Faculty Profile

1. Name: Dr. Kalipada Bankura

2. **Designation:** Assistant Professor (Stage III)

3. **Name of the Department:** Chemistry

4.**E-mail ID:** kalipada2010@gmail.com

5.WEB Page, if any: No

6. **Educational Qualifications (Graduation onwards):**

Examination	Name of the University/Institution	Year of Passing	Subject
B. Sc.	Vidyasagar University	2004	Chemistry
M. Sc.	Vidyasagar University	2006	Chemistry

7. Research Degree(s):

Degree	Name of the Degree Awarding Institution	Date of Award	Title
Ph. D	University of Calcutta	28/04/2016	Synthesis and Characterization of Precious Metal Nanoparticles in Polymer Solution

8. Teaching Experience (in Years): 13 Years

9. Specialization/Expertise/Teaching Area: Organic Chemistry, Polymer Chemistry, Nanoscience and Nanotechnology

10. Courses Taught: UG Chemistry (Honours & General)

11. Present Research Activities, if any: Yes

12. Major/Minor Research Project(s) Undertaken/Completed (during last 5 years): NIL

13. Publications and Others:

A] Books Published: No

B] Research Papers in International/National Journals:

1. **K. P. Bankura**, D. Maity, M.M.R. Mollick, D. Mondal, B. Bhowmick, M.K. Bain, A. Chakraborty, J. Sarkar, K. Acharya, D. Chattopadhyay, Synthesis, characterization and antimicrobial activity of dextran stabilized silver nanoparticles in aqueous medium, Carbohydrate Polymers, 89, 2012, 1159–1165.
2. Md. Masud Rahaman Mollick, Biplab Bhowmick, Dipanwita Maity, Dibyendu Mondal, Mrinal Kanti Bain, **Kalipada Bankura**, Joy Sarkar, Dipak Rana, Krishnendu Acharya, and Dipankar Chattopadhyay, Green Synthesis of Silver Nanoparticles Using Paederia foetida L. Leaf Extract and

Assessment of Their Antimicrobial Activities, International Journal of Green Nanotechnology, 4, 2012, 1–10.

3. Dipanwita Maity, Md. Masud Rahaman Mollick, Dibyendu Mondal, Biplab Bhowmick, Mrinal Kanti Bain, **Kalipada Bankura**, Joy Sarkar, Krishnendu Acharya, Dipankar Chattopadhyay, Synthesis of methylcellulose–silver nanocomposite and investigation of mechanical and antimicrobial properties, Carbohydrate Polymers, 90, 2012,1818–1825.
4. **Kalipada Bankura**, Dipanwita Maity, Md. Masud Rahaman Mollick, Dibyendu Mondal, Biplab Bhowmick, Indranil Roy, Tarapada Midya, Joy Sarkar, Dipak Rana, Krishnendu Acharya, Dipankar Chattopadhyay, Antibacterial activity of Ag–Au alloy NPs and chemical sensor property of Au NPs synthesized by dextran, Carbohydrate Polymers, 107, 2014, 151– 157.
5. **Kalipada Bankura**, Dipak Rana, Md Masud Rahaman Mollick, Sutanuka Pattanayak, Biplab Bhowmick, Nayan Ranjan Saha, Indranil Roy, Tarapada Midya, Gadadhar Barman, Dipankar Chattopadhyay, Dextrin-mediated synthesis of Ag NPs for colorimetric assays of Cu^{2+} ion and Au NPs for catalytic activity, International journal of biological macromolecules, 80, 2015, 309-316.
6. Gadadhar Barman, **Kalipada Bankura**, Colorimetric Assays for Detection of Cu^{2+} ion using *Punica Granatum* Functionalized Gold and Silver Nanoparticles, International Journal of Nanomaterials and Chemistry, 2 (3), 2016,75-81.
7. **Kalipada Bankura**, Plastics: Boon or Bane, Tamralipta Mahavidyalaya Research Review, 1, 2016, 66-68.
8. U Senapati, **K.P. Bankura**, B Mandal, The Proton Affinities of a Series of Heterocyclic Compounds Pyrrole, Furan, Thiophene and Pyridine in their Low-lying Excited Triplet State: A DFT-Based Comparative Study, Indian Journal of Heterocyclic Chemistry, 27 (04), 2017, 463-472.
9. U. Senapati, B. Mandal, **K.P. Bankura**, The Ground State Cu^{2+} Ion Affinities of Glycine, Alanine and Cysteine in Gas and Aqueous Phase: A DFT Based Computional Study, Rasayan Journal of Chemistry, 10 (3), 2017, 981 – 989.
10. Dhrubajyoti Majumdar, Jayanta Kumar Biswas, Monojit Mondal, Manabolu Surya Surendra Babu, Sourav Das, Ramesh K Metre, Sreejith S SreeKumar, **Kalipada Bankura**, Dipankar Mishra, Cd (II) Pseudohalide Complexes with N, N′-Bis (3-ethoxysalicylidenimino) 1, 3-Diaminopropane: Crystal Structures, Hirshfeld Surface, Antibacterial and Anti-Biofilm Properties, ChemistrySelect, 3 (11), 2018, 2912-2925.
11. Dhrubajyoti Majumdar, Jayanta Kumar Biswas, Monojit Mondal, MS Surendra Babu, Ramesh K Metre, Sourav Das, **Kalipada Bankura**, Dipankar Mishra, Coordination of N,O-donor appended Schiff base ligand (H_2L_1) towards Zinc(II) in presence of pseudohalides: Syntheses, crystal structures, photoluminescence, antimicrobial activities and Hirshfeld surfaces, Journal of Molecular Structure, 1155, 2018, 745-757.
12. Dhrubajyoti Majumdar, Swapan Dey, Sreejith S Sreekumar, Sourav Das, Dhiraj Das, Ramesh K Metre, **Kalipada Bankura**, Dipankar Mishra, Nitrato, Pseudohalo-Linked Zn (II)/Cd (II) Schiff-Base Complexes with 1, 3-Diimine Spacer Group: Syntheses, Crystal Structures, DFT, TD-DFT and Fluorescence Studies. ChemistrySelect, 3(43), 2018, 12371-12382.
13. B Mandal, U Senapati, **K Bankura**, The Comparative Basicities, Li^+ and Na^+ Cation Affinities with a series of Heterocyclic Molecules: A DFT Study. Rasayan Journal of Chemistry, 11(2), 2018, 743-755.
14. Dhrubajyoti Majumdar, Sourav Das, Renjith Thomas, Zakir Ullah, SS Sreejith, Dhiraj Das, Pooja Shukla, **Kalipada Bankura**, Dipankar Mishra, Syntheses, X-ray crystal structures of two new Zn(II)-dicyanamide complexes derived from H2vanen-type compartmental ligands: Investigation of thermal, photoluminescence, in vitro cytotoxic effect and DFT-TDDFT studies, Inorganica Chimica Acta, 492, 2019, 221-234.

15. Dhrubajyoti Majumdar, Swapan Dey, Dhiraj Das, Dheeraj Kumar Singh, Sourav Das, **Kalipada Bankura**, Dipankar Mishra, Heterometallic Zn (II)-K (I) complex with salen-type Schiff-base ligand: Synthesis, crystal structure, solid-state photoluminescent property and theoretical study, Journal of Molecular Structure, 1185, 2019, 112-120.
16. Dhrubajyoti Majumdar, Swapan Dey, SS Sreejith, Jayanta Kumar Biswas, Monojit Mondal, Pooja Shukla, Sourav Das, Tapan Pal, Dhiraj Das, **Kalipada Bankura**, Dipankar Mishra, Syntheses, crystal structures and photo physical aspects of azido-bridged tetranuclear cadmium (II) complexes: DFT/TD-DFT, thermal, antibacterial and anti-biofilm properties, Journal of Molecular Structure, 1179, 2019, 694-708.
17. Dhrubajyoti Majumdar, Dhiraj Das, SS Sreejith, Sourav Das, Jayanta Kumar Biswas, Monojit Mondal, Debarati Ghosh, **Kalipada Bankura**, Dipankar Mishra, Dicyanamide-interlaced assembly of Zn(II)-schiff-base complexes derived from salicylaldimino type compartmental ligands: Syntheses, crystal structures, FMO, ESP, TD-DFT, fluorescence lifetime, in vitro antibacterial and anti-biofilm properties, Inorganica Chimica Acta, 489, 2019, 244-254.
18. Dhrubajyoti Majumdar, Dhiraj Das, S. S. Sreejith, Sudip Nag, Swapan Dey, Surajit Mondal, **Kalipada Bankura**, and Dipankar Mishra Synthesis, characterizations and single crystal structure of di-nuclearazido-bridged Cd(II) coordination polymer with Schiff base precursor (H2LpentOMe):DFT, Fluorescence, solvatochromism and in vitro antimicrobial assay, Inorganica Chimica Acta, 96, 2019, 119069
19. Dhrubajyoti Majumdar,Yashika Agrawal,Renjith Thomas, Zakir Ullah, Manas Kumar Santra, Sourav Das, Tapan Kumar Pal, **Kalipada Bankura**, Dipankar Mishra, Syntheses, characterizations, crystal structures, DFT/TD-DFT, luminescence behaviours and cytotoxic effect of bicompartmental Zn(II)-dicyanamide Schiff base coordination polymers: An approach to apoptosis, autophagy and necrosis type classical cell death Applied Organometallic Chemistry,34, 2020, e5269
20. Dhrubajyoti Majumdar, Tapan kumar pal, Dheeraj Kumar Singh, Deepak K. Pandey, Debaprasad Parai, **Kalipada Bankura**, Dipankar Mishra, DFT investigations of linear Zn3-type complex with compartmental N/O donor Schiff base: Synthesis, characterizations, crystal structure, fluorescence and molecular docking, Journal of Molecular Structure, 1209, 2020, 127936.
21. Dhrubajyoti Majumdar, Dhiraj Das, Sudip Nag, Maitree Bhattacharyya, Dheeraj K. Singh, Debaprasad Parai, **Kalipada Bankura**, and Dipankar Mishra, A rare hetero-bimetallic Zn(II)/Ca(II) Schiff base complex: Synthesis, crystal structure, DFT, molecular docking and unveiling antimicrobial activity, Journal of Molecular Structure, 1222, 2020, 128951.
22. Dhrubajyoti Majumdar, Jessica Elizabeth phillip, Bidyut Kum kundu, Reena V Saini, G. Chandan, Sourav Das, **Kalipada Bankura**, Dipankar Mishra, Experimental and theoretical corroboration of antimicrobial and anticancer activities of two pseudohalides induced structurally diverse Cd(II)-Salen complexes, Journal of Molecular Structure, 1225, 2020, 129189.
23. Dhrubajyoti Majumdar, Swapan Dey, Annu Kumari, Tapan Kumar Pal, **Kalipada Bankura**, Dipankar Mishra, Dicyanamide-intertwined assembly of two new Zn complexes based on N_2O_4-type pro-ligand: Synthesis, crystal networks, spectroscopic insights, and selective nitroaromatic turn-off fluorescence sensing, Spectrochimica Acta Part A, 254, 2021, 119612.
24. Dhrubajyoti Majumdar, Tapan Kumar Pal, Shahenur Alam Sakib, Sourav Das, **Kalipada Bankura**, Dipankar Mishra, Synthesis, spectroscopic characterization, and SC-XRD study of one privileged heteronuclear Ni(II)/Hg(II)-Salen complex: An exclusive DFT outlook, Inorganic Chemistry Communication, 128, 2021, 108609.

Book Chapter

1. **Kalipada Bankura,** General introduction on nanoparticles with antimicrobial application of AgNPs, Recent trends in research in chemical sciences, 1, 2016, 212-221

2. **Kalipada Bankura**, A short literature review on Fluorosis, Fluorosis and arsenicosis: A global problem, 1, 2016, 189-195.
3. **Kalipada Bankura**, Synthesis and characterization of precious metal nanoparticles in polymer Solution, Synthesis and characterization of precious metal nanoparticles in polymer solution, 2016.
4. **Kalipada Bankura**, Remediation of Environment by Nanomaterials: A Review, Progress of chemistry for the sustainable development of mankind, 1, 2019, 102-111.
5. **Kalipada Bankura**, Applications of nano based systems in drug delivery, Recent Advancement in Therapeutic Use of Chemical Compounds and Drug Delivery, 1, 2021.

C] Conference Papers: NIL

a) International Conference: NIL

b) National Conference: NIL

D] Conference / Symposium Attended (during last 5 years)

- **International Level**

Name of The Conference	Organizer, Date, Venue	Financially Supported by

- **National Level**

Name of The Conference	Organizer, Date, Venue	Financially Supported by

E] Invited Lectures Delivered in Seminars/Webinars: (Title, Name of Seminar, Organizer Date and Venue):

Paper Presented:

1. In Situ synthesis, characterization and antimicrobial activity of silver nanoparticles using water soluble polymer. Dipanwita Maity, Biplab Bhowmick, Mrinal kanti Bain, **Kalipada Bankura**, Dipankar Chattopadhyay (15^{th} -17^{th} DEC 2010), MACRO 2010, held at India Habitat Centre, New Delhi.
2. Synthesis, characterization and antimicrobial activity of dextran stabilized silver nanoparticles. **Kalipada Bankura**, Dipankar Chattopadhyay (22^{nd} -24^{th} JAN 2014) RAPT 2014, Technology Campus, University of Calcutta.
3. Synthesis, characterization and antimicrobial activity of dextran stabilized AgNPs and Ag–Au alloy NPs & chemical sensor property of AuNPs in aqueous medium. **Kalipada Bankura, (**27^{th} MARCH, **2015**), UGC-Sponsored National Seminar on Current Trends of Research in Human Physiology and Community Health. Dept. of Human Physiology with Community Health, Vidyasagar University, Midnapore – 721102.
4. Biodegradable and Bio-Based Polymers: Environmental Perspective and Future Trends. **Kalipada Bankura, (**9^{th}& 10^{th} SEPTEMBER, **2015**), UGC-Sponsored National Seminar on Environment Friendly Biodegradable polymers: Present and Future. Department of Chemistry & Nutrition, Mugberia Gangadhar Mahavidyalaya, Bhupatinagar, PurbaMedinipore, West Bengal, India.
5. A short introduction on nanomaterials. **Kalipada Bankura, (**4^{th}& 5^{th} AUGUST, **2016**), UGC-Sponsored National Seminar on Recent Development in Bio-Active Molecules (RDBAM **2016**). Department of Chemistry, Haldia Govt. College, Haldia, PurbaMedinipore, West Bengal, India.
6. A short literature review on Fluorosis. **Kalipada Bankura, (**13^{th}& 14^{th} SEPTEMBER, **2016**), UGC-Sponsored National Seminar on Fluorosis and Arsenicosis: A Global Problem. Department of Chemistry & Nutrition, Prabhat Kumar College, Contai and in Collaboration With Department of Chemistry, Mugberia Gangadhar Mahavidyalaya, Bhupatinagar, PurbaMedinipore, West Bengal, India.

7. An overview on the classification, synthesis, characterization and antimicrobial application of silver nanoparticles. **Kalipada Bankura, (**30th AUGUST, **2016**), UGC-Sponsored National Seminar on Recent Trends in Research in Chemical Sciences. Department of Chemistry, Ghatal Rabindra Satabarsiki Mahavidyalaya, Ghatal, PaschimMedinipur and in Collaboration With Department of Chemistry, Kharagpur College, Kharagpur, PaschimMedinipore, West Bengal, India.
8. A brief theoretical aspect of Fluorescence Spectra. **Kalipada Bankura, (**4th & 5th OCTOBER, **2016**), UGC-Sponsored National Seminar on the Basics of Fluorescence with its Present Day Application. Department of Chemistry and Physics, Bajkul Milani Mahavidyalaya, Bajkul, Purba Medinipore and in Collaboration with Egra SSB College, Purba Medinipore, West Bengal, India.
9. A short introduction on nanomaterials, **Kalipada Bankura, (**26th & 27th FEBRUARY, **2016**), National Conference on Advancement in Frontier Physics: from 20th Century to Present. Department of Physics, Bhairab Ganguly College, Belghoria, Kolkata and in Collaboration with Mrinalini Dutta Mahavidyalaya,and West Bengal State University, West Bengal, India.
10. Application of nanomaterials for environmental remediation, **Kalipada Bankura, (**22th & 23th DECEMBER, **2016**), UGC-Sponsored National Seminar on Chemistry Today-Nanoworld to Macroworld,. Department of Chemistry, Sonamukhi College, Bankura and in Collaboration with Indus Mahavidyalaya, Bankura, West Bengal, India.
11. Eutrofication: The useless water land. **Kalipada Bankura, (**26th & 27th FEBRUARY, **2016**) UGC-Sponsored National Seminar on Wetland Bio-rerource Management: Problem and Prospects, Dept. of Zoology, Tamralipta Mahavidyalaya, Tamluk Purba Medinipur in Collaboration with Gourab Guin Memorial College , Chandrakona Road, Paschim Medinipur, West Bengal, India.
12. Importance of Green Synthetic Approach of Silver Nanoparticles, **Kalipada Bankura, (**20th& 21st AUGUST, **2018**), International Conference on Green Engineering and Sustainable Development, Department of Chemistry, Mugberia Gangadhar Mahavidyalaya, Bhupatinagar, Purba Medinipore, West Bengal, India in Collaboration with Indian Chemical Society.
13. Density Functional Theory (DFT): Introduction to Computational Chemistry, **Kalipada Bankura** (27th SEP, 2019), one day state level Seminar on Application of Computational Methods in Modern Science, Dept. of Chemistry and Physics, Bajkul Milani Mahavidyalaya.
14. Remediation of Environment by Nanomaterials: A review, **Kalipada Bankura** (20th NOV, 2019), SERB sponsored one day National Seminar on The development of chemistry house on the pillar of periodic table.(IYPT 2019), Dept. of Chemistry, Prabhat Kumar College, Contai.
15. An overview on application of paper and plastics as food packaging materials, **Kalipada Bankura (**8 & 9th January, 2020**)** Innovation, Expansion, Impacts and Challenges in Chemical and Biological Sciences, Surendranath College.
16. Global Warming and Global Dimming, **Kalipada Bankura** (27th January, 2020), one day National level seminar on Sustainable Development: Its Impact on Marginalised, Tamralipta Mahavidyalaya.
17. Silver Nanoparticles: Its Synthetic approaches, Properties and Applications, **Kalipada Bankura**, Dhrubajyoti Majumdar and Dipankar Mishra, (14th - 15th, JUNE 2020), Two-Day International Webinar on Recent Trends in Nanomaterials & Nanobiomaterials (RTNN), organized by Department of Physics, Narajole Raj College.

F] Orientation Programme/Refresher Course/Short Term Course Completed:

Name of the Course	Place	Duration	Sponsoring Agency
Orientation Course	Training Orientation & Research Centre, Ramakrishna Mission	12.08.10 to 2108.10	Dept. of Youth Affairs & Sports, Govt. of India

	Lokasikha Parishad		
Orientation Programme	Academic Staff College University of Calcutta	03.09.12 to 29.09.12	UGC
Refresher Course in Chemistry	Academic Staff College University of Calcutta	16.08.13 to 06.09.13	UGC
Refresher Course in Chemistry	Faculty Development Centre IIT(ISM), Dhanbad	08.06.18 to 28.06.18	MHRD
Refresher Course in Chemistry (online)	Human Resource Development Centre University of North Bengal	11.02.21 to 24.02.21	UGC

FDP / FIP / Short Term Course	**Organizers**	**Date**	**Agency**
1. Faculty Development Programme	Tamralipta Mahavidyalaya	18/082017 to 30/08/2017	DST-NIMAT PROJECT
2. E-Short-term Course On Earth : Our Home	IQAC & Dept. of Chemistry Basanti Devi College	05/06/2020 to 11/06/2020	
3. Online FDP on Recent Advances in Material Science	Amity University, Kolkata	08/07/2020 to 12/07/2020	
4. Online Workshop on Techno-Pedagogy and Research Methodology	B.Ed. Section & IQAC, Kalna College	17/07/2020 to 23/07/2020	
5. Online FDP on "Recent advancement in chemical biology and drug discovery" (RACBDD-2020)	Department of Biotechnology, College of Engineering & Technology, Bhubaneswar	14/09/2020 to 18/09/2020	TEQIP – III
6. Online Workshop on Molecular modelling materials and biological molecules	NIT Rourkela	22/09/2020 to 26/09/2020	TEQIP – III
7. Online FDP on Sensors Technology	Department of Physics, The University of Burdwan	03/11/2020 to 07/11/2020	AICTE (ATAL)
8. Online FDP on Effective solid waste management Strategies for a sustainable future	Dept. of Chemistry National Institute of Engineering, Mysuru	23/11/2020 to 27/11/2020	
9. Nano Era: Nanotechnology for Global Sustainability	Amity Institute of Nanotechnol Amity University, UP	07/06//2021 to 11/06/2021	
10. Energetic Beam Technology: From Materials Engineering to Diagnostics	Amity Institute of Nanotechnol Amity University, UP	21/06//2021 to 25/06/2021	
11. Online Elementary FDP on "Novel materials for Next generation	Allamuthu Gounder Mahalingam College	26/07//2021 to 30/07/2021	AICTE (ATAL)
12. Online Elementary FDP on " Plastic Waste Management: Challenges & opportunities"	Central Institute of Petrochemicals Engineering & Technology.	23/08/2021 to 27/08/2021	AICTE (ATAL)

G] Articles Published in Magazines: NIL

14. Awards and Recognitions, if any:

Name	**Agency**	**Year**	**Subject**
CSIR-NET	UGC	2005	Chemical Sciences
SLET	WBCSC	2006	Chemical Sciences
CSIR-NET	UGC	2007	Chemical Sciences

15. **Membership of Reputed Bodies/Organizations including Professional Associations:** NIL

16. **Significant Information, if any:** No