

NAME: Dr. Palas Roy

Designation: Asst. Professor in Chemistry

B.N Mahavidyalaya, Itachuna, Hooghly-712147

email: palaschem@gmail.com

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/10.6088/ijes.00202020067))
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)