

CURRICULUM - VITAE

Dr. ATAR SINGH PIPAL

Postdoctoral Research Fellow
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Education:

Doctor of Philosophy (Ph.D)

Subject: Chemistry (Atmospheric Chemistry)

University: Savitribai Phule Pune University (Formerly University of Pune), India

Year: 2016

Topic: A study on chemical constituents and morphological properties of coarse and fine particulate matter in Pune

Master of Philosophy (M.Phil)

University: Dr. B.R. Ambedkar University, Agra

Subject: Chemistry

Year: 2009 (first division)

Topic: Characterization of water soluble cations in particulate matter (PM10) at urban site in Agra

Master of Science (M.Sc.)

University: Dr. B.R. Ambedkar University, Agra

Subject: Chemistry

Year: 2008 (first division)

Bachelor of Science (B.Sc.)

University: Dr. B.R. Ambedkar University, Agra Subject: Zoology, Botany, Chemistry

Year: 2006 (first division)

Research/Teaching Experience:

- Postdoctoral Fellow, Center for Environmental Sustainability and Human Health, Ming Chi University of Technology (2021/2 till now).
- Postdoctoral Fellow, Department of Chemistry, Dr. B R Ambedkar University, Agra, India (2017/9-2021/2).
- Postdoctoral Fellow, Space and Atmospheric Science Division, Physical Research Laboratory, Ahmedabad, India (2016/7-2017/9).
- Teaching experience: Taught Postgraduate (M.Sc.) Chemistry classes (Environmental and Analytical chemistry).

- Working for clean air action plan initiated by UNEP and PAQS under NCAP: Air quality monitoring using Low-Cost sensor, characterization and source apportionment.

Research Interests:

Area of Research: Atmospheric chemistry, aerosols, and climate change

Specialization: Measurement, monitoring, characterization and source apportionment of Air Pollution studies

Research interest: Atmospheric particles in ambient air, real-time aerosol measurement, size distribution, chemical and morphological properties and source apportionment along with effects on regional climate and human health.

HONORS/AWARDS

- International Young Scientist Award (VISA 2020) by VDGGOOD Technology, Visakhapatnam, India.
- CSIR Foreign Travel Grant for 37th AAAR Annual Conference, USA (14 October -18 October 2019).
- Travel award for participation in 18th International Conference of the Pacific Basin Consortium, Kyoto, Japan (16 -19 September 2019).
- International Travel Support (ITS), SERB, DST, New Delhi for International Aerosol Conference 2018 (2-7 September 2018).
- Travel award for participation in International research activity on IEHIA, Air Pollution and Climate Change in Mediterranean Areas held at ICTP, Trieste, Italy (April 23-27, 2018).

Membership /recognition:

- Research Advisor in Asia-Pacific Science Center Pvt. Ltd, Singapore (2020-2021).
- Member of American Association for Aerosol Research (AAAR), Sunrise Valley Drive Suite 350 Reston, VA 20191 703-437-4377.
- Member of American Geophysical Union, 2000 Florida Ave. NW, Washington, DC, United States.
- Member in editorial team of Journal of Environmental Chemistry and Ecotoxicology, publishing from Nairobi 73023 Victoria Island, Lagos.
- Member of the Science Advisory Board, Wilson Blvd #250 Arlington, VA 22201.
- Life Member of Indian Aerosol Science and Technology Association (IASTA).
- Potential reviewer of various Journals coming in Elsevier, Springer, Taylor, and Francis.

Scientific Instruments handling experience: MARGA (Monitor for Aerosol and Gases), Cascade impactor, Aerosol Particle Sizer (APS), Low-Cost Sensors, Aethalometer, Sun Photometer, Nephelometer, Grimm Aerosol spectrometer, Fine Particulate Sampler (APM-550), HTDMA, SP2, ACSM, Wind Monitor (WM251), Young environment System (YES-206 & 205), Organic and elemental carbon analyzer, Ion chromatography, ICP-OES and ICP-MS, AAS, SEM-EDX.

Scopus details

Published papers/ book chapters: 20

H-index: 12 (Scopus) and 13 (Google)

Citation: 679 (Scopus)

Google citation: 831

Total Impact Factor: 68.159

Other skills:

Computer: Working knowledge Proficient at Access, Excel, Word, Power Point, Internet & statistical software such as SPSS, origin R and Matla. I also familiar with online data retrieve model like HYSPLIT, MODIS, IMPROVE etc.

Presentation: Developed ability to produce scientific reports, article, projects and presentations for reputed Journals, conferences, and government funding agencies.

Organizational: Effective at time management and prioritizing tasks to achieve deadlines and have also familiar to organize and conduct seminar, conferences, and competitive exams.
Interpersonal/Communication: Strong team working, leadership and communication skills.

PUBLICATIONS

Peer Reviewed Articles

1. **Atar Singh Pipal**, Himanshi Rohra, Rahul Tiwari and Ajay Taneja. 2021. Particle size distribution, morphometric study and mixing structure of accumulation and ultrafine aerosols emitted from indoor activities in different socioeconomic micro-environment. *Atmospheric Pollution Research*. 12 (4): 101-111 (IF: 3.527).
2. **Atar Singh Pipal**, Kalpana Rajouriya and Ajay Taneja, 2021. Human associated potential risk of metals bound fine particulate matter. *Air Pollution and Its Complications*, Springer Nature, ISBN 978-3-030-70509-1 (book chapter).
3. Himanshi Rohra, **Atar S Pipal**, Rahul Tiwari, Pwan Vtas, Jamson Masih, Puja Khare and Ajay Taneja (2020). Particle size dynamics and risk implication of atmospheric aerosols in South-Asian subcontinent. *Chemosphere*, 249:126140 (IF: 5.778).
4. **Atar Singh Pipal**, Sachchidanand Singh and P. Gursumeeran Satsangi (2019). Study on bulk to single particle analysis of atmospheric aerosols at urban region. *Urban Climate*, 27: 242-258 (IF: 3.834).
5. **Atar Singh Pipal**, Suresh Tiwari and P. Gursumeeran Satsangi (2016). Seasonal chemical characteristics of atmospheric aerosol particles and its effects on light extinction over Pune, India. *Aerosol and Air Quality Research*, 16: 1805-1819 (IF: 2.735).
6. P. G. Satsangi, **A. S. Pipal**, K.B. Budhavant, P.S.P. Rao and A. Taneja (2016). Study of chemical species associated with fine particles and their secondary particle formation at semi-arid region of India. *Atmospheric Pollution Research*, 7, 1110-1118 (IF: 3.527).
7. Sneha Gautam, Niranjana Prasad, Aditya Kumar Patra, Basanta Kumar Prusty, Pradyumn Singh, **Atar Singh Pipal**, Renuka Saini. (2016). Characterization of PM_{2.5} Generated from Opencast Coal Mining Operations: A Case Study of SonapurBazari Opencast Project of India. *Environmental Technology & Innovation*. 6, 1-10 (IF: 3.335).
8. **Atar Singh Pipal** and P. Gursumeeran Satsangi (2015). Study of carbonaceous species, morphology, and sources of fine (PM_{2.5}) and coarse (PM₁₀) particles along with their climatic nature in India. *Atmospheric Research*. 154:103-115(IF: 4.676).
9. S. Tiwari, Philip K. Hopke, **A.S. Pipal**, A.K. Srivastava, D.S. Bisht, Shani Tiwari, A.K. Singh, V.K. Soni, S.D. Attri. (2015) Intra-urban variability of particulate matter (PM_{2.5} and PM₁₀) and its relationship with optical properties of aerosols over Delhi, India. *Atmospheric Research*, 166: 223-232 (IF: 4.676).
10. D.S. Bisht, U.C. Dumka, D.G. Kaskaoutis, **A.S. Pipal**, A.K. Srivastava, V. Soni, S.D. Attri, M. Sateesh and S. Tiwari (2015). Carbonaceous aerosols and pollutants over Delhi

- urban environment: temporal evolution, source apportionment and radiative forcing. *Science of the Total Environment*, 521-522: 431-445 (IF: 6.551).
11. S. Tiwari, **A.S. Pipal**, Philip K. Hopke, D. S. Bisht, A.K. Srivastava, Shani Tiwari, P.N. Saxena, A.H Khan and S. Pervez (2015). Study of the carbonaceous aerosol and morphological analysis of fine particles along with their mixing state in Delhi, India: A case study. *Environmental Science and Pollution Research*, 22: 10744-10757 (IF: 3.056).
 12. D. S. Bish, A. K. Srivastava, **A. S. Pipal**, M. K. Srivastava, A. K. Pandey S. Tiwari, G. Pandithurai (2015). Aerosol characteristics at a rural station in southern peninsular India during CAIPEEX-IGOC: Physical and chemical properties. *Environmental Science and Pollution Research*, 22: 5293-5304. (IF: 3.056).
 13. S. Tiwari, **A.S. Pipal**, D.S. Bish. A.K. Srivastava and G. Pandithurai (2015). Determination of wood burning and fossil fuel contribution of black carbon at Delhi, India using aerosol light absorption technique. *Environmental Science and Pollution Research*, 22: 2846-2855 (IF: 3.056).
 14. **Atar Singh Pipal**, P.G Satsangi, Suresh Tiwari and Ajay Taneja (2014). Study of mineral aerosols in fine (PM_{2.5}) and coarse (PM₁₀) atmospheric particles over a World Heritage site at Agra, India. *International Journal of Environmental Technology and Management*, 17 (6): 538- 553, 2014.
 15. **Atar Singh Pipal**, Rohi Jan, P.G. Satsangi, Suresh Tiwari and Ajay Taneja (2014). Study of surface morphology, elemental composition, and origin of atmospheric aerosols (PM_{2.5} and PM₁₀) over Agra, India. *Aerosol and Air Quality Research*.14:1685-1700 (IF: 2.735).
 16. P.G. Satsangi, Suman Yadav, **Atar Singh Pipal** and N.M. Kumbhar, 2014. Characteristics of trace metals in fine (PM_{2.5}) and inhalable (PM₁₀) particles and its health risk assessment along with in-silico studies in indoor environment of India. *Atmospheric Environment*. 92: 384-393 (IF: 4.039).
 17. S. Tiwari, D. S. Bisht, A.K. Srivastava, **A.S. Pipal**, A.Taneja, M.K. Srivastava and S.D. Attri (2014). Variability in atmospheric particulates (PM_{2.5} and PM₁₀) and meteorological effects on its mass concentrations over Delhi, India. *Atmospheric Research*. 145-146: 45-56 (IF: 4.676).
 18. **A.S. Pipal**, S. Tiwari, P.G. Satsangi, A. Taneja, D.S. Bish, A.K. Srivastava, andM. K. Srivastava (2014). Sources and characteristics of carbonaceous aerosols at Agra “World heritage site” and Delhi “capital city of India. *Environmental Science and Pollution Research*. 21: 8678-8691 (IF: 3.056).
 19. **Atar Singh Pipal**, Rohi Jan, Deewan Singh Bish, Atul Kumar Srivastava, Suresh Tiwari, Ajay Taneja (2014). Day and night variability of atmospheric organic and elemental carbon during winter of 2011-12 in Agra, India. *Sustainable Environmental Research*, 24 (2): 107-116 (IF: 1.807).
 20. **Atar Singh Pipal**, Aditi Kulshrestha, and Ajay Taneja (2011). Characterization and morphological analysis of airborne PM_{2.5} and PM₁₀ in Agra located in North Central India. *Atmospheric Environment*. 45(19): 3621-3630. (IF: 4.039).
 21. **A. S. Pipal**, Rohi Jan, and Ajay Taneja (2010). Concentration of Particulate and Gaseous pollutants near a major National Highway in the North Central Region of India. *Indian Journal of Environmental Protection*, 30 (12): 1011-1017. (Under Scopus Citation).

Book and chapters in book

1. **Atar Singh Pipal**, Stuti Dubey and Ajay Taneja. Health Risk Assessment and Management of Air Pollutants”. *Air Pollution and Environmental Health, Environmental Chemistry for Sustainable World*. 2020. Springer Nature Publishers. 1st ed. 2020, ISBN: 978-981-15-3480-5.

2. **A.S. Pipal**, H. Rohra, A. Taneja and P. G. Satsangi. 2016. Particulate matter and its consequences in ambient air: current scenario. *Advances in Environmental Research*. NOVA SCIENCE PUBLISHERS, INC. NY 11788-3619, USA, 2158-5717 and 978-1-63485 (e-book).
3. **Atar Singh Pipal** and Ajay Taneja. Study of atmospheric particles over a World Heritage site at Agra. LAP LAMBERT Academic, Saarbrücken, AV AkademikerverlagGmbH & Co. KG. ISBN 978-3-659-45503-2.
4. **A.S. Pipal**, A. Taneja and G. Jaiswar (2014). Risk assessment and Toxic effects of exposure to nanoparticles associated with natural & anthropogenic sources. M. Gupta Bhowon et al. (eds.), *Chemistry: The Key to our Sustainable Future*, DOI 10.1007/978-94-007-7389-9_6, © Springer Science+Business Media Dordrecht 2014.
5. **A.S. Pipal**, A. Kumar, R. Jan and A. Taneja (2011). Role of plants in removing indoor air pollutants, *Chemistry of Phytopotentials: Health, Energy and Environmental perspectives*, 68, Springer-Verlag Berlin Heidelberg, DOI: 10.1007/978-3-642-23394-4_68, pp 323-325, 2011.

Conference presentation

1. Atar Singh Pipal and Ajay Taneja. Day and Night Variability of Carbonaceous Aerosols over Urban Region of Northern India. AAAR Annual Conference 2019, Portland, Oregon, USA 14-19 October 2019.
2. Atar Singh Pipal, P.G. Satsangi and Ajay Taneja Chemical constituent of atmospheric particles and its light extinction coefficients over urban region in 18th International Conference of the Pacific Basin Consortium for Environment and Health, "Assessing and Mitigating Environmental Exposures in Early Life", Kyoto, Japan 15-19 September 2019.
3. Atar Singh Pipal, Suresh Tiwari and Ajay Taneja Characteristics of Carbonaceous Aerosols at Two Major Cities Located in the Indo-Gangetic Basin International Aerosol Conference 2018, Saint Louis, Missouri, USA during 2-7 September, 2018.
4. Atar Singh Pipal and Ajay Taneja Atmospheric aerosols in outdoor and indoor settings: An Indian scenario in International research activity on Integrated Environmental Health Impact Assessment (IEHIA) on Air Pollution and Climate Change in Mediterranean Areas which was held at ICTP, Trieste, Italy (April 23-27, 2018).
5. Atar Singh Pipal and P.G. Satsangi. Sources and characteristics of carbonaceous aerosols and their climatic nature in International conference of the Public Health Foundation of India and Pacific Basin Consortium, 2017, New Delhi, India (November 14-16, 2017).
6. Atar Singh Pipal, T.A Rajesh and S. Ramachandran. Synoptic nature of fine and coarse aerosols over western India in international conference (INTROMET-2017), SAC, Ahmedabad (November 7 -10, 2017).
7. Atar Singh Pipal and P.G. Satsangi 2015. Characteristics and sources of carbonaceous aerosols along with their climatic nature at Pune, India in ICC conference 2015, Bardoli, Surat (26-28 December 2015).
8. Atar Singh Pipal and P.G. Satsangi, 2014. Characteristics of carbonaceous species in fine particulate matter (PM_{2.5}) and its morphology in Proceeding of Indian Aerosol Science and Technology Association (IASTA), BHU, Varanasi, India (11-13 Nov.2014).
9. Atar Singh Pipal and P.G. Satsangi in Changing in chemistry changing in climate: Monsoon (C4), at IITM, Pune, 1- 3 May 2013.

10. Atar Singh Pipal and Ajay Taneja, Morphological characterization of PM_{2.5} and PM₁₀ in Agra, India in Hindi conference on Radio & Atmospheric Science -2012 at CSIR –NPL New Delhi (7-8 November 2012).
11. Atar Singh Pipal, Rohi Jan and Ajay Taneja. Role of plants in removing indoor air pollutants” in International conference on Chemistry of Phytopotentials: A Health, Energy and Environmental perspective which was held on 4-6 November 2011 at Dayalbagh Educational Institute Agra, India.
12. Atar Singh Pipal and Ajay Taneja. Use of SEM-EDS technique in characterizing in aerosol in National Conference on Recent Advances in Physics and Technologies, 2011, Organized by Department of Physics, Agra College Agra.
13. Atar Singh Pipal and Ajay Taneja. Characterization of Water-Soluble Cations in Particulate Matter (PM₁₀) at Urban Site in Agra in 28th Annual Conference of Indian Council of Chemist 2009, Organized by Department of Chemistry, Hemchandracharya North Gujarat University, Patan (Gujarat).

Participation in conferences/workshops/ training program

1. Participated in Workshop on Instrumental Techniques in Chemical Analysis (WITCA-2019) November 26-29, 2019 organized by Department of Chemistry, Dayalbagh Educational Institute, Dayalbagh, Agra.
2. Participated in International Workshop on Chemistry Climate Interaction (IWCCI) held at IITM, Pune was held at IITM (12-15 March 2019).
3. Participated in International school activity on Integrated Environmental Health Impact Assessment (IEHIA) of Air Pollution and Climate Change in Mediterranean Areas, which was held at ICTP, Trieste, Italy (23-27 April 2018).
4. Participated in Special Lecture Series on Cloud Convection and Parameterization given by Prof. Christian Jakob, Australia at IITM, Pune (11-14 December 2017).
5. Participation in international conference (INTROMET-2017), which was held at SAC, Ahmedabad (Nov. 7 -10, 2017).
6. Participated in Indo-US workshop on Development and Applications of Downscaling Climate Projections at IITM, Pune (March 7 - 9, 2017).
7. Participated in Conference of Indian Aerosol Science and Technology Association (IASTA) on Aerosols and Climate Change: Insights and Challenges which was held at PRL, Ahmedabad (6-8 Dec.2016).
8. Participated in National symposium on Environmental Contamination and Public Health, organized by Zakir Husain Delhi College, University of Delhi on August 24, 2015.
9. Participated in Hindi conference on Climate change at IITM Pune 30-31July, 2014.
10. Participated in National Workshop on Monsoon -2013 in IITM Pune, organized by Indian Meteorological Society, Pune Chapter, 26th March 2014.
11. Participated Vth Science conclave is congregation of novel laureates, eminent scientist and academicians conducted by Indian Institute of Information Technology, Allahabad (8-14 December 2012).
12. Participated in Lecture workshop on Conservation and use of Natural Resources for Sustainable Development under Science academies education program in DEI, Dayalbagh, Agra (17-18 November 2012).

13. SERC (DST) school training program on seismo-electromagnetism from 6 February 2012 to 26 February 2012 organized by Department of Physics, Faculty of Engineering and Technology, RBS College Bichpuri, Agra.
14. Workshop on SCINTIFIC PAPER WRITING from 22 -24 October 2011 organized by National Academy of Sciences, India at NASI Allahabad.
15. Workshop on Virtual Teaching and Learning Labs on 22nd January 2011 organized by virtual labs Dayalbagh Educational Institute at Dayalbagh Educational Institute, Agra.
16. National seminar on Research Methodology and Advancement in Chemical Sciences held on 25th October 2010 in the organized by Department of Chemistry, Institute of Basic Sciences, Dr. B. R. Ambedkar University, Agra (October 2010).
17. International Workshop on Nanomaterial held on 23rd December 2009 organized by Department of Chemistry, Institute of Basic Sciences, Dr. B.R. Ambedkar University, Agra (December 2009).
18. Workshop attended on Health effects of particulate matter held on 26-27 November at Thapar University Patiala Panjab, organized by Department of Chemistry, Thapar University, Patiala Punjab.
19. National Workshop/Training “Recent Trends in Forensic Science, Forensic Medicine and Toxicology” organized by Department of Forensic Science, Institute of Basic Sciences, Dr. B R Ambedkar University, Agra, (March 2009).