM College, Khowai is located on 55 km away from Agartala. The bus or cruiser facility is available easily from Radhanagar bus stand at Agartala to Khowai.
Science Academies’ Lecture Workshop on

Frontiers in Advanced Bio-Chemical Science

February 25-27, 2015

REGISTRATION FORM
(may be photocopied)

- Name: Prof/Dr./ Mr./ Ms
- Designation:
- Organization:
- Address:

- Telephone:
- Fax:
- Email:

Date:                                                                                     Signature

Address for Correspondence:

Dr. Banti Ganguly Chakraborty
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Coordinator, Science Academies’ Lecture Workshop on
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