

# 1<sup>st</sup> Advisory Committee Meeting on Virtual Platform Under DBT Star College Strengthening Scheme

## Presentation Department of Chemistry Mugberia Gangadhar Mahavidyalaya

(College with **Potential for Excellence** under UGC scheme (2016-21) )  
NAAC re-accredited (3<sup>rd</sup> cycle) with CGPA 2.71



**Bhupatinagar, Purba Medinipur  
West Bengal, 721425**

**29.06.2022**

## **The presentation includes**

- **New practical introduced as prescribed but not be conducted earlier**
- **Equipment procured for the proposed new practical**
- **Interdisciplinary/departmental projects executed by the students**
- **Workshops and seminars organized in topical areas for students by the dept. supported under the scheme**
- **Faculty improvement programs initiated for the faculty**
- **Visits to industry and important labs of national eminence**
- **Lectures Delivered by Experts/Speakers in the relevant subject area**
- **Outreach activities**
- **Training of Lab Manpower**
- **Impact of the Star College Scheme**
- **Budget Expenditure**
- **Assets acquired by the department out of Govt. Grant**
- **Basic research published in reputed journals under the financial support of DBT**
- **Future Activities**

## **New practical introduced as prescribed but not be conducted earlier**

- 1. Isoelectric pH of protein**
- 2. Determination of Critical Micelle Concentration of surfactants like SDS using tensiometer**
- 3. Qualitative and quantitative estimation of carbohydrate, protein and fat in food**
- 4. Column chromatographic separation of mixture of dyes and TLC separation of a mixture containing 2/3 amino acids**
- 5. Determination of pH of soil and estimation of potassium, calcium, magnesium**
- 6. Potentiometric titration of Mohr's salt and determination of  $K_{sp}$  for  $AgCl$  by potentiometric titration**
- 7. pH-metric titration of acid**
- 8. Determination of enthalpy of oxalic acid solution in water**
- 9. Verification of Lambert Beer's law, Dissociation constant determination of indicator, Determination of CMC of a surfactant using colorimeter**

# Equipment procured for the proposed new practical

<b>Experiments</b>	<b>Procured Equipment</b>
<b>Isoelectric pH of protein</b>	<b>Viscometer (Digital)</b>
<b>Determination of Critical Micelle Concentration (CMC) of surfactants using tensiometer</b>	<b>Tensiometer (Manual)</b>
<b>Estimation of carbohydrate, protein and fat</b>	<b>Sonicator</b>
<b>Column chromatographic separation and TLC separation</b>	<b>Rotavapour with Chiller, UV light with chamber</b>
<b>Determination of pH of soil and estimation of potassium, calcium, magnesium</b>	<b>Soil tensiometer, Flame photometer</b>
<b>Potentiometric titration</b>	<b>Potentiometer with required electrodes</b>
<b>pH-metric titration</b>	<b>pH meter</b>
<b>Determination of enthalpy of oxalic acid solution in water</b>	<b>Water bath with thermostat</b>
<b>Verification of Lambert Beer's law</b>	<b>Colorimeter</b>

# **Interdisciplinary/departmental projects executed by the students**

- 1. Estimation of nitrogen, phosphorous and potassium (NPK) in the fertilizer free soil**
- 2. DNA/protein interaction study with Schiff Base Transition metal complexes**
- 3. BSA protein estimation in an unknown solution**
- 4. Carbohydrate and protein estimation in jam, bread, cookies, dahi, cake, lassi etc by spectrophotometrically**
- 5. Quantitative test for saponin content in quinoa flour**
- 6. Critical Micelle Concentration (CMC) determination of a surfactant (Sodium Dodecyl Sulphate) by using Tensiometer**
- 7. Degradation of organic pollutant dyes under sunlight irradiation**
- 8. Synthesis of nanocrystalline compounds by hydrothermal methods and their application in catalysis & environmental remediation**

# Estimation of nitrogen, phosphorous and potassium (NPK) in the fertilizer free soil

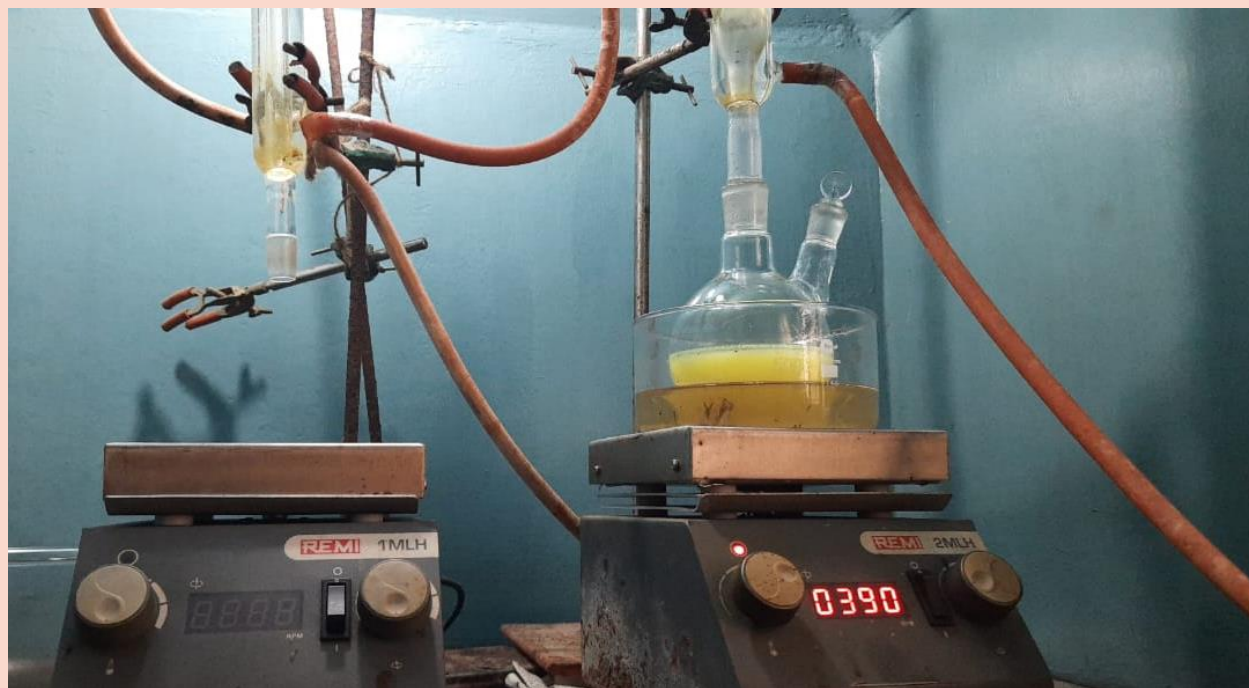




# BSA protein estimation in an unknown solution



# Synthesis of nanocrystalline compounds by hydrothermal methods





# Carbohydrate and protein estimation in jam, bread, cookies, dahi, cake, lassie etc by spectrophotometrically



# Workshops and seminars organized in topical areas for students by the dept. supported under the scheme

## Recent Advances in Therapeutic use of Chemical compounds and Drug Delivery

### A ONE DAY INTERNATIONAL WEBINAR

Celebrating 159<sup>th</sup> birthday of

## Acharya Prafulla Chandra Ray

Organized by  
Department of Chemistry and Research Cell  
MUGBERIA GANGADHAR MAHAVIDYALAYA

Under  
DBT STAR  
COLLEGE  
Strengthening  
Scheme  
(Govt of India)

**2<sup>nd</sup> Aug.  
2020  
6-9 PM**

**Chair Person**  
Dr. Swapan K. Misra  
Principal  
Mugberia Gangadhar Mahavidyalaya

**Jt. Convener**  
Dr. Narottam Sutradhar  
Assistant Professor, Dept of  
Chemistry, Coordinator UBA  
Mugberia Gangadhar Mahavidyalaya

**Jt. Convener**  
Dr. Bidhan Chandra Samanta  
Associate Prof, HOD Chemistry,  
Coordinator Research Cell  
Mugberia Gangadhar Mahavidyalaya

**Speaker**  
Dr. Pralay Maiti  
Professor and Coordinator  
School of Material Sc & Tech  
IIT-BHU, Varanasi

**Speaker**  
Dr. Dipankar Pan, Professor  
School of Medicine,  
University of Maryland,  
Maryland, USA

**Speaker**  
Dr. Nibin C. Maity  
Sr. Scientist, Sahajanand  
Medical Technologies, Surat,  
Gujarat

**Speaker**  
Dr. Samit K. Pramanik, Senior  
Scientist, Analytical and  
Environmental Science Division,  
CSMCRI-CSIR, Gujarat

**Speaker**  
Dr. Malabendu Jana, Asst.  
Professor, Dept of Neurological  
Science and Biochemistry, Rush  
University, Chicago, Illinois, USA

**Invitation for full length Paper**

Abstract submission  
deadline (300 words)-July  
31, 2020. Full paper  
submission August 31<sup>st</sup>,  
2020 for publication in  
book with ISBN No.

Send your abstract and full  
paper to  
[sutradhar.n@gmail.com/](mailto:sutradhar.n@gmail.com)  
[bidhansamanta@yahoo.in](mailto:bidhansamanta@yahoo.in)

**Theme of the Webinar**  
Natural and synthetic chemical compounds have served mankind for healing and life saving purpose since ancient times. However better understanding of human physiology, its working procedure, constituent elements of human body, its interaction with environment along with the development of technology in different field of science has triggered discovery of newer drug molecules with better healing abilities. Development of inorganic materials like polymers, nano-materials is coming up with emerging techniques of drug delivery with better results for treatment of cancer, heart blockage, cataract etc. Nanomaterials are coming up with their antibacterial, antiviral effect for fighting pandemic situations like COVID 19. Uses of newer inorganic elements are also finding their abilities towards new possibilities in therapeutic use.

**Sub Theme:**  
Sustained drug delivery, Controlled drug delivery, Therapeutic use of Nanomaterials, Nanotechnology and drug delivery, nanomedicine, Therapeutic use of Organometallic compounds, Nanomaterials against COVID, Nanotechnology to fight cancer, Targeted drug delivery, Ocular drug delivery, Transdermal drug etc.

Registration is free, for registration click on the link <http://forms.gle/Vth4S3smUeY5e8TC9> or copy-paste in search bar. **Last date of registration 30<sup>th</sup> July, 2020 up to 5.00 pm.**

Platform Zoom apps Streaming YouTube. Meeting link will be provided one day prior to the Webinar through registered e-mail or WhatsApp.

**e-certificates will be issued only after successful filling of Feedback form.**

## The Impact of Nanotechnology in our life

### A ONE DAY STATE LEVEL WEBINAR

Organized by : Department of Chemistry  
MUGBERIA GANGADHAR MAHAVIDYALAYA  
BHUPATINAGAR, EAST MIDNAPORE, WEST BENGAL

Program Under DBT STAR COLLEGE Strengthening Scheme  
(Govt of India); 3<sup>rd</sup> July, 2021: 11:30AM

**Invited Speaker**  
Dr. Satyapriya Bhandari,  
DST Inspired Faculty,  
Department of Chemistry,  
University of North Bengal

**Chair Person**  
Dr. Swapan Kumar Misra,  
Principal, Mugberia  
Gangadhar Mahavidyalaya

**Jt. Convener**  
Dr. Bidhan Chandra Samanta,  
Associate Professor, Coordinator  
DBT Star College Program, HOD  
Chemistry, Mugberia Gangadhar  
Mahavidyalaya

**Jt. Convener**  
Dr. Narottam Sutradhar,  
Assistant Professor,  
Department of Chemistry,  
Mugberia Gangadhar  
Mahavidyalaya

## A P C Ray Memorial Lecture on "Control Drug Delivery and Health Care"

### On the occasion of 160<sup>th</sup> Birth Anniversary of A P C Ray

Organized by : Department of Chemistry  
MUGBERIA GANGADHAR MAHAVIDYALAYA  
BHUPATINAGAR, EAST MIDNAPORE, WEST BENGAL

Program Under DBT STAR COLLEGE Strengthening Scheme (Govt of India); 2<sup>nd</sup> August, 2021: 3:30 pm

**Speaker**  
Dr. Pralay Maiti  
Professor  
School of Material Sc &  
Tech  
IIT-BHU, Varanasi

Platform: Zoom.us

**Live Streaming on YouTube**

Link:

**Chair Person**  
Dr. Swapan Kumar Misra,  
Principal, Mugberia  
Gangadhar Mahavidyalaya

**Convener**  
Dr. Bidhan Chandra Samanta,  
Associate Professor, Coordinator  
DBT Star College Program, HOD  
Chemistry, Mugberia Gangadhar  
Mahavidyalaya

**Jt. Convener**  
Dr. Narottam Sutradhar,  
Assistant Professor,  
Department of Chemistry,  
Mugberia Gangadhar  
Mahavidyalaya



Recent Development of Chemical Research being implemented in Biology and Medicine  
**A TWO DAY NATIONAL CONFERENCE**



Organized by  
 Department of Chemistry  
**MUGBERIA GANGADHAR MAHAVIDYALAYA**

Supported by: **DBT (Govt. of India)**

**2nd & 3rd  
 Nov,  
 2021**



**Organizing President**  
 Dr. Swapan Kr. Misra  
 Principal  
 Mugberia Gangadhar  
 Mahavidyalaya



**Inaugurator**  
 Prof. Ashutosh Ghosh  
 Vice-Chancellor  
 Rani Rasmoni Green University  
 Hooghly, West Bengal



**Speaker**  
 Dr. Amit Basak  
 Visiting Professor, School of  
 Bioscience, IIT, Kharagpur  
 West Bengal



**Speaker**  
 Dr. Pralay Maiti  
 Professor and Ex-Coordinator  
 School of Material Sc & Tech  
 IIT-BHU, Varanasi  
 UP



**Speaker**  
 Dr. Tanmay Pathak  
 Professor, Dept of  
 Chemistry, IIT,  
 Kharagpur, WB

**Theme of the Webinar**

Natural and synthetic chemical compounds have served mankind for healing and life saving purpose since ancient times. However better understanding of human physiology, its working procedure, constituent elements of human body, its interaction with environment along with the development of technology in different field of science has triggered discovery of newer drug molecules with better healing abilities. Development of inorganic materials like polymers, nano-materials is coming up with emerging techniques of drug delivery with better results for treatment of cancer, heart blockage, cataract etc. Nanomaterials are coming up with their antibacterial, antiviral effect for fighting pandemic situations like COVID 19. Uses of newer inorganic elements are also finding their abilities towards new possibilities in therapeutic use.



**Coordinator & Speaker**  
 Dr. Bidhan Chandra Samanta  
 Associate Prof, HOD Chemistry,  
 Coordinator, Star College Scheme  
 Mugberia Gangadhar Mahavidyalaya

**Registration is free, but it is mandatory**

Registration link: <https://forms.gle/xyTShSxxO5ROGMCN8>

**Last date of registration: 28<sup>th</sup> October, 2021 up to 5.00 pm.**

**Platform Zoom apps Streaming YouTube.** Meeting link will be provided one day prior to the Webinar through registered e-mail or WhatsApp.

**e-certificates will be issued only after successful filling of Feedback form.**

**Invitation for abstract and full length Paper**

**Abstract submission deadline (300 words)- October 20, 2021. Full paper submission October 25, 2021 for proceeding publication with ISBN No.**

**Send your abstract and full paper to [bidhansamanta@yahoo.in](mailto:bidhansamanta@yahoo.in)**



**One day innovative model and poster exhibition cum competition for students on the theme Science and Environment dated 1st March, 2021**



# Wall Magazine Publication, 2022





# Summer Training School

on

## “Emerging Trends at the interface of Chemistry, Zoology and Mathematics



### Summer Training School on “Emerging Trends at the interface of Chemistry, Zoology and Mathematics

Under  
DBT STAR COLLEGE STRENGTHENING  
SCHEME, GOVT. OF INDIA

Organized by Department of Chemistry, Zoology and Mathematics,  
Mugberia Gangadhar Mahavidyalaya, Bhupatinagar, Purba Medinipur,  
West Bengal, India.

#### Course Design

**Area:** Biochemistry, Biomathematics  
and Zoology  
**Number of Topics:** 9 (3 in each area) on  
Theoretical aspects and 2 (1 each in  
Chemistry and Zoology) on Practical  
aspects

#### Span for the Course

10 days  
From July 15 to July  
24, 2021  
Class time: 11.00  
am to 1.00 pm

❖ **Course Fee:** No course fee will be charged



#### Evaluation and Certificate

After completion of the course,  
evaluation test will be conducted.  
Certificate will be issued only  
after qualifying the evaluation  
test.



**Google Form for Registration:** <https://forms.gle/otZuJGnBPBvtjgvF6>

Last Date of Registration: 14<sup>th</sup> July, 2021 up to midnight.

Follow this link to join the WhatsApp group:

<https://chat.whatsapp.com/Kf3onA2ItYJA3XW7Q3HSp4>

*All are cordially invited*

**Inaugurator**  
Prof. (Dr.) Ashis Kumar Panigrahi,  
Pro-Vice-Chancellor, University of  
Burdwan

#### Organizing Committee

❖ **Chairperson:** Dr Swapan Kumar Misra,  
Principal, Mugberia Gangadhar  
Mahavidyalaya

❖ **Course Co-ordinator:** Dr Bidhan Chandra  
Samanta, Associate Professor, Dept of  
Chemistry and Co-ordinator, DBT Star  
College Scheme

❖ **Jt Course Co-ordinators:** Dr Kalipada  
Maity, Associate Professor & HOD, Dept of  
Mathematics and Dr Soma Karmakar,  
Assistant Professor & HOD, Dept of Zoology

❖ **Contact Email:**

[bidhansamanta@yahoo.in](mailto:bidhansamanta@yahoo.in);

[knaity78@gmail.com](mailto:knaity78@gmail.com);


[somakarmakar941@gmail.com](mailto:somakarmakar941@gmail.com)

## Resource Persons & Topics of presentation

1. Prof. Debasis Kuila, Professor & Research Director, NSF-CREST Bio-energy Center, Department of Chemistry ( NSB 342), North Carolina A & T State University, USA. **Title: Conversion of Biomass into fuels and value added chemicals**
2. Dr. Maidul Hossain, Department of Chemistry and Chemical Technology, Vidyasagar University, Paschim Medinipur-721302, West Bengal, India. **Title: "Synthesis of 9-O-(substituted) berberine analogues : Their application towards DNA and protein binding and as a toxic material sensor"**
3. Dr Rajarshi Ghosh, Associate Professor, Department of Chemistry, The University of Burdwan, Burdwan 713 104, India. **Title: "Magnetic interactions in dinuclear transition metal complexes and prussian blue analogues“**
4. Dr. Uttam Bera, Associate Professor Dept. of Mathematics, NIT Agartala Tripura. **Title : Effect of supply chain during Covid -19**
5. Dr. Jayanta De. Associate Professor, Dept of Mathematics, Mahisadal Raj College, Purba Medinipur, West Bengal. **Title: Role of Mathematics in the present context**
6. Dr. Anupam De, Assistant Professor, Department of Applied Science & Humanities. Haldia Institute of Technology, West Bengal. **Title: Role of Mathematics in Modeling and Controlling Pandemic**
7. Prof. Kousik Pramanick, Professor, Department of Life Science , Presidency University, Kolkata 700073, India. **Title: Species Concept**
8. Dr. A.R. Md. Mustafizur Rahaman, Assistant Professor, Dept. of Zoology, Asutosh College, Kolkata 700026, India. **Title: Developmental Biology**
9. Dr. Sandip Pal, Assistant Professor, Dept. of Zoology, Barrackpore Rastraguru Surendranath College, North 24 Pgs, 700120, India. **Title: The World of Non-Chordates**

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- Rama Devi good morning
- Mayakh Debnath good morning to all
- Anisha Kumari Singh good Morning sir

Summer Training School

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- Rama Devi good morning
- Mayakh Debnath good morning to all
- Anisha Kumari Singh good Morning sir
- Satyajeet Nayak good morning sir/mam
- Rashita Giri Good morning sir
- rajya mahapatra Good morning to all
- Abhijit lal good morning sir
- Jit Koley Good morning
- TANISHQ CREATION

Summer Training School

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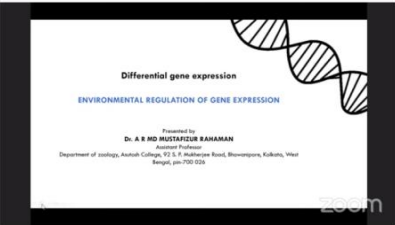
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- E.Mondal's Classroom Good morning
- Jit Koley Good morning
- Mithu Pal good morning to all
- TANISHQ CREATION Good morning
- Anghya Dutta Good Morning to all

Summer School

223 views Streamed live on Jul 17, 2021 Under DBT Star College Scheme

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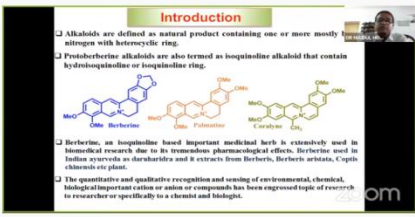
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Top chat replay

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- Jit Koley good morning
- BIKRAMYADITYA MONDAL good morning
- Abhijit lal good morning sir
- Chandan Giri good morning sir

Summer Training School

294 views Streamed live on Jul 19, 2021 Organized by the departments of Chemistry, Mathematics and Zoology, Mugdha Gangadhar Mahavidyalaya under DBT Star College Scheme

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Summer Training School

281 views Streamed live on Jul 20, 2021 Organized by the departments of Chemistry, Mathematics and Zoology, Mugdha Gangadhar Mahavidyalaya under DBT Star College Scheme

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# Faculty improvement programs initiated for the faculty



## One day faculty improvement programme on Research Ethics and Practice dated 1st March, 2021



### Faculty Development Program

On and From 20/06/2022 to 27/06/2022  
Under

DBT STAR COLLEGE STRENGTHENING  
SCHEME, GOVT. OF INDIA

Organized by Department of Chemistry, Zoology and Mathematics,  
Mugheria Gangadhar Mahavidyalaya, Bhupatinagar, Purba Medinipur,  
West Bengal, India.



**Course Design**  
**Area:** CAS, IPR, Teaching Learning,  
Innovative Research, Software,  
Environment  
**Number of Topics:** 7 on both  
Theoretical and Practical aspects

**Span of the Program**  
7 days  
**Time:** 1.15 pm to 3.15 pm (Monday –Friday)  
Saturday: 12.15-2.15 pm

**PARTICIPANTS:** Faculty members  
including Librarians, Research Scholars  
and PG students

**Mode of Program**  
**OFF-LINE**

### Resource Persons, Theme of presentation & Tentative Dates

1. Dr. Shyamal Kumar Mondal, Professor, Dept. of Applied Mathematics with Oceanology and Computer Programming, Vidyasagar University. **Theme: Software, 20/06/22**
2. Dr Pritha Bhattacharjee, Asst. Prof. Department of Environmental Science, University of Calcutta. **Theme: Environmental Research, 21/06/22**
3. Dr. Pijush Kanti Tripathi, Officer-in-Charge, Haldia Government College, **Theme: CAS, 22/06/22**
4. Apurba Kumar Chatterjee, Technical Manager, Good Earth Enviro Care, Narendrapur, Kolkata. **Theme: Environmental Pollution Monitoring, Management & Research, 23/06/22**
5. Prof. (Dr.) Pradipta Kumar Mishra, Principal, Yogoda Satsanga Palpara Mahavidyalaya. **Topic: An Effective Teacher in Higher Education for 21<sup>st</sup> Century, 24/06/22**
6. Sri Amiya Kumar Kalidaha, Senior Scientific Officer, Department of Science and Technology & Biotechnology, GoWB, Kolkata. **Theme: IPR, 25/06/22**
7. Prof. (Dr.) Nandan Bhattacharyya, Principal, Panskura Banamali College, **Theme: Innovative Research ideas, 27/06/22**





 **Bhupati Nagar, West Bengal, India**  
 2P2H+4CP, Bhupati Nagar, West Bengal 721425, India  
 Lat 22.00034°  
 Long 87.728608°  
 20/08/22 01:51 PM  
 MGM Mugberia Gangadhar Mahavidyalaya



 **Bhupati Nagar, West Bengal, India**  
 Mugberia Gangadhar Mahavidyalaya, 2P2H+395, Bhupati Nagar, West Bengal 721425, India  
 Lat 22.00022°  
 Long 87.728612°  
 21/08/22 04:08 PM  
 Have a great day 😊



GPS Map Camera



 **Bhupati Nagar, West Bengal, India**  
 2P2H+4CP, Bhupati Nagar, West Bengal 721425, India  
 Lat 22.000285°  
 Long 87.728695°  
 23/08/22 02:41 PM  
 MGM Mugberia Gangadhar Mahavidyalaya

GPS Map Camera



# Visits to industry and important labs of national eminence





# Industrial Visit to Haldia Energy Limited, Haldia, Purba Medinipur

**HAL** 2X300 MW THERMAL POWER PLANT  
SAFETY INDUCTION TRAINING

Course Title - Working At Height/Advantages of PPEs/Hot Work/Confined Space/Electrical Safety/  
Scaffolding/PTW/OTO/SAFE RIGGING Practices/ Road Safety/Housekeeping/Chemical Handling/Shipping of Incident/  
Working in Transmission lines/ Others

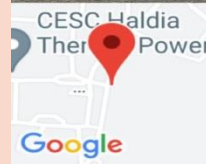
Faculty: *Dr. Shiba Chandra Samanta & Dr. Kalpana Mondal* Duration: *10:00 am to 1:00 pm*

Date: *15/06/22*

I have understood the safety rules, procedures communicated to me during training. I commit to follow the same at site and also responsible for my own safety.

Sl. No.	Name & Age	Designation	Gate Pass number	Signature
1	<i>Abhinav Mondal</i>	<i>SST</i>	<i>1001</i>	<i>[Signature]</i>
2	<i>Susmita Kumar</i>	<i>CSST</i>	<i>1002</i>	<i>[Signature]</i>
3	<i>Anita Chandra</i>	<i>CSST</i>	<i>1003</i>	<i>[Signature]</i>
4	<i>Milani Prasad</i>	<i>CSST</i>	<i>1004</i>	<i>[Signature]</i>
5	<i>Anshu Malik</i>	<i>CSST</i>	<i>1005</i>	<i>[Signature]</i>
6	<i>Smita Das</i>	<i>CSST</i>	<i>1006</i>	<i>[Signature]</i>
7	<i>Susmita Das</i>	<i>CSST</i>	<i>1007</i>	<i>[Signature]</i>
8	<i>Hemant Kumar</i>	<i>CSST</i>	<i>1008</i>	<i>[Signature]</i>
9	<i>Abhishek Mondal</i>	<i>CSST</i>	<i>1009</i>	<i>[Signature]</i>
10	<i>Bhaskar Mondal</i>	<i>CSST</i>	<i>1010</i>	<i>[Signature]</i>
11	<i>Sudip Mondal</i>	<i>CSST</i>	<i>1011</i>	<i>[Signature]</i>
12	<i>Sanjay Mondal</i>	<i>CSST</i>	<i>1012</i>	<i>[Signature]</i>
13	<i>Ganesh Mondal</i>	<i>CSST</i>	<i>1013</i>	<i>[Signature]</i>
14	<i>Subha Mondal</i>	<i>CSST</i>	<i>1014</i>	<i>[Signature]</i>
15	<i>Shreya Mondal</i>	<i>CSST</i>	<i>1015</i>	<i>[Signature]</i>
16	<i>Subham Mondal</i>	<i>CSST</i>	<i>1016</i>	<i>[Signature]</i>
17	<i>Mahesh Mondal</i>	<i>CSST</i>	<i>1017</i>	<i>[Signature]</i>
18	<i>Sudhakar Mondal</i>	<i>CSST</i>	<i>1018</i>	<i>[Signature]</i>
19	<i>Sudip Mondal</i>	<i>CSST</i>	<i>1019</i>	<i>[Signature]</i>
20	<i>Sudip Mondal</i>	<i>CSST</i>	<i>1020</i>	<i>[Signature]</i>
21	<i>Sudip Mondal</i>	<i>CSST</i>	<i>1021</i>	<i>[Signature]</i>
22	<i>Sudip Mondal</i>	<i>CSST</i>	<i>1022</i>	<i>[Signature]</i>
23	<i>Sudip Mondal</i>	<i>CSST</i>	<i>1023</i>	<i>[Signature]</i>
24	<i>Sudip Mondal</i>	<i>CSST</i>	<i>1024</i>	<i>[Signature]</i>
25	<i>Sudip Mondal</i>	<i>CSST</i>	<i>1025</i>	<i>[Signature]</i>
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30	<i>Sudip Mondal</i>	<i>CSST</i>	<i>1030</i>	<i>[Signature]</i>

Training imparted by *Mr. Shiba Chandra Mondal*  
HEAL Safety & Fire Contractor Safety/ Supervisor



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 MGM Mugberia Gangadhar Mahavidyalaya

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SAFETY INDUCTION TRAINING

Course Title - Working At Height/Advantages of PPEs/Hot Work/Confined Space/Electrical Safety/  
Scaffolding/PTW/OTO/SAFE RIGGING Practices/ Road Safety/Housekeeping/Chemical Handling/Shipping of Incident/  
Working in Transmission lines/ Others

Faculty: *Prof. Dr. Subhan K. Mondal & Dr. Kalpana Mondal* Duration: *10:00 am to 1:00 pm*

Date: *15/06/22*

I have understood the safety rules, procedures communicated to me during training. I commit to follow the same at site and also responsible for my own safety.

Sl. No.	Name & Age	Designation	Gate Pass number	Signature
1	<i>Sudip Mondal</i>	<i>Student</i>	<i>1001</i>	<i>[Signature]</i>
2	<i>Sudip Mondal</i>	<i>Student</i>	<i>1002</i>	<i>[Signature]</i>
3	<i>Sudip Mondal</i>	<i>Student</i>	<i>1003</i>	<i>[Signature]</i>
4	<i>Sudip Mondal</i>	<i>Student</i>	<i>1004</i>	<i>[Signature]</i>
5	<i>Sudip Mondal</i>	<i>Student</i>	<i>1005</i>	<i>[Signature]</i>
6	<i>Sudip Mondal</i>	<i>Student</i>	<i>1006</i>	<i>[Signature]</i>
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9	<i>Sudip Mondal</i>	<i>Student</i>	<i>1009</i>	<i>[Signature]</i>
10	<i>Sudip Mondal</i>	<i>Student</i>	<i>1010</i>	<i>[Signature]</i>
11	<i>Sudip Mondal</i>	<i>Student</i>	<i>1011</i>	<i>[Signature]</i>
12	<i>Sudip Mondal</i>	<i>Student</i>	<i>1012</i>	<i>[Signature]</i>
13	<i>Sudip Mondal</i>	<i>Student</i>	<i>1013</i>	<i>[Signature]</i>
14	<i>Sudip Mondal</i>	<i>Student</i>	<i>1014</i>	<i>[Signature]</i>
15	<i>Sudip Mondal</i>	<i>Student</i>	<i>1015</i>	<i>[Signature]</i>
16	<i>Sudip Mondal</i>	<i>Student</i>	<i>1016</i>	<i>[Signature]</i>
17	<i>Sudip Mondal</i>	<i>Student</i>	<i>1017</i>	<i>[Signature]</i>
18	<i>Sudip Mondal</i>	<i>Student</i>	<i>1018</i>	<i>[Signature]</i>
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21	<i>Sudip Mondal</i>	<i>Student</i>	<i>1021</i>	<i>[Signature]</i>
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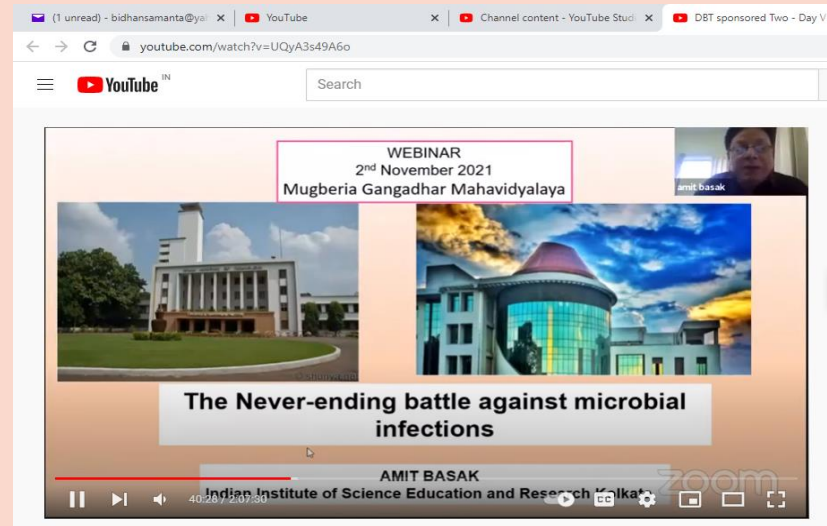
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HEAL Safety & Fire Contractor Safety/ Supervisor



# Lectures Delivered by Experts/Speakers in the relevant subject area

**1. Speaker: Dr. Amit Basak, FNA, FASc, FNASc, FAScT, JC Bose National Fellow, D. Phil. (Oxford), Ph. D. (Calcutta), Visiting Professor, Department of Chemistry School of Bioscience, Indian Institute of Technology, Kharagpur.**

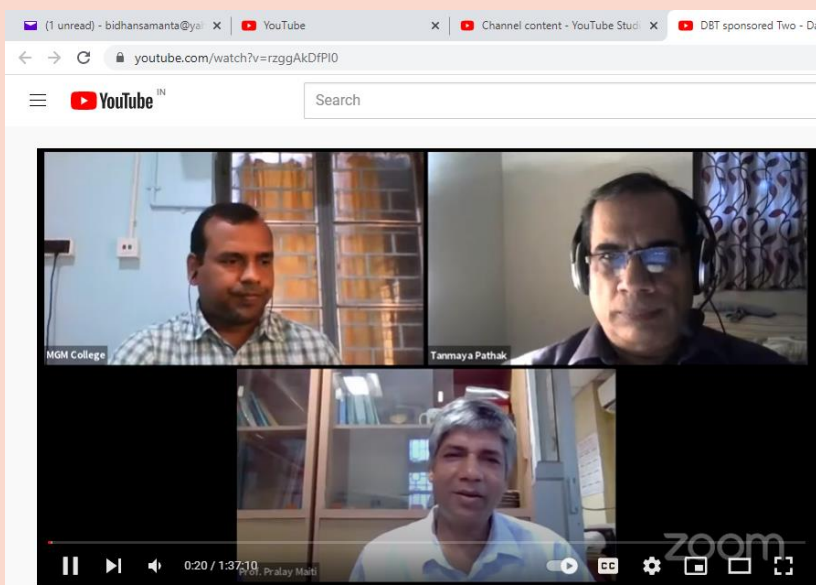
**Title of the talk: “The Never-ending battle against microbial infections”**



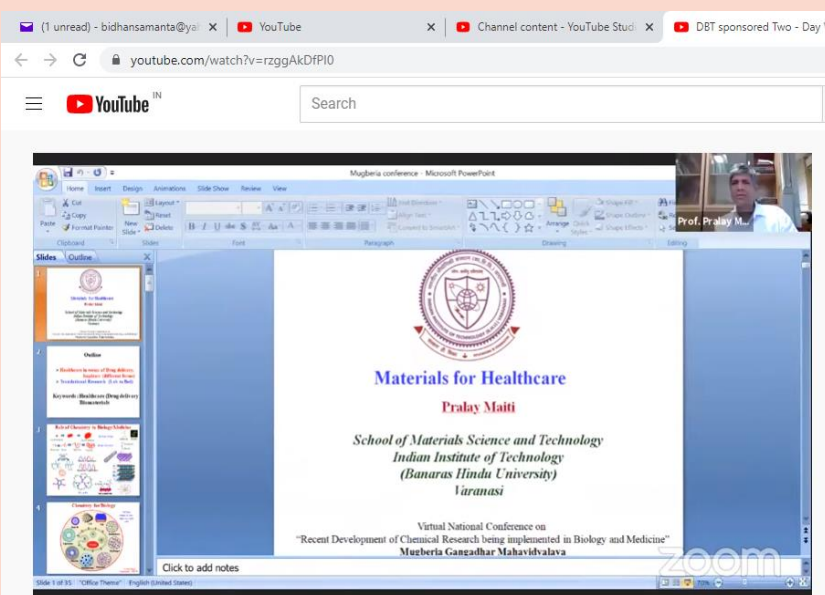


## 2. Speaker: Dr. Pralay Maiti, Professor, School of Materials Science and Technology, Indian Institute of Technology (BHU), Varanasi

**Title of the talk: “Materials for Healthcare”**

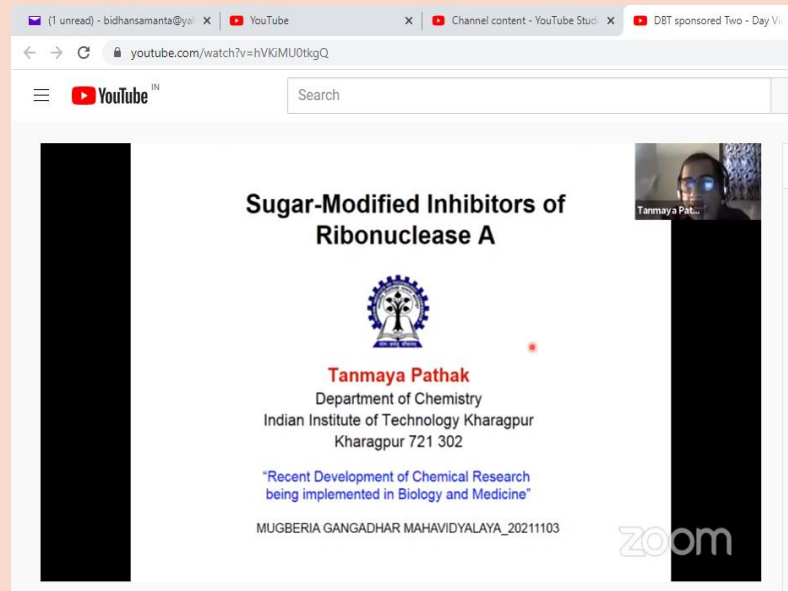


DBT sponsored Two - Day Virtual National Conference Day 1, Session 2



**3. Speaker : Dr Tanmaya Pathak, PhD, FAScT, FASc, Professor,  
Department of Chemistry, Indian Institute of Technology  
Kharagpur**

**Title of the talk: “Sugar-Modified Inhibitors of Ribonuclease A”**





# Outreach activities

## One Day Workshop on “Conservation and Utilization of the Traditional Surface Water (Ponds/Rivers/Lakes) for Domestic Consumption” Dated 18/01/2022



### One Day Workshop on “Conservation and Utilization of the Traditional Surface Water (Ponds/Rivers/Lakes) for Domestic Consumption”



Organized by : Department of Chemistry, Mathematics and Zoology  
MUGBERIA GANGADHAR MAHAVIDYALAYA  
BHUPATINAGAR, EAST MIDNAPORE, WEST BENGAL  
(OUTREACH ACTIVITY)

#### Speaker

**Manas Ranjan Maiti**

**Project Officer**

Community Based Mini Rural  
Water Supply Project  
International Academy of  
Environmental Sanitation and  
Public Health (A Subsidiary  
of Sulabh International  
Social Service Organization)

Date: 18<sup>th</sup> January, 2022: 11:30 am

Program Under DBT STAR COLLEGE Strengthening  
Scheme (Govt of India)

Chair Person: Dr. Swapan Kumar Misra, Principal,  
Mugberia Gangadhar Mahavidyalaya

Convener: Dr. Bidhan Chandra Samanta, Coordinator DBT Star  
College Program, Associate Professor & HOD Chemistry, Mugberia  
Gangadhar Mahavidyalaya

Jt. Convener, Dr Kalipada Maity, Associate Professor & HOD,  
Department of Mathematics, Mugberia Gangadhar  
Mahavidyalaya

Venue: S. N. Bose Seminar Hall, Mugberia Gangadhar  
Mahavidyalaya



Mugberia Gangadhar Mahavidyalaya, Bhupati Nagar, West Bengal  
721425, India

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GMT 06:54:43 AM

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Tuesday, 18-01-2022



Mugberia Gangadhar Mahavidyalaya, Bhupati Nagar, West Bengal  
721425, India

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Longitude  
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GMT 07:07:55 AM

Altitude -66.11 meters  
Tuesday, 18-01-2022

# Two day National Seminar on “Popularization of Mushroom’s Cultivation, its Medicinal Values and Trade for Socio-economic development of Rural Areas





# Training of Lab Manpower



**Training program regarding accounting and admission software provided by InfoTech Lab, Kolkata dated 01.06.22**

# Impact of the Star College Scheme

Sl No.	Indicator	Pre-support	During/After support		Remarks
			2020-21	2021-22	
1	No. of applications for admission	60	75	90	Increasing
2	Pass percentage	100	100	100	100
3	Dropout Rates	12%	10%	8%	Decreasing
4	No. of students opting for M. Sc.	09	11	10	Tendency to choose professional courses
5	Awareness of DBT JRF exam	Not aware	Aware but not applied		Applied for JAM, GATE, NET Exam

❖ **2020: Both JAM and GATE qualified 1**

❖ **2021: JAM qualified 2**



# Budget Expenditure

<b>Item</b>	<b>Grants received from DBT during 1<sup>st</sup> and 2<sup>nd</sup> years in lakh</b>	<b>Expenditure incurred during 1<sup>st</sup> and 2<sup>nd</sup> years in lakh</b>	<b>Balance in lakh</b>	<b>Remark</b>
<b>1. Non-Recurring</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>	<b>Purchase of equipments</b>
<b>2. Recurring</b>	<b>6.00</b>	<b>6.00</b>	<b>0.00</b>	<b>Purchase of chemicals and glass apparatus</b>
<b>Total</b>	<b>16.00</b>	<b>16.00</b>	<b>0.00</b>	

# **Assets acquired by the department out of Govt. Grant**

<b>S. No</b>	<b>Name of Equipment</b>	<b>Item wise Cost (In Rs.)</b>	<b>Date of purchase of equipments</b>
<b>1</b>	<b>Digital pH meter 3 Nos (Systronics)</b>	<b>42126/-</b>	<b>22.01.21</b>
<b>2</b>	<b>Microwave Oven 1No (LG)</b>	<b>33040/-</b>	<b>22.01.21</b>
<b>3</b>	<b>Rota vapor 1 No (Kshitij)</b>	<b>37225.99/-</b>	<b>17/03/21</b>
<b>4</b>	<b>Water Chiller Circulation (Kshitij)</b>	<b>77484.00/-</b>	<b>17/03/21</b>
<b>5</b>	<b>Heating Mantle 2 Nos</b>	<b>21898.00/-</b>	<b>17/03/21</b>
<b>6</b>	<b>Electrophoresis Unit 1 No (Cole-Parmer)</b>	<b>99999.99/-</b>	<b>17/03/21</b>
<b>7</b>	<b>Stirring Hotplate Stuart (Cole-Parmer)</b>	<b>44250.04/-</b>	<b>17/03/21</b>
<b>8</b>	<b>Water Bath (6 hole) 5 lit (Cole-Parmer)</b>	<b>72097.99/-</b>	<b>17/03/21</b>
<b>9</b>	<b>Flame Photometer (Elico)</b>	<b>97420.99/-</b>	<b>17/03/21</b>
<b>10</b>	<b>Ultra Centrifuge (Kubota Japan)</b>	<b>77290/-</b>	<b>26.02.21</b>
<b>11</b>	<b>Centrifuge Head (100 ml, 1.5 ml)</b>	<b>22538/-</b>	<b>26.02.21</b>
<b>12</b>	<b>Teflon lined steel autoclave</b>	<b>25075/-</b>	<b>26.02.21</b>
<b>13</b>	<b>Digital Photoelectric colorimeter 3 Nos</b>	<b>20425.80/-</b>	<b>08.02.21</b>
<b>14</b>	<b>Digital Potentiometer</b>	<b>20933.20/-</b>	<b>08.02.21</b>
<b>15</b>	<b>UV light with chamber</b>	<b>11799/-</b>	<b>08.02.21</b>
<b>16</b>	<b>Digital Balance Nos 2 upto 0.1 mg (Wenser)</b>	<b>23364/-</b>	<b>08.02.21</b>
<b>17</b>	<b>Soil Tensiometer</b>	<b>47141/-</b>	<b>08.02.21</b>
<b>18</b>	<b>Rough Digital Balance 5kg</b>	<b>3776/-</b>	<b>18.03.21</b>



S. No	Name of Equipment	Item wise Cost (In Rs.)	Date of purchase of equipments
19	Digital Viscometer	93586/-	06.05.21
20	3 phase Muffle Furnace	31499/-	06.05.21
21	Stainless steel Hot air oven	14407/-	17/05/21
22	Surface and Inter Facial Tensiometer DU Nouy Principle (Manual)	49501/-	17/05/21



**Water Bath with thermostat**



**Tensiometer**



**Rotavapor with chiller**



**Electrophoresis unit**



**Ultrasonicator**





**Conductivity meter**



**pH meter**



**Potentiometer**



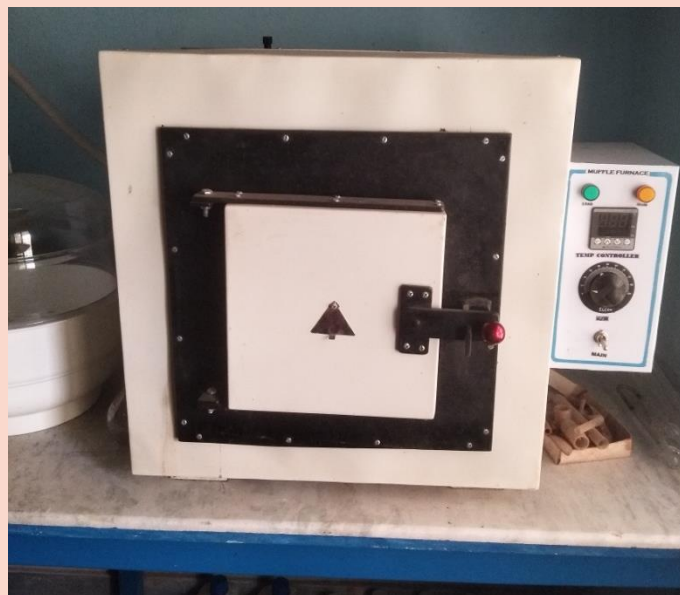
**Flame photometer**



**Digital Viscometer**



**Stirrer with hotplate**



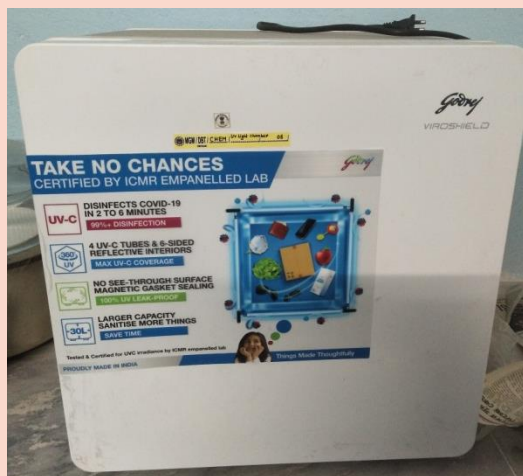
**Furnace**



**Centrifuge**



**Microwave oven**



**UV chamber**



**Table top UV light**




# Basic research published in reputed journals under the financial support of DBT

(2 unread) - bidhansamanta@ya... x Hydrophobicity-induced DNA, BS x +

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 **Applied Organometallic Chemistry**

RESEARCH ARTICLE

**Hydrophobicity-induced DNA, BSA binding, and biomaterial applications of a heteroleptic Cu(II) complex**

Prasun Acharya, Ribhu Maity, Arun Kuila, Tithi Maity, Swapan Maity, Nayim Sepay✉, Bidhan Chandra Samanta✉


First published: 14 February 2022 | <https://doi.org/10.1002/aoc.6640>

**Funding information:** Department of Biotechnology, Ministry of Science and Technology, India, Grant/Award Number: HRD-11011/161/2020-HRD-DBT

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**Abstract**

Herein, we report a new Cu(II) complex [Cu(L)(2,2'-bipy)(ClO<sub>4</sub>)<sub>2</sub>] obtained from a N,N'-O

 **Volume 36, Issue 5**  
May 2022  
e6640

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Issue 24, 2022

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From the journal:

New Journal of Chemistry

# Significant photodegradation of carcinogenic organic dyes by a 1D supramolecular heteroleptic Cu(II) complex under sunlight irradiation†



Arun Kuila,<sup>a</sup> Ribhu Maity,<sup>a</sup> Prasun Acharya,<sup>a</sup> Paula Brandao,<sup>id b</sup> Tithi Maity,<sup>c</sup> Nayim Sepay,<sup>id</sup>

<sup>\*d</sup> and Bidhan Chandra Samanta<sup>id \*a</sup>

⊕ Author affiliations

## Abstract

The crucial role of supramolecular interactions in determining the supramolecular layer architecture of the heteroleptic Cu(II) complex  $[Cu(L)(imid)(ClO_4)]_n$  synthesized from *ortho*-

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## Exploring the Noncovalent Interactions of the Dinuclear Cu(II) Schiff Base Complex with Bovine Serum Albumin and Cell Viability against the SiHa Cancer Cell Line

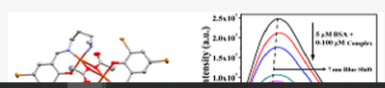
Ribhu Maity, Nayim Sepay,\* Ushasi Pramanik, Kalyanmoy Jana, Saptarshi Mukherjee, Swapan Maity, Dasarath Mal, Tithi Maity, and Bidhan Chandra Samanta\*

Cite This: <https://doi.org/10.1021/acs.jpcc.1c05794> Read Online

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ABSTRACT: In the present study, a dinuclear bis( $\mu$ -acetate) dicopper(II) complex  $[\text{Cu}_2\text{L}_2(\mu_{1,1}\text{-CH}_3\text{COO}^-)_2]$  has been synthesized from a tridentate NNO Schiff Base ligand L (L = 2,4-dibromo-6-((3-(methylamino)propylimino)methyl)-



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- Copper(II) complexes with NNN and NNO Schiff base ligands as efficient
  - 1 Introduction
  - 2 Methodologies
    - 2.1 Materials
    - 2.2 Synthetic procedures for ligand L and L'
    - 2.3 Synthetic procedure for complex 1 [Cu(L)Cl2]
    - 2.4 Synthesis of complex [Cu<sub>2</sub>L<sub>2</sub>( $\mu_{1,1}$ -N3)(N3)](2)
    - 2.5 Spectroscopi

Journal of Photochemistry & Photobiology, A: Chemistry 422 (2022) 113565

Contents lists available at ScienceDirect

Journal of Photochemistry & Photobiology, A: Chemistry

journal homepage: [www.elsevier.com/locate/jphotochem](http://www.elsevier.com/locate/jphotochem)

## Copper(II) complexes with NNN and NNO Schiff base ligands as efficient photodegradation agents for methylene blue, preferential BSA binder and biomaterial transplants

Kalyanmoy Jana<sup>a</sup>, Ushasi Pramanik<sup>b</sup>, Kapil S. Ingle<sup>c</sup>, Ribhu Maity<sup>d</sup>, Saptarshi Mukherjee<sup>b</sup>, Susanta K. Nayak<sup>c</sup>, Subhas Chandra Debnath<sup>a</sup>, Tithi Maity<sup>e</sup>, Swapan Maity<sup>f</sup>, Bidhan Chandra Samanta<sup>d,\*</sup>

<sup>a</sup> Department of Chemistry, University of Kalyani, Kalyani 741235, West Bengal, India  
<sup>b</sup> Department of Chemistry, IISER Bhopal, Bhopal Bypass Road, Bhauri, Bhopal 462 066, Madhya Pradesh, India  
<sup>c</sup> Department of Chemistry, Visvesvaraya National Institute of Technology (VNIT), Nagpur, Maharashtra 440010, India  
<sup>d</sup> Department of Chemistry, Mahabir College, Mahabir, Gangadhar Mahavidyalaya, Bhupatnagar, Purba Medinipur, West Bengal 721425, India  
<sup>e</sup> Department of Chemistry, Prabhat Kumar College, Consti, Purba Medinipur, West Bengal 721401, India  
<sup>f</sup> School of Materials Science and Technology (SMST), Indian Institute of Technology (IIT), BHU, India

ARTICLE INFO ABSTRACT

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# Future Activities

- 1. Continue Minor Research projects on Synthesis of transition metal complexes and their bio applications**
- 2. Continue the running outreach programs like production of vermi composting and mushroom cultivation, processing and spawn production for generating employment of local people**
- 3. Carry out interdisciplinary activities like Cultivate medicinal plants used to produce herbal medicines for the benefit of the society, Analysis of BOD and Heavy metals in water, DNA interaction studies of metal complexes, Sewage treatment for reuse, Pond water treatment for domestic uses**



**In spite of rural and backward college we are struggling with all our existing potential and positive thinking to uplift the department.**

**Our existing infrastructure and potentiality have been strengthened with estimated support from DBT.**

**We would like to convey our thankful gratitude to DBT, Govt. of India for generating financial support to our department under Star college strengthening scheme.**

**Thank You**