



Shamim Ahmed

Director (In-Charge) & Principal Scientific Officer

Institute of National Analytical Research and Service (INARS), BCSIR, Dhaka-1205, Bangladesh.

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ACADEMIC QUALIFICATION: B.Sc (Hon's), M.S in Chemistry. University of Dhaka.

RESEARCH EXPERIENCE:

I have been doing research on various field of Chemistry more than 14 years. My areas of research preliminary focus on analytical and environmental chemistry especially arsenic mitigation and pollutants (organic and inorganic) by developing technology using low cost adsorbents. I am strongly involved to prepare the Standard Operating Procedure (SOP) and its validation. I am directly involve to analysis and reporting of the Proficiency Testing (PT) sample. I am also working as Senior Manager to supervise, look after and monitor the Quality Management System of INARS covering both Management and Technical aspects.

COMPETENCY ON INSTRUMENTS

Development, Modification and validation of analytical methods and Analysis of different types of samples using **AAS, GC, GC-MS, NMR, HPLC, LC-MS, Elemental Analyzer and Ion chromatograph.**

JOB RESPONSIBILITIES

Research and Development

- Planning and executing the research projects on Analytical & Environmental Chemistry
- Publish scientific articles in peer reviewed journals
- To study and solve the various industrial problems and provide analytical services to various government and private organization, universities
- To train up and develop junior scientists, technicians on operation and maintenance of state of the art analytical equipments.
- To develop analytical methods and validation of methods
- Implementing quality management system and maintaining ISO 17025:2017 accreditation on water quality parameters
- Jointly supervise MS/M.Sc students for their academic degrees

TRAINING ON INSTRUMENT

Title	Conducted by	Organized by	Venue	Duration
Multidimensional GCMS + HPLC with online derivatisation unit	GIBLINK	BCSIR	Barcelona, Spain	03 -14 April 2019
Fellowship on Evaluation of Biomedical Sample analysis using NMR Spectroscopy	VERIFIN	OPCW	Chemistry, University of Helsinki, Finland	01.08.0217 to 28.02.218
Analytical Skill Development Course (GC, GC-MS)	VERIFIN	OPCW	Chemistry, University of Helsinki, Finland	09 - 20 November 2015
Nuclear Magnetic Resonance Spectrometer (NMR)	Bruker, Switzerland	Bruker, Switzerland	Zurich, Switzerland	22-26 September 2014
Regional Course for Analytical Chemists from Laboratories Supporting Customs Services (GC, HPLC, IR)	Central laboratory	OPCW	Warsaw, Poland	7 - 11 April 2014
Training on Total Nitrogen Analyzer	Euro Vector	Euro Vector	Milan, Italy	06-13 July, 2013
Training on GC & GC-MS	Shimadzu	Shimadzu	Singapore	13-20 October, 2012.
Training on CHNS/O elemental analyze	Varian	Varian	Hanau, Germany	12-19 August, 2012
Training on LC-MS-MS and LC-MS	BCSIR	BCSIR	IFST	05-10 December 2010

TRAINING ON LABORATORY QUALITY MANAGEMENT SYSTEM:

Title	Conducted by	Organized by	Venue	Duration
Food safety Management System (FSMS) Auditing skills	BAB-FAO	BAB-FAO	Dhaka	09 – 10 August 2016
Food safety Management System (FSMS), ISO/TS 22003:2013 & ISO/IEC 17021-1:2015	BAB-FAO	BAB-FAO	Dhaka	12 - 14 July 2016
Lead Assessor training course on Testing and Calibration laboratories ISO/IEC 17025:2005	Bangladesh Accreditation Board (BAB)	Bangladesh Accreditation Board (BAB)	Dhaka	23-27 November 2014
Assessor training course on Certification Bodies Certifying Management System, ISO/IEC 17021:2011	Bangladesh Accreditation Board (BAB)	Bangladesh Accreditation Board (BAB)	Dhaka	17-21 November 2013
Assessor training course on Products, Processes & Services, ISO/IEC 17065:2012	Bangladesh Accreditation Board (BAB)	Bangladesh Accreditation Board (BAB)	Dhaka	17-21 November 2013
Laboratory Quality Management System & inter Audit as per ISO 17025:2005	IIQM	IIQM	Jaipur, India	05- 08 January, 2010
laboratory Internal Calibration	J.E.J (Ned) Gravel, Canada	BETV-SAM	BCSIR	31 December 2007-11 January 2008

Measurement Uncertainty for the users of laboratory	J.E.J (Ned) Gravel, Canada	BETV-SAM	BCSIR	5 - 16 November 2007
Investigation of Non-Conformance through Root Cause Analysis	J.E.J (Ned) Gravel, Canada	BETV-SAM	BCSIR	01 -19 October 2007
Care and Feeding of a laboratory system	J.E.J (Ned) Gravel, Canada	BETV-SAM	BCSIR	13 August to 07 September 2007

JOURNAL ARTICLE

Sl. No	Publishing year	Description
JA-1	2020	A. H. M. Shofiul Islam., Shamim Ahmed et.al. Physicochemical and Microbiological Quality of Potable Water Supplied by DWASA in Dhaka City of Bangladesh. <i>American Journal of Biological and Environmental Statistics</i> . 6(1): 1-6.
JA-2	2019	Md. Aminul Ahsan., Md. Abu Bakar Siddique., Shamim Ahmed et.al. Chemical and Physicochemical characterization of effluents from the tanning and textile industries in Bangladesh with multivariate statistical approach. <i>Environ Monit Assess</i> .191:575.
JA-3	2019	Fahad Ahmed., Abu Tareq Mohammad Abdullah., Shamim Ahmed et.al. Estimation and exposure concentration of trihalomethanes (THMs) and its human carcinogenic risk in supplied pipeline water of Dhaka City, Bangladesh. <i>Environmental Science and Pollution Research</i> . 26:16316–16330.
JA-4	2019	Shamim Ahmed. , Akter Tania., Ahsan Md. Aminul., Yasmin Sabina., Jamal AHM Shofiul Islam Molla., Uddin Md. Ripaj and Shajahan Md. Textile dyeing and tannery industries effluent physico-chemicals conditions before discharge to river around Dhaka, Bangladesh. <i>IJSER</i> . Volume 10. Issue 7. 1029-1045
JA-5	2018	M. Mostafa., S. Ahmed and AJ Afloyan (2018). Antioxidant activity of Clematis brachiata Thunb. leaf. <i>Bangladesh J. Sci. and Ind. Res.</i> 53(3), 185-192.
JA-6	2017	M Sarower Jahan., M Azharul Islam., M Mostafizur Rahman., Jannatun Nayeem., Shamim Ahmed and M.A Quaiyyum. Stem and hot water prehydrolysis of bamboo and its effect residual lignin structure and pulping. <i>Cellulose Chem. Technol.</i> 51 (5-6), 455-463.
JA-7	2017	Uddin MN., Majumder AK., Ahmed S. , Saha BK and Motalab M (2017). Development of Method for Rapid Quantification of Glucose, Fructose and Sucrose in Mango Juice by Chemometric Techniques in De-noised FTIR Spectroscopic Data. <i>Int. J of Food Sci Nutr Diet. (IJFS)</i> 6 (1), 338-344.
JA-8	2017	M.N. Uddin., A.K. Majumder., S. Ahmed. , B.K. Saha and B. Mumtaz. Chemometrics assisted method for classification of mango juice by FTIR spectroscopic data. <i>Bangladesh J. Sci. and Ind. Res.</i> 52(2), 73-80.
JA-9	2017	Rexona Khanom., Shamim Ahmed et.al. Synthesis of SnO ₂ Nanopowders for Advanced Ceramics and Electronic Sensor Transducer Devices and Characterization and Band Gap. <i>J. Nanoscience and Nanometrology</i> 3 (1), 12-19.
JA-10	2016	Jinat Shahria Disha., Most. Hosney Ara Begum., Shamim Ahmed et.al. Preparation and Characterization of Xanthan Gum-based Biodegradable Polysaccharide Hydrogels. <i>Research Journal of Material Sciences</i> 4(4), 13-18.
JA-11	2016	Salehd Ahmed., Md. Mostafizur Rahman., Ashikur Rahman Rabbi., Md. Kausar Ahmed., S.M Saiful Islam., Muhammad Younus., Bimal Bhusan Chakraborty., Shamim Ahmed. , and Nasim Sultana. Synthesis, Characterization and liquid crystalline properties of a series hydroxybiphenyl benzoate and biphenyl bis (benzoate). <i>Journal of Molecular liquids</i> 224 (2016), 265-273.
JA-12	2016	Shahin Aziz., Kousik Saha., Nasim Sultana., Husna Parveen Nur., Md. Aminul Ahsan and Shamim Ahmed . Comparative Studies of elemental composition in leaves and flowers of <i>Catharanthus roseus</i> growing in Bangladesh. <i>Asian Pac J Trop Biomed</i> : 6(1), 2016, 50-54.

JA-13	2015	Shahin Aziz., Kousik Saha., Nasim Sultana., Husna Parveen Nur., Mala Khan and Shamim Ahmed . Comparative Studies on the fatty acid composition of petroleum ether extract of leaves and flowers of <i>Catharanthus roseus</i> available in Bangladesh by GC-MS analysis. <i>Int. J. Chem Sci.</i> : 13(2), 2015, 955-962.
JA-14	2015	A. Saha., J. Tasnim., S. Ahmed ., T. Muslim and N. Sultana. Antimicrobial, Cytotoxicity, free radical scavenging activities and compounds isolated from the roots of <i>Hemidesmus Indicus (Linn.)</i> . <i>IJPR</i> , Vol 6 (1):1000-06, 2015.
JA-15	2014	Mirza A.T.M Tanvir Rahman., Shamim Ahmed et. al. Groundwater Characterization and selection of suitable water type for irrigation in the western region of Bangladesh. <i>Appl Water Sci.</i> DOI 10.1007/s 13201-014-0239-x, 2014.
JA-16	2014	Jerin Tasnim., Anamika Saha., Shamim Ahmed ., Nasim Sultana., Tanvir Muslim and Md. Azizur Rahman. Biological Studies of the Bark of <i>Albizia Lebbeck (L.) Benth.</i> <i>IJPSR</i> , Vol. 5 (11):4969-4974, 2014.
JA-17	2014	Shahin Aziz., Kousik Saha., Nasim Sultana., Shamim Ahmed and Abdullah Al Mansur. Phytochemical and Elemental Screening on Leaves and Flowers of <i>Catharanthus Roseus</i> : An important medicinal plant of Bangladesh. <i>Int. J. Chem Sci.</i> : 12(4), 2014, 1328-1336.
JA-18	2014	Urmella Sarker., Md. Aminul Haque., Shamim Ahmed et al. Antibacterial, Antioxidant and Cytotoxic activity of the bark of endophyte of <i>Terminalia Bellirica</i> . <i>Jagannath University of Journal of Sciences</i> . Vol. 03, No. 1, 97-104.
JA-19	2013	Sudam Nandi., Md. Moshfekus Saleh-e-In., Md. Matiur Rahim., Md. Nurul Huda Bhuiyan., Nasim Sultana., Md. Aminul Ahsan., Shamim Ahmed ., Md. Zamilur Rahaman., Sudhangshu Kumar Roy. Quality Composition and Biological Significance of the Bangladeshi and China Ginger (<i>Zingiber officinale rocs.</i>). <i>Journal of Microbiology, Biotechnology and Food Sciences 2 (5)</i> :2283-2290.
JA-20	2013	Shakila Akter., Shamim Ahmed et al. Seasonal Variation of Some Physicochemical Properties of River Water around Dhaka City. <i>Jahangirnagar University Journal of Sciences</i> . Vol. 36, No. 2, pp. 93-104, 2013.
JA-21	2013	A.J.M Tahuran Neger., Shamim Ahmed et al. Studies on the technology of Arsenic Removal from Arsenic Contaminated Ground water. <i>Jagannath University of Journal of Sciences</i> . Vol. 02, No. II, 97-106, 2013.
JA-22	2012	S. Ahmed ., A. Rahman., T. Muslim., M. H. Sohrab., M. A Akbor., Siraj S., N. Sultana and M. A. Al-Mansur. Antimicrobial, Cytotoxicity and Phytochemical activities of <i>Spilanthes acmella</i> . <i>Bangladesh J. Sci. and Ind. Res.</i> 47(4), 437-440.
JA-23	2012	Brazendranath Sarkar., S.M Abu Raihan., Nasim Sultana., Raquibur Rahman., Mohammad Emdadul Islam., Shamim Ahmed ., Shakila Akhter. Cytotoxic, Antibacterial and Free radical scavenging activity studies of the solvent extracts of aerial stems of <i>Equisetum debile roxb.</i> <i>Int. J. Chem Sci</i> 10(1):19-26.
JA-24	2012	Md. Al-Amin., M. Islam., M. Siddique., N. Sulatana., M.M. Haque., S. Ahmed ., S.Akter., and A.M. Chowdhury. Neoandrographolide Isolated from the leaves of <i>Adhatoda vasica</i> . <i>Dhaka Uni. J. Sci.</i> 60(1), 1-3.
JA-25	2011	Amiri A.S., Fowlie P., Kazi A.I., Siraj S., Ahmed S. , Akbor A. Validation of Analysis of Arsenic in Water Samples Using Wagtech Digital Arsenator. <i>Sci Total Environ</i> 409:2662-2667.
JA-26	2011	S. Siraj., A.I Kazi., S. Ahmed ., M.A Akbor and A. Ahsan. Manganese removal status by arsenic removal technologies available in Bangladesh: Manganese removal treatment by sodium hypochlorite. <i>Bangladesh J. Sci. and Ind. Res.</i> 46(3), 291-296.
JA-27	2011	M. Chowdhury., Z Siddique., S.M. Hosain., A.I. Kazi., M. Ahsan., S. Ahmed ., M. Zaman.,(2011). Determination of Essential and Toxic metals in meats, meats products and eggs by Spectrophotometry method. <i>Journal of Bangladesh Chem. Sco.</i> 24(2), 165-172.
JA-28	2011	N. Sulatana., M. M. Rahman., S. Ahmed ., S.Akter., M.M Haque., S. Parveen and S.M.I Moeiz. Antimicrobial Compounds from the Rihzomes of <i>Sensevieria hyacinthoides</i> . <i>Bangladesh J. Sci. and Ind. Res.</i> 46(3), 329-332.

JA-29	2011	M.A Akbor., Ahmed S. , Siraj S., Islam M.S., Akhter N. 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. <i>Bangladesh J. Sci. and Ind. Res.</i> 46(3), 365-368.
JA-30	2011	S. Akter., M. Islam., Sultana N., M. Ahsan., Siraj S., Ahmed S. , Akbor A. Determination of Phosphate in various water samples with Digestion Procedure by UV-Visible Spectrometry. <i>Jahangirnagar Univ. J. Sci.</i> 34 (1) : 85-94.
JA-31	2010	Amiri A.S., Morsheda E., Kazi A.I., Siraj S., Ahmed S. , Akbor M.A. Results from the First-Round of Bangladesh Environmental Technology Verification – Support to Arsenic Mitigation (BETV-SAM) Field Test. <i>Bangladesh J. Sci. and Ind. Res.</i> , 45(4):289-302.
JA-32	2010	M. A Akbor A., N. Sultana., S Ahmed. , S. Siraj., S. Akter and N Akhter. Synthesis, Coordination and Structure of Mixed Ligand Copper (II) Complexes of Di-carboxylic as Primary and Heterocyclic bases as Secondary Ligands. <i>Jahangirnagar Univ. J. Sci.</i> 33 (1) : 139-146.