

# Department of Chemistry




J. K. College, Purulia



## Short Introduction with Brief History of the Department:

(Highlights: year of establishment, students activities, National level achievements of students and faculties, research activities, if any, innovative teaching learning activities, carrier counseling, other activities etc.)

The Department of Chemistry was established in 1955 as a part of inter-science course. In 1961, B.Sc. chemistry pass course was established followed by the chemistry Honors course in 1985. The department has been an integral part of this college right from its establishment. So far it has produced more than thousand chemistry graduates with high caliber including university toppers. Our students are placed not only in top schools of India but also in reputed foreign institutes.

- **Forthcoming Events of the Department :**
  1. Seminar on
  2. Guardians' meet on
- **Running Courses : UG-Honours, UG-Programme**
- **List of Faculty Members :**

Sl. No.	Name	Designation	Qualification	Photo
1	Dr. Sanjukta Mukhopadhyay	Associate Professor	M.Sc., Ph.D.	
2	Dr. Lokesh Chandra Pati	Associate Professor	M.Sc., Ph.D.	
3	Dr. Anirban Panda	Assistant Professor	M.Sc., Ph.D.	

4	Dr. Tanushree Sen	Assistant Professor	M.Sc., Ph.D.	
5	Dr. Jayanta Kr. Midya	Assistant Professor	M.Sc., Ph.D.	

- List of Part-time Faculty Members : NIL

Sl. No.	Name	Designation	Qualification	Photo
1				
2				

- List of Guest Faculty Members

Sl. No.	Name	Designation	Qualification	Photo
1	Julekha Khatun	Guest Lecturer	M.Sc.	
2				

- University Topper List since 2014

Course	Name of the students	Percentage of Marks	Year of Passing	Photo
1	Shibani Mohata	82.6	2017	
2	Sudeshna Goswami	81.5	2018	

- Honours Results of last five years



Year of Passing	No of students Appeared in Part-I/Sem-I Exam.	No of students in Final Part III/Sem VI Examination		No of first class	University Rank Holders, if any
	Three years ago	Appeared	Qualified		
2014	18	17	11	7	2nd
2015	14	11	10	5	
2016	14	11	11	7	
2017	15	15	8	5	1st

<b>2018</b>	<b>21</b>	<b>20</b>	<b>13</b>	<b>4</b>	<b>1st</b>
<b>2019</b>					

- List of Retired Faculty Members**

Sl. No.	Name	Designation	Qualification	Photo
1.	Dr. Srinibas Mishra	Reader	Ph.D., M.Sc.	
1.	Mrigankamouli Upadhyay	Reader	M.Sc.	
2.	Hem Chandra Mahanty	Reader	M.Sc.	

- List of Non-Teaching Staff**

Sl. No	Name	Designation	Qualification	Photo
1	Gopal Bauri	Lab attendant	Madhyamik Appeared	
2	Mathur Ch. mardaniya	Lab attendant	H. S. Passed	

- Completed/Ongoing Research Projects**

Sl. No.	Name and Dept. of Principal Investigator	Funding Agency	Title of the Project	Memo No.	Status
1.	Tanushree Sen	UGC	Adenine and 1,2,3-triazole coupled some simple ligands as metal chelators and their uses as fluorometric and colorimetric sensors for anions	F.PSW-206/15-16 (ERO)	Ongoing
2.	Lokesh Ch. Pati	UGC	Studies on Phytochemical Screening and Antibacterial, Antifungal and Antioxidant Activities of Some	PSW-127/14-15 (ERO)_dated 02.02.2015	Completed

			Selected Medicinal Plants Used by the Tribals of Ajoydha Hill Region, Purulia District, West Bengal, India.		
3.	Anirban Panda	UGC			Completed
4.	Sudip Kr.Muhopadhyay	UGC	Kenetic and mechanistic studies on the interaction of bioactive ligands with platinum group metals.	PSW-009/05-06 (ERO) DT.19.09.2008.	Completed
5.	Manirul Islam	UGC	Synthesis and catalytic activities of polymer anchored transition metal complex catalysts for the dihydrogen reduction organic substrates and reductive carbonylation of nitroaromatics.	F.PSW-009/04-05 (ERO) DT.24.10.2007.	Completed
6.	Sanjukta Mukhopadhyay	UGC	Detection for some specific ions avoiding interference of other ions and water analysis of some areas Purulia District.	F.PSW-101/06-07 (ERO) DT.19.02.2006	Completed
7.	Kumaresh Ghosh	UGC	Molecular recognition: Design and synthesis of artificial photoresponsive receptors for adenine and guanine.	PSW-040/99-00 DT.14.01.2003	Completed
8.	Manirul Islam	UGC	Synthesis, characterisation and catalytic application of sum new polymer supported catalyst.	PSW-038/99-00 dt.08.02.2000	Completed

- **Seminars/ Conference/Workshop**

Sl. No.	Title of the Seminars/ Conference /Workshop	Level (Local/State /National /International)	Date	Funding Agency	Total Amount Sanctioned	No. of participants
1	National Conference on Recent	National	November 18-	UGC		225

	<b>Advancement in Chemical Science : 2011</b>		<b>19, 2011</b>			
<b>2</b>	<b>Fundamentals of Recent advancements in Chemical Sciences</b>	<b>Regional</b>	<b>March 29, 2019</b>	<b>Self</b>		<b>124</b>

• **List of Important Alumni Members (Students)**

Sl. No.	Name	Passed out year	Position held Now	Mobile No.	Email
1	Asmita Sen	2013	Research Scholar, IIT, Mumbai	8454948141	senasmita1@gmail.com <a href="http://ether.chem.iitb.ac.in/~rajaraman/Phds.html">http://ether.chem.iitb.ac.in/~rajaraman/Phds.html</a>
2	Pallab Basuri	2014	Research Scholar, IIT, Chennai	6383470573	pallabchemistry@gmail.com <a href="http://chem.iitm.ac.in/faculty/pradeep/?page_id=6041">http://chem.iitm.ac.in/faculty/pradeep/?page_id=6041</a>
3	Jaladhar Mahato	2012	Research Scholar; Department of Chemistry; IIT Bombay	7738437466	jaladhar.27@gmail.com <a href="http://ether.chem.iitb.ac.in/~arindam/members.php#currentmembers">http://ether.chem.iitb.ac.in/~arindam/members.php#currentmembers</a>
4	Paritosh Mahato	2016		9641163652	parichemico@gmail.com <a href="https://sites.google.com/a/iiserb.ac.in/ultrafast-and-molecular-spectroscopy-laboratory/group-members">https://sites.google.com/a/iiserb.ac.in/ultrafast-and-molecular-spectroscopy-laboratory/group-members</a>
5	Tapas Kumar Dutta	2015	Research Scholar, IISER, Bhopal	8145411427/ 9171502024	Tapas17@iiserb.ac.in <a href="http://home.iiserb.ac.in/~abhijit/">http://home.iiserb.ac.in/~abhijit/</a>
6	Soumili Daripa	2013	Research Scholar, Banaras Hindu University	9064006113	soumilidaripa2013@gmail.com
7	Shibani Mohata	2017	M.Sc., IISER, Kolkata	8670441449/ 6295251663	<a href="https://students.iiserkol.ac.in/IP/DCS.html">https://students.iiserkol.ac.in/IP/DCS.html</a>
8	Sudeshna Goswami	2018	M.Sc., IIT, Bhubaneswar		<a href="http://www.iitbbs.ac.in/documents/Room-allotment-for-M.SC.pdf">http://www.iitbbs.ac.in/documents/Room-allotment-for-M.SC.pdf</a>
9	Malay Krishna mahato	2014	Research Scholar, IIT, Chennai	9064156880	<a href="http://chem.iitm.ac.in/faculty/prasad/?page_id=6041">http://chem.iitm.ac.in/faculty/prasad/?page_id=6041</a>
10	Tapasi Chand	2015	Research Scholar, IISER, Bhopal	7001219455	Tapasi17@iiserb.ac.in <a href="https://sites.google.com/a/iiserb.ac.in/mk-group-iiserb/members">https://sites.google.com/a/iiserb.ac.in/mk-group-iiserb/members</a>
11	Kamakhya Prashad Mahato	2014		07052108094	kamakshya18@iiserb.ac.in
12	Puja Das Karmakar	2014	Indian Institute of	9614959151	pujadaskarmakar98@gmail.com

			technology (ISM) Dhanbad		<a href="https://www.iitism.ac.in/~sagarpal/Groupmember.html">https://www.iitism.ac.in/~sagarpal/Groupmember.html</a>
13	Arnab Mukherjee	2014	Research Scholar ,Sidhu Kanho Bisha University	9735019032	marnab92@hotmail.com
14	KAILAS DAS	2011	CHARGEMAN (CHEM/TECH), ORDNANCE FACTORY KHAMARIA JABALPUR (MP) MINISTRY OF DEFENCE	9153408947	<a href="mailto:kdasofk@gmail.com">kdasofk@gmail.com</a>
15	Biswajit Ball	2014	Research scholar Visva-Bharati University	9153706940	<a href="mailto:biswajitchem67@gmail.com">biswajitchem67@gmail.com</a> <a href="https://pranabsarkar.wixsite.com/computational-chemistry-lab/group">https://pranabsarkar.wixsite.com/computational-chemistry-lab/group</a>
16					

• **List of Important Alumni Members (Faculty)**

Sl. No.	Name	Left the College in the year	Position held Now	Mobile No.	Email
1.	Dr. Nagen Chandra Mahata	1990	Associate Professor, S. K. B. University, Purulia	8900707973	<a href="mailto:nmahata@hotmail.com">nmahata@hotmail.com</a> <a href="http://skbu.ac.in/faculty/dr_nagendranath_mahata">http://skbu.ac.in/faculty/dr_nagendranath_mahata</a>
2.	Dr. Prasenjit Mahato	2005	Assitant Professor, Raghunathpur College, Raghunathpur, Purulia	7362929593/7001439480	<a href="mailto:prasen.mahato@gmail.com">prasen.mahato@gmail.com</a> <a href="https://raghunathpurcollege.ac.in/en?homelink=35639813&amp;linktitle=Chemistry">https://raghunathpurcollege.ac.in/en?homelink=35639813&amp;linktitle=Chemistry</a>
3.	Dr. Rinku Chakraborty	2004	Assistant Professor, Alipurduar college, Alipurduar, W.B.	9474709142	rckncs@gmail.com <a href="http://www.apdcollege.org/faculty.php">http://www.apdcollege.org/faculty.php</a>
4.	Dr. Lalan Ch. Mandal	2002	Krisnachandra College, Hetampur, Birbhum, W.B.	9434164025	<a href="mailto:lalan_chem@yahoo.co.in">lalan_chem@yahoo.co.in</a> <a href="http://www.krishnachandracollege.in/staff_details.php?id=NzZfQCMhQA==">http://www.krishnachandracollege.in/staff_details.php?id=NzZfQCMhQA==</a>
5.	Barnali Dasgupta	2002	Birla Institute of Technology, Mesra Assistant Professor	8292407068	<a href="mailto:barnali.iitkgp@gmail.com">barnali.iitkgp@gmail.com</a> <a href="https://www.bitmesra.ac.in/Display_My_Profile_00983KKj893L?id=k">https://www.bitmesra.ac.in/Display_My_Profile_00983KKj893L?id=k</a>

			, Chemistry		fa1b%252fpNA%252bIVitS9qDh%252fhm6KiFx%252bi7uomT0mRgwSRNu%252f0hrSDL6C9z3XHohksvQw
6.	Joydeep Biswas	2003	Assistant Professor, Sikkim manipal Institute of Technology, Rangpo, East-Sikkim, India	9563318330	<a href="mailto:joydeep.biswas@smit.smu.edu.in">joydeep.biswas@smit.smu.edu.in</a> <a href="https://smu.edu.in/smit/dept-faculty/faculty-list.html?filterDepartment=dept-of-chemistry">https://smu.edu.in/smit/dept-faculty/faculty-list.html?filterDepartment=dept-of-chemistry</a>
7.	Ashish Kr. Singha Deb	2005	Scientific Officer, BARC, Mumbai.	+91-22-25593342/3358(Off.)	<a href="mailto:aksdeb@berc.gov.in">aksdeb@berc.gov.in</a> ( <a href="https://www.researchgate.net/profile/Ashish_Singha_Deb">https://www.researchgate.net/profile/Ashish_Singha_Deb</a> ).
8.	Subrata Dutta	2006	Senior researcher, Friedrich-Alexander-Universitat Erlangen-Nurnberg, Germany	+4915223486958	subrata.dutta@fau.de
9.	Palas Baran Pati	2007	Research Scientist CEISAM, University of Nantes, France	+33668201569	<a href="mailto:sadhanbgsa@gmail.com">sadhanbgsa@gmail.com</a>
10	Suman Sen	2002	Scientist, SABIC, Bangalore	9886904920	<a href="mailto:sumankumar.sen@gmail.com">sumankumar.sen@gmail.com</a>
11	Dr. Amit Chottopadhyay	2002	Research Investigator, Syngene, Bangalore	9232665166	amitcha2005@gmail.com
12	Dr. Somnath Mukherjee		Lecturer (Foreign Faculty) of Chemistry, School of Chemistry and Chemical Engineering Shaanxi Normal University, Republic of China	8348910670 (Indian Number)	glycol.som@gmail.com
13	Arnab Chottopadhyay	2002	IISER Kolkata - Technical/Scientific Assistant	9231565842	<a href="mailto:arnab_cha2003@yahoo.co.in">arnab_cha2003@yahoo.co.in</a> <a href="https://www.iiserkol.ac.in/web/en/">https://www.iiserkol.ac.in/web/en/</a>
14	Dr. Utpal Das	2000	Scientist, Div. of Organic Chemistry, NCL, Pune	8806330583	<a href="mailto:u.das@ncl.res.in">u.das@ncl.res.in</a> <a href="http://academic.ncl.res.in/u.das/home">http://academic.ncl.res.in/u.das/home</a>
15	Joyanta Choudhury	1998	IISER Bhopal, Dept. of chemistry, Associate Professor	+91 755 269 1333	<a href="mailto:joyanta@iiserb.ac.in">joyanta@iiserb.ac.in</a> <a href="https://chm.iiserb.ac.in/faculty.php">https://chm.iiserb.ac.in/faculty.php</a>

16	Nibedita Mahata	2002	NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR, Assistant Professor, Department of Biotechnology	9434789020	<a href="mailto:nibedita.mahata@bt.nitdgp.ac.in">nibedita.mahata@bt.nitdgp.ac.in</a> <a href="https://www.nitdgp.ac.in/faculty/3a2da25c-3f04-4537-837c-b6ee0b345b7d">https://www.nitdgp.ac.in/faculty/3a2da25c-3f04-4537-837c-b6ee0b345b7d</a>
17	Dr. Nimai Pathak	2009	Scientific Officer(E), Radiochemistry div., BARC, Mumbai.	9820530370	<a href="mailto:nimai@berc.gov.in">nimai@berc.gov.in</a> <a href="https://www.researchgate.net/profile/Nimai_Pathak">https://www.researchgate.net/profile/Nimai_Pathak</a>
18	Sharmila Pandey	2003	DST Women Scientist, Department of Chemistry, IISER Bhopal Bhopal 462 066	0-9165129935	<a href="mailto:sharmila@iiserb.ac.in">sharmila@iiserb.ac.in</a> ; <a href="mailto:sharmila.pandey@gmail.com">sharmila.pandey@gmail.com</a>
19	Anirban Kar	1997	Group Leader, TCG life sciences PVT Ltd., Kolkata	9433837785	karanir@gmail.com
20	Anamitra Chatterjee	1997	Senior Scientist, SABIC, Bangalore	9742577111	anamitrac@yahoo.com

### **Faculty Visited the Dept. Chemistry.**

Prof. Sambhu N. Datta, IIT, Bombay

Prof. Kumaresh Ghosh, Univ. of Kalyani, W.B.

Prof. Debasish Das, Calcutta University, Kolkata

Prof. Adinath Majee, Visva Bharati University, W.B.

Prof. Tapan Kr. Pine, IACS, Kolkata



Prof. Tarasankar Pal, IIT, Kharagpur, W.B.

Prof. Srikanta Patra, IIT, Bhubaneswar, Orrisa

Prof. Amitava Sarkar, IACS, Kolkata

Prof. Anirban Misra, NBU, W.B.

Prof. Bidyut Saha, The Univ. of Burdwan, W.B.

Prof. Dipakranjan Mal, IIT, Kharagpur, W.B.

**Model Questions:**

**First Semester**

**BCEMCCHC101:**

**BCEMCCHC102:** i) Write down two and three dimensional Maxwell speed distribution

for gas molecules.

ii) Derive  $C_{av}$ ,  $C_{mp}$  and  $C_{rms}$  from three dimensional speed distribution.

iii) What is Boyle's temp( $T_B$ ) ? Which is greater  $T_B$  or  $T_c$ ?

iv) Why is second Virial coefficient important?

**GE-1**

## Second Semester

BCEMCCHC101:

- BCEMCCHC102: i) Write down two and three dimensional Maxwell speed distribution for gas molecules.
- ii) Derive  $C_{av}$ ,  $C_{mp}$  and  $C_{rms}$  from three dimensional speed distribution.
- iii) What is Boyle's temp( $T_B$ ) ? Which is greater  $T_B$  or  $T_c$ ?
- iv) Why is second Virial coefficient important?

GE-2

## Third Semester

BCEMCCHC301:

BCEMCCHC302:

BCEMCCHC303:

BCEMSEHT305: