

Tanzina Akther

Department of Earth and Atmospheric Sciences
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EDUCATION BACKGROUND

- Aug 2020-** PhD student in the Department of Earth and Atmospheric Sciences
Research advisor: Dr. Bernhard Rappenglueck
Dissertation: Meteorological impact of VOCs on boundary layer in Mexico City
- Nov 2016-
Feb 2018** M.S. Inorganic and Analytical Chemistry, University of Dhaka
CGPA: 3.93/4.00 (4th)
Thesis title: Particulate matters (PM₁₀, PM_{2.5} and PM_{1.0}) and gaseous pollutants (NO₂ and TVOC) exposure to indoor environment and the association of fine PM with lung function in Dhaka city, Bangladesh.
- Jan 2012-
May 2016** B.S. Chemistry, University of Dhaka
CGPA: 3.62/4.00 (5th)
Project title: Study of physiochemical properties and analysis of sodium benzoate and yellow 6 in jam samples.

HONORS & AWARDS

- 2020** Graduate tuition fellowship (GTF), University of Houston
- 2019** travel grant to attend training on Aerosol Physics, Measurement and Sampling, 7-24 May 2019, Hytiaala, Finland
- 2018** Outstanding Graduate Scholarship for having excellent result in undergraduate level from Department of Chemistry, University of Dhaka
- 2018** travel grant to attend the 14th iCACGP Quadrennial Symposium/15th IGAC Science Conference and iCACGP/IGAC Early Career Short Course, 21-30 September, 2018, Japan
- 2018** Best oral presentation award from the conference on Weather Forecasting and Advances in Physics (CWFAP), 11-12 May, 2018, KUET, Bangladesh
- 2018** National Science and Technology Fellowship 2017-18 for outstanding thesis work
- 2010** Dhaka board scholarship for Higher Secondary Certificate result, 2010

RESEARCH EXPERIENCES & INTERESTS

- Apr – Jun 2019** Guest Researcher, Leibniz Institute for Tropospheric Research (TROPOS)
- Completed the data analysis for two years of continuous measurement of indoor and outdoor particle number size distribution (PNSD) of fine and ultrafine particles (0.01 to 0.8 μm).
 - Examined particles emissions of different indoor sources and estimated their size-resolved contribution to the indoor concentrations using MATLAB software.
- Jan 2017 – Dec 2017**
- Measurement of black carbon, SO₂, CO, VOCs, NO_x from 19 brick kilns (10 FCK, 6 Zigzag and 3 Hoffman) in different cluster in greater Dhaka region.

Research Interests

- Meteorological impact of pollutants
- Atmospheric measurements and chemical analysis
- Atmospheric chemical compositions and their effects on human health and climate change

PUBLICATIONS

Akther T, Ahmed M, Shohel M, Ferdousi F K, Salam A (2018) Particulate Matters and Gaseous Pollutants in Indoor Environment and Association of Ultra-fine Particulate Matters (PM_{1.0}) with Lung Function, Environmental Science and Pollution Research, 26(6):5475-5484, doi: 10.1007/s11356-018-4043-2.

Ahmed M, Hossain A, **Akther T**, Shohel M, Salam A (2018) Chemical Composition and Source Identification of Fog Water at an Indo-Gangetic Plain (IGP) Outflow Location (Coastal Bhola Island), Bangladesh. Journal of Environmental Pollution and Management 1: 104.

Ahmed M, Das M, Afser T, Rokonujjaman M, **Akther T**, Salam A (2018) Emission of Carbonaceous Species from Biomass Burning at the Traditional rural Cooking Stove in Bangladesh. Open Journal of Air Pollution, 07(04):287-297, doi: 10.4236/ojap.2018.74014.

Mou S A, **Akther T**, Shoeb M, Sultan A, Nahar N (2017) Studies of Preservatives and Coloring Agent in Jam and Jelly. Dhaka University Journal of Science, 65(1) 83-84.

SKILLS & QUALIFICATIONS

Instrument

Inductively Coupled Plasma-Optical Emission Spectrometry (ICP-OES), Inductively Coupled Plasma-Mass Spectrometry (ICP-MS), AERONET, Atomic Absorption Spectrophotometer (AAS), UV-Visible Spectrophotometer, CO monitor, PM Samplers (TSP, PM₁₀, PM_{2.5}), Aethalometer.

KEY WORKSHOPS & TRAINING

- *Aerosol Physics, Measurement and Sampling*, 17-24 May, 2019 Hytiaala, Finland.
- *35th Bangladesh Chemical Congress*, 7-9 December, University of Dhaka (**poster presentation**)
- *14th iCACGP Quadrennial Symposium/15th IGAC Science Conference and Early Career Short Course*, 25-30 September, 2018, Takamatsu, Kagawa, Japan (**poster presentation**)
- *Fundamental of Air Pollution and Source Apportionment of Air Pollutants*, 6-7 July, 2018, Department of Chemistry, University of Dhaka, Bangladesh
- *Conference on Weather Forecasting & Advances in Physics*, 11-12 May, 2018, Department of Physics, KUET, Bangladesh (**oral presentation**)

EXTRACURRICULAR INTERESTS

Traveling

Gardening

Badminton