

NAME: Dr. Palas Roy

Designation: Asst. Professor in Chemistry

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Specialization: Nuclear-Analytical Chemistry

Area of Research: Environmental Chemistry (Specially: Removal of inorganic / organic contaminant from aqueous solution)

Phd Topic: "Modeling of arsenic removal from drinking water through fixed-bed column operation by low-cost adsorbent"

Collaboration: Dr. N.K Mondal, Dept. of Environmental Science, The University of Burdwan, Burdwan

Member: International Society for Fluoride Research from 16 December 2010.

Editorial Board Member: International Journal of Research and Engineering, International Journal of Scientific Research And Education,

Reviewer Board Member: INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH AND MODERN EDUCATION

Review performed: *Bioremediation Journal*, JOURNAL OF MICROBIOLOGY RESEARCH AND REVIEWS, International Journal of Multidisciplinary Research and Modern Education, Environmental Monitoring and Assessment

Minor Research Project (UGC): "Adsorptive removal of hexavalent Chromium: An artificial neural networks and response surface methodological approach"
[F.No.PSW-010/014-15(ERO)]

Published article: 27 (The list is given below)

Publications

1. Mondal NK, Datta JK, Banerjee A, Pal G and **Roy P** (2010): Nature of solid wastes and its management problems in Burdwan town, West Bengal, Indian Science Cruiser, 24(4), 26-34.
2. Bhaumik R, Mondal NK, Das B, **Roy P** and Pal KC (2011): Predicting iron adsorption capacity and thermodynamics onto calcareous soil from aqueous solution by linear regression and neural network modelling, Universal Journal of Environmental Research and Technology, 1(4), 486-499.
3. Mondal NK, **Roy P**, Das B and Datta JK (2011): Chronic arsenic toxicity and it's relation with nutritional status: a case study in Purabasthali-II, Burdwan, West Bengal, India, International Journal of Environmental Sciences, 2(2), 1103-1118.
doi: [10.6088/ijes.00202020067](https://doi.org/10.6088/ijes.00202020067)
4. Mondal NK, Bhaumik R, Das B, **Roy P**, Das CR, Paul KC, Dey U and Das K (2011): Sustainable water resource management, UGC sponsored national seminar - "Sustainable Resource Management: Myth or Reality", 2(3), 46-57. (ISBN: [978-81-922305-6-6](https://doi.org/978-81-922305-6-6))
5. Mondal NK, Bhaumik R, Baur T, Das B, **Roy P** and Datta JK (2012): Studies on defluoridation of water by tea ash: an unconventional biosorbent, Chemical Science Transactions, 1(2), 239-256.
doi: [10.7598/cst2012.134](https://doi.org/10.7598/cst2012.134)
6. Bhaumik R, Mondal NK, Das B, **Roy P**, Pal KC, Das CR, Banerjee A and Datta JK (2012): Eggshell powder as an adsorbent for removal of fluoride from aqueous solution: equilibrium, kinetic and thermodynamic studies, E-Journal of Chemistry, 9(3), 1457-1480.
doi: [10.1155/2012/790401](https://doi.org/10.1155/2012/790401)
7. Mondal NK, Das B, Bhaumik R and **Roy P** (2012): Calcareous soil as a promising adsorbent to remove fluoride from aqueous solution: equilibrium, kinetic and thermodynamic study, Journal of Modern Chemistry & Chemical Technology, 3(3), 1-21.
8. Das B, Mondal NK, **Roy P** and Chattaraj S (2013): Equilibrium kinetic and thermodynamic study on chromium(VI) removal from aqueous Solution using *Pistia stratiotes* biomass, Chemical Science Transactions, 2(1), 85-104.
doi: [10.7598/cst2013.318](https://doi.org/10.7598/cst2013.318)

9. **Roy P**, Mondal NK, Bhattacharya S, Das B and Das K (2013): Removal of arsenic(III) and arsenic(V) on chemically modified low-cost adsorbent: batch and column operations, *Applied Water Science*, 3(1), 293-309.
doi: [10.1007/s13201-013-0082-5](https://doi.org/10.1007/s13201-013-0082-5)
10. Das B, Mondal NK, **Roy P** and Chatteraj S (2013): Application of response surface methodology for hexavalent chromium adsorption onto alluvial soil of Indian origin, *International Journal of Environmental Pollution and Solution*, (1)2, 72-87.
doi: [10.7726/ijeps.2013.1007](https://doi.org/10.7726/ijeps.2013.1007)
11. Mondal NK, **Roy P**, Das K, Dey U and Datta JK (2013): Arsenic pollution in groundwater: can we do anything?, *Indian Science Cruiser*, 27(2), 27-36.
12. Das B, Mondal NK, Bhaumik R, **Roy P**, Pal KC and Das CR (2013): Removal of copper from aqueous solution using alluvial soil of Indian origin: equilibrium, kinetic and thermodynamic study, *Journal of Materials and Environmental Sciences*, 4(4), 392-408.
13. **Roy P**, Mondal NK, Das B and Das K (2013): Arsenic contamination in groundwater: a statistical modelling, *Journal of Urban and Environmental Engineering*, 7(1), 24-29.
doi: [10.4090/juee.2013.v7n1.024029](https://doi.org/10.4090/juee.2013.v7n1.024029)
14. Mondal NK, Bhaumik R, **Roy P**, Das B and Datta JK (2013): Investigation on fixed bed column performance of fluoride adsorption by sugarcane charcoal, *Journal of Environmental Biology*, 34(6), 1059-1064.
15. Das K, Dey U, **Roy P**, Pal KC and Mondal NK (2013): Dental fluorosis in children in Laxmisagar village Bankura district, West Bengal, India, *Fluoride*, 46(4), 218-221.
16. Chatteraj S, Mondal NK, Das B, **Roy P** and Sadhukhan B (2014): Biosorption of carbaryl from aqueous solution onto *Pistia stratiotes* biomass, *Applied Water Science*, 4(1), 79-88.
doi: [10.1007/s13201-013-0132-z](https://doi.org/10.1007/s13201-013-0132-z)
17. Das B, Mondal NK, Bhaumik R and **Roy P** (2014): Insight into adsorption equilibrium, kinetics and thermodynamics of lead onto alluvial soil, *International Journal of Environmental Science and Technology*, 11(4), 1101-1114.
doi: [10.1007/s13762-013-0279-z](https://doi.org/10.1007/s13762-013-0279-z)
18. **Roy P**, Mondal NK and Das K (2014): Modeling of the adsorptive removal of arsenic: a statistical approach, *Journal of Environmental Chemical Engineering*, 2(1), 585-597. doi: [10.1016/j.jece.2013.10.014](https://doi.org/10.1016/j.jece.2013.10.014)

19. Chattoraj S, Mondal NK, Das B, **Roy P** and Sadhukhan B (2014): Carbaryl removal from aqueous solution by *Lemna major* biomass using response surface methodology and artificial neural network, *Journal of Environmental Chemical Engineering*, 2(4), 1920–1928.
doi: [10.1016/j.jece.2014.08.011](https://doi.org/10.1016/j.jece.2014.08.011)
20. Mondal NK, Chakraborty D, **Roy P**, Roy TK, Das C, Bhaumik R, Pal KC, Medda S, Datta JK (2014): Correlation between arsenic intoxication and cognitive ability of primary school children of West Bengal, *Asian Pacific Journal of Tropical Disease*, 4(Suppl 2), S850. [Letter To Editor]
doi: [10.1016/S2222-1808\(14\)60743-X](https://doi.org/10.1016/S2222-1808(14)60743-X)
21. Mondal NK, Bhaumik R, Das B, **Roy P**, Bhattacharyya S and Banerjee S (2015): Neural network model and isotherm study for removal of phenol from aqueous solution by orange peel ash, *Applied Water Science*, 5(3), 271–282.
doi: [10.1007/s13201-014-0188-4](https://doi.org/10.1007/s13201-014-0188-4)
22. Dey U, Das K, **Roy P**, Chatterjee SN and Mondal NK (2015): Searching of microbial agent for bioremediation of arsenic, *International Journal of Extensive Research*, 5, 60-64.
23. Das K, Mondal NK, Dey U, **Roy P** and Pal KC (2015): Statistical appraisal of fluoride enrichment in areas of Malda and South Dinajpur district, West Bengal, India, *Journal of Urban and Environmental Engineering*, 9(2), 119–126.
doi: [10.4090/juee.2015.v9n2.119126](https://doi.org/10.4090/juee.2015.v9n2.119126)
24. Chattoraj S, Mondal NK, Sadhukhan B, **Roy P** and Roy TK (2016): Optimization of adsorption parameters for removal of carbaryl insecticide using neem bark dust by response surface methodology, *Water Conservation Science and Engineering*, 1(2), 127–141.
doi: [10.1007/s41101-016-0008-9](https://doi.org/10.1007/s41101-016-0008-9)
25. **Roy P**, Dey U, Chattoraj S, Mukhopadhyay D and Mondal NK (2017): Modeling of the adsorptive removal of arsenic(III) using plant biomass: a bioremedial approach, *Applied Water Science*, 7(3), 1307–1321.
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26. **Roy P** (2018): Artificial neural network modeling of biosorptive removal of arsenic(V) by a low-cost biomass, *Journal of Materials and Environmental Sciences*, 9(12), 3206–3217.
27. Mondal NK, Samanta A, **Roy P** and Das B (2019): Optimization study of adsorption parameters for removal of Cr(VI) using *Magnolia* leaf biomass by response surface methodology, *Sustainable Water Resources Management*.
doi: [10.1007/s40899-019-00322-5](https://doi.org/10.1007/s40899-019-00322-5)