

# PROF (DR.) MAHENDRA NATH ROY



**DR. MAHENDRA NATH ROY, M.Sc., Ph.D.**  
Professor of Chemistry and Chairman of NBU  
Sports Board

**Council Member (2020-2023)**

**1. Indian Chemical Society (ICS)**

**2. Chemical Research Society of India  
(CRSI)**

Members of Learned Societies: Life Member of Indian Chemical Society, Indian Science Congress (ISCA), Chemical Research Society of India, Journal of Teaching and Research in Chemistry, Polymer Society, Indian Society for Surface Science and Technology.

## ABOUT:

Dr. Mahendra Nath Roy is a Professor in the Department of Chemistry, University of North Bengal, India. His research interests are in the areas of Host-Guest Inclusion Complexes, Nano Particles, Solution Thermodynamics, Surfactant and Polymer Chemistry. **Prof. Roy** supervised / supervising **60 Ph.Ds** reviewed **45 Ph.D Theses** and many **referred research papers** and authored over 353 research articles and books in Chemistry. He has received the **“award of One Time Grant”** under basic scientific research” from University Grants Commission, **“Prof. Suresh C. Ameta Award** “from Indian Chemical Society, **“CRSI Bronze Medal 2017”** from Chemical Research Society of India and **“Shiksha Ratna Award 2018”** from the Government of West Bengal, **“PanchananBarmaSadhabona”** Award from SODAR Social Organization and **“Best Professor in Chemistry”** from Dewang Mehta National Education Awards-2019 for his Outstanding Contribution and Excellencies in Teaching and Chemical Research throughout his career.

## CONTACT ADDRESSES:

Contact No. +91- 9434496154, +91-8250883401

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Dist- Darjeeling, West Bengal, Pin -734013, India.

E-Mail: [mahendraroy2002@yahoo.co.in](mailto:mahendraroy2002@yahoo.co.in); [mnrnbu2017@gmail.com](mailto:mnrnbu2017@gmail.com)

Researchgate: [https://www.researchgate.net/profile/Professor\\_Mahendra\\_Roy](https://www.researchgate.net/profile/Professor_Mahendra_Roy)

Google Scholar: <https://scholar.google.co.in/citations?user=ljhEWDIAAAAJ&hl=en>

ORCID: <https://orcid.org/0000-0002-7380-5526>

## **SUBJECT SPECIALIZATION: PHYSICAL CHEMISTRY**

### **AREAS OF RESEARCH INTEREST:**

- **Host-Guest Chemistry: Inclusion Complexes of Biologically Active Molecules, Ionic Liquids and Polymer Molecules insight into Diverse Cyclic Molecules.**
- **Solution Thermodynamics: Solvation Consequences of Significant Molecules in Different Aqueous and Non-Aqueous Solvent Systems.**

**No. of Ph.D. students Supervised/Supervising: 60**

**No. of Ph.D. Thesis Examined: 45**

(a) International: 04 (b) National: 41.

**No. of Research Publications Published: 353**

(a) International: 282, (b) National: 71,

Reads: 18,907, Citations: 7591, h-index 39, i10-index 163.

Books: 07 (International 03, National 04), Abstracts: 35

### **ACHIEVEMENT & AWARDS:**

- **National merit scholarship in the School Level examination**
- **One Time Grant from UGC Rs. 7, 00,000 /- under Basic Scientific Research.**
- **Professor Suresh C. Ameta Award by Indian Chemical Society.**
- **Young Scientist Award by Indian Chemical Society, Kolkata.**
- **Most Cited Paper in the “Journal of Chemical and Engineering Data”, American Chemical Society.**
- **Most downloaded paper in the “Journal of Physics and Chemistry of Liquids” Taylor and Francis.**
- **Visiting Professor in the Rajshahi University, Bangladesh.**
- **Visiting Professor in Athens Institute for Education and Research (ATINER), Athens, Greece.**
- **Visiting Professor in London, UK.**
- **Bharat Gourav Award**
- **Shiksha Ratna Award by Govt. of West Bengal.**
- **PanchananBarmaSadbhabona Award from SODAR Social Organization**
- **Best Professor in Chemistry from Dewang Mehta National Education Awards-2019**

### **PROFESSIONAL EXPERIENCES:**

- Professor of Chemistry, University of North Bengal with effect from 09/07/2008.
- Associate Professor, Department of Chemistry, University of North Bengal effect from 09/07/2000.
- Assistant Professor, Department of Chemistry, University of North Bengal effect from 05/04/1995.
- Assistant Professor, Department of Chemistry, Malda Teachers' Training College effect from 10/07/1991.
- Assistant Teacher in Chemistry, Railway Colony High School, Siliguri.

### **ADMINISTRATIVE EXPERIENCES:**

- Head of the Department of Chemistry of University of North Bengal for two yrs. w.e.f. 2006 to 2008.
- Member of Court of University of North Bengal for eight years.
- Chairman of the Ant ragging Committee of University of North Bengal for two years
- Member of Executive Council of University of North Bengal for three years
- Chairman of the Credit Cooperative Society of University of North Bengal (2012-2013)
- Convener of the national seminar (March 2005)
- Coordinator of the workshop 2008
- Project Co-coordinator of the UGC- SAP, DRS-III, Department of Chemistry, University of North Bengal w.e.f. 2013 to 2018
- Head & Chair person of the CRSI, National symposium in Chemistry (CRSI-NSC 19), CRSI-GDCH Angewandte Symposium, July 2016.
- Organized a seminar program on "Ozone Day" in Collaboration with North Bengal Science Centre, Matigara
- Participated as an Observer/Coordinator in the Committee Meeting for setting up a Small Scaled Battery Cluster Industries in Siliguri
- Head of the Department of Chemistry of University of North Bengal for two yrs w.e.f. 2016 to 2018.
- Chairman of NBU Sports Board w.e.f 2018 to till date.

### **OTHER INFORMATION:**

**Chaired the following sessions for the Judgment of the students' performance in the seminar/conference/ symposium/ workshop**

- In the International Conference at Berlin, Germany
- In the Indian Chemical Society at Pt. Rabishankar Shukla University, Raipur
- In the Kurukshetra University, Hariyana
- In the Delhi University, Delhi
- In the VisvaVarati University, Santiniketan
- In the Punjab University, Punjab

- In the Bundelkhan University, Jhanshi
- In the K. N. Christian College, Barhampur
- In the Karnaka University, Karnataka
- In Velore Institute of Technology, Chennai
- In the Mysore University, Karnataka
- In the Mahatma Gandhi Institute of Technology, Gujarat
- Islampur College, Darjeeling, India.
- St. Xaviers College, Rajganj, Jalpaiguri, India.
- KGTM College, Bagdogra, Darjeeling, India.
- 5<sup>th</sup> Global International Conference, London, UK.
- Hyderabad Central University, Talengana, India.

### **Visited for PhD Viva-Voce**

- In North Maharashtra University, Maharashtra
- In Gauhati University, Assam
- In ITER, Orissa
- In Trivuban University, Nepal
- In Dr. BabasahebAmbedkar University
- In Rajshahi University, Bangladesh
- In Bhaba Institute of Atomic Research, Kalpakkam, Chennai.
- IIT Madras, Chennai, India
- In Utkal University, Orissa

### **Different Bodies at the University of North Bengal**

- Member of the Board of UG studies in Chemistry
- Member of the PG Board of studies in Chemistry
- Member of the Faculty Council for PG studies in Sciences
- Chairman of the Board of Moderators of UG studies in Chemistry
- Chairman of the Board of Moderators of UG studies in Environmental Sciences
- Member of the Board of UG & PG studies in Chemistry in Gourbanga University
- Member of the Board of UG studies in Chemistry in SMIT, Sikkim
- Member of the Board of PG studies in Chemistry in SMIT, Sikkim
- Member of UG & PG Syllabus committee in Chemistry in SMIT, Sikkim
- Member of PG Syllabus committee in Chemistry in Sikkim University, Sikkim.
- Member of UG & PG Syllabus committee in Chemistry in Raiganj University.
- Chairman of NBU Sports Board, NBU, India.

### **Popular Science Lecture/Article**

- On Ozone depletion and consequence on the earth at North Bengal Science Centre
- On AIDS disease and its impacts on the society at Government Teachers' Training College, Malda
- On Solar Eclipse at Haldibari High School
- On Polymers and its biodegradability at North Bengal Science Centre
- On Population Explosion at Government Teachers' Training College, Malda

- **On Plastic: Its sources, side effects and controlling management at Islampur College**
- **On Biodegradable and Non Biodegradable Polymers: Can Non Biodegradable Polymers be converted into Biodegradable Polymers? at NBU.**
- **Effect of plastic on new lifestyle in the 21<sup>st</sup> Century, Mizoram University.**
- **Giant Molecules: advantages and disadvantages, NBU, India.**
- **Gout Pain: Sources and Side Effects, and its Controlling Managements, NBU, India.**

### **Invited Lectures/Talks/Papers Presented in the Seminar/Conference/Convention/Workshop**

- **Host-Guest Inclusion Complex at Athens, Greece**
- **To explore Host-Guest Complexes between RNA nucleosides and Cyclodextrin Molecules at Kurukshetra University, Haryana**
- **To Study the Solvation Consequences of Ionic Liquids in Various Solvent Systems at Punjab University, Punjab**
- **Thermodynamic and Transport Properties of Some Mineral Salts in Diverse Liquid Environments at Bundelkhand University, Jhansi**
- **Viscous Synergy and Antagonism in different Liquid Systems in VisvaVarati University, Santiniketan**
- **Lithium Batteries and Its Applications at K. N. College, Murshidabad**
- **Solution Properties of Some Alkanols with the Manifestation of Solvation Effects at Delhi University, Delhi**
- **Viscous Synergy and Antagonism of Some Biological Active Molecules and their Application in Industries at NCL, Pune**
- **Formation of Ion-pair and Triple ions Studied by Conductance and Spectroscopy at the Conference, NBU, Conducted by CRSI**
- **Green Solvents: Its Source, Advantages and Application in Industries in Bangla Bigyan Congress, NBU**
- **Ion-Solvent Interactions of Some Acetate Compound in Liquid Media at NBU**
- **Probing Inclusion Complexes between Protein Molecules and Oligosaccharides at Guahati University, Assam**
- **Solution Thermodynamics has a Vital Role in the Modern Battery Technology at Karnataka University, Karnataka**
- **Ion Solvent, Ion-ion and Solvent-solvent Interaction of Some Significant Compound and their Application in Modern Industries at Bangla Bigyan Congress, NBU**
- **Solution Thermodynamics of Some Protein and Vitamin Molecules Studied by Physicochemical Contrivance at CRSI (Local Chapter), NBU**
- **Effect on Various Non Hazardous Solvents in Chemical Research at Bhopal, Madhya Pradesh.**
- **Inclusion Complexes formed by Bioactive Molecules and Cyclic Organic Molecules at Rajshahi University, Bangladesh.**
- **Encapsulation of vit-B and vit-C into Cyclodextrin molecules, London, UK.**
- **Inclusion Complexes of Antidepressant drug molecules into oligosaccharides, Hyderabad Central University, India.**
- **Effect of plastic on new lifestyle in the 21<sup>st</sup> Century, Mizoram University**
- **International conference on human development organized by Asima Chatterjee Foundation, Kolkata University.**

## Board/Reviewer Member

Name of the Journal	National/International
International Journal of Thermo physics	International
Journal of Indian Chemical Society	National
Journal of Solution Chemistry	International
Journal of Chemical Engineering Data	International
Journal of Chemical Sciences	National
Journal of Chemical Engineering Communication	International
Fluid Phase Equilibria	International
Thermochemica Acta	International
Russian Journal of Physical Chemistry	International
Journal of Molecular Liquids	International
Physics and Chemistry of Liquids	International
Journal of mexican chemical society	International
Indian Journal of Chemistry	National
Journal of Chemical Thermodynamics	International
Ionics	International
RSC Advances	International
Journal of molecular structure	International
Journal of Inclusion Phenomena.	International
Journal of Physics Chemistry of Liquids.	International
Spectrochimica Acta	International
Chemical Physics Letters	International
New Journal of Chemistry	International

## Research Projects

- UGC SAP DRS III Co-coordinator (2013-2018) amounting Rs. 75 lacs.
- UGC Minor Research Project (1995-1997)
- UGC Project leading to Ph.D. Degree for NET Qualified Candidate
- CSIR Project leading to Ph.D. Degree for NET Qualified Candidate
- UGC Project leading to Ph.D. Degree for NET Qualified Candidate
- UGC Project leading to Ph.D. Degree for NET Qualified Candidate
- UGC FIP Project leading to Ph.D. Degree
- CSIR Extended Project leading to Postdoctoral Degree
- UGC-BSR Research Project leading to Ph.D. Degree
- UGC Supported Major Research Project leading to Ph.D. Degree
- UGC-BSR Research Project leading to Ph.D. Degree
- UGC-BSR Research Project leading to Ph.D. Degree
- UGC RGNF Research Project leading to Ph.D. Degree

- UGC RGNF Research Project leading to Ph.D. Degree
- CSIR Research Project leading to Ph.D. Degree.
- UGC Research Project leading to Ph.D. Degree.
- State UGC Research Project leading to Ph.D. Degree.

### **PROFESSIONAL ACTIVITIES**

- Life Member of Indian Chemical Society Membership No: F/4630 (LM) 1996
- Life Member The Indian Science Congress (ISCA) Life-Membership No: 10397 (LM) 2004
- Life Member Chemical Research Society of India Life-Membership No: 777 (LM) 2005
- Life-Member of Journal of Teaching and Research in Chemistry Life-Membership No: LM-101.
- Life-Member of Polymer Society
- Life-Member of Indian Society for Surface Science and Technology, Life-Membership No: L/M-R-27

### **Prestigious assignment done as a reviewer of the following project under kuwait foundation for the advancement of Sciences –research directorate:**

- Synthesis and Characterization of B-Cyclodextrin Inclusion Complexes of Essential Oils for Development of Extruded Polylactide/Graphene Oxide Nanopackaging for Poultry Industry in the State of Kuwait

**Awarded by most downloaded research paper: most downloaded paper in the “journal of Physics and Chemistry of Liquids” Taylor and Francis, USA.**

Physics and chemistry of Liquids A\* West, Anna" <Anna.West@tandf.co.uk> Add to

Address Book

To

Dear Dr Roy,

I am pleased to let you know that your article Studies of viscous antagonism, excess molar volume and isentropic compressibility in aqueous mixed solvent systems at different temperatures, which appeared in Volume 44 issue 3 of our journal Physics

and Chemistry of Liquids, was one of the top 10 most accessed articles of the journal in 2007. I have set up a link in the 'aims and scope' section of the journal website [www.informaworld.com/gpch](http://www.informaworld.com/gpch) to the full list of the top 10 most accessed articles, in which your article features.

I do hope that this evidence of appreciation for your work will encourage you to submit more articles to the journal in the future. Best Regards, Anna, Anna West - Publishing Editor, Physical Sciences

Taylor & Francis, 4 Park Square, Milton Park, Abingdon , OX14 4RN, Phone: 0207 017 7474, email: [anna.west@tandf.co.uk](mailto:anna.west@tandf.co.uk)

**Awarded by most cited research paper:**

**Most Cited paper in the “Journal of Chemical and Engineering Data”, USA  
American Chemical Society (ACS)**

1155 SIXTEENTH STREET, N.W.

PUBLICATIONS DIVISION WASHINGTON, D.C. 20036

Dr. M. N. Roy, Reader in Chemistry Department of  
Chemistry, University of North Bengal, Darjeeling-  
734013, India, October 30, 2008

Dear Dr. Roy,

On behalf of the Publications Division at the American Chemical Society, I am writing to congratulate you on having a most-cited paper in 2006. “Excess Molar Volumes and Viscosity Deviations of Binary Liquid Mixtures of 1, 3-Dioxolane and 1,4-Dioxane with Butyl Acetate, Butyric Acid, Butylamine, and 2-Butanone at 298.15 K” was the 18th most- cited paper in the Journal of Chemical & Engineering Data in 2006 as of December 31, 2007.

Best of luck with the rest of your research and we look forward to your continued publication in high quality, high impact ACS journals like JCED. Best regards,  
John Linton, Senior Marketing Manager, Applied Journals ACS Publication, 202-872-4436, [J\\_linton@acs.org](mailto:J_linton@acs.org) ACS PUBLICATIONS.

High Quality. High Impact.

**Prof. M. N. Roy Has Been Selected To Be Honored With  
CRSI Bronze Medal 2017” by Chemical Research Society  
of India.**



**CHEMICAL RESEARCH SOCIETY OF INDIA INDIAN INSTITUTE OF SCIENCE BANGALORE -  
560 012, INDIA**

**Dr. Sourav Pal** July 25, 2016

**President**

**Prof. Mahendra Nath Roy**  
**Dept. of Chemistry**  
**University of North Bengal**  
**P.O. North Bengal University, Raja Rammohanpur**  
**Darjeeling 734013**

**Sub: Chemical Research Society of India (CRSI) Bronze Medal**

Dear Prof Roy,

I am delighted to inform you that you have been chosen to receive the CRSI Bronze Medal- 2017 in recognition of your contributions to research in chemistry. The medal will be presented to you either in the 20th CRSI National Symposium in Chemistry (NSC-20) to be held at Gauhati University, Guwahati during February 3-5, 2017 or in the 21st CRSI National Symposium in Chemistry (NSC-21), which will be held at Hyderabad, in the month of July 2017, as per mutual convenience. You will also be delivering your Bronze Medal lecture in the above meeting. We will send more information about these meetings soon.

Kindly accept my congratulations.

I appreciate receiving your response at the earliest. Look forward to hearing from you.

With best wishes

(Sourav Pal)

**Professor (HAG), Department of Chemistry, Indian Institute of Technology Bombay, Powai,  
Mumbai 400 076, Former- Director, CSIR-National Chemical Laboratory, Pune 411 008 & Adjunct  
Professor, Indian Institute of Science Education and Research, Pune,**

**& Distinguished Visiting Professor, Indian Institute of Technology  
Kharagpur Email: s.pal@ncl.res.in; spal@chem.iitb.ac.in;**

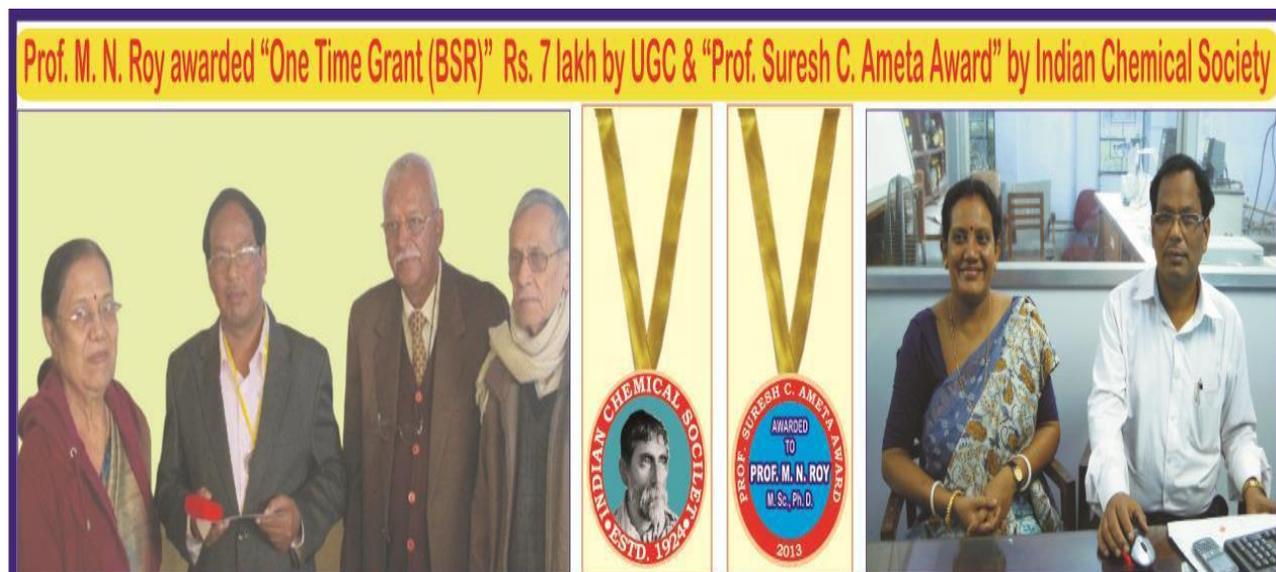
**Phone: +91 22 2576 7195; Fax: +91 22 2572 3480**



**One Time Grant from UGC Rs. 7, 00,000/- Under Basic Scientific Research (BSR) For Singly Producing 15 PhDs**

**“PROF. M. N. ROY HAS RECEIVED ONE TIME GRANT AMOUNTING RUPEES SEVEN LAKH ONLY VIDE SANCTION LETTER NO. F.4-10/2010 (BSR) DT. MARCH 07, 2012 UNDER THE SCHEME OF “UGC-BSR”(BASIC SCIENTIFIC RESEARCH) AS HE IS CONTINUED TO BE IN ACTIVE SERVICE FOR AUGMENTING OF RESEARCH FACILITIES TO FURTHER FACILITATE IN RESEARCH WORK IN THE SPECIALIZED AREA”**

## PROFESSOR SURESH C. AMETA AWARD BY INDIAN CHEMICAL SOCIETY.



## SHIKSHA RATNA AWARD BY GOVT. OF WEST BENGAL.



▪ **MOST SIGNIFICANT ACHIEVEMENT**

**Singly guided nine Research Scholars who had been awarded PhD degrees & received their PhD certificates from Hon'ble Chancellor of West Bengal in the 48th Annual Convocation-2018, North Bengal University.**





# A chemistry great

SUBHRAJIT SAMANTA

**A** professor in the Department of Chemistry, University of North Bengal (NBU), Mahendra Nath Roy, is known for his ground-breaking research in areas of host-guest inclusion complexes, ionic liquids, solution thermodynamics, surfactant, and polymer chemistry.

Prof Roy is supervising 56 PhDs, of which 40 PhDs have been awarded, two is under the process of submission, eight registered PhDs, and six under PhD course work at NBU. Acknowledged for his many referred research papers, he has authored over 329 research articles and books in chemistry.

Recipient of the 'One Time Grant' under basic scientific research from the University Grants Commission (UGC), 'Prof Suresh C Ameta Award' from the Indian Chemical Society, 'CRSI Bronze Medal' from Chemical Research Society of India and 'Shiksha Ratna Award 2018' from the Government of India, West Bengal, he holds the highest number of PhDs supervised till date in the NBU.

In 1995, Prof Roy joined the Department of Chemistry at NBU for his research work under the guidance of Prof Hazra, while teaching at the New Jalpaiguri Railway Colony High School, at Babupara in Siliguri.

"I devoted my life to teaching and research. I have stressed on three things my entire life—honesty, sincerity and originality. I have always worked towards 'beneficiary research' dedicated to the public of the society," Prof Roy says.

According to the former chemistry teacher at the NBU, Dr Biswajit Sinha, once a student of Prof Roy, their "guide" is well-known to feel and acknowledge students from rural areas and help them accordingly. "We consider him a full package that a guide has to offer," he says.

Assistant Professor of chemistry at the Geological Survey of India and another former student of Prof Roy, Dr Siti Barman says he is always willing to help his students emotionally and financially, "while sharing his expertise and educating us."

Belonging to an agricultural background, Prof Roy lived in the Bakshiganj Village in Haldibari in Cooch Behar district. Class struggles and poverty were few of the challenges he faced at a budding age. The untimely demise of his father when he was just three-and-a-half months made him more determined, replete with diligence and assiduousness. A family of five, Prof



Roy had to handle both cultivation of his land and studies at an equal pace.

According to teachers from the Ananda Chandra College, Jalpaiguri, Assistant Headmaster Upendramohan Dey, teachers Basudeb Biswas and Arun Kundu they were at fingertips to provide help to Prof Roy financially, if needed, but Prof Roy was 'entirely independent' since his adolescent age. "I would give tuitions to school students and that money eventually provided for my MSc degree at the NBU," Prof Roy says.

Prof Roy had been invited for an International Conference on Chemistry for Human Development (ICCHD-2020) held at the Heritage Institute of Technology, Kolkata, from 9 January to 11 January, 2020, where he gave a lecture on "Probing Host-Guest Inclusion Complexes of significant drug molecules with Cyclodextrins for Enhancing Innovative Applications."

He is also acknowledged for the publication in the 'Journal of Molecular Liquids 2019' the "Physicochemical, Antimicrobial and Computational Studies in order to minimise the dosage of food preservatives mixing with ionic liquids for controlling risky effect on the human body."

Asked about how it would be received in society, he says, "Nitrite and nitrosyl compounds such as the drug molecule sodium nitroprusside (SNP), commonly used in food preservation when consumed, reacts in the body of a patient with low blood pressure, resulting in high blood pressure. After the host-guest inclusion process, the dosage can be decreased



from 1 milligram to 0.5 milligrams as per our research studies. When dosage decreases, the side effect eventually decreases."

During an international conference on 20 May, 2019 in Berlin, Germany, as a keynote speaker, he presented an abstract on the "Enhancement of fire resistivity and alteration into biodegradable pollutant for minimizing environment pollution."

Asked about this particular topic, he said, "This key research is used to increase the lifetime of the 'fire-proof agents' that are used in painting an airplane. When the paint chips off after 10 to 20 years, it is non-biodegradable, carcinogenic and disease-causing. Our research demonstrated the increased longevity of these agents through 'Host-Guest Inclusion Com-

plexes' which made them soluble in water and they no longer remained carcinogenic."

"We could have patented our work, but we want to publish them and make them available to the public," Prof Roy adds.

He donated Rs 50,000 on 17 November last year for Cooch Behar's "societal development." A social organization of Cooch Behar felicitated him with the 'Sadbhabna Award' in 2019.

"Our University and Department have been focused significantly by my popular talks, large number of PhD scholars, and publications. Our target is to get acknowledged by the National Assessment and Accreditation Council (NAAC) with the help of the University authorities for the sake of reaching a higher and more reputable position," he says.

"As facilities provided increase so does the number of students enrolled. A gradual increase has been seen in the number of students from the previous years. I still have seven years left in service," Prof Roy says.

Known as the senior most professor in chemistry and the Chairman of the NBU Sports Board, he is currently looking forward to the UGC distinguished 'Scientist Award' fellowship for which he will be applying before retirement. Father of two daughters and someone who is passionate about 'Rabindra Sangeet' and playing the harmonium, he has a message to all his scholars, "When in a dissatisfactory predicament, always remember that there are people who are not as fortunate as you. When you compare yourself with them, it will definitely bring smile on your face."

Published in the Statesman on 24<sup>th</sup> January, 2020



# NBU scholars feted with Phd degrees

STATESMAN NEWS SERVICE  
SILIGURI, 12 OCTOBER

Nine PhD scholars were awarded PhD degrees under the supervision of Prof MN Roy of the Department of Chemistry at the University of North Bengal during the 48th Annual Convocation-2018 held on 4 October.

The scholars also received their PhD certificates from the Chancellor during the convocation.

"This is the highest number of PhD scholars who have been singly guided by Prof MN Roy, who has been selected for the Shiksha Ratna Award by the Government of West Bengal and he received the award on 5 September this year at the Nazrul Mancha in Kolkata," university officials said.

It is learnt that the nine research scholars have published more than 60 research papers in different reputed



national and international journals such as ACS, RSC, Springer, Elsevier, Willey, and Nature Group.

"This is the highest record in the history of North Ben-

gal University. I convey my heartfelt thanks and gratitude to the students, research scholars, officers, faculty members and the Honourable Vice-Chancellor and Registrar of the University for their whole-hearted cooperation and irreparable inspiration," Prof Roy said.

## PUBLICATION DETAILS

**No. of Ph.D. students supervised/supervising: 60**

**No. of Ph.D. Thesis Examined: 45**

**(a) International: 04 (b) National: 41**

**No. of Publications Published: 353**

**(a) International: 282, (b) National: 71,**

**Books: 07 (International 03, National 04)**

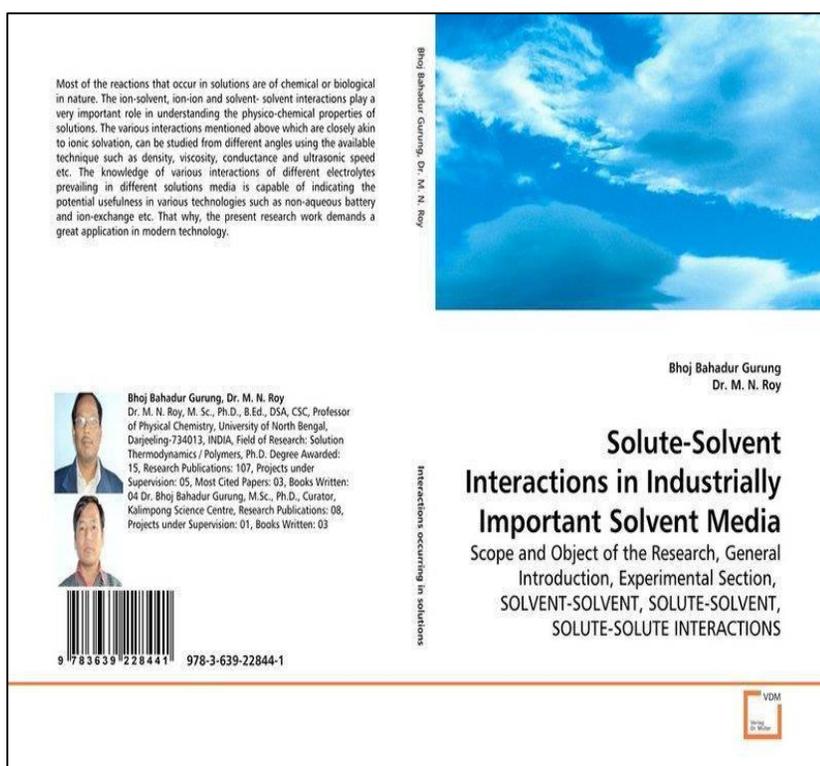
**Google scholar citations:**

**Reads: 28,512, Citations: 7591, h-index 39, i10-index 1663**

## SELECTIVE LIST OF PUBLICATIONS:

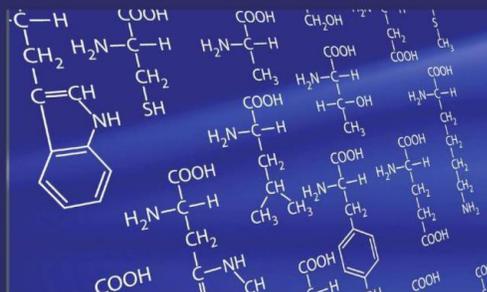
### Books Authored:

1. Text Book of West Bengal Board for Class VII (Physical Science)
2. Text Book of West Bengal Board for Class VIII (Physical Science)
3. Title of the Book: **Solute-Solvent Interactions in Industrially Important Solvent Media**, Name of the Authors: **BhojBahdurGurung and Dr. M. N. Roy\***  
Languages: Published in English in USA and German in Germany , Editor: **VDM Verlag Dr. Müller** , Publisher: **VDM Verlag Dr. Müller (August 19, 2010)**, Pages: **204 pages** , ISBN-13: **978-3639228441**, ISBN-10: **9783639228441**



4. Text Book of West Bengal Board for Class VII (Physical Science)- Revised.
5. Text Book of West Bengal Board for Class VII (Physical Science- Revised Version)
6. Title of the Book: **Probing Inclusion Complexes of Cyclodextrins with Amino Acids - Formation, Characterization and Applications**, Name of the Authors: **Aditi Roy, SubhadeepSaha, Mahendra Nath Roy**.Publisher: **Lambert Academic Publishing**ISBN: **978-3-659-93821-4**

Formations of host-guest inclusion complexes of two natural amino acids, namely, L-Leucine and L-Isoleucine as guests with  $\alpha$  and  $\beta$ -cyclodextrins as hosts have been investigated which include diverse applications in modern science such as controlled delivery in the field of pharmaceuticals, food processing etc. Surface tension and conductivity studies establish the formation of inclusion complexes with 1:1 stoichiometry. The interactions of cyclodextrins with amino acids have been supported by density, viscosity, refractive index, hydration and solvation number measurements indicating higher degree of inclusion in case of  $\alpha$ -cyclodextrin. L-Leucine interacts more with the hydrophobic cavity of cyclodextrin than its isomer. With the help of stability constant by NMR titration, hydrophobic effect, H-bonds and structural effects the formations of inclusion complexes have been explained.



Aditi Roy  
Subhadeep Saha  
Mahendra Nath Roy

Miss Aditi Roy and Mr. Subhadeep Saha have been working as Ph. D. research fellows under the supervision of Prof. M. N. Roy in Department of Chemistry, University of North Bengal, India. Dr. M.N.Roy is a senior Professor who produced 27 PhDs, authored over 200 research articles and books in Chemistry and received UGC, Ameta and Bronze Medal awards.

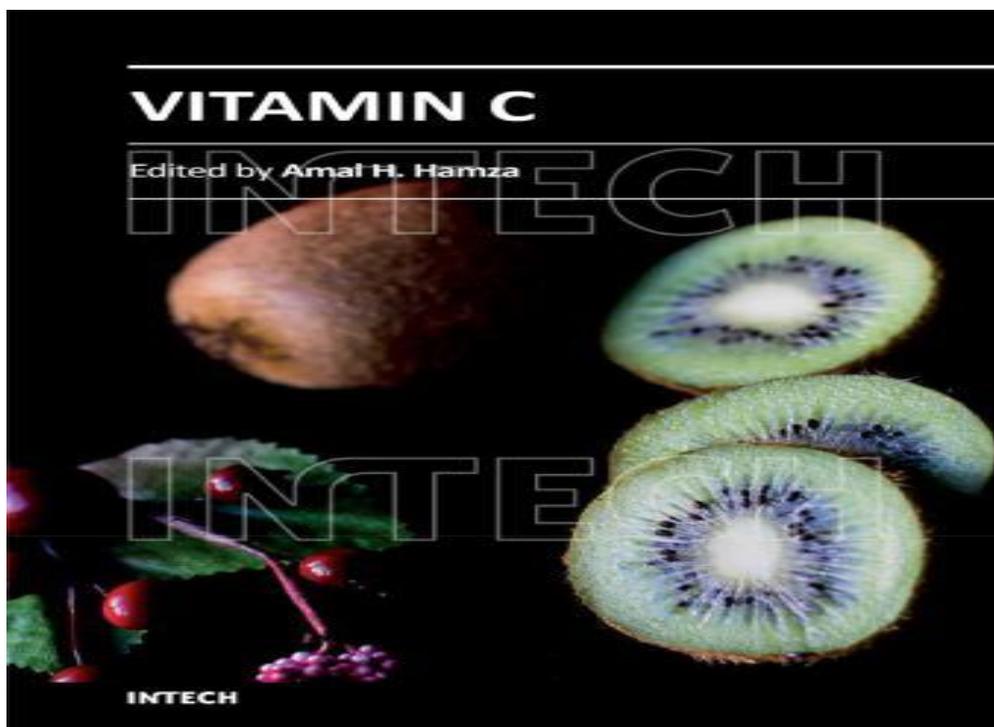
## Probing Inclusion Complexes of Cyclodextrins with Amino Acids

Formation, Characterization and Applications



LAP LAMBERT  
Academic Publishing

**7. Title of the Book: VITAMIN C, Chapter: ENCAPSULATION OF VITAMIN C INTO  $\beta$ -CYCLODEXTRIN FOR ADVANCED, AND REGULATORY RELEASE, Author: Dr. Mahendra Nath Roy, Aditi Roy, Subhadeep Saha, Publisher: IN TECH OPEN, CROATIA.DOI: 10.5772/intechopen.70035**



## Some Significant Research Publications:

- M. N. Roy\*, A Roy, S Saha, D Roy, S Bhattacharyya, Formation & specification of host-guest inclusion complexes of an anti-malarial drug inside into cyclic oligosaccharides for enhancing bioavailability, **Journal of Inclusion Phenomena and Macrocyclic Chemistry 2020**
- M. N. Roy\*, Synthesis and Characterization of Host Guest Inclusion Complexes of Cyclodextrin Molecules with Theophylline by Diverse Methodologies **Emerging Science Journal 2020**
- M. N. Roy\*, R Ghosh, K Roy, A Subba, P Mandal, S Basak, M Kundu, Case to case study for exploring inclusion complexes of an anti-diabetic alkaloid with  $\alpha$  and  $\beta$  cyclodextrin molecules for sustained dischargement. **Journal of Molecular Structure 2020**
- M. N. Roy\*, S Das, D Ekka, Conductance and FTIR Spectroscopic Study of Triple-ion Formation of Tetrabutylphosphonium Methanesulfonate in Methylamine Solution. **Chemical Methodologies 2020**
- M. N. Roy\*, Ananya Yasmion, Biraj Kumar Barman, Synthesis and Characterization of Host Guest Inclusion Complexation of Cyclic Oligosaccharide with Industrially Potent Dye in Different Phases by Physicochemical Contrivance, **Chemistry Select 2020**
- M. N. Roy\*, Biplab Rajbanshi, Ashutosh Dutta, Beauty Mahato, Debadrita Roy, Dilip Kumar Maiti, Subires Bhattacharyya, Study to explore host guest inclusion complexes of vitamin B1 with CD molecules for enhancing stability and innovative application in Biological system, **Journal of Molecular Liquids 2020**
- M. N. Roy\*, Biplab Rajbanshi, Khusboo Lepcha, Koyeli Das, Minimization of the Dosage of Food Preservatives Mixing with Ionic Liquids for Controlling Risky Effect in Human Body: Physicochemical, Antimicrobial and Computational Study. **Journal of Molecular Liquids 2019.**
- M. N. Roy\*, Mitali Kundu, Habibur Rahaman, Physicochemical investigations on non-covalent interactions between Padimate O and cyclodextrin receptors in both solution and solid states, **Spectrochimica Acta Part A Molecular and Biomolecular Spectroscopy, 2019.**
- M. N. Roy\*, Koyeli Das, Subhashis Paul, Soumen Bhattacharjee, Synthesis and Characterization of Inclusion Complexes of  $\beta$ -Cyclodextrin Molecule with some Vitamin Molecules to Explore their Biological Activities. **ACS Omega 2019**
- M. N. Roy\*, Biplab Rajbanshi, Study to Probe Subsistence of Host-Guest Inclusion Complexes of  $\alpha$  and  $\beta$ -Cyclodextrins with Biologically Potent Drugs for Safety Regulatory Dischargement. **Nature Scientific Reports, 2018.**
- M. N. Roy, Biraj Kumar Barman, Sustenance of Inclusion Complexes of Ionic Liquid with Cyclic Oligosaccharide Molecules in Liquid and Solid Phases by Diverse Approaches. **Chemistry Select, 2018.**

- M. N. Roy, Koyeli Das, Biplab Rajbanshi, Evidences for Inclusion and Encapsulation of an Ionic Liquid with  $\beta$ -CD and 18 C-6 in Aqueous Environments by Physicochemical Investigation, **The Journal of Physical Chemistry B, 2018.**
- M. N. Roy, Kalipada Sarkar, Study to Explore Inclusion Complexes of  $\alpha$ - and  $\beta$ -Cyclodextrin Molecules with 3-Octyl-1-Methylimidazolium Bromide with the Manifestation of Hydrophobic and Hydrophilic Interactions. **Chemical Physics Letters, 2018.**
- M. N. Roy, Biraj Kumar Barman, Exploring inclusion complexes of ionic liquids with  $\alpha$ - and  $\beta$ - cyclodextrin by NMR, IR, mass, density, viscosity, surface tension and conductance study. **Journal of Molecular Structure, 2018.**
- M. N. Roy, Biraj Kumar Barman, Inclusion complexation between tetrabutylphosphoniummethanesulfonate as guest and  $\alpha$ - and  $\beta$ -cyclodextrin as hosts investigated by physicochemical methodology, **Journal of Molecular Liquids, 2018.**
- M. N. Roy, Biraj Kumar Barman, Probing Inclusion Complexes of Pentoxifylline and Pralidoxim inside Cyclic Oligosaccharides by Physicochemical Methodologies. **Zeitschrift für Physikalische Chemie, 2018.**
- M. N. Roy, Raja Ghosh, Synthesis, Characterization of 1-Butyl-4-Methylpyridinium lauryl Sulfate and Its Inclusion phenomenon with  $\beta$ -Cyclodextrin for enhanced applications. **Colloids and Surfaces, 2018.**
- M. N. Roy, Niloy Roy, Study to synthesize and characterize host-guest encapsulation of antidiabetic drug (TgC) and hydroxy propyl- $\beta$ -cyclodextrin augmenting the antidiabetic applicability in biological system. **Journal of Molecular Structure, 2018.**
- M. N. Roy, Koyeli Das, Exploration of Non-Covalent Interactions of Lithium Salts in Acetonitrile - Water Binaries with the Manifestation of Solvation Consequences. **International Journal Research in Chemistry and Environment, 2018.**
- M. N. Roy, Ananya Yasmin, Investigation of diverse interactions of amino acids (Asp and Glu) in aqueous Dopamine Hydrochloride with the manifestation of the catecholamine molecule recognition tool in solution phase, **Journal of Molecular Liquids, 2018.**
- M. N. Roy, Habibur Rahaman, Exploring Existence of Host-Guest Inclusion Complex of  $\beta$ -Cyclodextrin of a Biologically Active Compound with the Manifestation of Diverse Interactions. **European Scientific Journal, 2018.**
- M. N. Roy\*, Biraj Kumar Barman, Biplab Rajbanshi, Ananya Yasmin, Exploring inclusion complexes of ionic liquids with  $\alpha$ - and  $\beta$ - cyclodextrin by NMR, IR, mass, density, viscosity, surface tension and conductance study, **Journal of Molecular Structure, 2018,**
- M. N. Roy, Aditi Roy, Cage to cage study of ionic liquid and cyclic oligosaccharides to form inclusion complexes, **RSC Advances, 2017.**
- M. N. Roy, Aditi Roy, Exploration of inclusion complexes of probenecid with  $\alpha$  and  $\beta$ -cyclodextrins: Enhancing the utility of the drug. *Journal of Molecular Structure*, 2017.
- M. N. Roy, Biswajit Datta, Inclusion complexation of tetrabutylammonium iodide by cyclodextrins, **Journal of Chemical Sciences, 2017.**
- M. N. Roy, Aditi Roy, Cage to cage study of ionic liquid and cyclic oligosaccharides to form inclusion complexes, **RSC Advances, 2017.**

- M. N. Roy, SubhadeepSaha, Probing supramolecular complexation of cetylpyridinium chloride with crown ethers, **Journal of Molecular Structure, 2017.**
- M. N. Roy, SubhadeepSaha, Mechanistic Investigation of Inclusion Complexes of a Sulfa Drug with  $\alpha$ - And  $\beta$ -Cyclodextrins, **Industrial & Engineering Chemistry Research, 2017.**
- M. N. Roy, SubhadeepSaha, Exploration of complexes of 18-crown-6 with three similarly substituted imidazolium, pyridinium and pyrrolidinium ionic liquids. **Chemical Physics Letters, 2017.**
- M. N. Roy, Siti Barman, Preparation, characterization and binding behaviors of host-guest inclusion complexes of metoclopramide hydrochloride with  $\alpha$ - and  $\beta$ -cyclodextrin molecules, **Journal of Molecular Structure, 2017.**
- M. N. Roy, Siti Barman, Investigation on Solvation Behavior of an Ionic Liquid (1-butyl-3-methylimidazolium Chloride) with the Manifestation of Ion Association Prevailing in Different Pure Solvent Systems, **Indian Journal of Advances in Chemical Sciences, 2017.**
- M. N. Roy, Siti Barman, Interactions of an antifungal sulfa drug with diverse macrocyclic polyethers explaining mechanism, performance and physiognomies leading to formation of stable complexes, **Journal of Molecular Liquids, 2017.**
- M. N. Roy, MitaliKundu, Supramolecular Assembly of Ionic Liquid with Cyclic Polyethers to Form Inclusion Complexes, Indian Journal of Advances in Chemical Sciences, 2017.
- M. N. Roy, MitaliKundu, Subsistence of inclusion complex via assembly of a drug into cyclic oligosaccharide: Its formation, mechanism, behaviour and importance, **SpectrochimicaActa Part A Molecular and Biomolecular Spectroscopy, 2017.**
- M. N. Roy, MitaliKundu, Preparation, Interaction and Spectroscopic Characterization of Inclusion complex of a Cyclic Oligosaccharide with an Antidepressant Drug, **Journal of inclusion phenomena and macrocyclic Chemistry, 2017.**
- M. N. Roy, MitaliKundu, Evidences for complexations of  $\beta$ -cyclodextrin with some amino acids by  $^1\text{H}$  NMR, surface tension, volumetric investigations and XRD, **Journal of Molecular Liquids, 2017.**
- M. N. Roy, Koyeli Das, Biplab Rajbanshi, Studies of Solvation behaviour of LiI prevailing in diverse solvent systems conductometrically and spectrometrically supported by ab-initio technique, **Chemical Physics Letters, 2017.**
- M. N. Roy, Kanak Roy, Study on Host-Guest Inclusion Complexation of a Drug in Cucurbit [6]uril. **ZeitschriftfürPhysikalischeChemie, 2017.**
- M. N. Roy, Kanak Roy, Inclusion of Tyrosine Derivatives with  $\alpha$ -Cyclodextrin in Aqueous Medium of Various pH Conditions by Surface Tension, Conductance, UV-Vis and NMR Studies, **Journal of Molecular Liquids, 2017.**
- M. N. Roy, Koyeli Das, Assorted Interactions of Amino Acids Prevailing in Aqueous Vitamin C Solutions Probed by Physicochemical and Ab-Initio Contrivances, **Chemical Physics Letters, 2017.**

- M. N. Roy\*, MitaliKundu, SubhadeepSaha, Evidences for complexations of  $\beta$ -cyclodextrin with some amino acids by  $^1\text{H}$  NMR, surface tension, volumetric investigations and XRD, May 2017, **Journal of Molecular Liquids, 2017**
- M. N. Roy\*, Siti Barman, Biraj Kumar Barman, Preparation, characterization and binding behaviors of host-guest inclusion complexes of metoclopramide hydrochloride with  $\alpha$ - and  $\beta$ -cyclodextrin molecules, **Journal of Molecular Structure, Nov 2017.**
- M. N. Roy, Koyeli Das, Conjoint beneficial impacts of lithium-ion along with aqueous vitamin in driven rechargeable batteries and also in neurotransmitter drugs, **Journal of Advances in Chemical Sciences, 2017.**
- M. N. Roy\*, Siti Barman, Biraj Kumar Barman, Preparation, characterization and binding behaviors of host-guest inclusion complexes of metoclopramide hydrochloride with  $\alpha$ - and  $\beta$ -cyclodextrin molecules, **Journal of Molecular Structure, 2017,**
- M. N. Roy\*, D. Ekka, T. Ray, K. Roy. Exploration of Solvation Consequence of Ionic Liquid  $[\text{M}_4\text{P}(\text{Cl}_3\text{SO})_3]$  in Various Solvent Systems by Conductance and FTIR Study. **Journal of**

- M. N. Roy\*, S. Barman and S. Saha, Probing Inclusion Complex Formation of Amantadine Hydrochloride with 18-Crown-6 in Methanol by Physicochemical Approach, **Zeitschrift für Physikalische Chemie, 2016**
- M. N. Roy\*, S. Saha, S. Barman and D. Ekka. Host–guest inclusion complexes of RNA nucleosides inside aqueous cyclodextrins explored by physicochemical and spectroscopic methods. **RSC Adv., 2016.**
- M. N. Roy\*, S. Saha, T. Ray, S. Basak, NMR, surface tension and conductivity studies to determine the inclusion mechanism: thermodynamics of host–guest inclusion complexes of natural amino acids in aqueous cyclodextrins. **New. J. Chem., 2016.**
- M. N. Roy\*, S. Saha, M. Kundu, B. C. Saha, S. Barman, Exploration of inclusion complexes of neurotransmitters with  $\beta$ -cyclodextrin by physicochemical techniques, **Chemical Physics Letters. 2016.**
- M. N. Roy\*, S. Barman. Hollow Circular Based on Inclusion Complexes of Ionic Liquid. **RSC Adv., 2016.**
- M. N. Roy\*, S. Barman, D. Ekka, S. Saha, NMR, surface tension and conductance study to investigate host–guest inclusion complexes of three sequential ionic liquids with  $\beta$ -cyclodextrin in aqueous media. **Chemical Physics Letters, 2016.**
- M. N. Roy\*, Ishani Banik, Structural effects of three carbohydrates in nicotinic acid/water mixed solvents **Journal of Molecular Liquids, 2015**
- M. N. Roy\*, B. Datta, Essential foundation of triple-ion and ion-pair formation of tetraheptylammonium iodide (Hept4NI) salt in organic solvents investigated by physicochemical approach, **Phys. Chem. Liq. 2015.**
- M. N. Roy\*, Milan Chandra Roy, Investigation of an inclusion complex formed by ionic liquid and  $\beta$ -cyclodextrin through hydrophilic and hydrophobic interactions. **RSC Adv. 2015**
- M. N. Roy\*, Pritam De and Partha Sarathi Sikdar. Physicochemical study of solution behaviour of alkali metal perchlorates prevailing in N,N-Dimethyl Formamide with the manifestation of ion solvation consequences **Journal of Molecular Liquids, 2015**
- M. N. Roy\*, D. Ekka. Extensive Study on Molecular Interactions of Three Essential Amino Acids Insight into H<sub>2</sub>O+ [bmpyrr]PF<sub>6</sub> Media. **Chem. Sc. Rev. Lett., 2015,**
- M. N. Roy\*, T. Ray, Study to explore assorted interfaces of an ionic liquid prevailing in solvent systems by physicochemical approach. **RSC Adv., 2015,**
- M. N. Roy\*. and P. Chakraborti, Explorations of diverse interactions of some vitamins in aqueous mixtures of Cysteine. **J. Mexican Chem. Soc., 2014**
- M. N. Roy\*, Tanusree Ray, Milan Chandra Roy and Biswajit Datta. Study of ion-pair and triple-ion origination of an ionic liquid ([bmmim][BF<sub>4</sub>]) predominant in solvent systems. **RSC Adv., 2014**
- M. N. Roy\*, Ishani Banik, Study of assorted interactions of an ionic liquid in significant solvent systems using compensated equation of Fuoss conductance and vibrational mode. **Ionics, 2014**
- M. N. Roy\*, Deepak Ekka, Subhadeep Saha and Milan Chandra Roy. Host–guest inclusion complexes of  $\alpha$  and  $\beta$ -cyclodextrins with  $\alpha$ -amino acids. **RSC Adv., 2014**

- M. N. Roy\*, M. C. Roy, Conductometric investigation of ion–solvent interactions of an ionic liquid {[emim]CH<sub>3</sub>SO<sub>3</sub>} in pure n-alkanols. **Journal of Molecular Liquids, 2014**
- M. N. Roy\*, Deepak Ekka, Quantitative and qualitative analysis of ionic solvation of individual ions of imidazolium based ionic liquids in significant solution systems by conductance and FT-IR spectroscopy. **RSC Adv., 2014**
- M. N. Roy\*, P. Chakraborti and D. Ekka. Exploration of Interactions between Bioactive Solutes and Vitamin B9 in Aqueous Medium by Physico-Chemical Contrivances. **Molecular Physics, 2014**
- D. Ekka, M. N. Roy\*. Studies on ionic solvation behavior of ionic liquid (tetrabutylphosphoniumtetrafluoroborate) in some liquid media by volumetric, viscometric, and acoustic measurements. **Ionics, 2014**
- M. N. Roy\*, ParthaSarathiSikdar and Pritam De. Physico-chemical study of lithium perchlorate in alkanols (C<sub>3</sub>–C<sub>5</sub>) with the manifestation of solvation consequences. **Journal of Molecular Liquids, 2013**
- M. N. Roy\*, ParthaSarathiSikdar, and Pritam De. Study of Solvation Behavior of Some Biologically Active Compounds in Aqueous Barium Chloride Solution. **J. Chem. Eng. Data, 2013**
- M. N. Roy\*, Pritam De and ParthaSarathiSikdar. Study of solvation consequences of  $\alpha$ -amino acids in aqueous ionic liquid solution probed by physicochemical approach. **Fluid Phase Equilibria, 2013**
- M. N. Roy\* and IshaniBanik. Probing molecular interactions of ionic liquid in industrially important solvents by means of conductometric and spectroscopic approach. **ThermochimicaActa, 2013**
- M. N. Roy\*, RajaniDewan, Ionic interplay of lithium salts in binary mixtures of acetonitrile and diethyl carbonate probed by physicochemical approach. **Fluid Phase Equilibria, 2013**
- M. N. Roy\*, IshaniBanik, Role of Anions (Tetrafluoroborate, Perchlorate) of Tetrabutylammonium Salts in Determining Solvation Effects Prevailing in Industrially Essential Solvents Probed by Conductance and FT-IR Spectra. **J. Chem. Eng. Data, 2013**
- M. N. Roy\*, IshaniBanik and Deepak Ekka. Physics and chemistry of an ionic liquid in some industrially important solvent media probed by physicochemical techniques. **J Chem. Thermodyn., 2013**
- M. N. Roy\*, D. Ekka, Molecular Interactions of  $\alpha$ -Amino Acids Insight into Aqueous  $\beta$ -Cyclodextrin Systems. **Amino Acids, 2013**
- M. N. Roy\*, D. Ekka, I. Banik and A. Majumdar. Physics and Chemistry of Lithium Halides in 1,3-Dioxolane and Its Binary Mixtures with Acetonitrile probed by Conductometric, Volumetric, Viscometric, Refractometric and Acoustic Study. **ThermochimicaActa, 2012**
- M. N. Roy\*, D. Ekka, Conductance is a Contrivance to Explore Ion Association and Solvation Behavior of an Ionic Liquid (TetrabutylphosphoniumTetrafluoroborate) in Acetonitrile,

Tetrahydrofuran, 1,3-Dioxolane and Their Binaries. **Journal of Physical Chemistry B, 2012**

- M. N. Roy\*\*, D. Ekka and R. Dewan, Ionic solvation of tetrabutylammoniumhexafluorophosphate in pure nitromethane, 1,3-dioxolane and nitrobenzene: A comparative physicochemical study. **Fluid Phase Equilibria, 2012**
- M. N. Roy\*, R. Dewan, Physico-Chemical Studies of Sodium Tetrphenylborate and TetrabutylammoniumTetrphenylborate in Pure Nitrobenzene and Nitromethane and Their Binaries Probed by Conductometry, Refractometry and FT-IR Spectroscopy. **J Chem. Thermodynamic, 2012**
- M. N. Roy\*, R. K. Das, R. Chanda, Molecular interactions of 1,2- dihydroxyethyl-3,4-dihydroxyfuran-2-one in aqueous N-cetyl-N,N,N,trimethylammonium bromide solution with reference to manifestation of solvation, J Chem. Thermodyn.,45(2012) 1-8
- M. N. Roy\* Study on Solution-Solution Interactions Prevailing in Some Liquid Mixtures by Volumetric, Viscometric and Acoustic Measurements. **Phys. Chem. Liq. 2012**
- M. N. Roy\*,PalashChakraborti, Conductivity is a contrivance to explore ion-pair and triple-ion structure of ethanoates in Tetrahydrofuran, Dimethyl sulphoxide and their binaries. **Fluid Phase Equilibria 2012**
- M. N. Roy\*, I. Banik “Study of Solute-Solvent Interaction of Some Bio-active Solutes Prevailing in Aqueous Ascorbic Acid Solution” **Journal of Molecular Liquids, 2012**
- M. N. Roy\* and L. Sarkar, Investigation on Viscous Synergy and Antagonism Prevailing Binary Mixtures of Cyclohexylamine with Isomeric Butanols by Volumetric, Viscometric, Refractive Index and Ultrasonic Speed Measurements. **J Phys. Chem. Liq.**
- M. N. Roy\*, L. Sarkar and R. Dewan, Ion-Pair and Triple-Ion Formation of Some Tetraalkylammonium Iodides in n-Hexanol and Its Binary Mixtures with o-Toluidine, **J. Chem. Thermodyn. 2011**
- M. N. Roy\*, L. Sarkar, R. Dewan. Molecular interactions with reference to manifestation of solvation effects in binary mixtures of ethyl acetoacetate with some methane derivatives by physicochemical techniques. **Bull. Chem. Soc. Ethiop. 2011**
- M. N. Roy\*, P. Pradhan, A Concise Study on Solution Properties of Ternary Mixture of 1, 3 Dioxolane + Diethylether + n-Amyl Alcohol and Its Corresponding Binaries by Density, Viscosity, Refractivity and Ultrasonic Speed Measurements. **J Phys. Chem. Liq, 2011**
- M. N. Roy\*, P. Pradhan, Viscous Synergy and Antagonism, Excess Molar Volume, Isentropic Compressibility and Excess Molar Refraction of Ternary Mixture of THF + Alcohol + Cyclic Compounds at 298.15K. **J Phys. chem. Liq., 2011**
- M. N. Roy\*, R. Chanda, R. K. Das, and D. Ekka, Densities and Viscosities of Citric Acid in Aqueous Cetrimonium Bromide Solutions with Reference to the Manifestation of Solvation. **J. Chem. Eng. Data, 2011**
- M. N. Roy\*, R. Chanda, R. K. Das, Volumetric, Viscometric and Acoustics Studies of Ternary Systems of THF+1,3-DO with monoalkanoic acids and their corresponding binaries. **J Phys. chem. Liq 2011**

- M. N. Roy\*, R. Dewan, Ion Pair and Triple Ion Formation in Low Permittivity Solvent: A Conductivity Study. *J Phys. chem. Liq* Vol. 49, No. 2, March–April 2011, 145–154
- M. N. Roy\*, R. S. Sah, B.Sinha, Ion-association and solvation behavior of some alkali metal acetates in aqueous 2-butanol solutions at 298.15, 303.15 and 308.15K. **Fluid Phase Equilibria 307,2011**
- M. N. Roy\*, R. S. Sah, Volumetric, viscometric, interferometric and refractometric properties of 2-methoxy ethanol + diethyl ether + dichloromethane ternary systems and its corresponding binaries at 298.15K. **J Phys. Chem. Liq. 2011**
- M. N. Roy\*, D. Ekka and R. Dewan, Physico-Chemical Studies of Some Bio-active Solutes in Pure Methanoic Acid, **ActaChimicaSlovenica, 2011**
- M. N. Roy\*, R. S. Sah, Volumetric, Viscometric, Interferometric and Refractometric Studies of Acetophenone + Amyl Alcohol+ Dichloromethane **J Phys. chem. Liq 2011**
- M. N. Roy\*, Sah, RadheyShyam, Sinha, Biswajit, Ion association and solvation behavior of some alkali metal acetates in aqueous 2-butanol solutions at T=298.15, 303.15 and 308.15K. **Fluid Phase Equilibria, 2011**
- M. N. Roy\*, B. Sinha, P. K. Roy, Apparent Molar Volumes and Viscosity B-Coefficients of Glycine in Aqueous Silver Sulphate Solutions at T = (298.15, 308.15, 318.15) K. **ActaChimicaSlovenica. 2010**
- M. N. Roy\*, A.Sinha, G. Ghosh, Conductance and FTIR Spectroscopic Study of Sodium Tetrphenylborate in Pure 1, 3 Dioxalane and Iso-Amyl Alcohol and Their Binary Mixtures. **J Phys. chem. Liq2010**
- M. N. Roy\*, A. Bhattacharjee, Ion association and solvation behavior of tetraalkylammonium iodides in binary mixtures of dichloromethane + N, N-dimethylformamide probed by a conductometric study, **Phys. Chem. Chem. Phys. 2010**
- M. N. Roy\*, A. Bhattacharjee, Study on Molecular Interactions by Antagonism, Synergy and Excess Functions of Ternary mixtures of Tetrahydrofuran with Dimethylsulphoxide and Monoalkanols, **J Phys. chem. Liq 2010.**
- M. N. Roy\*, A. Bhattacharjee, R. K. Das, Studies on Molecular Interactions of Oxalic Acid and its Salts in Coaqueous solution of 1,3- Dioxalane by Volumetric and Viscometric Measurements at T=(298.15,308.15,315.15)K. **Journal of Molecular Liquids,2010**
- M. N. Roy\*, A. Bhattacharjee, P. Chakraborti. Investigation on Molecular Interactions of Nicotinamide in Aqueous Citric Acid Monohydrate Solutions with Reference to Manifestation of Partial Molar Volume and Viscosity B-Coefficient Measurements, **Thermochimca. Acta, 2010.**
- M. N. Roy\*, A. Bhattacharjee, Density, Viscosity, and Speed of Sound of (1-Octanol + 2-Methoxy Ethanol), (1-Octanol + N, N-Dimethylacetamide) and (1-Octanol +Acetophenone) at Temperatures of (298.15, 308.15, and 318.15) K. **J. Chem. Eng. Data. 2010.**
- M. N. Roy\*\*, L. Sarkar and G. Ghosh, Study on Viscous Synergy, Antagonism and Isoentropic Compressibility Prevailing in Aqueous Monoalkanols and Alkanoic Systems. **J Phys. chem. Liq 2010.**
- M. N. Roy\*, L. Sarkar and R. Dewan, Studies on Molecular Interactions with Reference to Manifestation of Solvation Effects in Binary Mixtures of Ethyl Acetoacetate with Some

Methane Derivatives by Physicochemical Techniques. **Bull. Chem. Soc. Ethiop. 2010.**

- M. N. Roy\*, L. Sarkar and R. K. Das. Studies on Solution Properties of Some Amino Acids in Aqueous Mixture of Catechol, **J. Dispers. Sci. Tech. 2010**
- M. N. Roy\*, P. K. Roy, B. K. Sarkar, D. Brahman and B. Sinha\* Apparent Molar Volume, Viscosity B-Coefficient of Caffeine in Aqueous Thorium Nitrate Solution at T= (298.15, 308.15 and 318.15) K. **J Chem. Thermodyn. 2010.**
- M. N. Roy\*, R. Dewan and L. Sarkar, Ion-Solvent Interactions of Some Halides of Common Cations with Organic Solvent Mixtures by Conductometric, Volumetric, Viscometric, and Refractometric Techniques **J. Chem. Eng. Data 2010**
- M. N. Roy\*, L. Sarkar, R. K. Das. Studies on Solution Properties of Some Amino Acids in Aqueous Mixture of Catechol. **J. Disper. Sci. Tech. 2010.**
- M. N. Roy\*, P. Pradhan, Investigation on solvent-solvent Interactions in Binary Mixtures of Isoamyl Alcohol with Some Alkoxyethanols. **Int. J. Thermophys. 2010.**
- M. N. Roy\*, R. Chanda. Conductivity Study of Some 1-1 Electrolytes in Aqueous Binary Mixtures of Tetrahydrofuran and 1, 3-Dioxolane at 298.15 K. **Z-Phys. Chem. 2010.**
- M. N. Roy\*, R. Chanda, A. Banerjee, Studies of Viscous Antagonism, Excess Molar Volumes, Viscosity Deviation and Isentropic Compressibility of Ternary Mixtures Containing N,N-dimethylformamide, Benzene and Some Ethers at 298.15 K. **J Serb. Chem. Soc. 2010.**
- M. N. Roy\*, R. Das, R. Chanda, Study on Solution Properties of Binary Mixtures of Some Industrially Important Solvents with Cyclohexylamine and Cyclohexanone at 298.15 K. **Int. J. Thermophys. 2010.**
- M. N. Roy\*, R. Dewan, P. K. Roy and D. Biswas, Apparent Molar Volumes and Viscosity B-Coefficients of Carbohydrates in Aqueous Cetrimonium Bromide Solutions at (298.15, 308.15, 318.15) K, **J. Chem. Eng. Data 2010.**
- M. N. Roy\*, R. S. Sah and P. Pradhan, Densities, Viscosities, Sound Speeds, Refractive Indices and Excess Properties of Binary Mixtures of Isoamyl Alcohol with Some Alkoxyethanols, **Int. j. Thermophys. 2010.**
- M. N. Roy\*, R. S. Sah, B. Sinha, study of the solution properties of ternary mixtures of 1,3 dioxolane (1), diethylether(2) and n-amyl alcohol(3) and the corresponding binary mixtures by the density, viscosity, refractivity and ultrasonic speed measurements at 298.15K, **J. Chem. Eng. Data. 2010.**
- M. N. Roy\*, R. S. Sah, P. Pradhan, Solute Solvent and solvent solvent interactions of methanol in isopropylalcohol and its binary mixtures with methylsalicylate by volumetric, viscometric, interferometric and refractive index techniques. **Thermochemica Acta 2010.**
- M. N. Roy\*, Radhey Shyam Sah, Biswajit Sinha, Study of the Solution Properties of Ternary Mixtures of 1,3-Dioxolane (1), Diethyl Ether (2), and n-Amyl Alcohol (3) and the Corresponding Binary Mixtures by Density, Viscosity, Refractivity, and Ultrasonic Speed Measurements at 298.15 K. **J. Chem. Eng. Data, 2010.**

- M. N. Roy, R. K. Das. Apparent Molar Volume, Viscosity B coefficient and Adiabatic compressibility of Tetrabutylammonium Bromide in Aqueous Ascorbic Acid Solutions at T = (298.15, 308.15, 318.15) K, **Russ. J. Phys. Chem. A2010.**
- M. N. Roy\*, G. Ghosh, and P. Chakraborti, Study of Solution Properties of Some Alkali Bromides in Aqueous Binary Mixtures of 1,3-Dioxolane in View of Different Models, **J. Chem. Eng. Data, 2010.**
- M. N. Roy\*, B. K. Sarkar, and B. Sinha, Densities and Viscosities of Ternary Mixtures of Cyclohexane + Cyclohexanone and Some Alkyl Acetates at 298.15K. **J. Chem. Eng. Data 2009.**
- M. N. Roy\*, B. K. Sarkar, and B. Sinha, Conductance studies on some alkali metal acetates in aqueous glycerol solution. **Ind. J. Chem. 2009.**
- M. N. Roy\*, A. Sinha and A. Bhattacharjee, Ion-Solvent interactions in Acrylonitrile solutions of some tetraalkyl ammonium halides using FTIR Spectroscopy, **J. Dispers. Sci. Tech. 2009.**
- M. N. Roy\*, A. Banerjee and R. K. Das, Conductometric Study of Some Alkali Metal Halides in Dimethyl Sulfoxide + Acetonitrile at T = 298.15 K J Chem. **Thermodyn. 2009.**
- M. N. Roy\*, A. Banerjee and P. K. Roy, Partial Molar Volume and Viscosity B-Coefficients of Nicotinamide in Aqueous Resorcinol Solutions at Different Temperature **Int. J. Thermophy. 2009.**
- M. N. Roy\*, A. Banerjee and A. Choudhury, Rheological Thermodynamic and Ultrasonic Study of Binary Mixtures Containing 2-Methoxy Ethanol and Some Alkan-1-ol. **J. Phys. Chem. Liq. 2009.**
- M. N. Roy\*\*, R. S. Sah, P. Pradhan, and P. K. Roy, Ion-Solvent and Ion-Ion Interactions of Phosphomolybdic Acid in Aqueous Catechol Solutions at 298.15, 308.15 and 318.15K. **Russ. J. Phys. Chem. 2009.**
- M. N. Roy\*\*, P. Pradhan and R.S. Sah, Ion-Solvent and Ion-Ion Interactions of Sodium Molybdate and Sodium Tungstate in Aqueous 1, 2-Ethane Diol at 298.15, 308.15 and 318.15 K. **J Mol. Liq. 2009.**
- M. N. Roy\* and L. Sarkar, Density, Viscosity, Refractive Index and Ultrasonic Speed of Some Binary Mixtures of 1, 3 Dioxolane with 2-Methoxyethanol, 2-Ethoxyethanol, 2-Butoxyethanol, Isopropylamine and Cyclohexylamine. **J. Chem. Eng. Data 2009.**
- M. N. Roy\*, M. Das, Physicochemical Investigation on Interactions of Some Amino Acids with Aqueous Tetra-Butyl Ammonium Bromide Solution at 298.15K **J. Phys. Chem. Liq. 2009.**
- M. N. Roy\*, P. K. Roy, R. S. Sah, P. Pradhan, and B. Sinha\*, Ion-Pair and Triple-Ion Formation by Some Tetraalkylammonium salts in Binary Mixtures of CCl<sub>4</sub> + Ph-NO<sub>2</sub> **J. Chem. Eng. Data 2009.**
- M. N. Roy\*, P. Pradhan and R. Dewan, Study on Ion-Solvent Interactions of Alkali Metal Salts in Pure Methanol and its Binary Mixtures with Ethane 1, 2-Diol by Conductometric Technique. **Fluid Phase Equilibria. 2009.**
- M. N. Roy\*, P. Pradhan, Ion-Solvent and Ion-Ion Interactions of Phosphomolibdic acid in Aqueous solution of Catechol at 298.15, 308.15, **Russ. J. Phys. Chem., 2009.**

- M. N. Roy\*, P. Pradhan, Studies on solution properties of ternary mixture of Acetophenone+Amyl alcohol+Dichloromethane and its Corresponding Binaries at 298.15 K. **Monatshefte fur Chemie 2009.**
- M. N. Roy\*, P. Pradhan, Viscous synergy and antagonism, excess molar volume, isentropic compressibility and excess molar refraction of ternary mixtures containing tetrahydrofuran, methanol and some six membered cyclic compounds at 298.15K. **Phys. Chem. Liq. 2009.**
- M. N. Roy\*, R. Chanda and A Bhattacharjee, Studies on Ion-Pair and Triple-Ion Formation by Some Tetraalkylammonium Salts in Binary Mixtures of Tetrahydrofuran and Benzene at 298.15K. **Fluid Phase Equilibria 2009.**
- M. N. Roy\*, R. Chanda and A. Banarjee, Studies on Molecular Interactions of Some Thiocyanate Salts in Coaqueous Solutions of 1,3-Dioxolane + Water by Volumetric, Viscometric, and Speed of Sound Measurements **J. Chem. Eng. Data 2009**
- M. N. Roy\*, R. S. Sah, P. Pradhan, Ion Solvent and Ion Ion interactions of sodium molybdate and sodium tungstate in mixtures of ethane 1,2 diol and water at 298.15,308.15 and 318.15K. **J. Mol. Liq. 2009.**
- M. N. Roy\*, R. S. Sah, P. Pradhan, P. K Roy, B. Sinha, Ion pair and triple ion formation of some tetraalkyl ammonium iodides in binary mixtures of carbon tetrachloride + nitrobenzene. **J. Chem. Eng. Data. 2009.**
- M. N. Roy\*, R.K. Das. Studies on Molecular Interactions of Oxalic Acid and its salts in Coaqueous Solutions 1,3-Dioxolane + Water by Volumetric, Viscometric Measurements at T = (298.15, 308.15, and 318.15)K. **J. Mol Liq. 2009.**
- M. N. Roy\*, R.K. Das. Study on Solution Properties With Reference To Molecular Interactions Occuring in Some Industrially Important Solvents. **Int. J. Thermophys. 2009.**
- M. N. Roy\*, R.K. Das. Study on Solution-Solution Interactions Prevailing in Some Liquid Mixtures by physic-chemical Techniques. **Ind. J. Sci. Tech., 2009.**
- M. N. Roy\*, R. Chanda and G. Ghosh, Viscous synergy, excess molar volumes, viscosity deviations and Isentropic Compressibility of Some Primary Monoalkanols in Aqueous DMF Mixtures. **Russ. j. Phys. Chem. 2009.**
- M. N. Roy\*, L. Sarkar, Studies on Liquid-Liquid Interaction of Some Ternary Mixtures by Density, Viscosity, Ultrasonic Speed and Refractive Index Measurement, **ThermochimicaActa 2009.**
- M. N. Roy\*, R. Chanda and B. K. Sarkar, Apparent Molar Volume, Viscosity B-Coefficient and Adiabatic Compressibility of Some Mineral Sulphates in Aqueous Binary Mixtures of Formamide at 298.15, 308.15 and 318.15 K. **Russ. j. Phys. Chem. 2009**
- M. N. Roy\*, and R. Chanda, Study of Ion-Solvent Interactions of Some Tetraalkylammonium Halides in THF + CCl<sub>4</sub> Mixtures by Conductance Measurements. **Fluid Phase Equilibria 2008.**
- M. N. Roy\*, B. K. Sarkar, B. Sinha, Ion-Solvent and Ion-Ion Interactions of Sodium Molybdate and Sodium Tungstate in Mixtures of Acetonitrile and Water at 298.15, 308.15 and 318.15K **Russ. J. Phys. Chem. 2008.**

- M. N. Roy\*, and B. K. Sarkar, Study of Solute solvent interactions of Nicotinic acids and Benzoic acids in Methanol and its binary solvent systems. **J. Serbian. Chem. Soc. 2008.**
- M. N. Roy\*, A. Sinha, Ion-Pair and Triple-Ion Studies of Some Tetraalkylammonium Halides in Pure 1,3-Dioxolane at 298.15 K **J Mol. Liq. 2008.**
- M. N. Roy\*, A. Sinha, B. K. Sarkar, Apparent Molar Volumes and Viscosity B-Coefficients of Nicotinamide in Aqueous Tetrabutylammonium Bromide Solutions at T = (298.15, 308.15, And 318.15) K **J Chem. Thermodyn. 2008**
- M. N. Roy\*, L. Sarkar and B. K. Sarkar, Study of Solute-Solvent Interactions of Nicotinic Acid and Benzoic Acid in Methanol and Its Binary Solvent Systems., **J. Serb. Chem. Soc. 2008.**
- M. N. Roy\*, M. N. Roy\*, R. Chanda. Conductivity Study of Some 1-1 Electrolytes in Aqueous Binary Mixtures of Tetrahydrofuran and 1,3 – Dioxolane at 298.15 K. **J. Chem. Thermodyn. 2008.**
- M. N. Roy\*, P. Pradhan, R.K. Das, B. Sinha and P.K. Guha, Ion-Pair and Triple-Ion Formation by Some Tetraalkylammonium Iodides in Binary Mixtures of 1,4-Dioxane + Tetrahydrofuran. **J. Chem. Eng. Data 2008.**
- M. N. Roy\*, R. Chanda. Studies on Ion-pair and Triple-ion Formation of some Tetraalkyl ammonium Salts in Binary Solvent Mixtures of Tetrahydrofuran and Benzene at 298.15 K. **Journal of Fluid Phase equilibria, 2008.**
- M. N. Roy\*, R.K. Das and A. Bhattacharjee, Density and Viscosity of Acrylonitrile + Cinnamaldehyde + Anisaldehyde and Benzaldehyde at (298.15, 308.15, and 318.15) K. **J. Chem. Eng. Data 2008**
- M.N.Roy\* and V. K. Dakua, Excess Molar Volumes, Viscosity Deviations and Ultrasonic Speeds of Sound of Binary Mixtures of 2-Butanone with Some Alkoxyethanols and Amines at 298.15K. **J Mol. Liq., 2007**
- M. N. Roy\*, V.K. Dakua. Apparent Molar Volumes and Viscosity B-Coefficients of Some Amino Acids in Aqueous Tetramethylammonium Iodide Solutions at 298.15 K. **J. Chem. Eng. Data, 2008.**
- M. N. Roy\*, V.K. Dakua. Ion-solvent and Ion-ion Interactions of Sodium Molybdate Salt in Aqueous Binary Mixtures of 1,4-Dioxane at Different Temperatures, **J. Phy. Chem. Liq., 2007.**
- M. N. Roy\*, G. Ghosh. Interaction between Ion – Solvent, Ion – Ion and Solvent and Solvent – Solvent : A Conductivity Study. **Ind. j. Sci. Tech. 2007.**
- M. N. Roy\*, G. Ghosh. Electrical Conductance of Some Tetraalkyl ammonium Halides in Low Permittivity Organic Solvent. **J. Mol. Liq., 2007.**
- M. N. Roy\*, B. Sinha, and V. K. Dakua, Apparent Molar Volumes and Viscosity B-Coefficients of Some Amino Acids in Aqueous Tetramethylammonium Iodide Solutions at 298.15 K. **J. Chem. Eng. Data 2007**
- M. N. Roy\*, B. Gurung, Study of Densities, Viscosity Deviations and Isentropic Compressibilities of Ternary Liquid Mixtures of Water and Ethane-1, 2-Diol with Some Monoalcohols at Various Temperatures, **J. Phys. Chem. Liq. 2007**

- M. N. Roy\*, B. K. Sarkar and R. Chanda, Viscosity, Density, and Speed of Sound for the Binary Mixtures of Formamide with 2-Methoxyethanol, Acetophenone, Acetonitrile, 1, 2-Dimethoxyethane, and Dimethylsulfoxide at Different Temperatures **J. Chem. Eng. Data 2007.**
- M. N. Roy\*, and B. Sinha, Viscous Synergy and Isentropic Compressibility of Some Monoalkanols and Cyclic Ethers in Water at 298.15 K **J Mol. Liq., 2007.**
- M. N. Roy\*, A. Sinha, Conductivity Studies of Sodium Iodide in Pure Tetrahydrofuran and Aqueous Binary Mixtures of Tetrahydrofuran and 1, 4-Dioxane at 298.15 K. **J. Phys. Chem. Liq. 2007.**
- M. N. Roy\*, A. Banerjee. Studies on Molecular Interactions of Some Thiocyanate Salts In Co-Aqueous Solutions of 1,3 – Dioxolane + Water by Volumetric, Viscometric and Speed of Sound Measurements. **J. Chem. Eng. Data, 2007.**
- M. N. Roy\*, A. Banerjee. Conductometric Study of Some Alkali Metal Halides in Dimethyl Sulfoxide + Acetonitrile mixtures at 298.15 K. **J. Chem. Thermodynamics, 2007.**
- M. N. Roy\*, V. K. Dakua and B. Sinha, Ion-Solvent and Ion-Ion Interactions of Sodium Molybdate Salt in Aqueous Binary Mixtures of 1, 4-Dioxane at Different Temperatures. **J. Phys. Chem. Liq. 2007.**
- M. N. Roy\*, V. K. Dakua and B. Sinha, Thermophysical Properties of Binary Mixtures of N, N-Dimethylformamide with Isomeric Butanols at 298.15, 308.15, and 318.15 K, **J. Ind. Chem. Soc. 2007.**
- M. N. Roy\*, V. K. Dakua and B. Sinha, Partial Molar Volumes, Viscosity B-Coefficients, and Adiabatic Compressibility of Sodium Molybdate in Aqueous 1,3-Dioxolane Mixtures from 303.15 to 323.15K **Int. j. Thermophys. 2007.**
- M. N. Roy\*, V. K. Dakua, B. Sinha, Studies on Excess Molar Volumes and Deviations of Binary Mixtures of Butalamine and N, N-Dimethylformamide with Some Alkyl Acetates at 298.15 K, **Ind. J. Chem., 2006.**
- M. N. Roy\*, B.B. Gurung. Study of Some Metal Halides in Glycerol + Water Mixtures. **Int. J. of Thermophys. 2006.**
- M. N. Roy\*, B.B. Gurung. Study of Densities, Viscosity Deviations and Isentropic Compressibilities of Ternary Liquid Mixtures of Water and Ethane-1,2-diol with Some Monoalcohols at Various Temperatures. **J. Phy. Chem. Liq. 2006.**
- M. N. Roy\*, B.B. Gurung. Study of Densities, Viscosities and Ultrasonic Speeds of Binary Mixtures Containing 1,2 – Dimethoxyethane and Alkane-1-ol at 298.15 K. **J. Solution Chem. 2006.**
- M. N. Roy\*, B. Sinha, V. K. Dakua and A. Sinha, Electrical Conductances of Some Ammonium and Tetraalkylammonium Halides in Aqueous Binary Mixtures of 1,4-Dioxane at 298.15 K, Pak. **J. Sci. Industr. Res.2006.**
- M. N. Roy\*, B. Sinha, Densities, Viscosities and Sound Speeds of Some Acetate Salts in Binary Mixtures of Tetrahydrofuran and Methanol at (303.15, 313.15 and 323.15) K, **J. Chem. Eng. Data 2006**
- M. N. Roy\*, B. B. Gurung and V. K. Dakua, Conductometric Study of Some Metal Halides in Glycerol + Water Mixtures, **Int. J Thermophys. 2006**

- M. N. Roy\*, B. Sinha and V. K. Dakua, Excess Molar Volumes and Viscosity Deviations of Binary Liquid Mixtures of 1,3-Dioxolane and 1,4-Dioxane with Butyl acetate, Butyric Acid, Butylamine and 2-Butanol at 298.15 K, **J. Chem. Eng. Data 2006.**
- M. N. Roy\*, A. Sinha, Viscous Synergy And Antagonism and Isentropic Compressibility of Ternary Mixtures Containing 1,3-Dioxolane, Water and Monoalkanols at 303.15 K, **Fluid Phase Equilibria, 2006.**
- M. N. Roy\*, A. Sinha, Ion-Solvent and Ion-Ion Interactions of Some Tetraalkylammonium, Alkali Metals and Ammonium Halides in Isoamyl Alcohol at 298.15 K by Conductometric Technique. **J. Ind. Chem. Soc. 2006.**
- M. N. Roy\*, A. Banerjee. Rheological, Thermodynamic and Ultrasonic Study of Binary Mixtures Containing 2 – Methoxyethanol and Some Alkan-1-ol at different temperatures **J. Phy. Chem. Liq., 2006.**
- M. N. Roy\*, A. Banerjee. Conductometric Study of Ion – Solvent Interactions of Some Tetraalkylammonium Halides in 1,4 – Dioxane + Methanol mixtures at 298.15 K. **Ind. J. Sci. Tech. 2006.**
- M. N. Roy\* and M. Das, Thermodynamic and Transport Properties of Binary Mixtures of Dimethyl Sulfoxide with t-Butyl Alcohol, Butyl Acetate, 2-Butanone and Butyl Amine at Different Temperatures, **Russ. J. Phys. Chem., 2006.**
- M. N. Roy\* and M. Das, Studies on Thermodynamic and Transport Properties of Binary Mixtures of Acetonitrile with Some Cyclic Ethers at Different Temperatures by Volumetric, Viscometric, and Interferometric Techniques, **J. Chem. Eng. Data 2006.**
- M. N. Roy\* and B. B. Gurung, Study of Densities, Viscosities and Ultrasonic Speeds of Binary Mixtures Containing 1,2-Dimethoxyethane and some Alkan-1-ol at 298.15K **J. Solution Chem.2006.**
- A. Sinha and M. N. Roy\*, Studies of Viscous Antagonism, Excess Molar Volume and Isentropic Compressibility in Aqueous Mixed Solvent Systems at Different Temperatures. **J Phys. Chem. Liq., 2006.**
- M. N. Roy\*, M. Das, Electrical Conductance of Alkali Chlorides in Mixed Solvents: Methanol + Carbon Tetrachloride and Methanol + 1,4-Dioxane at 298.15 K **J. Ind. Chem. Soc.2006.**
- M. N. Roy\*, M. Das, Volumetric, Viscometric and Acoustic Studies of Binary Mixtures of 2-Ethoxyethanol with 1-Alkanols at 298.15 K. **J. Phys. Chem. Liq.2006.**
- M. N. Roy\*, B. Sinha, V. K. Dakua, Electrical Conductances of Some Ammonium and Tetraalkylammonium Halides in Aqueous Binary Mixtures of 1,4-Dioxane at 298.15 K , **Pak. J. Sci. Industrial Research,2005.**
- M. N. Roy\*, A. Sinha, B. Sinha, R. Dey, Solute-Solvent and Solute-Solute Interactions of Resorcinol in Mixed 1, 4-Dioxane-Water Systems at Different Temperatures, **Int. J Thermophys.2005.**
- M. N. Roy\*, A. Sinha, B. Sinha, Excess Molar Volumes, Viscosity Deviations and Isentropic Compressibility of Binary Mixtures Containing 1, 3-Dioxolane and Monoalcohols at 303.15K. **J. Solution Chem.2005.**

- M. N. Roy\*, A. Sinha, B. Sinha, A. Jha, Investigations on Viscous Antagonism of Ternary Liquid Mixtures and its Relation to Concentration. **J. Ind. Chem. Soc 2005.**
- M. N. Roy\*, A. Choudhury, Studies on Ion-Solvent and Ion-Ion Interactions and Adiabatic Compressibilities of Some bromide Salts in methanol at different temperature, **Pak. J. Sci. Industrial Research, 2005.**
- M. N. Roy\*, A. Choudhury, M. Das, Molar Excess Volumes, Viscosity Deviation and Free Energy of Tetrahydrofuran with Normal Alkane at Different Temperatures. **J. Ind. Chem. Soc 2005.**
- M. N. Roy\*, B.B. Gurung, Thermodynamics and Transport Behaviour of Non-Aqueous Binary Mixtures of Benzene with Carbontetrachloride and Chloroform at Different Temperatures. **J. Ind. Chem. Soc., 2004.**
- M. N. Roy\*, A. Jha, A. Choudhury, Densities, Viscosities and Adiabatic Compressibilities of Some Mineral salts in Water at Different Temperatures. **J. Chem. Eng. Data2004.**
- M. N. Roy\*, B. Gurung, Studies on Thermodynamic and Transport Behavior of Two Binary Mixtures Formed by Benzene, Chloroform and Carbontetrachloride at Various Temperatures, **J. Ind. Chem. Soc. 2003.**
- M. N. Roy\*, A. Jha, R. Dey, Studies on the Densities, Viscosities and Adiabatic Compressibility of Some Mineral Compounds in Aqueous Binary Mixture of Tetrahydrofuran at Different Temperatures. **J. Ind. Chem. Soc.2003.**
- M. N. Roy\*, S. R. Choudhury, R. Dey, A Study of Ion-Solvent Interactions of Some Sulfate Compounds in Aqueous Tetrahydrofuran at Different Temperatures. **J. Ind. Chem. Soc.2002.**
- M. N. Roy\*, Jha, R. Dey, Limiting Apparent Molar Volumes, their Temperature Derivatives and Viscosity B-coefficients for Some Alkali Metal Chlorides in Tetrahydrofuran Mixture. **J. Ind. Chem. Soc.2001.**
- M. N. Roy\*, Jha, R. Dey, Study of Ion-Solvent Interactions of Some Alkali Metal Chlorides in Tetrahydrofuran + Water mixture at Different Temperatures. **J. Chem. Eng. Data 2001.**
- M. N. Roy\* and D. K. Hazra\*, Densities and Viscosities of the Binary Aqueous Mixtures of Tetrahydrofuran and 1, 2 Dimethoxyethane at 298.15, 308.15, and 318.15 K. **Ind. J. Chem. Technology,1994.**
- M. N. Roy, D. Nandi and D. K. Hazra\*, Conductance Studies of Alkali Metal Chlorides and Bromides in Aqueous Binary Mixtures of Tetrahydrofuran at 25 degree C. **J. Ind. Chem. Soc.1993.**
- M. N. Roy and D. K. Hazra\*, Electrical Conductances for Tetraalkylammonium Bromides, LiBF<sub>4</sub> and LiAsF<sub>6</sub> in Tetrahydrofuran at 25 degree centigrade. **J. Ind. Chem. Soc. 1993.**

## RESEARCH SCHOLARS

**Number of Research Scholars Supervised/Supervising  
leading to PhD Degree: 60**

### Name of the Research Scholars



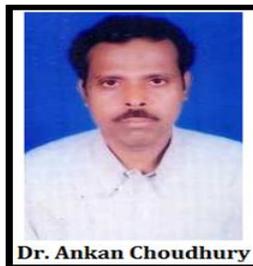
Dr. Anupam Jha

**Dr. A. Jha**  
(2004)



Dr Rabindra Dey

**Dr. R. Dey**  
(2005)



Dr. Ankan Choudhury

**Dr. A. Choudhury**  
(2006)



Dr. Bhoj Bahadur Gurung

**Dr. B. B. Gurung**  
(2006)



**Dr. A. Sinha**  
(2006)



Dr. Mousomi Das

**Dr. M. Das**  
(2007)



Dr. Biswajit Sinha

**Dr. B. Sinha**  
(2007)



Dr. Vikash Kumar Dakua

**Dr. V. K. Dakua**  
(2008)



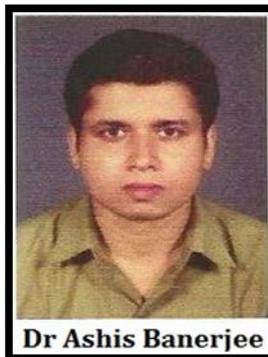
Dr. Riju Chanda

**Dr. R. Chanda**  
(2010)



Dr. Bipul Sarkar

**Dr. B. K. Sarkar**  
(2010)



Dr. Ashis Banerjee

**Dr. A. Banerjee**  
(2010)



Dr. Gargi Ghosh

**Dr. G. Ghosh**  
(2010)



Dr. Prasanna Pradhan

**Dr. P. Pradhan**  
(2011)



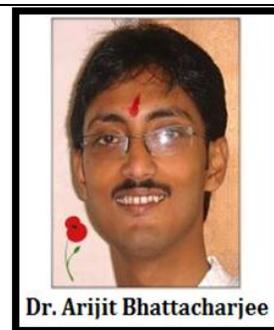
Dr. Rajesh Kumar Das

**Dr. R. K. Das**  
(2011)



Dr. Lovely Sarkar

**Dr. L. Sarkar**  
(2011)



Dr. Arijit Bhattacharjee

**Dr. A. Bhattacharjee**  
(2011)



Dr. Radhey Shyam Sah

**Dr. R. S. Sah**  
(2012)



Dr. Pran Kumar Roy

**Dr. P. K. Roy**  
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Dr. Rajani Dewan

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Mr. Palash Chakraborti

**Dr. P. Chakraborty**  
(2013)



**Dr. D. Ekka**  
(2015)



**Ms Ishani Banik**

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**Dr. P. Sikdar**  
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(2016)



**Dr. T. Ray**  
(2017)



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(2017)



**Dr. S. Choudhury**  
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**Dr. B. Datta**  
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**Dr. S. Barman**  
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**Dr. K. Roy**  
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**Dr. A. Roy**  
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**Dr. S. Saha**  
(2018)



<p><b>Dr. B. Barman</b> (2018)</p>	<p><b>Dr. M. Kundu</b> (2018)</p>	<p><b>Dr. K. Das</b> (2018)</p>	<p><b>Dr. K. Sarkar</b> (2018)</p>
			
<p><b>Dr. R. Ghosh</b> (2019)</p>	<p><b>Dr. A. Dutta</b> (2019)</p>	<p><b>Dr. A. Yasmin</b> (2019)</p>	<p><b>Dr. H. Rahaman</b> (2019)</p>
			
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<p><b>Mr. N. Roy</b> Under Process</p>	<p><b>Mr. S. Das</b> Under Process</p>	<p><b>Mr. S. Majumder</b> Under Process</p>	<p><b>Miss S. Ray</b> Under Process</p>



**Miss D. Das**  
Under Process



**Mr. P. Bomzan**  
Under Process



**Miss P. Karmakar**  
Doing Ph.D work



**Mr. R. Das**  
Doing Ph.D work



**Miss. S. Basak**  
Doing Ph.D work



**Mr. S. Ali**  
Doing Ph.D work



**Mr. B. Ghosh**  
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**Mrs. A. Sharma**  
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**Mrs. A. Maiti**  
Doing Ph.D. work



**Mr. M. Mondal**  
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**Miss. R. Dutta**  
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**Miss. B. Saha**  
Pursuing Ph.D.