

CURRICULUM VITAE



Md. Ahedul Akbor

Senior Scientific Officer

&

Technical Manager (ISO/IEC 17025; 2017)

Institute of National Analytical Research & Services (INARS)

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ACADEMIC QUALIFICATIONS:

PhD Candidate

Now I am doing my PhD on “**Analysis of Priority pollutants load in the Buriganga River of Bangladesh and their remediation using graphene-based adsorbents**”

I have successfully completed my PhD part-1 examination and 1st presentation work.

Waiting for final presentation.

Master of Science (M.Sc)

Institution : Rajshahi University, Bangladesh

Major in : Chemistry

Medium of Instruction : English

Academic Result : First class (Second Position)

Year of Completion : 1999 (Held in 2002)

Major Courses Undertaken in M.Sc(Thesis)

Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Analytical Chemistry, Bio-inorganic chemistry and Environmental Chemistry.

Bachelor of Science (B.Sc.)

Institution : Rajshahi University, Bangladesh

Major in : Chemistry

Medium of Instruction : English

Academic Result : First class (Second Position)

Year of Completion : 1998 (Held in 2000)

Major Courses Undertaken in B.Sc(Hon's)

Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Analytical Chemistry, Industrial Chemistry, Mathematics and Physics.

Higher Secondary Certificate (HSC) in Science

Board : Jessore, Bangladesh.
Result : 1st Division
Passing Year : 1994

Secondary School Certificate (SSC) in Science

Board : Jessore, Bangladesh.
Result : 1st Division
Passing Year : 1992

Thesis: Masters Level, Duration: 1 (one) Year

Thesis title: “Studies on the Mixed Ligand Metal Complexes of Dibasic Acids with Amine Bases”

Supervisor: Prof. Dr. Saidul Islam

Research experience in M.Sc Level:

In M.Sc thesis, mixed ligand transition metal complexes of Cr(III), Fe(III), Co(II), Ni(II), Cu(II), Rh(III), Pt(IV) and Au(III) ions with dibasic acids viz, oxalic acid, diphenic acid, adipic acid as primary Ligands and heterocyclic & amine bases viz, quinoline, iso quinoline, 8- hydroxyquinoline, γ -picoline, pyridine, 2-amino pyridine, 2- aminophenol, ethylene di-amine and triethylenetetramine as secondary ligands have been synthesized and characterized. Their conventional physical and chemical analysis had been done. Their antibacterial activities against ten bacteria had been evaluated by the disc diffusion method, whilst their antifungal activities against two fungi had been also evaluated by the same method. Minimum inhibitory concentrations (MIC) had been evaluated against six bacteria.

CAREER:




I joined **Deshbhandhu Sugar Mills Ltd (DBSML)** the first sugar refinery in Bangladesh on 1st September 2003 for quality control and process operation. I worked for this industry for **around two years**.

Then I joined **Jamuna Fertilizer Company Limited (JFCL)** the largest Bangladesh Chemical Industry Corporation (BCIC) concern, as Assistant Chemist. Its urea production capacity is 1700 Metric Ton per Day (MTPD) and Ammonia production capacity is 1078 MTPD. I worked in ammonia plant. Where, ammonias produced for production of urea. JFCL has programmable logic controllers (PLC) to control the plant I worked for this industry for **around one year**.

18-6-2006 to 4-08-2011: Scientific Officer and from **4-08-2011 to present:** Senior Scientific Officer Institute of Analytical Research & Service, Bangladesh Council for Scientific and Industrial Research (BCSIR), Dhaka.

EXPERIANCE:

Research Experiences

-  Monographs preparation
-  Structure elucidation by NMR analysis
-  Chemical assessment of Industrial effluents and treatment by different processes

- ✚ Arsenic treatment by different adsorbents e.g. Fe⁰, CeO₂, Crystalline Fe₂O₃, Alumina and coagulants e.g. ferric sulfate
- ✚ Analysis of organic pollutants in water by gas chromatograph
- ✚ Statistical analysis of chemical parameters by using MINITAB 14 statistical software
- ✚ Analytical chemistry

Research Interest

- ✚ Priority pollutants
- ✚ Organic Chemistry

JOB DESCRIPTION:

Research and development:

I have been working on following research & development projects:

- ✚ Assessment of Seasonal variation of Organic Pollutants near to Industrial area of Buriganga River and Remediation of Organic Pollutants from contaminated water
- ✚ Development of Digital Arsenic Kit.
- ✚ Analysis of Bio- accumulation of Heavy Metals in cultured fishes of some selected ponds and River
- ✚ Optimization of process parameters for cell growth and ethanol production for batch culture of *Saccharomyces cerevisiae*

I had been working on following research & development projects:

- ✚ Bangladesh Arsenic Technology Verification – Support to Arsenic Mitigation (BETV-SAM) project financed by Canadian International Development Agency
- ✚ Temporal and Spatial Distribution of Heavy Metal in soil around DEPZ
- ✚ Seasonal Implication of Heavy Metal Contamination of Surface Water around Dhaka Export Processing Zone (DEPZ), Savar,
- ✚ Assessment of drain water receiving effluent from tanneries at Hazaribag, Dhaka
- ✚ Assessment of seasonal variation of drain water receiving effluent from tanneries and its impact on soil, plants and human health with particular emphasis on bioaccumulation of heavy metals,
- ✚ Analysis of water disinfection by products analysis by Gas Chromatograph: process designed to treat disinfection by-products,

I had been working on Bangladesh Environmental Technology Verification-Support to Arsenic Mitigation (BETV-SAM) in collaboration with Ontario Centre for Environmental Technology Advancement (OCETA) financed by Canadian International Development Agency (CIDA) to verify Arsenic Removal Technologies at five different hydrogeological areas (Chapai Nawabgonj, Ishwardi, Chandina, Begumgonj, Dohar) in Bangladesh since 2006 to 2010 continuing the following activities:

- ✚ TSTP Writing
- ✚ Arsenic Removal Technology performance monitoring at field level

- ✚ Final verification report writing
- ✚ Conducting inter-laboratory comparison round robin program on four water quality parameters (arsenic, iron, manganese and phosphate) to evaluate the performances of different testing laboratories in Bangladesh

And conducted the following training courses on Verification of Arsenic Removal Technology and Analysis by field test kits:

- ✚ Overview of Technology Installation, O&M & Performance Testing
- ✚ Waste Handling, Testing & Management
- ✚ Hands on Training on pH, Conductivity/TDS, Turbidity using HACH Meters
- ✚ Hands on Training on arsenic analysis using Arsenator (Wagtech)
- ✚ Field Work Management

Laboratory Quality System

As an authorized analyst of the accredited parameters and Technical Manager of Institute of National Analytical Research and Service (INARS), BCSIR all tasks related to these parameters are maintained (Sample Analysis, Standard Operating Procedure Revision and other components related to the Laboratory Quality System Management) and monitor the Quality Management System of INARS covering both Management and Technical aspects with special emphasis on Method validation including measurement uncertainty for production of ISO/IEC 17025 compliant test data. . Otherwise, I am Assessors of Bangladesh Accreditation Board (BAB) and Conduct Round Robin to evaluate the performance of different testing laboratories in Bangladesh

Analytical experience:

Modification and validation of analytical methods and analysis of different types samples like water, waste water, food, soil, etc. using the following instruments:

- ✚ Structure elucidation Sample purity determination, Compound identification and confirmation, Formulations investigation by NMR(BRUKER 400 MHz)
- ✚ Metal analysis by Atomic Absorption Spectrophotometer(AAS)(Flame,GF,VGA)
- ✚ Colorimetric analysis by UV-VIS Spectrophotometer
- ✚ Anion scan by Ion- chromatograph (IC).
- ✚ Physical parameters analysis by *sension* -156 portable Multiparameter Meter
- ✚ Trace metal analysis by ICP-MS
- ✚ Identification of volatile organic compounds, poly aromatic hydrocarbons, residual solvents, natural product compound and pesticide analysis by GC, GS-MS, LC, LC-MS.
- ✚ Hardness & Alkalinity test of water by Tritimetric method
- ✚ Cation & Anion Analysis by Auto Analyzer
- ✚ C,H,N& S analysis by elementar analyzer
- ✚ Vitamin analysis by HPLC
- ✚ Functional group analysis by FTIR

SUPERVISION/CO-SUPERVISION:

1 M.S. Student.

TRAINING ON LABORATORY QUALITY MANAGEMENT SYSTEM: ISO/IEC 17025:2005

I participated and successfully completed the following training courses:

1. On line training conducted Canadian Association for Environmental Analytical Laboratories and financed by CIDA.
 - ✚ Care and feeding of a laboratory Quality system held on 13 August to 7 September 2007.
 - ✚ Investigation of Non-Conformance through Root Cause Analysis held on 1st to 19 October 2007.
 - ✚ Measurement Uncertainty for the users of lab Services and for Regulators (Being Certain Uncertainty) held on 5 to 16 November 2007
 - ✚ Laboratory Internal Calibration held on 31 December 2007 to 11 January 2008.
2. “Laboratory Quality management System & Internal Audit as per ISO 17025:2005 training course” from Indian Institute of Quality management (IIQM), Jaipur, India
3. Training on In-Depth Understanding & Implementation of ISO/IEC 17025:2005 General Requirements for the competence of testing and calibration Laboratories, Good Laboratory Practices and Introduction and awareness of ISO 22000:2005 Food Safety Management Systems – Requirements for any Organization in Food Chain held at BCSIR from 10 - 26 October 2010 organized by UNIDO under EU and NORAD funded by Better Work and Standards Programme (BEST) in cooperation with BCSIR and the Government of Bangladesh.
4. ISO 9001, ISO 14001 and OHSAS 18001- Internal auditor Training – Integrated Management Systems held at SGS system & Services Certification Pty Ltd. Australia from 13-16 May 2013
5. The BAB Assessor Training Refresher Course held at Bangladesh Accreditation Board Auditorium, Dhaka from 12-13 June, 2012
6. Assessor Training Course on Certification Bodies-Certifying management Systems, ISO/IEC 17021:2011; Product, Processes & Services, ISO/IEC 17065:2012 held at Hotel Rupushi Bangla, Dhaka from 17-21 November, 2013

TRAINING ON INSTRUMENTS:

1. Training on Integrated Advanced Industrial Technology from 6 August to 30 October 2005 at Training Institute for Chemical Industries, Palash, Narshinngdi, Bangladesh (Central Training Institute of Bangladesh Chemical Industries Corporation).
2. “Application Training on **Atomic Absorption Spectrophotometer (DUO)** & its Accessories” conducted by Varian held on March 2009 at BCSIR.

3. Training Course on “The Operation of the Wagtech Potatest Kit for Bacteriological Analysis by Membrane Filtration Technique & Physico-Chemical Analysis.
4. Training on **LC-MS/LC-MS-MS** held on 28-30 December 2010 at BCSIR
5. Training on Shimadzu **HPLC Ion Chromatograph** & its application conducted by AQ Chowdhury Science & Synergy (Pvt.) Ltd. held on 29 March 29 to 11 April 2011 at BCSIR.
6. Special training on **GC and GC-MS** principle, operation and maintenance 13-20 October 2012 organized by SHIMADZU, (ASIA PACIFIC) PTE LTD, SINGAPORE
7. Training on Furrier transform Infrared Spectroscopy (**FTMIR**) held on 11-12 December 2012 at RCSIR
8. Training on Inductively Coupled Plasma- Mass Spectrophotometer (**ICPMS**) held on 2- 4 April 2013 at RCSIR
9. Training on Nuclear Magnetic Resonance (**NMR**) held on 25-26 June 2014 at RCSIR
10. Basic Training on Triple Quadruples Inductively Coupled Plasma Mass Spectrometer (**ICP-MS**) held on 8-12 April 2018 at RCSIR organized by M/s. A&E International Pvt. Ltd. Dhaka
11. Successfully completed training on GCFID,HPLC,GCMS, Multidimensional HPLC+GHC and HPLC+GC-MS with on line derivatization, ROBOKROM and KONIKROM Plus Software, Training was performed at BCSIR Central Lab, Dhaka, Bangladesh from 5 May to 11 May 2019

TRAINING ON OTHERS:

- 1.Successfully completed training on English Language Proficiency held from 20 August to 8 December 2019 at NAPD, Bangladesh.
2. Successfully completed the General English Course with the British Council, Bangladesh, and held on 28 May to 21 July, 2008.
- 3.Training Course on Facing the Challenges of Climate Change: Issues, Impacts and Adaptation Strategies for Bangladesh with Focus on water and Waste Management, held on 19-21 July, 2009 at ITN (International Training Network) Centre, BUET (Bangladesh University of Engineering & Technology)., Dhaka, Bangladesh
4. Training on Computer Application & English Language Course, held on 6 to 24 June 2010 at Regional Public Administration Training Centre, 49 New Eskaton, Dhaka-1000, Bangladesh.

Provided Training as a Resource parson:

1. Training on operating and maintenance of AAS, GC, GC-MS, UV-Vis and Flame photometer

Participants: River research institute, Faridpur

Organized by: Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh.

2. Training on operating and maintenance of AAS, UV-Visible, GC and GC-MS respectively as a in-house trainer of BCSIR. Process is going on.

Participants: Scientists of Bangladesh Council of Scientific and Industrial Research (BCSIR).

Organized by: Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh

3. Training on operating and maintenance of HPLC, AAS, GC, GC-MS, IR and NMR

Dated: 13-17 May, 2018

Participants: M.Sc students, Department of Chemistry, Rashahi University

Organized by: Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh.

4. Training on operating and maintenance of HPLC, GC, GC-MS, IR, NMR

Dated: 03-04 August, 2018

Participants: Teachers, Department of Chemistry Hajee Mohammad Danesh Science and Technology University (HSTU), Dinazpur, Bangladesh.

Organized by: Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh.

5. Training on sampling test for identification of schedule chemicals

Dated: 17-8 August 2016, 18 December 2017 and 29 August 2018 respectively

Participants: National board of Revenue (NBR) and Custom officers of Bangladesh.

Jointly organized by: Bangladesh national authority for chemical weapons convention (BNACWC) & Bangladesh council of scientific and industrial research (BCSIR)

6. Training on UV-VIS and IR

Dated: 8-13 September, 2018

Participants: Teachers, student, researcher and executive from different organizations

Jointly organized by: Network of Instrument Technical personnel and User scientists of Bangladesh (NITUB) & Bangladesh council of scientific and industrial research (BCSIR)

7. Training on principles, operation and data analysis of Liquid Chromatography –Mass-Mass Spectrometer (LC-MS-MS) Training was performed at BCSIR Central Lab, Dhaka, Bangladesh from 16-20 February 2020

Participants: Scientists of Bangladesh Council of Scientific and Industrial Research (BCSIR).

Organized by: Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh

Research published papers: 30 (International: 15, National: 15)

1. Md. Abu Bakar Siddique, _Md. Ahedul Akbor et al (2020) **Apportionment of some chemical elements in soils around the coal mining area in northern Bangladesh and associated health risk assessment** Journal of Environmental Nanotechnology, Monitoring & Management
<https://doi.org/10.1016/j.enmm.2020.100366>
<https://www.sciencedirect.com/science/journal/22151532>
2. Md. Ahedul Akbor, Md. Mostafizur Rahman et . al (2020), Metal pollution in water and sediment of the Buriganga River, Bangladesh: an ecological risk perspective Journal of *Desalination and Water Treatment* 193 (2020) 284–301
3. Akbor, M. A, Rahman, M. M, Akter, R, Hossain, S, Ahmed, S, Siddique, M. A. B, Nahar, A. and Uddin, M. K, Summer 2020 “Interfering effects of Iron(II) and Arsenic(III) in the Cerium-based adsorption technology in Bangladesh”, Journal of Pollution, 6(3): 513-519,
4. Ferdoushi Jahan, Md. Ahedul Akbor *et al* 2020 “Formulation and Evaluation of Herbal Ultrasound Gel for Ultrasonography” Journal of Diseases and Medicinal ISSN:2469-8202(print);ISSN:2469-8210 (online)
5. Md. Atikul Islam, **Md. Ahedul Akbor. et al** “Characterization of solid biofuel produced from banana stalk via hydrothermal carbonization” **Biomass Conversion and Biorefinery**<https://doi.org/10.1007/s13399-019-00405-5> Received: 30 October 2018 / Revised: 6 March 2019 / Accepted: 15 March 2019 # Springer-Verlag GmbH Germany, part of Springer Nature 2019
6. Md. Aminul Ahsan **Md. Ahedul Akbor. et al** “Chemical and physicochemical characterization of effluents from the tanning and textile industries in Bangladesh with multivariate statistical approach” **Environ Monit Assess** (2019) 191:575 <https://doi.org/10.1007/s10661-019-7654-2> Received: 24 December 2018 / Accepted: 15 July 2019 # Springer Nature Switzerland AG 2019
7. Md. Emanul Islam., **M.A. Akbor et al**” Distribution of arsenic in core sediments and groundwater in Chapai Nawabgonj distric, Bangladesh” **Arabian journal of Geoscience**. Received;27 March2018/Accepted: 17 January 2019.<https://doi.org/10.1007/s12517-019-4272-9>
8. M.A Ahsan., **M.A. Akbor et al** “Analysis of major heavy metals in the available fish species of the Dhaleshwari River, Tangail, Bangladesh”. **International Journal of Fisheries and Aquatic Studies** 2018; 6(4): 349-354 E-ISSN: 2347-5129 P-ISSN: 2394-0506
9. Nahid Sajia Afrin, **Md. Ahedul Akbor et al** “Proximate and Elemental Analysis of Three Medicinal Plants: Cuscuta reflexa, Cassia tora and Cassia fistula”

- European Journal of Medicinal Plants** 26(4): 1-8, 2018; Article no.EJMP.47123 ISSN: 2231-0894, NLM ID: 101583475
10. Dilara Khatun., **M.A. Akbor et al** "Lateral Variation of Physicochemical Properties of surface Water around Dhaka Export Processing Zone(DEPZ),Savar, Bangladesh" **Journal of Emerging Technologies and Innovative Research(JETIR)**, November 2018, Vol:5,Issue 11
 11. M.A Ahsan., **M.A. Akbor et al** "Analysis of Physicochemical Parameters, Anions and Major Heavy Metals of the Dhaleshwari River Water, Tangail, Bangladesh". **American Journal of Environmental Protection** 2018; 7(2): 29-39
 12. Ratul A.K., **MA.Akbor et al** "Potential health risk of heavy metals accumulations in vegetables irrigated with polluted river water" **International food research journal** 25(1); 329-338 (February2018)
 13. Muhammod Abdullah Al-Mansur, **MA.Akbor et al** "Phytochemical screening and GC-MS Chemical Profiling of Ethyl Acetate Extract of Seed and stem of *Anethum sowa* Linn".**Dhaka Univ.J.Pharm.Sci**:187-194, 2017(December).
 14. **M. A. Akbor**, M. K.Uddin and M. A. Ahsan *et al* "Investigation of Water Quality Parameters at Different Points in the Buriganga River, Bangladesh" **J. Environ. Sci. & Natural Resources**, 10(1): 75-80, 2017 ISSN 1999-7361 75
 15. M.I.Manirul,R. Begum, M.A.Akbor, H.Mehrajand A.F.M.JamalUddin "Arsenic Accumulation by Rice from Different Concentration of Arsenic Contaminated Soil" **world Applied Sciences Journal** 34(1);84-88,2016
 16. **M. A. Akbor**, M. A. Ahsan *et al.* "Synthesis, Coordination and structure of Mixed Ligand Copper (II) Complexes of Di-carboxylic as primary and Heterocyclic bases as Secondary Ligands" **International journal of Applied research**;ISSN:23479272(volume-4,issue-2).
 17. Ahmed.F M.S. Hossain.,**M.A.Akbor et al** (2016) Public health risk assessment of chromium from vegetables grown in the waste-water irrigated site in Bangladesh. **Journal of pollution** Vol. 2No. 5 -Autum 2016. DOI:10.7508/pj.2016.04.005
 18. Rezuana, **M.A.Akbor et al** (2015)"Concentration of Heavy Metals in Available Fish Species (Bain, *Mascacembelus armatus*;Taki,*Channa punctatus* and Bele, *Glossogobius giuris*) in the Turag River, Bangladesh"**Pak.j.sci.ind.res.Ser.B.biol.sci**.2015 **58**(2) 104-110
 19. M.S. Hossain.,**M.A.Akbor et al** (2015) "Public health risk assessment of heavy metal uptake by vegetables grown at a waste-water irrigated site in Dhaka, Bangladesh". **Journal of health & pollution** Vol. 5 No. 9 -December 2015
 20. R.Afrin.,**M.A.Akbor et al** (2015) "Status of water pollution in respect of physiochemical parameters and anions in the Turag river of Bangladesh". **Bangladesh J. Environ.Sci.**, Vol. 28,113-118, 2015
 21. F.Hossain., **M.A.Akbor et.al** (2014) "Investigation of chemical parameters and major Anions of two selected agricultural ponds at Santosh Region, Tangail, Bangladesh" **Bangladesh J. Environ. Sci., and Natural Research** 7(2) 89-92; ISSN 1999-7361
 22. F.Hossain., **M.A.Akbor et.al** (2014) "Investigation of heavy metals in pond water,cultured fishes and used fish feed

- samples of two selected ponds at santosh, Tangail, Bangladesh” *Bangladesh J. Environ. Sci.*, Vol. 27, 37-42, 2014 ISSN 1561-9206
23. S.Akter.,**M.A.Akbor** *et.al* (2014) “Seasonal variation of some physicochemical properties of river water around Dhaka City”. *Jahangirnagar University Journal of Science* Vol.36, No. 2, pp. 93-104, 2014
 24. A J M Tahuran Negar **M.A.Akbor** *et.al* “Studies on the Technology of arsenic Removal erom Arsenic contaminated ground water” ISSN 2224-1698 **Jagannath University Journal of Science**, Volume-2, Number-II, July 2013
 25. M.M. Haque. **M.A.Akbor** *et.al* “Phytochemical screening of some Bangladeshi medicinal plants” *Bangladesh J. Sci. and Ind. Res.*, 48(3), 193-196, 2013
 26. Asma Binta Hassan, **M.A.Akbor** *et.al* “Trace metal pollution in seawater and ground water in the ship breaking area of Sitakund Upazilla, Chittagong, Bangladesh”. *Marine Pollution Bulletin* 71 (2013)317-324
 27. H.Momtaz., **M.A.Akbor** *et.al* “Treatment of metal-containing effluents from textile-dyeing industries by aquatic macrophytes to improve surface water treatment systems” *Bangladesh J. Sci. and Ind. Res.*, 48(2), 89-96,2013
 28. Dilara Khanom.,**M.A.Akbor** *et.al* “Assessment of Heavy Metal Contamination of Agricultural Soil around Dhaka Export Processing Zone (DEPZ), Bangladesh: Implication of Seasonal Variation and Indices” Received: 20 April 2012;in revised from:11 June 2012/Accepted: 12 June 2012/Published : 02 July 2012 in *Applied Science* **2012**,2,584-601;doi:10.3390/app2030584, ISSN 2076-3417
 29. H.Momtaz., **M.A.Akbor** *et.al* “Surface water quality around DEPZ industrial area, savar, Dhaka” *Bangladesh J. Sci. and Ind. Res.*, 47(3), 279-286,2012
 30. S.Ahmed.,**M.A.Akbor** *et.al* Antimicrobial, Cytotoxicity and Phytochemical activities of *Spilanthes acmella*. *Bangladesh J. Sci. and Ind. Res.*, 47(4), 437-440,2012
 31. Md. Belayet Hossain, **M.A.Akbor** *et.al* (2012)” Synthesis and characterization of Mixed Ligand Complexes of Co(II) Ions with Malic Acid and Heterocyclic Amines” *Bangladesh Pharmaceutical Journal* 15(2):177-181.
 32. Dilara Khanom.,**M.A.Akbor** *et.al* (2012) “Seasonal Implication of Heavy Metal Contamination of Surface Water around Dhaka Export Processing Zone (DEPZ), Savar, Bangladesh Vol. 34, No. 2, pp. 21-35
 33. S.Akter.,**M.A.Akbor** *et.al* (2012) “Determination of Phosphate in various water samples with digestion procedure by UV-Visible spectro-photometry”. *Jahangirnagar University Journal of Science* Vol.33, No. 1, pp. 139-146, 2012
 - 34. M.A.Akbor.**, M.S.Islam. *et.al.*, (2011) Studies on Antibacterial and Antifungal Activities and Minimum Inhibitory Concentrations of Mixed Ligand Transition Metal Complexes of Dibasic Acids as Primary and Heterocyclic Bases as Secondary Ligands. *Bangladesh J. Sci. and Ind. Res.* **46(3), 2011**
 35. Dilara Khanom., **M.A.Akbor** *et.al* “Assessment of Heavy Metal Contamination of Agricultural Soil around Dhaka Export Processing Zone (DEPZ), Bangladesh: Implication of Seasonal Variation and Indices”in *Applied Science* ISSN 2076-3417

36. A.Safarzadesh-Amiri., M.A.Akbor et.al.,(2011) “Validation of analysis of arsenic in water samples using Wagtech Digital Arsenator” Science of the Total Environment, . 409(2011) 2662-2667
37. S.Siraj., M.A.Akbor.et.al (2011) Manganese Removal Status by Arsenic Removal Technologies in Bangladesh: Manganese Treatment by Sodium Hypochlorite. Bangladesh J. Sci. and Ind. Res 46(3), 2011
38. M.A.Akbor., M.S.Islam. et.al., (2010) Synthesis, Coordination and Structure of Mixed Ligand Copper (II) Complexes of Di- carboxylic as Primary and Heterocyclic bases as Secondary Ligands . Jahangirnager University Journal of Science Vol. 33, No. 1, pp139-146
39. Ali S.-Amiri., M.A.Akbor. et.al.,(2010) Results from the First-Round of Bangladesh Environmental Technology Verification – Support to Arsenic Mitigation (BETV-SAM) Field Test. Bangladesh J. Sci. and Ind. Res.45(4),289-302,2010
40. M.A.Akbor., M.S.Islam. et.al.,(2009) Antimicrobial Studies of Mixed Ligand Transition Metal Complexes of Dibasic Acids with Amine Bases. Jahangirnagar University Journal of Science Vol.32, No. 1, pp. 01-06, 2009

Process:

1. Production of oil from kernel of ripe mango

Ref. 39.373.037.01.00.269.2015/222

dated: 19.01.2016

2. Each three (3) accredited parameters equivalent to one (1) process approved by 207th Board meeting of BCSIR. (Ref. 39.304.012.00.00.008.2010.5713, dated: 04.11.2010).

INARS achieved ISO/IEC 17025: 2005 accreditation from

INTERNATIONAL CONFERENCE AND WORKSHOP ATTENDED:

- ✚ International Workshop on Arsenic Sourcing and Mobilization in Holocene Deltas” held at Jadavpur University, Kolkata, India.
- ✚ I attended a workshop on “Advances in Arsenic Research in the sub-continent Organized by CERM (Centre for Environmental and Resource Management), BUET.
- ✚ Attended seminar on organic pollutants in food, agricultural products and environment
- ✚ Attended workshop on “Proficiency testing provider” organized by Bangladesh accreditation board (BAB)
- ✚ International Conference on Chemical Science And Technology (ICCST-Chem), 24-25 February 2018, KUET