

Curriculum Vitae

Name : Afsana Parvin
Present Status : Senior Scientific Officer
Mailing Address : Biomedical & Toxicological Research Institute (BTRI), BCSIR, Dhaka, Bangladesh
Sex : Female
Nationality : Bangladeshi



Academic Background

Degree	Year	University	Location	Major Field
B.Sc.(Hons)	2012 (held in 2014)	University of Dhaka, Bangladesh	Dhaka, Bangladesh	Soil, Water and Environment
M.S	2013 (held in 2015)	University of Dhaka, Bangladesh	Dhaka, Bangladesh	Soil, Water and Environment

Job Profile

Scientific Officer : 21 October, 2018 to 4 February, 2024

Senior Scientific Officer : 5 February, 2024 to till today

Field of Specialization

- Environmental chemistry
- Community Multi-scale Air Quality Modeling System (CMAQ)
- Air pollution monitoring and mitigation measure
- Environmental toxicology and associated human health risks
- Remediation technologies for contaminated soil and wastewater

List of publications:

1. Md. Shoffikul Islam, Farzana Rezwana, Md. Abul Kashem, Mohammad Moniruzzaman, **Afsana Parvin**, Suman Das and Hongqing Hu (2024). Impact of a phosphate compound on plant metal uptake when low molecular weight organic acids are present in artificially contaminated soils. *Environmental Advances*. Volume 15, 100468, ISSN 2666-7657, <https://doi.org/10.1016/j.envadv.2023.100468>.
2. Md. Shoffikul Islam, Md. Abul Kashem, Mohammad Moniruzzaman, **Afsana Parvin**, Suman Das and Hongqing Hu (2023). Cadmium, lead, and zinc immobilization in the soil using a phosphate compound with citric acid present. *Environmental Technology*. DOI:10.1080/09593330.2023.2298668
3. **Afsana Parvin**, Md Kamal Hossain, Afroza Parvin, M. Belal Hossain, Md Aftab Ali Shaikh, Mohammad Moniruzzaman, Badhan Saha, Priyanka Dey Suchi, Fahima Islam and Takaomi Arai (2023). Trace metals in transboundary (India–Myanmar–Bangladesh) anadromous fish *Tenualosa ilisha* and its consequences on human health. [Scientific Reports](#). Volume 13, Article number: 19978

4. Fahima Islam, Afroza Parvin, **Afsana Parvin**, Umme Sarmeen Akhtar, Md Aftab Ali Shaikh, Md Nashir Uddin, Mohammad Moniruzzaman, Badhan Saha, Juliya Khanom, Priyanka Dey Suchi, Md Anwar Hossain, and Md Kamal Hossain (2023). Sediment-bound hazardous trace metals(oid) in south-eastern drainage system of Bangladesh: First assessment on human health. *Heliyon*. 9(9):e20040. doi: 10.1016/j.heliyon.2023.e20040.
5. Afroza Parvin, Md Kamal Hossain, Umme Fatema Shahjadee, Sharmin Akter Lisa, Mohammad Nashir Uddin, Md Aftab Ali Shaikh, **Afsana Parvin**, Mohammad Moniruzzaman, Badhan Saha, and Priyanka Dey Suchi (2023). Trace metal exposure and human health consequences through consumption of market-available *Oreochromis niloticus* (L.) in Bangladesh. *Environmental Science and Pollution Research*. 30(15), 45398-45413. DOI: <https://doi.org/10.1007/s11356-023-25414-w>.
6. **Afsana Parvin**, Mohammad Moniruzzaman, Md Kamal Hossain, Badhan Saha, Afroza Parvin, Priyanka Dey Suchi and Sirajul Hoque (2022). Chemical Speciation and Potential Mobility of Heavy Metals in Organic Matter Amended Soil. *Applied and Environmental Soil Science*. Article ID 2028860. <https://doi.org/10.1155/2022/2028860>

List of Developed Processes:

One (01) process has been accepted by the editorial committee of BCSIR authority.

1. “Development of rapid and highly sensitive Iron detection kit in contaminated water before feeding to reverse osmosis membrane” accepted by Bangladesh Council of Scientific and Industrial Research. Date: 30.05.2023, Ref no-39.02.0000.043.37.928.22/351

List of Patent Submitted

1. “Sulphanilic Acid Based on Spot Indicator for Detection of Arsenic in Water” submitted by the office of the Patents and Design and Trademarks, Motijheel, Dhaka. Dated on 08.08.2022.

Training Information

Type (Local/ Foreign)	Title	Institution	Country	Duration
Local	Comprehensive Environmental Sampling Technique	BCSIR Dhaka Laboratories	Bangladesh	22 June, 2021
Local	Principle and Application of UV vis Spectrophotometer	BCSIR Dhaka Laboratories	Bangladesh	23 June, 2021
Local	Operation and Maintenance of Nuclear Magnetic Resonance Spectrometer	INARS, BCSIR	Bangladesh	05-09 September, 2021
Local	Basic principle, application and maintenance of Raman spectroscopy”	BCSIR Dhaka Laboratories	Bangladesh	14 December, 2022
Local	Basic principle, application and maintenance of XRD	BCSIR Dhaka Laboratories	Bangladesh	15 December, 2022
Local	Inductively Coupled Plasma Mass Spectrometry (ICPMS)”	CARF, BCSIR	Bangladesh	12-16 February, 2023
Local	Operation and maintenance of FT-MIR-NIR spectrometer	BCSIR Dhaka Laboratories, BCSIR	Bangladesh	14-18 May, 2023