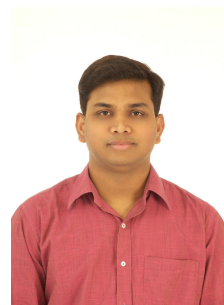

Dr. Sudhir Kumar Pandey

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Research Profile (as of November, 2012)

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|---|------|
| Total no of SCI listed publications | 37 |
| Total no of first/Corresponding authored publications | 24 |
| Total citations | 303 |
| Average citations per article | 8.18 |
| Cumulative impact factor | 112 |
| Average impact factor | 3.02 |
| <i>i</i> -10 index | 9 |
| H-index | 9 |
| Book published (International) | 1 |

Research Interests

Atmospheric pollution: study of emerging air pollutants in varied environmental conditions, Plant atmosphere interaction, Environmental Chemistry, Ecology and Environmental Sciences.

Research Positions Held

(A) Post-doctoral

- Worked as a *Research Scientist* in Atmospheric Environment Laboratory, 98 Goon Ja Dong, Gwang Jin Goo, Seoul from December, 2006 (~ 5 years)

(B) Doctoral

- Worked as a *Senior Research Fellow* in the Department of Botany, Banaras Hindu University, Varanasi, 221005 from 2003.9- 2006.9 (3 years)
- Worked as a *Junior Research Fellow* in the Department of Botany, Banaras Hindu University, Varanasi -221005 , 2001.9- 2003.8 (2 years)

Teaching Experience

- Assistant Professor in Dept. of Botany, G.G.V., Bilaspur (C.G.) since May, 2011
- Delivered lectures to graduate students (Dept. of Environment & Energy, Sejong University, Seoul, Korea) (During 2009-2011 as partial assignment)

- Taught courses of M.Sc. Environmental Sciences (Banaras Hindu University, Varanasi, India) for 4 consecutive sessions (2002-2005) as a partial assignment to the NET qualified research scholars

Awards and distinctions

- + **Start-up grant for newly appointed faculty by UGC (6.00 Lacs) in the year 2012**
- + **Postdoctoral research Fellowship from NRF, Korea** in the year 2006
- + **Juan de le Carva Postdoctoral award from Spain** in year 2010.
- + **Young scientist award from DS&T (SERC), New Delhi** in the year 2011
- + Qualified National Eligibility Test (NET) for the award of **Junior Research fellowship (JRF)** jointly conducted by (UGC & CSIR), New Delhi of December 2000.
- + **Reviewer of International Journals**
Environmental Science and Technology, Environmental Pollution, Environmental Research, Environmental Monitoring and Assessment, Environmental Engineering Science, Applied Soil Ecology, TAO, Archives of Environmental Contamination and Toxicology, Sensors, Atmospheric environment.
- + **Best paper award in oral presentation category**
For the paper entitled “*A test of NDIR-based Sensors for the Near Real-time Analysis of CO₂*” in International conference of the Korea Society for Atmospheric Environment. 25-27 October, 2007, ChungJu, Korea.
- + **Invited talk at Max Planck Institute for Chemistry, Mainz, Germany**
on the topic “*Evaluation of common measurement techniques for globally important trace gases in real environmental conditions: potentials and challenges*” on 18th August, 2010.
- + **Invited talk at CAOS. Indian Institute of Science, Bangalore, India**
on the topic “*Study of globally important trace gases in diverse environmental settings: Indian scenario*” on 10th Feb, 2011.
- + **Member of Korean Society for Atmospheric Environment**

International Research Publications

Book: Pandey S.K. Air pollution management in an opencast coalmine area. **Published by:** VDM Verlag Dr. Müller e.K. ISBN 978-3-639-31520-2, Germany (Published 12 December, 2010)

Review articles

- 1) **Pandey S.K., Kim K.-H., Tang K.-T. 2012.** A review of Sensor-based methods for hydrogen sulfide (H₂S) gas monitoring. *Trends in Analytical Chemistry*. 32, 87-99 (IF = 6.27)

- 2) **Pandey S.K., Kim K.-H., Brown R. J. C. 2011.** A review of measurement techniques for PAHs in air. *Trends in Analytical Chemistry*. 30, 1716-1739. (IF = 6.27)
- 3) Kim K.-H., **Pandey S. K., Kabir E., Susaya J., Brown R.J.C. 2011.** The modern paradox of unregulated cooking activities and indoor air quality. *Journal of Hazardous Materials* 195, 1-10. (IF = 4.17)
- 4) **Pandey S.K., Kim K.-H., Brown R. J. C. 2011.** Measurement techniques for different Hg species in ambient air. *Trends in Analytical Chemistry*. 30, 899-917 (IF = 6.27)
- 5) **Pandey S.K., Kim K.-H. 2011.** Human body odor components and their determination. *Trends in Analytical Chemistry*. 30, 784-796. (IF = 6.27)
- 6) **Pandey S.K., Kim K.-H. 2010.** A review of environmental tobacco smoke (ETS) and its determination in Air. *Trends in Analytical Chemistry*. 29, 804-819. (IF = 6.27)
- 7) **Pandey, S.K., Kim, K.-H. 2009.** A review of methods for the determination of reduced sulfur compounds in Air. *Environmental Science and Technology*. 43, 3020-3029. (IF = 5.22)

Research articles

- 8) Kim, K.-H., Jo, S.H., Song, H.C., **Pandey, S.K., Song, H.N., Oh, J.M., Sunwoo, Y., Choi, K.C., 2012.** Diagnostic Analysis of Offensive Odorants in a Large Municipal Waste Treatment Plant in an urban area. *International Journal of Environmental Science and Technology* (In press, IF = 3.05).
- 9) **Pandey S.K., Kim K.-H. (2012)** Evaluation of the solid phase extraction (SPE) cartridge method in combination with thermal desorption-gas chromatography-mass spectrometry (TD-GC-MS) for the analysis of different VOCs in varying pH conditions. *Journal of Separation Science*. (In Press, IF = 2.73).
- 10) Kim K.-H., **Pandey S.K.***, Jo H.-J., Jeon E.-C. 2012. Characteristics of chlorofluorocarbons (CFCs) emitted from a municipal waste treatment facility. *Chemosphere* 89, 1384-1389 (IF = 3.20)
- 11) Kim K.-H., Ho D.-X., Park C.-G., Ma C.-J., **Pandey S. K., Lee S. C., Jeong H. J., Lee S. H. 2012.** Volatile organic compounds in ambient air at four residential locations of Seoul, Korea. *Environmental Engineering science*. 29, 875-889 (IF = 0.89)
- 12) **Pandey S.K., Susaya, J., Kim K.-H., Sohn J. R. 2012.** An approach to test relative recovery rate between different standard phases in the analysis of VOCs using thermal desorber– gas chromatography – mass spectrometry. *Fresenius Environmental Bulletin* 21, 651-659 (IF = 0.66)
- 13) Phan, N.T., Kim, K.-H., Jeon, E.-C., Kim, U.-H., Sohn, J.R., **Pandey, S.K. 2012.** Analysis of volatile organic compounds released during food decaying processes. *Environmental Monitoring and Assessment* 184, 1683-1692 (IF = 1.40)
- 14) **Pandey S.K., Kim K.-H. 2011.** An evaluation of volatile compounds released from containers commonly used in circulation of sports beverages. *Ecotoxicology and Environmental Safety*. 74, 527-532 (IF = 2.29).
- 15) Kim K.-H., **Pandey S.K., Shon J.-R. 2011.** The sensitivity of gas chromatography - headspace solid phase microextraction in relation with relative volatility of volatile organic compounds. *Analytical Letters* 44, 2457-2465. (IF = 1.01)

- 16) Ahn, J.W., **Pandey, S.K.**, Kim, K.H. **2011**. Comparison of GC–MS calibration properties of volatile organic compounds and relative quantification without calibration standards. *Journal of Chromatographic Science*. 49, 19-28 (IF = 0.88)
- 17) Kim, K.-H., Anthwal, A., **Pandey, S.K.**, Kabir, E., Sohn, J.-R. **2010**. A combined application of thermal desorber and gas chromatography to the analysis of gaseous carbonyls with the aid of two internal standards. *Journal of Separation Science*. 33, 3354-3364 (IF = 2.73).
- 18) **Pandey S.K.**, Kim K.-H. **2010**. Determination of hazardous VOCs and nicotine released from mainstream smoke by the combination of SPME and GC-MS method. *The Scientific World Journal*. 10, 1318–1329 (IF = 1.52)
- 19) Kim K.-H., **Pandey S.K.**, Nguyen H.T., Chung S.-Y., Cho S.-J., Kim M.-Y., Oh J.-M., Sunwoo Y. **2010**. Long-term behavior of particulate matters at urban roadside and background locations in Seoul, Korea. *Transportation Research-Part D* 15, 168-174. (IF = 1.65)
- 20) **Pandey, S.K.**, Kim, K.-H. **2009**. Comparative analysis of some odorous VOCs between direct injection and SPME: Development and validation of GC-MS-based methodology. *Journal of Chromatography A*. 1216, 5436-5444. (IF = 4.53)
- 21) **Pandey S.K.**, Kim K.-H., Yim U.-H., Jung M.-C., Kang C.-H. **2009**. Airborne mercury pollution from a large oil spill accident on the west coast of Korea. *Journal of Hazardous Materials*. 164, 380-384. (IF = 4.17)
- 22) **Pandey, S.K.**, Kim, K.-H. 2009. Simultaneous determination of odorous VOCs with gas chromatography and a thermal desorber: A case study on methyl ethyl ketone, methyl isobutyl ketone, butyl acetate, toluene, and xylene. *Microchemical Journal*. 91, 245-252. (IF = 3.04)
- 23) **Pandey S.K.** and Kim K.-H. **2009**. Comparison of different calibration approaches in the application of thermal desorption technique: a test on gaseous reduced sulfur compounds. *Microchemical Journal*. 91, 40-46. (IF = 3.04)
- 24) **Pandey S.K.**, Kim K.-H., Kang C.-H., Jung M.-C. Yoon H. **2009**. BBQ charcoal as an important source of mercury emission. *Journal of Hazardous Materials*. 162, 536-538. (IF = 4.17)
- 25) Kim K.-H., **Pandey S.K.**, Pal R. 2009. Analytical bias among different gas chromatographic approaches using standard VOC gases and exhaust samples. *Journal of Separation Science*. 32, 549-558. (IF = 2.73)
- 26) **Pandey, S.K.**, Kim, K-H. **2008**. The fundamental properties of the direct injection method in the analysis of gaseous reduced sulfur by gas chromatography with a pulsed flame photometric detector. *Analytica Chimica Acta*. 615, 165-173. (IF = 4.55)
- 27) **Pandey, S.K.**, Kim, K-H., Chung, S-Y, Cho, S. - J., Kim, M.-Y., Shon, Z.H. **2008**. Long term study of NO_x concentrations and behavior at urban roadside and background locations in Seoul, Korea. *Atmospheric Environment*. 42, 607-622. (IF = 3.46)
- 28) **Pandey, S.K.**, Kim, K-H. **2008**. Experimental bias involved in the collection of gaseous elemental mercury by the gold amalgam method. *Environmental Engineering science*. 25, 255-263. (IF = 0.89)

- 29) **Pandey, S.K.**, Tripathi, B.D., Mishra, V.K., **2008**. Dust deposition in a subtropical open cast coal mine area, Bina, India. *Journal of Environmental Management*, 86, 132-138. (IF = 3.24)
- 30) Mishra, V.K., Upadhyaya, A.R., **Pandey, S.K.**, Tripathi, B.D., **2008**. Heavy metal pollution induced due to coal mining effluent on surrounding aquatic ecosystem and its management through naturally occurring aquatic macrophytes. *Bioresource Technology*. 99, 930-936. (IF = 4.98)
- 31) Mishra, V.K., Upadhyaya, A.R., **Pandey, S.K.**, Tripathi, B.D., **2008**. Concentrations of heavy metals and aquatic macrophytes of Govind Ballabh Pant Sagar an anthropogenic lake affected by coal mining effluent. *Environmental Monitoring and Assessment*. 141, 49-58. (IF = 1.40)
- 32) **Pandey, S.K.**, Kim K.-H. S.-H. Lee. **2007**. Use of a dynamic enclosure approach to test the accuracy of the NDIR sensor: Evaluation based on the CO₂ equilibration pattern. *Sensors*. 7, 3459-3471. (IF = 1.73)
- 33) **Pandey, S.K.**, Kim, K-H. **2007**. The relative performance of NDIR-based sensors in the near real-time analysis of CO₂ in air. *Sensors*. 7, 1683-1696. (IF = 1.73)
- 34) Upadhyaya, A.R., Mishra, V.K., **Pandey, S.K.**, Tripathi, B.D., **2007**. Biofiltration of secondary treated municipal wastewater in a tropical city. *Ecological Engineering*. 30, 9-15. (IF = 3.10)
- 35) **Pandey, S.K.**, Tripathi, B.D., Mishra, V.K., Prajapati, S.K., **2006**. Size fractionated speciation of nitrate and sulfate aerosols in a sub-tropical industrial environment. *Chemosphere*. 63, 49-57. (IF = 3.20)
- 36) Prajapati, S.K., **Pandey, S.K.**, Tripathi, B.D. **2006**. Monitoring of Vehicles derived particulates using magnetic properties of leaves. *Environmental Monitoring and Assessment*. 1201, 69-75. (IF = 1.40)
- 37) **Pandey S.K. et al.**, **2005**. Magnetic Properties of Vehicle-derived Particulates and Amelioration by *Ficus infectoria*: A Keystone Species. *AMBIO*. 34, 645-646. (IF = 2.02)
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