NAME: Dr. Ashmeet Kaur Alang

CURRENT POSITION:

Title: Senior Research Fellow
Institution: National Physical Laboratory (NPL), Delhi
Status: Completed Ph.D. [May, 2024]

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EDUCATION

Senior Research Fellow (Funded by UGC) **Aug 2019 – Aug 2024**
CSIR- National Physical University
Research title: "Study of brown carbon and secondary aerosols in urban atmosphere"
Supervisor: Dr. Shankar G. Aggarwal

Qualified for University Grants Commission **JRF & Assistant Professor July, 2018**

M.Sc. Environment Management **2017-2019**
Guru Gobind Singh Indraprastha University, Delhi

B.Sc. Life Sciences **2014- 2017**
Delhi University- S.G.T.B. Khalsa college

PROFESSIONAL TRAINING

S. No.	Organization	Period		Details of Training/ Project undertaken
		From	To	
1	Indian Institute of Technology (IIT), Delhi	January 2019	June 2019	Dissertation training under the supervision of Dr. Sagnik Dey. Title of work- "Tracking SO_2 pollution over Delhi, India using GIS"

2	CSIR- National Physical Laboratory, Delhi	June 2018	July 2018	Worked on $PM_{2.5}$ measurement by Gravimetric Method using high volume air sampler
3	The Energy and Resources Institute (TERI), Delhi	November 2017	January 2018	Training program on "Climate and Clean Coalition work plan preparation for East Delhi using SWEET (Solid Waste Emission Estimation Tool) application"

SKILL SET

Expertise in measurement and analytical techniques related to air quality monitoring. Following are my experimental/analytical skills:

- UV-Visible spectrophotometer
- Solid-phase extraction method (SPE) (HULIS-C extraction)
- Hygroscopicity Tandem Differential Mobility Analyzer
- TOC analyzer (Shimadzu TOC5000A)
- GC (HP 6890 GC) - FID
- Metrohm-761 ion chromatograph (IC)
- Carbon analyzer (Sunset lab. Inc., Model 4L)
- Proficient in Igor Pro and Origin softwares for producing high quality graphical and scientific figures
- In-depth knowledge of Arc-GIS and QGIS for mapping images
- Excellent knowledge of MS Office Suite.
- Excellent communication skills in in English, Punjabi, and Hindi.

Results emanating from the above characterizations have been published as listed below.

RESEARCH PUBLICATIONS IN SCOPUS-INDEXED JOURNALS

- **Alang, A**. K., & Aggarwal, S. G. (2022). Five-year Ground-based Observation Trend of $PM_{2.5}$ and PM_{10}, and Comparison with MERRA-2 Data over India. Asian Journal of Atmospheric Environment, 16(3), 12-33.
- **Alang, A. K**., Aggarwal, S. G., Singh, K., Soni, D., & Hegde, P. (2023). Light-absorbing properties of polar-and non-polar brown carbon fractions of aerosols in Delhi. *Atmospheric Research*, *296*, 107073.

- **Alang, A. K**., Aggarwal, S. G., Singh, K., Soni, D., & Kawamura, K. (2023). Water-soluble dicarboxylic acids, oxoacids and α-dicarbonyls in the tropical aerosols in coastal megacity Mumbai: molecular characteristics and formation processes. Journal of Atmospheric Chemistry, 80(2), 137-155.
- **Alang, A.K.**, Aggarwal, S.G. (2024). Atmospheric brown carbon: sources, optical properties, and chromophore composition (submitted for publication). Aerosol and Air Quality Research (AAQR). **Manuscript ID: AAQR-24-02-OA-0035.R1**
- **Alang**, A. K., Aggarwal, S. G., Singh, K., Johri, P., Agarwal, R., & Kawamura, K. (2024). Hygroscopic Properties of Water-Soluble Counterpart of Ultrafine Particles from Agriculture Crop-Residue Burning in Patiala, Northwestern India. *Atmosphere*, *15*(7), 835.
- **Alang, A.K.**, Aggarwal, S.G., Johri, P., Hegde, P (2024). Characterization, sources, and formation processes of dicarboxylic acids, oxoacids and dicarbonyls in $PM_{2.5}$ aerosols in Delhi (submitted for publication) Manuscript ID: **ATMENV-D-24-01001**.

My References:

Dr. Shankar G. Aggarwal	**Dr. Prabha Johri**	**Dr. Prashant Hegde**
Senior Principal Scientist	Principal Scientist	Scientist SF
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