

## Dr Naba Kumar Mondal

Professor & Head
Department of Environmental Scienc
The University of Burdwan
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**Academic qualifications** M. Sc, M. Ed, Ph. D

**Date of Birth** 28.01.1974

**Teaching Experience** 24 years

**Research Experience** 20 years

**Ph.D. awarded** 2008 from University of Burdwan

**Ph. D. Topic** "Development of agrotechnology in old alluvial soil zone of Burdwan District, West Bengal for sustainable soil health and crop yield of Mungbean (*Vigna radiate* (L) Wilczek)"

**Research area** Water pollution and remediation

Nano synthesis and application

Indoor air pollution

#### List of Journals where acts as reviewer

- 1. Chemosphere (Elsevier)
- 2. African journal of biotechnology
- 3. African Journal of Agricultural Research
- 4. Chemical Engineering Journal (Elsevier)
- 5. Research journal of chemistry and Environment
- 6. International Journal of Agricultural Sciences
- 7. Journal of Agricultural and Biological Science
- 8. Journal of hazardous materials (Elsevier)
- 9. Science of the Total Environment (Elsevier)
- 10. Ecological Indicators (Elsevier)
- 11. Journal of Applied water Science (Springer)
- 12. Journal of Water Process Engineering (Elsevier)
- 13. Journal of Environmental Monitoring and Assessment (Springer)
- 14. Journal of Rice Science (Elsevier)
- 15. Environmental Earth Science (Springer)

#### **Present research scholars**

#### 1. Amita Hajra

M.Sc, Zoology (The university of Burdwan)

Ph.D student (Science 2013)
Research area: Nanotechnology
E-mail: amitahajrasinha@gmail.com

Mob: 7605847650

#### 3. Arghadip Mondal

M.Sc, Zoology (Sidho Kanho Birsha University) Ph.D student (Science 2017)

Research area: Nanotechnology & Vector control

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## 5. Debojyoti Mishra

M.Sc, Environmental Science (The University of Burdwan)

**DAE-BRNS** Project fellow

Area of Project: Uranium analysis from water

sample

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#### 2. Kamalesh Sen

M.Sc, Environmental Science (The University of Burdwan)

Ph.D student (Science 2015)

Research area: Adsorption Chemistry

E-mail: <u>ksen.envs@gmail.com</u> Mob: 8250640118/9932154311

#### 4. Priyanka Debnath

M.Sc, Environmental Science (The University of Burdwan)

Ph.D student (science 2017) Research area: Nanotechnology

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Mob: 9674927872

# **Research projects**

Title	Agency (Funding, Commissioning and/or Collaborating)	Period	Grant(s)/ Amount mobilized (so far) in Rs. (Lakhs)	Whether Principal Investigator/ Coinvestigator or Consultant/Qualit y evaluator	
Interference of vehicle noise in teaching-learning process and development of strategies for abatement of classroom noise	Indian Council of Social Science Research (ICSSR)	2019-2021	9,00,000	Principal Investigator	
Spatial distribution of uranium in the ground water of four districts of West Bengal	Board of Research in Nuclear Sciences (BRNS)	2017-2019	27,51,800	Principal Investigator	
Green synthesis of heavy metal nanoparticles and its effective utilization towards eradication of mosquito	Department of Science and Technology, West Bengal	2017-2020	12,20,200/-	Principal Investigator	
Indoor air pollution and associated disease from unprocessed biofuels and possible remedial measures in rural villages of West Bengal, India	University Grant Commission	2013-2016	11,90,800/-	Principal Investigator	
Development of a model for effective integration of environmental education in technical and general education	ICSSR	2012-2014	7 Lakhs	Principal Investigator	
Isolation, Identification and characterization of arsenic resistant bacteria and their vertical distribution in soil: Possible role in bioremediation	DST-Inspire project	2012-2017	12 Lakhs	Principal Investigator	
Municipal waste management through vermicomposting and its impact on growth, physiology, yield, soil health, soil biodiversity and carbon conservation under paddy and mustard cultivation in old alluvial soil zone of Burdwan district, West Bengal.	University Grant Commission	2011-2014	9 Lakhs	Co-Investigator	
Evaluation of fluoride toxicity in agro ecosystem of Birbhum district, West Bengal	DST-Inspire project	2011-2017	12 Lakhs	Co-Investigator	
Development and application of innovative Technology towards environmental education for backward students (Rural and Urban) in upper primary classes of West Bengal.	University Grant Commission	2009 -2011	5.5 Lakh	Principal Investigator	
Development of agrotechnology in old alluvial soil zone of Burdwan, West Bengal	University Grant Commission	2006-2008	85,000/-	Principal Investigator	

## Ph.D awarded (up to 2018):

Sl. No.	Name of the research scholar	Title of the thesis	Awarded/Submitt ed/Registered/On going
1.	Dr Moumita Sinha	"Impact of effluents of Durgapur thermal power station Burdwan on adjacent Agroecosystem"	Awarded 2013
2.	Dr Ria Bhaumik	"Development of low cost technology for the removal of fluoride from drinking water"	Awarded 2014
3.	Dr Biswajit Das	"comparative studies on removal efficiency of heavy metal (chromium, lead and copper) from aqueous solution through naturally available adsorbents"	Awarded 2014
4.	Dr Kartick Chandra Pal	"Fluoride contamination in soil and vegetation in Birbhum district, West Bengal, India"	Awarded 2014
5.	Dr Palas Roy	"Removal of arsenic (III) and arsenic (V) on chemically modified low-cost adsorbent: batch and column operations"	Awarded 2015
6.	Dr Anindita Maitra	"Assesment of fluoride toxicity through field and laboratory studies vis- a -vis its impact on growth, metabolism and yield on two different crop species (Brassica sp.; Oryza sativa MTU)"	Awarded 2015
7.	Dr Anjan Dutta	"Sustainable potato cultivation by utilizing rice mill by products"	Awarded 2016
8.	Dr Soumya Chattoraj	"In sight in to adsorption equilibrium, kinetics and thermodynamics of carbaryl insecticide from aqueous solution by naturally available adsorbetns"	Awarded 2016
9.	Dr Bikash Sadhukhan	"Biosorptive removal of methylene blue from aqueous solution using naturally available low cost adsorbent by using suitable models"	Awarded 2017
10.	Dr Uttiya Dey	"An innovative approach towards bioremediation with isolation and molecular characterization of arsenic resistant bacteria from arsenic contaminated areas of Purbasthali, Burdwan, West Bengal"	Awarded 2017
11.	Dr Chittaranjan Das	"Nutrient dynamics study of few selected tree species of Ramna Forest Burdwan West Bengal"	Awarded 2018
12.	Dr Tapas Kumar Roy	"Decolourisation of congored dye by low cost adsorbents"  Awarded 2018	
13.	Dr Deep Chakraborty	"Indoor air pollution and associated health effects from unprocessed biomass fuels used in rural West Bengal"	Awarded 2018

# Supervised thirty (35) M. Sc. dissertation up to 2019

1.	Sanhita Ghosh	2010-12	Study of soil enzyme during pre- monsoon and post-
			monsoon period in arsenic affected areas of Burdwan district, West Bengal
2.	Aniruddha Banerjee	2011-13	Heavy metals (arsenic, cadmium and lead) phytoremediation by aquatic floating macrophytes: growth physiology, biochemistry, kinetics and isotherm study
3.	Rupa Paul	2011-13	Assessment of poultry litter and its contamination pattern in chicken, field soil and plants
4.	Sanjukta Ghosh	2011-13	Modeling of photo-fenton degradation of methylene blue and congo red by response surface methodolgy
5.	Sapinaj Khatun	2011-13	Fluoride phytoremediation by floating macrophytes: growth, biochemical, kinetics and isotherm study
6.	Snehali Dutta	2011-13	Noble and simple approach for synthesis of heavy metal nano particle and their application in different fields
7.	Soumi Roy	2011-13	Potentiality of gastropod shell dust for removal of phenol
8.	Sumona Kar	2011-13	Removal of Congo red dye by easily available low cost adsorbents: equilibrium, kinetic and thermodynamic studies
9.	Jinat Aktar	2012-14	Synthesis of nano zero valent iron (nZVI) from potato- based starch and borohydrate and its application in different field
10.	Wasim Akram Shaikh	2012-14	Experimental and Kinetic modeling of As (III) and As (V) adsorption on treated pond sediment using synthetic water
11.	Soumya Bikas Ghosh	2012-14	Effect of Arsenic and Manganese Exposure on Intellectual Function of Children in Arsenic Stress Area of Purbasthali, Burdwan, West Bengal
12.	Piya Nayek	2012-14	Chromium Bioaccumulation: Comparison of the capacity of two floating aquatic macrophytes
13.	Deblina	2013-15	Contamination of arsenic in vegetables and its
	Chakraborty		influence on soil enzyme in arsenic affected area, Purbasthali, Burdwan, West bengal
14.	Moumita Bairagi	2013-15	Compartmentalization pattern of arsenic in rice plant
			and its influence on soil enzyme in arsenic affected
			area, Purbasthali, burdwan, West Bengal
15.	Priyanka Debnath	2014-16	Biogenic approach for the synthesis and
			characterization of zinc oxide nanoparticles and its
			effective utilization towards removal of dyes from
			aqueous solution
16.	Samarpita Chakraborty	2014-16	Synthesis and characterization of grapheme oxide nano-sheets and its application for the removal of

			Cr(VI) from aqueous solution and compare the
			adsorption capacity with egg shell and fish scale dust
17.	Jesmin sultana	2014-16	Biosorptions of anionic dye (methyl orange) from
17.	Jesiiiii suitana	2014-10	aqueous solution using three different form of rice husk
10	Company a Da	2014-16	
18.	Suparna De	2014-10	Green synthesis of cadmium and copper nanoparticles and their role towards antimicrobial enhancers
19.	Debojyoti Misra	2015-17	Effect of wireless network radiation on environment
17.	Decogyou wistu	2013 17	with special emphasis on human plants and birds health
			in few selected areas of Burdwan and Hooghly districts
20.	Ranu Barik	2015-17	Flower mediated zinc oxide nanoparticle synthesis and
			its efficacy towards degradation of insecticide
			(carbaryl)
21.	Manjira Pal	2015-17	Optimization of hexavalent chromium
			phytoremediation by the three aquatic macrophytes; a
			modelling approach
22.	Soumita Parikhal	2015-17	Effect of nanosilver on seed germination, seedling
			growth and biochemical attributes of wildly cultivated
			crops (Brassica sp. and Vigna mungo) and vegetables
			(Pissumsativam and Abelmoschuseseulentus)
23.	Kumari Guddi	2015-17	Phytotoxicity of silver nanoparticles to the three aquatic
			floating macrophyte (Lemna minor, Eichhornia sp. and
			Pistia sp.)
24.	Puja Sain	2015-17	Phytotoxicity of gold nanoparticle on rice (Oryza sativa
			L) seedling with special emphasis on morphological
			and biochemical analysis
25.	Richa Das	2015-17	Biosynthesis of silver nanoparticles by fungi isolated
			from soil and its antifungal activityagainst some
			selected plants fungi
26.	Pratiti Roy	2016-18	Efficacy of egg shell(poultry, domestic hen and duck)
			and sea shell dust towards removal of fluoride from
			both synthetic and field sample
27.	Subhadeep Mitra	2016-18	
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28.	Animesh Mondal	2016-18	7
29	Bilkish Sultana	2016-18	
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			aqueous solution
27. 28. 29.	Subhadeep Mitra  Animesh Mondal  Bilkish Sultana	2016-18	Synthesis and characterization of silica nanopartic from rice husk ash and its application towar germination, morphophysiological, biochemical a anatomical studies of rice ( <i>Oryza sativa</i> l.) and lad finger ( <i>abelmoschusesculentus</i> )"  Indoor air pollution generated from unprocessed so biomass fuel and health status among the rural wom of few selected villages of Hooghly a PaschimMedinipur districts of West Bengal  Influence of synthetic dye at albino rat and the subsequent removal by specific adsorbent from

31.	Soma Chowdhury  Priyasmita Bhattacharjee	2016-18	Single pot synthesis of Silver and Gold nanoparticles using different parts (Leaf, Flower and Bark) of <i>Moringaoleifera</i> and their efficacy as anti-fungal effect against <i>Aspergillus</i> sp.  Efficacy of homeopathic medicine (argentum metallicum), silver salt and silver nonaoparticles on seed germination, growth attributes, biochemical analysis and anatomical studies of rice ( <i>Oryza sativa</i> 1.), mungbean ( <i>Vigna mungo</i> 1.) and cowpea ( <i>Vigna</i>
32.	Sudipta Palui	2017-19	unguiculata l.).  Potentiality of keratinous substances (animal hair) and synthetic wool towards removal of hexavalent chromium from aqueous solution.
33.	Supriya Paul	2017-19	Synthesis of graphene oxide from graphite, waste dry cell and composite of graphene oxide with silver nanoparticles and their effective utilization towards removal of phenol from aqueous solution.
34.	Nilufar karim	2017-19	Synthesis of copper nanoparticles from waste electric wire and check the toxicity of copper nanoparticles with two varieties of rice ( <i>Oryza sativa</i> L.) with reference to growth physiology, biochemicals and anatomical attributes in laboratory condition
35.	Saptarshi Ghosh	2017-19	Efficacy of silver nanoparticles, nano-titanium oxide and their composite under UV-B exposure towards removal of azo and non-azo dye from aqueous solution and to evaluate the suitability of spent dye solution with respect to growth and development of peas (Pisum sativum L.)

## Publications: (185) [All publications are available at Google scholar]

## **Selected publications:**

- 1. SB Ghosh, **NK Mondal** (2019) Application of Taguchi method for optimizing the process parameters for the removal of fluoride by Al-impregnated Eucalyptus bark ash; *Environmental Nanotechnology, Monitoring & Management* 11, 100206
- **2.** NK Mondal, S Basu, B Das (2019) Decontamination and optimization study of hexavalent chromium on modified chicken feather using response surface methodology; *Applied Water Science*; 9 (3), 50
- **3. NK Mondal**, S Basu (2019) Potentiality of waste human hair towards removal of chromium (VI) from solution: kinetic and equilibrium studies; *Applied Water Science*; 9 (3), 49

- **4.** NK Mondal, P Ghosh, K Sen, A Mondal, P Debnath (2019) Efficacy of onion peel towards removal of nitrate from aqueous solution and field samples. *Environmental Nanotechnology, Monitoring & Management*, 100222
- 5. P Debnath, A Mondal, A Hajra, C Das, **NK Mondal** (2018) Cytogenetic effects of silver and gold nanoparticles on Allium cepa roots, *Journal of Genetic Engineering and Biotechnology* 16 (2), 519-526
- 6. D Chakraborty, **NK Mondal** (2018) Hypertensive and toxicological health risk among women exposed to biomass smoke: A rural Indian scenario; *Ecotoxicology and Environmental Safety*;161, 706-714
- **7.** NK Mondal, S Kar (2018) Potentiality of banana peel for removal of Congo red dye from aqueous solution: isotherm, kinetics and thermodynamics studies, *Applied Water Science*, 8 (6), 157
- 8. S Chattoraj, **NK Mondal**, K Sen (2018) Removal of carbaryl insecticide from aqueous solution using eggshell powder: a modeling study; *Applied Water Science*, 8 (6), 163
- **9. NK Mondal**, A Samanta, S Chakraborty, WA Shaikh (2018) Enhanced chromium (VI) removal using banana peel dust: isotherms, kinetics and thermodynamics study; *Sustainable Water Resources Management*, 4 (3), 489-497
- **10. NK Mondal**, A Roy(2018) Potentiality of a fruit peel (banana peel) toward abatement of fluoride from synthetic and underground water samples collected from fluoride affected villages of Birbhum district; *Applied Water Science*, 8 (3), 90
- 11. D Chakraborty, **NK Mondal** (2018) Assessment of health risk of children from traditional biomass burning in rural households; *Exposure and Health*, 10 (1), 15-26
- **12. NK Mondal** (2017) Effect of fluoride on photosynthesis, growth and accumulation of four widely cultivated rice (Oryza sativa L.) varieties in India; *Ecotoxicology and environmental safety*; 144, 36-44
- 13. S Medda, **NK Mondal** (2017) Chromium toxicity and ultrastructural deformation of Cicer arietinum with special reference of root elongation and coleoptile growth; *Annals of Agrarian Science*; 15 (3), 396-401
- 14. R Bhaumik, **NK Mondal**, S Chattoraj. (2017). An optimization study for defluoridation from synthetic fluoride solution using scale of Indian major carp Catla (Catlacatla): An Unconventional Biosorbent; *Journal of Fluorine Chemistry*; 195, 57-69
- 15. D Chakraborty, **NK Mondal** (2017). Assessment of Health Risk of Children from Traditional Biomass Burning in Rural Households; *Exposure and Health*; 1-12
- 16. K Sen, **NK Mondal**, S Chattoraj, JK Datta. (2017). Statistical optimization study of adsorption parameters for the removal of glyphosate on forest soil using the response surface methodology; *Environmental Earth Sciences*; 76 (1), 22
- **17. NK Mondal**. (2017). Effect of fluoride on photosynthesis, growth and accumulation of four widely cultivated rice (Oryza sativa L.) varieties in India. *Ecotoxicology and environmental safety*, 144, 36-44.

- 18. Shreya Medda, **NK Mondal**. (2017). Chromium toxicity and ultrastructural deformation of Cicerarietinum with special reference of root elongation and coleoptile growth. *Annals of Agrarian Science*,15 (3), 396-401
- 19. A Hajra, **NK Mondal**. (2017). Effects of ZnO and TiO2 nanoparticles on germination, biochemical and morphoanatomical attributes of Cicer arietinum L. *Energy, Ecology and Environment*. 2(4), 277-288
- 20. TK Roy, **NK Mondal**. (2017). Biosorption of Congo Red from aqueous solution onto burned root of Eichhornia crassipes biomass. *Applied Water Science*. 7(4),1841-1854
- **21. NK Mondal**, A Samanta, S Dutta, S Chattoraj (2017). Optimization of Cr (VI) biosorption onto Aspergillusniger using 3-level Box-Behnken design: Equilibrium, kinetic, thermodynamic and regeneration studies. *Journal of Genetic Engineering and Biotechnology*. 15(1),151-160
- 22. P Roy, U Dey, S Chattoraj, D Mukhopadhyay, **NK Mondal**. (2017). Modeling of the adsorptive removal of arsenic (III) using plant biomass: a bioremedial approach. *Applied Water Science*. 7(3),1307-1321
- 23. T Mondal, JK Datta, **NK Mondal**. (2017). Chemical fertilizer in conjunction with biofertilizer and vermicompost induced changes in morpho-physiological and bio-chemical traits of mustard crop, *Journal of the Saudi Society of Agricultural Sciences*. 16(2),135-144
- 24. U Dey, S Chatterjee, **NK Mondal**. (2017) Investigation of Bioremediation of Arsenic by Bacteria Isolated from an Arsenic Contaminated Area. *Environmental Processes*, .4(1),183-199
- **25. NK Mondal**. (2017). Natural Banana (Musa acuminate) Peel: an Unconventional Adsorbent for Removal of Fluoride from Aqueous Solution through Batch Study. *Water Conservation Science and Engineering*. 1(4), 223-232
- 26. K Das, U Dey, **NK Monda** (2016). Deleneation of groundwater quality in the presence of fluoride in selected villages of Simlapal block, Bankura district, West Bengal, India. 2016. *Sustainable Water Resources Management*, 2 (4), 439-451
- 27. C Das, **NK Mondal.** Litterfall, (2016) Decomposition and nutrient release of *Shorea robusta* and *Tectona grandis* in a sub-tropical forest of West Bengal, Eastern India. *Journal of Forestry Research*, 27(5), (1055-1065).
- 28. B Sadhukhan, **NK Mondal**, S Chattoraj. (2016). Optimisation using central composite design (CCD) and the desirability function for sorption of methylene blue from aqueous solution onto Lemna major. *Karbala International Journal of Modern Science*, 2 (3), 145-155
- 29. S Chattoraj, **NK Mondal**, B Sadhukhan, P Roy, TK Roy. (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
- 30. R Bhaumik, **NK Mondal** (2016). Optimizing adsorption of fluoride from water by modified banana peel dust using response surface modelling approach. *Applied Water Science*, 6 (2), 115-135

- 31. K Das, **NK Mondal**. (2016). Dental fluorosis and urinary fluoride concentration as a reflection of fluoride exposure and its impact on IQ level and BMI of children of Laxmisagar, Simlapal Block of Bankura District, WB, India. *Environmental Monitoring and Assessment*. 188(4): 1-14
- 32. SB Ghosh, D Chakraborty, **NK Mondal**. (2016). Effect of Arsenic and Manganese Exposure on Intellectual Function of Children in Arsenic Stress Area of Purbasthali, Burdwan, West Bengal. *Exposure and Health*, (9-1), 1–11.
- **33. NK Mondal**, R Bhaumik, JK Datta. (2016). Fluoride Adsorption by Calcium Carbonate, Activated Alumina and Activated Sugarcane Ash. *Environmental Processes*, 3(1): 195-216
- 34.K Das, **NK Mondal**, U Dey, P Roy, KC Pal. (2016). 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
- **35. NK Mondal**, M Kundu (2016) Biosorption of Fluoride from Aqueous Solution Using Lichen and Its Ca-Pretreated Biomass. *Water Conservation Science and Engineering*. 1(3), 143-160
- 36. A Hajra, **NK Mondal** (2016). Phyto fabrication of silver nanoparticles using *Elephantopuss* caber and *Azadirachtaindica* leaf extract and its effect on larval and pupal mortality of *Culexquinquefasciatus*. **Asian Pacific Journal of Tropical Disease**. 6(12). 979-986
- 37. U Dey, **NK Mondal** (2016) Ultrastructural deformation of plant cell under heavy metal stress in Gram seedlings, 2(1) Cogent Environmental Science
- 38. A Hajra, S Dutta and **NK Mondal** (2016). Mosquito larvicidal activity of cadmium nanoparticles synthesized from petal extracts of marigold (Tagetes sp.) and rose (Rosa sp.) flower. *Journal of Parasitic Diseases*. 40(4). 1519-1527
- 39. C Das, **NK Mondal** (2016). Litterfall, decomposition and nutrient release of *Shorea robusta* and *Tectona grandis* in a sub-tropical forest of West Bengal, Eastern India. *Journal of Forestry research*. 27(5), (1055-1065)
- 40. K Das, U Dey, **NK Mondal** (2016). Deleneation of groundwater quality in the presence of fluoride in selected villages of Simlapal block, Bankura district, West Bengal, India. *Sustainable Water Resources Management*. 2(4), 439-451
- **41. NK Mondal**, Soumi Roy. (2016) Optimization study of adsorption parameters for removal of phenol on gastropod shell dust using response surface methodology. *Clean Technologies and Environmental Policy*. 18 (2), 429-447
- **42. NK Mondal** (2016) Effect of sodium fluoride and sodium nitroprouside on Cicerarietinum and Pisumsativum. *Communications in Plant Sciences*. 6(1-6)
- **43. NK Mondal**; K Sen; A Banerjee; JK Datta (2016) Toxicity of As(III) and As(V) on morphological traits and pigments of Gram Seed (Cicerarietinum) during germination and early seedling growth. *Communications in Plant Sciences*. 6(1-2), 1-6(6)

- 44. AmitaHajra, **Naba Kumar Mondal** (2016) Synthesis of copper nanoparticles (CuNPs) from petal extracts of marigold (Tagetessp.) and sunflower (Helianthus sp.) and their effective use as a control tool against mosquito vectors. *Journal of Mosquito Research* 6(19)
- 46. Uttiya Dey, Soumendranath Chatterjee, **NK Mondal**. (2016). Isolation and characterization of arsenic-resistant bacteria and possible application in bioremediation. *Biotechnology Reports*. 10:1-7
- 47. S Bhattacharyya, **NK Mondal**, R Bhaumik, B Das, P Roy, JK Datta (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
- 48. JK Datta, NK Mondal, CR Das, U Dey, D Chakraborty (2015) Fluoride toxicity effects in potato plant (solanum tuberosum l.) grown in contaminated soils, *Octa Journal of Environmental Research* 3 (2), 136-143
- **49. NK Mondal,** C Das, JK Datta (2017) Effect of mercury on seedling growth, nodulation and ultrastructural deformation of Vigna radiata (L) Wilczek, *Environmental monitoring and assessment* 187 (5), 241
- 50. NK Mondal, U Dey, S Ghosh, JK Datta (2014) Soil enzyme activity under arsenic-stressed area of Purbasthali, West Bengal, India, *Archives of Agronomy and Soil Science* 61 (1), 73-87
- 51. T Mondal, JK Datta, **NK Mondal** (2014) An alternative eco-friendly approach for sustainable crop production with the use of indigenous inputs under old alluvial soil zone of Burdwan, West Bengal, India, *Archives of Agronomy and Soil Science* 61 (1), 55-72
- **52. NK Mondal**, S Roy(2014) Optimization study of adsorption parameters for removal of phenol on gastropod shell dust using response surface methodology; *Clean Techn Environ Policy*, DOI 10.1007/s10098-015-1026-6
- **53. NK Mondal**, A Roy (2014) Novel use of riche husk Carbon (A Natural Silica-Carbon Matrix) For Fluoride Removal From Aqueous Solution, *Moroccan Journal of Chemistry* 3 (1), 3-1 (2015) 8-18
- 54. C Das, P Aditya, JK Datta, **NK Mondal** (2014) Soil enzyme activities in dependence on tree litter and season of a social forest, Burdwan, India, *Archives of Agronomy and Soil Science* 60 (3), 405-422
- 55. P Roy, **NK Mondal**, K Das (2014) Modeling of the adsorptive removal of arsenic: a statistical approach; *Journal of Environmental Chemical Engineering* 2 (1), 585-597
- 56. KC Pal, **NK Mondal**, S Chatterjee, TS Ghosh, JK Datta (2014) Characterization of fluoride-tolerant halophilic Bacillus flexus NM25 (HQ875778) isolated from fluoride-affected soil in Birbhum District, West Bengal, India, *Environmental monitoring and assessment* 186 (2), 699-709
- 57. TK Garai, JK Datta, **NK Mondal** (2014) Evaluation of integrated nutrient management on boro rice in alluvial soil and its impacts upon growth, yield attributes, yield and soil nutrient status, *Archives of Agronomy and Soil Science* 60 (1), 1-14

- **58. NK Mondal** Siddhartha Bhattacharyyaa ,Siddhartha Bhattacharjee (2015) A quantum backpropagation multilayer perceptron (QBMLP) for predicting iron adsorption capacity of calcareous soil from aqueous solution;, *Applied Soft Computing* 27, 299-312
- 59. Shreya Medda, Amita Hajra, Uttiya Dey, Paulomi Bose, **Naba Kumar Mondal**(2015) Biosynthesis of silver nanoparticles from Aloe vera leaf extract and antifungal activity against Rhizopus sp. and Aspergillus sp. *Applied Nano Science*, 5(7), pp 875–880
- 60. JK Datta **NK Mondal**, D Chakraborty, P Roy, TK Roy (2015) Correlation between arsenic intoxication and cognitive ability of primary school children of West Bengal, *Asian Pacific Journal of Tropical Disease* 4 (Suppl 2), S850
- 61. S. Chattoraj, B Sadhukhan, **N.K. Mondal**, B. Das, P. Roy (2014) Carbaryl removal from aqueous solution by Lemna major biomass using response surface methodology and artificial neural network, *Journal of Environmental Chemical Engineering* 2, 1920-1928
- 62. CR Das, **N. K. Mondal**, U. Dey, S. Khatun, K. Das (2014) Toxic Effect of Cigarette Origin Tobacco Leaf (Nicotiana tabaccum L.) and Cigarette Smoke Extract on Germination and Bio-Chemical Changes of Bengal Gram (Cicer arietinum L.), **Journal of Stress Physiology & Biochemistry** 10 (1), 135-144
- **63. NK Mondal**, R Bhaumik, CR Das, P Aditya, JK Datta, A Banerjee, K Das; Assessment of indoor pollutants generated from bio and synthetic fuels in selected villages of Burdwan, West Bengal "*Journal of Environmental Biology* 34 (5), 963
- 64. P Roy, **NK Mondal**, S Bhattacharya, B Das, K Das(2015) Removal of arsenic (III) and arsenic (V) on chemically modified low-cost adsorbent: batch and column operations, *Applied Water Science* 3 (1), 293-309
- **65. NK Mondal**, K Das, U Dey, P Roy, KC Pal (2015) Dental fluorosis among children in laxmisagar village, bankura district, west bengal, india, *Fluoride* 46 (4), 230-233
- 66. JK Datta, **NK Mondal**, KC Pal, S Ghosh, C Das, M Dey (2015) Seasonal variation of soil enzymes in areas of fluoride stress in Birbhum District, West Bengal, India; *Taibah University*

## **Book Chapter:**

Date: -24/08/2019

- 1. Siddhartha Bhattacharjee, Siddhartha Bhattacharjee, **Naba Kumar Mondal**. Quantum Backpropagation Neural Network Approach for Modeling of phenol adsorption from aqueous solution by Orange peel Ash. Chapter 25.
- **2.** Soumendra nath Chatterjee and **Naba Kumar Mondal** Uttiya Dey. Effective Microbial Detoxification of Arsenic: Green Bioremediation. Nova Science Publishers, Inc. 400 Oser Avenue, Suite 1600, Hauppauge, NY 11788 USA. Nova Science Publishers, ISBN:978-1-53614-528-1.

(NABA KUMAR MONDAL)

Nasa Kumas Mousal