# <u>Bio-Data</u>



## SHAMSH PERVEZ PROFESSOR OF CHEMISTRY

## **U.S. FULBRIGHT RESEARCH FELLOW-2010**

## **HIGHLIGHTS OF BIO-DATA**

- > Entered in Academic services: Public Service Commission, MP (1994) & Direct Recruitment in University (2003)
- Elected President, Teacher's Association, Pt Ravishankar Shukla University, Raipur, C.G., India (2018- onwards)
- Member, State Task Force on Environmental Management, Planning Commission, Chhattisgarh
- Chairman/Coordinator, State level working group on 1) Air Quality Improvement and Management and 2) Safe Disposal and Value-added Products of Fly ash and Char/Dolo char
- **Expert Member,** REDD+ State Cell, Govt of Chhattisgarh (June 2021 onwards)
- > Chairman, Board of Studies in Chemistry (July 2019-June 2022)
- Head, School of Studies in Chemistry (October 2020 onwards)
- Member, College governing bodies; College inspection committees, University Proctorial Bd, Grievance Cell
- > In charge Professor, Student Union, University Teaching Department
- **Evaluator/Referee, Research Project Funding, USIEF, USA: 21; SERB, India: 45; CCOST, CG: 08**
- Academic & Research experience (years): Teaching –27 (Professor-13 yrs), Research-28 & Ph.D./M.Phil. Supervision - 18
- > Administrative Experience: 06 Yrs (Administrative Officer, University Institute of Technology & Head, SoS Chemistry)
- > Total Research Publication: 108; Highest impact factor journal Publication (Main author) : 10
- Fulbright Environmental Leadership & Research Fellow 2010; at Desert Research Institute, Reno, NV, USA
- > Highest outlay of personal research project (SERB/DST): 57.00 Lacs; No. of Projects: 13
- > Indian Collaborative Investigator: Three Research Project of NASA, USA, with total outlay: 3 million US Dollars
- > Organized the visits of eminent professors/scientists: Three Americans & One KFUPM Professors in the University.
- International Research collaborations (05): Research Institutes of USA, KFUPM (KSA), China, Russia & India.
- **Convener & organizing secretary:** Five International conferences/symposium.
- Foreign Visits: Ten Foreign Visits with full sponsorship from organizers of USA, China & Asian Development Bank Manila. Air and Waste Management Association, USA; KFUPM, Dhahran, KSA

## : Affiliation:

Head, School of Studies in Chemistry Pt. Ravishankar Shukla University, Raipur, CG, 492010 Email: <u>shamshpervez@gmail.com</u> Cell: +91-9425242455, 9753413202 (WhatsApp) <sup>2</sup> Desert Research Institute, Reno, NV, USA

#### SHAMSH PERVEZ

Professor & US Fulbright Research Fellow School of Studies in Chemistry Pt Ravishankar Shukla University, Raipur, CG, 492010 Mobile: 09425242455; 09753413202 Email: shamshpervez@gmail.com



#### **Education**

Ph.D.	Chemical Sciences	1992
M.Sc.	Physical Chemistry	1989
B.Sc.	Physics, Chemistry, Mathematics	1987

- Pt Ravishankar Shukla University, Raipur
- Pt Ravishankar Shukla University, Raipur
- Pt Ravishankar Shukla University, Raipur

#### **Research activities**

Publications	103	h- Index	27	i-10 index	55	Citat	ion index	1680	Conference presentations	50	Projects	12
Journal reviewer 20		20	Newspaper interviews			>1000	0 Member of Professional bodies			odies	04	
PhD superv	vised	09	l	MPhil supervised 09 Professional E		d <b>09</b>		Professional Environ. Consultancy		ltancy	05	
SERB-DST Project Evaluation/Referee		45	USIEF, USA (Project evaluation) 21 CCOST, CG, Project Evaluation		ation	08						
CG Planni Commission I Evaluatio	ing Project on	10										

### **Experience**

Dr. Shamsh Pervez, professor and head of the School of Studies in Chemistry, Pt Ravishankar Shukla University, Raipur, India, has over 30 years of academic and research experience in the fields of physical chemistry, atmospheric chemistry, air quality monitoring and assessment, receptor modeling source apportionment, and environmental health. Dr. Pervez was awarded the U.S. Fulbright fellowship in the 2010 Environmental Leadership program and worked at Desert Research Institute, Reno, NV, USA. As professor of chemistry, Dr. Pervez teaches post-graduate and M.Phil students, enrolled for advanced degrees in chemical and environmental sciences. As the leader of the Air Quality Research Laboratory, he leads more than 100 research studies to: 1) characterize suspended atmospheric particles for source attribution and their effects on health; 2) evaluate the optical, molecular and thermal properties of atmospheric black and brown carbon; 3) determine the toxic elements in human target organ, blood, urine, and bronchial washouts among pollution affected communities; 4) develop new methods for removal of toxic metals from contaminated water; and 5) measure emissions from mineral based coal-fired industries to evaluate contaminated air, water streams, and soils.

Examples of six major research projects include: 1) Source Apportionment of Classified Atmospheric Dust Fractions using Selected Receptor Models; 2) Spatial Variability and Impact Study of Anthropogenic Mercury in Selected Environments; 3) Evaluation of Biomass Burning Emissions to Address Sources of Atmospheric Brown Carbon and Associated Impacts on Regional Climate; 4) A Novel Hyphenated Single Drop Micro Extraction - Diffuse and Attenuated Total Reflectance Fourier Transform Infrared Spectroscopy Technique for Analysis of Multiatomic

Metaloxy Anions; 5) Study of Physico-chemical Characterization of Respirable Dusts in Selected Environments; and 6) Environmental Pathway and Human Response Studies on the Impact of Water Borne Fluoride Amongst Inhabitants of Korba Chhattisgarh with total outlay ~ US\$ 210,000 were carried out under the leadership of Dr. Pervez.

Dr. Pervez was the principal author or coauthor of ~103 peer-reviewed journal articles which have >1300 citations; served as reviewer for over 20 peer-reviewed journals; and delivered over 50 presentations at technical conferences and training sessions.

#### My Strength:

- Educator/Innovator:30 years' experience of developing Innovation in teaching-learning program, formulation, and upgradation of syllabus
- International Scholar Fulbright Fellow: worked in DRI, Nevada, Washington University framework, connecting research and academics with industry to promote entrepreneurship
- Researcher/collaborator/Investigator: PI in research projects of NASA, SERB-DST etc., MoUs / collaborations with institutes of international repute.
- Administrator: Establishments of Institute of Technology, Research Consultancy Services, Industry-Research-Academia linking programs.
- Planner: Chairman, BoS, Chairing working groups and member, Taskforce of State Planning Commission.
- Leader: President, Teachers' Association, Staff Council, Air Quality Lab
- Counsellor: Professor-incharge, Student Union
- Social Worker: For community & various societies

#### **Professional Experience**

2018 to Present	<b>Elected president,</b> Pt Ravishankar Shukla University Teacher's						
	Association, Kalpur, Chnauisgarn, India.						
	Member, State Task Force on Environmental Management in the state of						
	Chhattisgarh, 2021						
	Chairman/Coordinator, state level working group, under the Task Force,						
	on 1) Air quality improvement and management in the state of Chhattisgarh						
	& 2) Safe disposal and value-added products of fly ash and char/dolo-char						
	in the state of Chhattisgarh, 2021						
	Expert Member, REDD Plus State Cell (Reducing Emission from						
	Deforestation and Forest Degradation), Government of Chhattisgarh						
	Subject Expert Member, Research Project Evaluation Committee, SERB-						
	DST, New Delhi, United State Indian Education Foundation, Department						
	of State, U.S. Government, Chhattisgarh Council of Science and						
	Technology, Raipur, Planning Commission, CG Government, Raipur						
2009 to Present	<b>Professor, School of studies in chemistry,</b> Pt Ravishankar Shukla						
2009 00 1105000	University, Raipur, Chhattisgarh, India.						
	1 Teaching physical & Environmental chemistry in MSc and M						
	Philosophy Level (Topics: Quantum chemistry Spectroscopy						
	Mathematical Chemistry, Computers in Chemistry, Air pollution						
	Mathematical Chemistry, Computers in Chemistry, Air pollution						
	Monitoring & Assessment; Air Quality Modeling)						

	<ol> <li>Formulation of syllabus of M.Sc. and M. Philosophy in Chemistry &amp; Environmental Science levels</li> <li>Research supervision in the field of: 1) Source apportionment of atmospheric pollutants using air quality models (UNMIX 6.0, PMF 3.0 &amp; EV-CMB 8.2), 2) Environmental Pathways of Mercury, 3) Development of emission factors and emission budget of atmospheric carbonaceous matter; 4) Wastewater Treatment using novel adsorbents</li> </ol>
Jan 2011-May 2011	US Fulbright Research Fellowship in Environmental Leadership
	<ol> <li>Center: Desert Research Institute, Reno, NV, USA</li> <li>Training on air quality receptor models from US Environmental Protection Agency (EV-CMB 8.2 and PMF 3.0). These are regulatory models in United States</li> </ol>
	3. Training on Arc-GIS for geographical mapping of air pollution zones in an urban area
	<ol> <li>Training &amp; hands on experience on advanced sophisticated analytical instruments: OC/EC analyzer, TD-GC-MS, ICP-MS, ED-XRF, AAS and air samplers.</li> </ol>
	5. Field training on study designing and sampling plan for air quality studies.
	6. Invited Talk on "mercury pollution in urban areas" delivered in Reno and in Las Vegas via video conferencing
2006 to 2009	Associate Professor, School of studies in chemistry, Pt Ravishankar Shukla University, Raipur, Chhattisgarh, India.
2003 to 2006	<b>Reader,</b> School of studies in chemistry, Pt Ravishankar Shukla University, Raipur, Chhattisgarh, India.
2004 to 2009	<ul> <li>Administrative Officer (Additional Charge), University Institute of Technology, Pt Ravishankar Shukla University, Raipur, Chhattisgarh, India</li> <li>Creation and recruitment of faculty position and non-teaching/technical staff</li> <li>Designing of all lab formats for all eight semesters according to Model curriculum of AICTE</li> <li>Involved in adoption of new AICTE model curriculum in Engineering disciplines</li> <li>Financial assignments including fee structure, staff salaries &amp; budget of the institute</li> <li>Designing of Institute building construction plan and arrangement of construction grant</li> </ul>
1994 to 2003	Assistant Professor, Department of Higher Education, Government of Madhya Pradesh/Chhattisgarh (Directly recruited through Public Service Commission
1994 to 1994	<b>Research Associate,</b> Council of Scientific and Industrial Research (CSIR), at School of studies in chemistry, Pt Ravishankar Shukla University, Raipur, Chhattisgarh, India.

1992 to 1994 Senior Research Fellow, Council of Scientific and Industrial Research (CSIR), at School of studies in chemistry, Pt Ravishankar Shukla University, Raipur, Chhattisgarh, India.

#### **Example of Certificates, Honors and Awards**

U.S. Fulbright Research Fellow, US Fulbright Board, 2010. Research Associateship, CSIR, New Delhi, 1994

#### Professional capabilities in Organizing Conferences/seminar/symposia

#### Chair, Convener and organizing secretary of:

- 1. International Conference on recent trends in chemistry and Convention of Chemists, Indian Chemical Society, Pt Ravishankar Shukla University, Raipur, India, November 14-16, 2019,
- One day Conference on Recent Advances in Functional Nanomaterial, Chaired the keynote address on the occasion of 125<sup>th</sup> Birth Anniversary of Prof SN Bose, Organized by S.N. Bose National Centre for Basic Sciences and Pt Ravishankar Shukla University, Raipur, 28 September, 2018
- 3. 22nd CRSI- National Symposium in Chemistry and 12<sup>th</sup> CRSI-Royal Society of Chemistry Symposium, organized by Chemical Research Society of India (CRSI) at Pt Ravishankar Shukla University, Raipur during February 1-4, 2018,
- 4. Black carbon emissions in developed and developing countries, Session No. 3A, Chaired the session, Air % Waste Management (A7WMA) International conferences entitled, "Aerosol and Atmospheric Optics: Visibility and Air Pollution, Whitefish, MT, USA, 24-28 September 2012.
- 5. International symposium on environmental-analytical & Toxicological issues of speciation in atmospheric organic pollutants, In expert collaboration with Desert Research Institute, December 06-07, 2012
- 6. International Symposium on Novel Approaches to air quality management and improvement in India, In expert collaboration with Desert Research Institute, Reno, NV, USA, September 5-7, 2011
- 7. International conference on Arsenic in Environment, 2010

#### Secretary/member in local/international organizing/steering committee:

- 1. International conference on Atmospheric Optics: Aerosols, Visibility, and the Radiative Balance, A&WMA Visibility Specialty Conference, Snow King Hotel, Jackson Hole, WY, September 27-30, 2016
- 2. Convention of Chemists-2010;
- 3. International symposium on air quality India, September 5-7' 2011;
- 4. International symposium on organic pollutants, December 6-7' 2012
- 5. International conference on Arsenic in Environment, 2010

## **Project completed/on going**

S.No.	Торіс	Duration	Funding agency	Total outlay	Remark
1.	Study of Physico-chemical Characterization of Respirable Dusts in Selected Environments (Principal Investigator)	1999-2002 (02 yrs)	Ministry of environment & forests, New Delhi	INR 3,92,000	completed
	(Principal Investigator)			D.D.	<u> </u>
2.	Spatial Variability and Impact Study of Anthropogenic Mercury in Selected Environments	2004-2007 (03 yrs)	Ministry of environment & forests, New Delhi	INR 10,00,000	Completed
	(Principal Investigator)				
3	Source Apportionment of Classified Atmospheric Dust Fractions using Selected Receptor Models ( <b>Principal Investigator</b> )	2011-2014 (03 yrs)	Ministry of Science and Technology, New Delhi	INR 51,00,000/-	Completed
4.	Environmental Pathway and human response studies on impact of water borne fluoride amongst inhabitants of Korba, Chhattisgarh ( <b>Co-Investigator</b> )	2013-2015	CGCOST, Chhattisgarh	INR 5.00 Lac	Completed
5.	A Novel Hyphenated Single Drop Micro Extraction - Diffuse and Attenuated Total Reflectance Fourier Transform Infrared Spectroscopy (SDME-DRS/ATR-FTIR) Technique for Analysis of Multiatomic Metaloxy Anions (Co-Investigator)	2013-2015	SERB-DST	INR 37.00 Lac	Completed
6.	Evaluation of Biomass Burning Emissions to address sources of atmospheric Brown Carbon and associated impacts on regional climate (Principal Investigator)	2017	SERB-DST	INR 55.00 Lac	completed
7.	Prevalence and characteristics of chronic kidney disease (CKD) in Supebada village of Devbhog block and Piperkhutta village of Manpur block in Gariyaband district ( <b>Co-PI</b> )	2022	ICMR	INR 8.00 lac	On going
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Consultancy/collaborative Research Projects							
1.	Assessing the Warming Amplification over South Asia due to Organic Carbon Aerosols from Residential Biofuel	2015-17	International Center for Advanced Renewable Energy and Sustainability (I-CARES)/ Washington University, St Louis, USA	US\$ 38000 (INR 26,60,000)	Completed		
2.	Development of Functionally imprinted Effective Absorbents from Petroleum Heavy Residue for the removal of water pollutants	2015-17	King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia	SR 105,303 (INR 21,06,060/-)	Completed		
3.	Characterization of Wavelength Dependent Mineral Dust and Biomass Burning Aerosol Single Scattering Albedo for GLORY Retrieval of Aerosol Parameters	January 1, 2011 – Dec 31, 2014	NASA ROSES: GLORY SCIENCE TEAM, USA	US\$ 482,989/- (INR 3,23,60263 )	Completed		
4.	Building Research and Educational Capacity for Satellite Remote Sensing of Aerosols and their Radiative and Climate Change Impacts (Cooperative Agreement No. NNX10AR89A)	August 13, 2010 – August 12, 2014	NASA EPSCoR through Nevada System of Higher Education, NV, USA	US\$ 1,125,000 INR 7,53,75000	Completed		
5.	Characterization of Emissions Resulting from Religious and Ritual- Based Activities in India	May 2011- April 2013	<b>DRI EVPR</b> , <b>USA</b> Research Enhancement Program	US\$20,000 INR 13,40,000	Completed		

#### **Research Collaborations**

- 1. Desert Research Institute, Reno, NV, USA.
- 2. Department of Chemistry, King Fahad University of Petroleum & Minerals, Dhahran, KSA
- 3. Institute of Earth Environment, Chinese Academy of Sciences, Xi'An, China.
- 4. Indian Institute of Tropical Meteorology, New Delhi.
- 5. National Environmental Engineering Research Institute.
- 6. Moscow state university, Moscow, Russia
- 7. National Institute of Hydrology, Roorkee

#### Workshop/ Training Attended

- 1. Low-cost methods for development of chemical instrumentation, Refresher course, CPBHE, New Delhi (UGC Sponsored), March 25-April 20, 1994.
- 2. Teaching Orientation Course, ASC, June 30- July 22' 1998, Lucknow University, India
- 3. Air pollution monitoring protocol and statistics involved by NEERI, Nagpur, India, 2000.
- 4. Source apportionment of air pollutants using CMB8 Model of EPA at NEERI, Bombay, India, 2004.
- 5. Training on chemical instrumentation: OC & EC Analyzer, Thermal Desorption GCMS, ED-XRF, January 15- May 14' 2011, Desert Research Institute, Reno, NV, USA.
- 6. Training on ArcGIS 10.0, January 15- May 14' 2011, Desert Research Institute, Reno, NV, USA.
- 7. PM2.5 Sampling and Analysis for Extinction Calculation, Whitefish, Montana, USA, September 2012.

#### International visits to accomplish research assignments

- Indoor PM2.5 Levels, Sources, Markers and Associated Health Risks in Central India. 10<sup>th</sup> International Aerosol Conference 2018 (IAC-2018), American Association of Aerosol Research, Organized by Washington University, ST Louis, MO, September 2-7, 2018.
- Contrasting Temporal and Spatial Variation of Atmospheric Carbonaceous Aerosols during a Year Measurement in Central India, 10<sup>th</sup> International Aerosol Conference 2018 (IAC-2018), American Association of Aerosol Research, Organized by Washington University, ST Louis, MO, September 2-7, 2018.
- 3. Long Measurement in Central India. Expert meeting on international collaborative research program on atmospheric carbonaceous matter and associated climate change, Desert Research Institute, Reno, NV, USA, October 4-7, 2016, (Sponsorship from host institute, DST, India and Pt RS University).
- 4. Expert meeting to organize clean coal technology workshop, Department of Energy, Environment and Chemical Engineering, Washington University, St Louis, MO, USA, October 2-3, 2016 (Full sponsorship from host institute)
- 5. A&WMA's International Conference Atmospheric Optics: Aerosol, Visibility and Radiative Balance, Jackson Hole, Wyoming, USA, September 24-30, 2016, (Sposorship by organizers, DST, New Delhi and Pt RS University)
- 6. Research consultancy on development of Functionally imprinted effective adsorbents from petroleum heavy residue for the removal of water pollutants King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, April 09-19, 2016, (Full sponsorship from host institute).
- 7. Visibility Conference, Air & Waste Management, Whitefish, MT, USA, September 24-29' 2012 (Full Sponsorship by organizers).
- 8. Fulbright Fellowship, Desert Research Institute, Reno, NV, USA, January 15- May 14' 2011 (Full Sponsorship by organizers).
- 9. 9<sup>th</sup> International Conference on Mercury as a Global Pollutant, Guiyang, China, June 7<sup>th</sup> to June 12<sup>th</sup>, 2009 (Full Sponsorship by organizers);
- 10. Batter Air Quality Workshop (BAQ 2006), Clean Air Initiatives, Asian Development Bank, Yogyakarta, Indonesia, December 12-16' 2006 (Full Sponsorship by organizers).
- 11. 10<sup>TH</sup> International Conference on Indoor Air Quality & Climate (Indoor Air 2005) at

Tsinghua University, Beijing, China during September 3-9' 2005 (Full Sponsorship by organizers).

12. CHEMINDIX 2013, Bahrain, November 2013(Partial sponsorship).

#### Invited talk and session chair in conferences/seminar/symposium

- Recent findings of aerosols and air quality research in Chhattisgarh, National Seminar on Environmental conservation and sustainable development in Chhattisgarh, organized by Govt Kavyopadhyay Hiralal College, Abhanpur, Raipur, CG, sponsored by Chhattisgarh Council of Science and Technology, 16<sup>th</sup> January 2018.
- 2. Recent findings to address issues of aerosols and air quality research associated to urban climate, National conference on Advances in Chemical and Environmental Sciences, (UGC-SAP-DRS-II), Pt Ravishankar Shukla University, Raipur, March 18, 2017.
- 3. Status of air quality in sub-tropical region of Indian Sub-continent, keynote address on expert meeting to organize clean coal technology workshop, Department of Energy, Environment and Chemical Engineering, Washington University, St Louis, MO, USA, October 2-3, 2016 (Full sponsorship from host institute)
- 4. Air pollution source apportionment using receptor models, All India conference (AICON-2009), (AICTE sponsored) Feb. 6-8' 2009, CSIT, Durg, India (Invited Talk).
- 5. Air pollution monitoring and modeling, All India conference (AICON-2010), (AICTE sponsored), January 22-24' 2010, CSIT, Durg, India (Invited Talk).
- 6. Source Signatures of House-Indoor Dust Fall in Urban-Industrial Area using PMF and CMB, Conference of Indian Council of Chemists-2011, December 27-30' 2011, Osmania University, Hyderabad, India, (Invited Talk).
- Significant Contribution of Emissions from Asian Religious and Cultural Activities to Atmospheric Brown Clouds, Invited Talk in Aerosol and Atmospheric Optics: Visibility & Air Pollution Specialty Conference, Air & Waste Management Association (A&WMA), September 24-29, 2012, Whitefish, MT, USA, (Invited Talk).
- Black Carbon Emissions in Developed and Developing Countries, Chairman of Session 3a. Aerosol and Atmospheric Optics: Visibility & Air Pollution Specialty Conference, Air & Waste Management Association (A&WMA), September 24-29, 2012, Whitefish, MT, USA, (Session Chair).
- 9. Novel Approaches to Air Quality Management and Improvement in India, Winter School Program, School of Studies in Life Science, December 14, 2013
- Source Apportionment of Classified Atmospheric Dust Fractions: Study of Selected Receptor Models, V<sup>th</sup> Meeting of Program Advisory Committee on Atmospheric Sciences (PAC-AS), Bhubaneswar, April 27-28 ,2014
- 11. Air Pollution Status in Chhattisgarh: Sources, Health Effects and Control Measures, Summer School Program, School of Studies in Geology, June 19, 2014
- 12. Air Pollution Status in Chhattisgarh: current status and source apportionment, National Conference on Innovation and Advancement in Chemical Sciences and Technology, St Thomas College, Bhilai, India, February 10, 2015
- 13. Current updates of air quality monitoring and management, National Science Day-2015 Government D.T. College, Utai, Durg, India, March 03, 2015
- 14. Status of Particulate Matter in India: Objective Oriented Studies, Training Programme on "Monitoring of PM<sub>2.5</sub> and other notified air pollutants as per revised NAAQS" CSIR-NEERI, Delhi, November 16-20, 2015

- 15. PM2.5 Chemical Source Profiles of Emissions Resulting from Industrial and Domestic Burning Activities in India, symposium on "Recent advancements in Atmospheric Chemistry Research" 34<sup>th</sup> Annual Conference, Indian Council of Chemists, 27<sup>th</sup> December, 2015
- 16. Evaluation of Biomass Burning Emissions to address Sources of Atmospheric Brown Carbon and Associated Impacts on Regional Climate and Health Risks, 1<sup>st</sup> PAC Meeting, Department of Science and Technology (DST), Ministry of Science and Technology, Government of India, Cotton college State University, Guwahati, Assam, November 24, 2015;
- 17. Recent findings to address Issues of Aerosols and Air quality research associated to urban climate, All India conference on clean and green technology (AICON' 16), April 22-23, 2016, Chhatrapati Shivaji Institute of Technology, Durg.

#### Member of academic & research bodies

- 1. Indian Aerosol Science & Technology Association
- 2. American Chemical Society,
- 3. Indian Science Congress Association
- 4. Indian Chemical Society
- 5. Chemical Research Society of India

#### **Reviewer/ Referee, Research Journals**

- 1. Public Health, Elsevier
- 2. Journal of Exposure Science and Environmental Epidemiology
- 3. Indian Journal of Radio and Space Physics, CSIR, India
- 4. Journal of Atmospheric Pollution Research (Elsevier)
- 5. Aerosol and Air Quality Research
- 6. Atmospheric Environment (Elsevier)
- 7. Science of Total Environment (Elsevier)
- 8. Environmental Science and Pollution Research
- 9. Chemosphere (Elsevier)
- 10. Ozone: Science & Engineering
- 11. Atmospheric Research (Elsevier)
- 12. Building & Environment (Elsevier)
- 13. Environmental Geochemistry and Health
- 14. Environmental Monitoring and Analysis
- 15. Journal of Molecular Liquids
- 16. Natural hazards (Elsevier)

#### **Research Publications**

- Archi Mishra, Shamsh Pervez, Madhuri Verma, Carla Candeias, Yasmeen Fatima Pervez, Princy Dugga, Sushant Ranjan Verma, Indrapal Karbhal, Kallol K Ghosh, Manas Kanti Deb, Manmohan L Satnami, Kamlesh Shrivas, Aishwaryashri Tamrakar, 2022. Chemical fractionation of particulate-bound metal (loid) s to evaluate their bioavailability, sources and associated cancer risk in India, Science of The Total Environment, 857: 159516
- Sushant Ranjan Verma, Shamsh Pervez, Papiya Mandal, Judith C Chow, John G Watson, Syed Muzaffarali Andrabi, Madhuri Verma, Princy Dugga, Noor Afshan Khan, Yasmeen Fatima Pervez, Archi Mishra, Manas Kanti Deb, Indrapal Karbhal, Suresh Tiwari, Kallol K Ghosh, Kamlesh Shrivas, Manmohan Lal Satnami, 2022, Atmospheric Abundance of PM2. 5 Carbonaceous Matter and Their Potential Sources at Three High-Altitude Glacier Sites over the Indian Himalayan Range, ACS Earth and Space Chemistry, https://doi.org/10.1021/acsearthspacechem.2c00216
- Aishwaryashri Tamrakar, Shamsh Pervez, Madhuri Verma, Dipanjali Majumdar, Yasmeen Fatima Pervez, Carla Candeias, Princy Dugga, Archi Mishra, Sushant Ranjan Verma, Manas Kanti Deb, Kamlesh Shrivas, Manmohan L Satnami, Indrapal Karbhal, 2022. BTEX in Ambient Air of India: a Scoping Review of their Concentrations, Sources, and impact, Water, Air, & Soil Pollution, 233(10): 1-19
- Sanyukta Patel, Kamlesh Shrivas, Deepak Sinha, Tarun Kumar Patle, Sanjay Yadav, Santosh Singh Thakur, Manas Kanti Deb, Shamsh Pervez. 2022. Smartphone-integrated printed-paper sensor designed for on-site determination of dimethoate pesticide in food samples, Food Chemistry, 383: 132449, <u>https://doi.org/10.1016/j.foodchem.2022.132449</u>
- T Kant, K Shrivas, K Dewangan, A Kumar, NK Jaiswal, MK Deb, Shamsh Pervez, 2022, Design and development of conductive nanomaterials for electrochemical sensors: a modern approach, Materials Today Chemistry, Volume 24, June 2022, 100769, https://doi.org/10.1016/j.mtchem.2021.100769
- Mohammad Nahid Siddiqui, Shamsh Pervez, Indrapal Karbhal, Princy Dugga, Saravanan Rajendran, Yasmeen Fatima Pervez, 2022, Using functionalized asphaltenes as effective adsorbents for the removal of chromium and lead metal ions from aqueous solution, Environmental Research, 204, Part D, March 2022, 112361
- Archi Mishra, Shamsh Pervez, Carla Candeias, Madhuri Verma, Shahina Bano, Princy Dugga, Sushant Ranjan Verma, Aishwaryashri Tamrakar, Sheeba Shafi, Yasmeen Fatima Pervez, Vineeta Gupta, 2021, Bioaccessiblity features of particulate bound toxic elements: Review of extraction approaches, concentrations and health risks, Journal of Indian Chemical Society, 98 (11), November 2021, 100212
- Abdul Rajjak Shaikh, Mohit Chawla, Ahmed Abdi Hassan, Ismail Abdulazeez, Omobayo Adio Salawu, Mohammad Nahid Siddiqui, Shamsh Pervez, Luigi Cavallo, 2021, Adsorption of industrial dyes on functionalized and nonfunctionalized asphaltene: A combined molecular dynamics and quantum mechanics study, Journal of Molecular Liquids, 337, 1 September 2021, 116433.
- Madhuri Verma, Shamsh Pervez, Judith C Chow, Dipanjali Majumdar, John G Watson, Yasmeen Fatima Pervez, Manas Kanti Deb, Kamlesh Shrivas, Vikas Kumar Jain, Noor A Khan, Papiya Mandal, Rajan K Chakrabarty, 2021, Assessing the magnitude of PM2.5 polycyclic aromatic hydrocarbon emissions from residential solid fuel combustion and associated health hazards in South Asia, Atmospheric Pollution Research, 12 (8), August 2021, 101142.

- Kamlesh Shrivas, Tushar Kant, Sanyukta Patel, Rama Devi, Nohar Singh Dahariya, Shamsh Pervez, Manas Kanti Deb, Manish K Rai, Joyce Rai, 2021, Inkjet-printed paper-based colorimetric sensor coupled with smartphone for determination of mercury (Hg2+), Journal of Hazardous Materials, 414, 15 July 2021, 125440.
- Shamsh Pervez, Princy Dugga, Mohammad Nahid Siddiqui, Shahina Bano, Madhuri Verma, Carla Candeias, Archi Mishra, Sushant Ranjan Verma, Aishwaryashri Tamrakar, Indrapal Karbhal, Manas Kanti Deb, Kamlesh Shrivas, Yasmeen Pervez, Rakesh Kumar Jha, 2021, Sources and health risk assessment of potentially toxic elements in groundwater in the mineral-rich tribal belt of Bastar, Central India, Groundwater for Sustainable Development, 14, 2021/6/19: 100628,
- Mithlesh Mahilang, Manas Kanti Deb, Shamsh Pervez, Swapnil Tiwari, Vikas Kumar Jain, 2021, Biogenic secondary organic aerosol formation in an urban area of eastern central India: Seasonal variation, size distribution and source characterization, Environmental Research, 195, 110802
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