

Profile of Dr. Tapan Adhikari

Name: Dr. Tapan Adhikari

Designation: Principal Scientist

Date of birth: 6th August, 1966

Education: Ph. D. (Soil Science & Agricultural Chemistry)

Major Research area: Soil Fertility/Chemistry/ Microbiology, Heavy Metal Pollution in Soils and Plants; Nanotechnology



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Professional Experience

Have good experience in the development of nano-materials for agricultural purposes and their characterization through advanced analytical instruments. Has supervised/co-supervised several related projects during last fifteen years at IISS, Bhopal. Have several international refereed publications. Have excellent knowledge in the characterization of newly developed nano particles, entry mechanism of nano particles into plant and their effects on growth and yield. Have extensive experience in handling the sophisticated instruments like TEM, FE-SEM, FTIR, XRD and ICP-OES with post analytical data interpretation skills.

Awards

- ✓ National Academy of Agricultural Sciences-Associate (2007-2011), New Delhi, India
- ✓ Golden Jubilee Commemoration Young Scientist Award (2004), Indian Society of Soil Science, New Delhi.
- ✓ First Chaudhary Devi lal Outstanding AICRP- Award (2001), ICAR, New Delhi
- ✓ Jawahar Lal Nehru Award (1998), Indian Council of Agricultural Research (ICAR), New Delhi
- ✓ S. S. Ranade Memorial Award (1997), S. S. Ranade Memorial Trust, Pune
- ✓ S. P. Roychoudhury Gold Medal (1997), Indian Society of Soil Science, New Delhi
- ✓ Shambhu Nandi Gold Medal Award (1992), Bidhan Chandra Krishi Viswa Vidyalaya, Mohanpur, West Bengal
- ✓ Zonal Award (East Zone) (1992), Indian Society of Soil Science, New Delhi

Publications

1. Adhikari, Tapan, S. Kundu, Ajay A. K. Biswas, J. C. Tarafdar and A. Subba Rao (2014). Effect of nano particles on growth of *Spirulina platensis*. *National Academy Science Letter* 37(3):207–212.
2. Adhikari, Tapan (2013). Characterization of Titanium Dioxide Nano Particle in Aqueous Solution: pH and Humic Acid Interaction. *Journal of the Indian Society of Soil Science*, 61: 33-38.
3. Adhikari, Tapan (2013). Translocation of Titanium Dioxide Nano Particles in Maize (*Zea mays L.*) Plant: Agar Test for Water Insoluble Nano particle. *Journal of the Indian Society of Soil Science*, *Journal of the Indian Society of Soil Science*, 61: 51-54.
4. Adhikari, Tapan, S. Kundu, A. K. Biswas, J. C. Tarafdar and A. Subba Rao (2012). Effect of Copper oxide nano particle on seed germination of selected crops. *Journal of Agricultural Science and Technology A* 2, 815-823.
5. Adhikari, Tapan (2010). Chromium (VI) Sorption with different heavy metals in Inceptisols. *Soil and Sediment Contamination: An International Journal*, 19, (3) 356-364.
6. Adhikari, Tapan and Singh, M. V. (2008). Remediation of Cadmium Pollution in Soils by Different Amendments: A Column Study. *Communications in Soil Science and Plant Analysis*, 39, 386-396.
7. Adhikari, Tapan, Elisha Tel-Or, Yael Libal, Shenker Moshe (2006). Effect of cadmium and iron on rice (*Oryza sativa L.*) plant in chelator buffered nutrient solution. *Journal of Plant Nutrition* 29, 1919 – 1940.
8. Adhikari, Tapan, Manna, M.C., Singh, M.V. and Wanjari, R.H. (2004). Bioremediation measure to minimize heavy metals accumulation in soils and crops irrigated with city effluent. *Journal of Food, Agriculture and Environment*, 2 (1), 266-270.
9. Adhikari, Tapan and Singh, M.V. (2003). Sorption characteristics of lead and cadmium in some soils of India. *Geoderma*, 114 (1-2), 81-92.
10. Adhikari, Tapan and Rattan, R.K. (2000). Modelling zinc uptake by rice crop using a Barber-Cushman approach. *Plant and Soil*, 227, 235-242.