



## MD. RIPA J UDDIN

### Research Chemist

Institute of National Analytical Research and Services (INARS), Bangladesh Council of Scientific and Industrial Research (BCSIR), Dhanmondi, Dhaka-1205, Bangladesh.

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## Academic Qualifications

M.Sc (Thesis) in (Environmental Chemistry),  
Session: 2009-2010, Year of Passing: 2010  
University: National University, Bangladesh.  
Result: First Class (71.00% Marks Obtained)

B.Sc (Honors) in Chemistry (4-Years Course),  
Session: 2005-2006, Year of Passing: 2009  
University: National University, Bangladesh.  
Result: Second Class (59.60% Marks Obtained)

L.L.B (2-Years Course),  
Session: 2015-2016, Year of Passing: 2016  
University: National University, Bangladesh.  
Result: Second Class (51.75% Marks Obtained)

## Professional Experience

### Year

March 15, 2016 – Present

### Position and Organization

#### Research Chemist

Bangladesh Council of Scientific and Industrial Research (BCSIR),  
Ministry of Science and Technology, Government of the People's  
Republic of Bangladesh.

July 01, 2015 – March 15, 2016

#### Asst. Research Officer

Active Fine Chemicals Ltd.

## Professional Training

1. Attended the Training Course on “**NMR Spectroscopy**” conducted by Institute of National Analytical Research and Service, BCSIR, Dhaka, Bangladesh during 25-27 October, 2016 at Ministry of Science and Technology.
2. Attended and successfully completed the “ **Understanding Training Course on ISO/IEC 17025:2005**” conducted by Bangladesh Accreditation Board (**BAB**), Dhaka, Bangladesh during 27-29 December, 2016 at Ministry of Industries, 91, Motijheel C/A, Dhaka-1000.
3. Attended the Training Course on “**Instruction to Origin Lab Software for data Analysis and Research**”

- Publication**” conducted by BCSIR Laboratories, Dhaka, Bangladesh during 25-26 May, 2017 at Ministry of Science and Technology.
4. Attended the Training Course on **“Concept of Method Validation”** conducted by BCSIR Laboratories, Dhaka, Bangladesh during 19 March, 2017 at Ministry of Science and Technology.
  5. Attended the Training Course on **“Ion Chromatograph (IC)”** conducted by Institute of National Analytical Research and Service, BCSIR, Dhaka, Bangladesh during 26-28 December, 2017 at Ministry of Science and Technology.
  6. Attended the Training Course on **“High Performance Liquid Chromatography”** conducted by BCSIR Laboratories, Dhaka, Bangladesh during 18-20 June, 2017 at Ministry of Science and Technology.
  7. Attended the Training Course on **“Chemo Metrics and the Unscrambler in Industrial Research”** conducted by BCSIR Laboratories, Dhaka, Bangladesh during 24-27 October, 2018 at Ministry of Science and Technology.
  8. Attended the Training Course on **“Basic Training on Triple Quadruples Inductively Coupled Plasma Mass Spectrometer (ICP-MS)”** conducted by Central Lab, Dhaka, Bangladesh during 04-12 April, 2018 at Ministry of Science and Technology.
  9. Attended the Training Course on **“Structure Based Drug Design”** conducted by Chittagong BCSIR, Chittagong, Bangladesh during 18-20 February, 2018 at Ministry of Science and Technology.
  10. Attended the Training Course on **“Biology Microbial Identification System”** conducted by IFST, BCSIR, Dhaka, Bangladesh during 07-11 October, 2018 at Ministry of Science and Technology.
  11. Attended the Training Course on **“Atomic Absorption Spectroscopy”** conducted by Central Lab, Dhaka, Bangladesh during 10-14 March, 2019 at Ministry of Science and Technology
  12. Attended the Training Course on Air Analysis by **“Air Analyzer”** conducted by INARS, Dhaka, Bangladesh during 20-24 March, 2019 at Ministry of Science and Technology
  13. Attended the Training Course on **Element Analysis (%C, %H, %N, %O & %S)** by **“Elemental Analyzer”** conducted by INARS, Dhaka, Bangladesh during 06-07 May, 2019 at Ministry of Science and Technology
  14. Attended the Training Course on **“Training on Gas Chromatography-Mass Spectrometry (GC-MS)”** conducted by Rajshahi BCSIR, Rajshahi, Bangladesh during 27-31 October, 2019 at Ministry of Science and Technology.
  15. Attended the Training Course on **“Training on Liquid Chromatography with tandem mass spectrometry (LC-MS-MS)”** conducted by BCSIR, during 04-08 October, 2020 at Ministry of Science and Technology.
  16. Attended the Training Course on **FT-IR & NMR** conducted by INARS, BCSIR, during 13-14 September, 2020 at Ministry of Science and Technology.
  17. Attended the eMWRE webinar series on free and open-source software (**QGIS, Python, SWAT and MODFLOW**) for water Engineering conducted by eMWRE project authority, during 3, 10, 17 & 24 November, 2020
  18. Attended the Training Course on **“Analysis on Total Organic Carbon (TOC) by TOC Analyzer”** conducted by INARS, BCSIR, during 18-19 November, 2020 at Ministry of Science and Technology.

1. Attended and successfully completed the evening Training Course on “**Web Page Development and Deployment Course**” conducted by National Academy for Planning and Development (**NAPD**), Ministry of Planning of the People’s Republic of Bangladesh, Nilkhet, Dhaka, Bangladesh during 21 March, 2017 to 24 May, 2017.
2. Attended and successfully completed the evening Training Course on “**English Language Proficiency Course**” conducted by National Academy for Planning and Development (**NAPD**), Ministry of Planning of the People’s Republic of Bangladesh, Nilkhet, Dhaka, Bangladesh during 14 Feb, 2018 to 25 April, 2018.
3. Attended the Training Course on “**e-GP and PPR-2008**” conducted by BCSIR Laboratories, Dhaka, Bangladesh during 17 July, 2017 at Ministry of Science and Technology.
4. Attended the Training Course on “**Workshop training on website design for National portal included.**” conducted by BCSIR Secretariats, Dhaka, Bangladesh during 04 August, 2019 at Ministry of Science and Technology
5. Attended the Training Course on “**Office Management and Good Governance Integrated**” conducted by BCSIR, Dhaka, Bangladesh during 22-26 November, 2020 at Ministry of Science and Technology.
6. Attended the workshop on “**Innovation and Service Process Simplification**” conducted by BCSIR, Dhaka, Bangladesh during 14 October, 2020 at Ministry of Science and Technology
7. Attended the workshop on “**Capacity Build up for Innovation**” conducted by a2i Project, ICT Division, Dhaka, Bangladesh during 31 December, 2020 - January 01, 2021 at Ministry of Post, Telecommunication and Information Technology

### Extra Curriculum Proficiency

1. One year long course on Information communication Technology (ICT) and having Grade-A, Organized by Government of People’s Republic of Bangladesh and JICA Project in 2010.
2. Qualified for 9<sup>th</sup> non-government teacher’s registration-2013 (Lecturer) with 61% Marks.

### Research Activities

**Research interest:** Inorganic, Analytical and Environmental chemistry.

**Ongoing Research and Development Projects:** “Easy process development of desalination from saline water in Bangladesh”.

**M.S. Thesis Title:** Assessment of Degradation of the Karnafully River Water Estuarine water and its impact on the environment, Chittagong, Bangladesh.

**Total Publications:** 14, another 5 full article will be published very soon.

**Google Scholar Link:** [scholar.google.com/citations?user=WqjBsPgAAAAJ&hl=en](https://scholar.google.com/citations?user=WqjBsPgAAAAJ&hl=en)

**ResearchGate Link:** [https://www.researchgate.net/profile/Md\\_Uddin155](https://www.researchgate.net/profile/Md_Uddin155)

**ORCID identifier is:** 0000-0002-9200-8039

### Membership in Technical Society

1. Bangladesh Chemical Society (BCS), Life Membership Number-1734.
2. Network of Instrument Technical personnel and User scientists of Bangladesh (NITUB), Life Membership

## Instrumental Expertise

Atomic Absorption Spectrometer (AAS), Ultra Violet (UV) Visible Spectrometer, Fourier Transform Infrared Spectrometer (FT-IR), Flame Photometer, Air Analyzer, Elemental Analyzer, Ion Chromatograph (IC), High Performance Liquid Chromatography (HPLC), Gas Chromatography (GC), Gas Chromatography-Mass Spectrometry (GC-MS and GC- MS/MS), TOC Analyzer, Auto Analyzer, Nuclear Magnetic Resonance (NMR) and Liquid Chromatography Mass Spectrometer (LCMS).

## ISO/IEC 17025 Activities

1. Worked in the implementation of ISO/IEC 17025:2017 quality management system.
2. Participated in the proficiency testing (PT) program in the year of 2018 (for one parameter) from ERA, A Waters Company, and completed successfully.

## Published Abstract in Conference: 06

1. Md. Ripaj Uddin, M A Ahsan, S Yeasmin, M E Ali "Assessment of some physicochemical parameter and biological status of karnafully river water, Chittagong, Bangladesh", International Conference on chemical Science and Technology, P-59, 24-25 February 2018
2. Md. Ripaj Uddin, M A Ahsan, Shamim ahmed, Md. Ahedul Akbor, Shakila Akter, Md. Abu Bakar Sidque, AHM Shofiul Islam Molla Jamal, "Multi-parameter analysis of bottled water and health risk consideration from locally available in Bangladesh" Bangladesh Chemical Congress, PP-115, 17-19 October 2018
3. AHM Shofiul Islam Molla Jamal, M A Ahsan, Shamim ahmed, Md. Ahedul Akbor, Shakila Akter, Md. Abu Bakar Sidque, Md. Ripaj Uddin , " Assessment of physicochemical properties of rainwater in Bangladesh" Bangladesh Chemical Congress, PP-105, 17-19 October 2018.
4. AHM Shofiul Islam Molla Jamal, M A Ahsan, Shamim ahmed, Md. Ahedul Akbor, Shakila Akter, Md. Abu Bakar Sidque, Md. Ripaj Uddin , " Assessment of physicochemical properties of rainwater in Bangladesh" BCSIR Congress, BCSIR Congress, Bangladesh J. Sci. Ind. Res. 54 (Special Issue), 51, 12-14 December 2019.
5. M. R. Uddin, M. A. Ahsan, S. Ahmed, R. Sultana, S. Akter, M. A. B. Sidque, AHM.S.I.M. Jamal, "A Comparative study on water quality parameters both of Imported and local bottled drinking water in Bangladesh" BCSIR Congress, Bangladesh J. Sci. Ind. Res. 54 (Special Issue), 52, 12-14 December 2019
6. Pollution and ecological risk evaluate for the environmentally impacted Karnaphuli river, Bangladesh. M. R Uddin \*, R. H Bhuyain, M. A Ahsan, M. E Ali , International Water Conference 2019, PP-15 January 29-30, 2019, Kuakata, Potuakhali, Bangladesh.

## Journals papers:

1. M. R. Uddin, R. H. Bhuyain, S. Yeasmin, M. A. Ahsan, M. E. Ali "Characterization of some physicochemical parameters and status of Escherichia coli of Karnaphuli River in Bangladesh" Journal of Environmental Science, Computer Science and Engineering & Technology, Sec. A; 8(4):343-357, 2019.
2. Md. Ripaj Uddin, Riyadh Hossen Bhuyain, Muhammad Edris Ali, Aminul Ahsan "Pollution and ecological risk evaluate for the environmentally impact on Karnaphuli river, Bangladesh" International Journal of Fisheries and Aquatic Research, 4(3):28-48, 2019.
3. Ahmed Shamim, Akter Tania, Ahsan Md. Aminul, Yasmin Sabina, Jamal AHM Shafiul Islam Molla, Uddin Md. Ripaj and Shajahan Md, "Textile dyeing and tannery industries effluent physico-chemicals conditions before discharge to river around Dhaka, Bangladesh" International Journal of Scientific & Engineering Research, 10(7): 1029-1045, 2019.
4. A. H. M. Shofiul Islam Molla Jamal\*, Md. Aminul Ahsan, Shamim Ahmed, Shakila Akter, Rokaia Sultana, Aynun Nahar, Md. Ripaj Uddin, Physicochemical and Microbiological Quality of Potable Water Supplied by

DWASA in Dhaka City of Bangladesh, American Journal of Biological and Environmental Statistics 6(1): 1-6, 2020.

5. A. H. M. Shofiul Islam Molla Jamal\*, Shamim Ahmed, Shakila Akter, Aynun Nahar, Rokaia Sultana, Md. Ripaj Uddin, Tajnin jahan, Shahnaz Sultana, Mehedi Hasan, Spatial Variation of Rainwater Quality Parameters at Khulna City of Bangladesh, Journal of Environment Pollution and Human Health, 2020, 8(2): 49-54.
6. A. H. M. Shofiul Islam Molla Jamal\*, Shamim Ahmed, Shakila Akter, Aynun Nahar, Rokaia Sultana, Md. Ripaj Uddin, Mehedi Hasan, Tajnin jahan, Shahnaz Sultana, "Chemistry of Pre-Monsoon and Monsoon Rain Water in Rajshahi City of Bangladesh", International Journal of Academic Scientific Research, 2(8), 2272-6446, 2020.
7. Md. Ripaj Uddin, Md. Moazzem Hossain, Shakila Akter, Muhammad Edris Ali, Md. Aminul Ahsan, Assessment of some physicochemical parameters and determining the corrosive characteristics of the Karnaphuli estuarine water, Chittagong, Bangladesh, Water Science, 34(1), 164-180, 2020.
8. MR Uddin, MA Ahsan, S Akter, MA Akbor, N Akter, S Ahmed, RH Bhuiyan, ME Ali, ASSESSMENT OF SEASONAL VARIATION IN WATER QUALITY OF VARIOUS KHAL IN CHITTAGONG PORT CITY, BANGLADESH, International Journal of Technical Research & Science, V (IX): 2454- 2024, 2020.

### Participation in Seminar/Symposium/Workshop

- **Biochemistry and Molecular Biology for Better Health, Congenial Environmental & Food Security**", 12-13 January 2013, University of Chittagong, Bangladesh
- Attended in the symposium on "**Environmental Chemistry for Securing Water Quality**" organized by Bangladesh Journal of Scientific and Industrial Research (BJSIR) on 30 July 2017 at BCSIR, Dhaka, Bangladesh.
- Day-long workshop on "**Revised ISO/IEC 17011:2017 and ISO/IEC 17025:2017 standards**" conducted by Bangladesh Accreditation Board (BAB), Dhaka, Bangladesh on 04 January, 2018 at Ministry of Industries, 91, Motijheel C/A, Dhaka-1000
- **1<sup>st</sup> International Conference on Engineering Materials and Metallurgical Engineering**, 2-24 December, 2016, BCSIR, Dhaka
- **Bangladesh Chemical Congress**", 17-19 October, 2018, University of Dhaka, Bangladesh.
- **BCSIR Congress**", 12-14 December, 2019, BCSIR, Dhaka, Bangladesh.

### Job Responsibilities

- Research and Development in Inorganic, Analytical and Environmental
- To publish the scientific articles in peer reviewed journals.
- To supervise laboratory technical staffs to conduct commercial sample analysis.
- Maintaining ISO/IEC 17025:2017 accreditation on water quality testing parameters.
- Continual improvement of the laboratory to obtain accreditation for more testing parameters.
- Purity test of commercial sample analysis in laboratory.
- Anion, Cation and Radical Analysis by Auto Analyzer.
- Total Hardness, Negative hardness, Carbonate Hardness, Non-carbonate Hardness Total Alkalinity, Acidity, Free Carbon di oxide, Chloride determination Test of water by Titrimetric Method.
- Analyzed total element (N, C, H, O & S) by elementary analyzer
- TOC Test of water by TOC Analyzer.
- Phenolic Compound by Test of water by UV-Visible Spectrophotometer.
- NMR Testing service
- Purchasing traceable standards, chemicals, reagents and consumables
- Analyzed Heavy Metal (As, Cr, Cd, Ca, Mg, Na, K, Zn, Ni, Co, Pb, & Hg etc.) by AAS.

### Industrial Visit (Home & Abroad)

Visited and experienced with the production system of:

- Paper Mill, Kalur Ghat, Chittagong.
- PHP glass industries limited, Chittagong.
- PHP steel industries limited, Chittagong.
- Royal cement industries limited, Chittagong.
- Osmania glass industries, Chittagong.
- BSRM, Chittagong.
- KAFCO, Chittagong
- Intertek bd Laboratory, Chittagong
- Panchagarh Sugar Mills Ltd.
- Kazi & Kazi Tea Estate Limited, Panchagarh.
- Saidabad Water Treatment Plant, Dhaka, Bangladesh.
- Dhaka WASA Bottled Water Production Plant “Shanti

### Book Writer:

1. Perspective Hatia is the Singapore of Bangla
2. The History of Hatia

### Reference:

<p>Dr. Mohammad Mostafa          (Chief Scientific Officer and Director-in-charge)          Chittagong BCSIR, Chittagong.          E.mail: <a href="mailto:drmostafabcsir@yahoo.com">drmostafabcsir@yahoo.com</a>          Cell Number: 01716525686</p>	<p>Dr. Md. Sarwar Jahan          (Chief Scientific Officer and Ex-Director-in-charge)          Dhaka Laboratories, BCSIR, Dhaka-1205.          E.mail: <a href="mailto:sarwar2065@yahoo.co.uk">sarwar2065@yahoo.co.uk</a>          Cell Number: 0171507802</p>
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