



सत्यमेव जयते



HBSU

Dr. Homi Bhabha State University

Dr. Homi Bhabha State University, Mumbai

The Institute of Science, Mumbai

ESTD 1920

Department of Chemistry



PG
ADMISSIONS
TO A.Y. 2025-
26 IS LIVE
NOW

The Department of Chemistry is the largest department in the Institute. The Department has lions share in all-round academic and research activities of the Institute.

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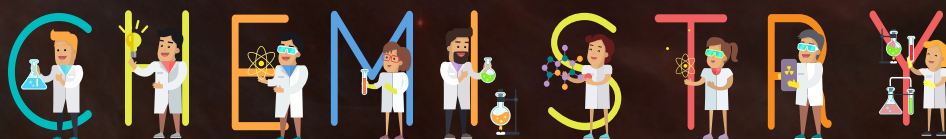


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ABOUT THE DEPARTMENT

The Department of Chemistry is the largest department in the Institute. The Department has lions share in all- round academic and research activities of the Institute. The first Principal of the Institute Dr. C. J. J. Fox was a Professor of Chemistry. Since then, the Institute has been very fortunate to have in its years a number of brilliant teachers and researchers in chemistry viz. Dr. A. N. Meldrum, Dr. T. S. Wheeler, Dr. J. R. Merchant, Prof. B. C. Haldar, Prof. V. S. Dashane, Prof. Shinde, Prof. M. M. Salunkhe and so on. Department is having spacious laboratories and well equipped with sophisticated Instruments required for day today teaching as well as research. Over the years, the chemistry department has hosted a number of conferences, symposia, seminars, workshops and lectures by eminent scientists on various frontier themes.



A MESSAGE FROM THE HOD

PROF YUVRAJ S MALGHE

Prof. & Head,

-Ex-Joint Director of Higher Education,
Mumbai Region,

-Ex-Registrar, HBSU, Mumbai,



Department of Chemistry is one of the largest and oldest department in the Institute. Department is having four specializations i.e. Physical Chemistry, Inorganic Chemistry, Organic Chemistry and Analytical Chemistry. Intake capacity of Department for M.Sc. course is 80. The Department today boasts of 146 students (by papers) and 53 students are engaged in research for their doctoral degrees. The performance of the students at the university examination has always been outstanding every year and research students are contributing well to the wealth of scientific knowledge by their discoveries in various fields. The research findings are regularly published in national and international journals of repute and presented at various conferences in India and abroad. Also, department having research projects which were funded by national agencies like UGC, DST, RGSTC etc.



**Prof. Raju
Maruti Patil**



**Prof. Mrs. Gayatri
Rajendra Barabde**



**Dr. Ravibabu
Ambadas Tayde**



**Prof. Mrs. Ratnamala P.
Sonawane**



**Dr. Vishal Wamanarao
Banewar**



**Dr. Bhimrao M.
Patil**



**Dr. Sahebrao B
Kashid**

FACULTY MEMBERS



**Mrs. Swati Dinkar
Vilhekar**



**Dr. Vikas M.
Bangade**



**Dr. Mrs. Shubhangi
Prakash Patil**





**Prof. Raju
Maruti Patil**



**Prof. Mrs. Gayatri
Rajendra Barabde**



**Dr. Ravibabu
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**Prof. Mrs. Ratnamala P.
Sonawane**



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Patil**



**Dr. Sahebrao B
Kashid**



**PROF YUVRAJ S MALGHE
PROF. & HEAD,**



**Mrs. Swati Dinkar
Vilhekar**



**Dr. Mrs. Shubhangi
Prakash Patil**



**Dr. Vikas M.
Bangade**

**DEPARTMENT
OF CHEMISTRY**

PROGRAMMES WE OFFER

M.SC. CHEMISTRY

with specializations available in



INORGANIC CHEMISTRY

01



PHYSICAL CHEMISTRY

02



ORGANIC CHEMISTRY

03



ANALYTICAL CHEMISTRY

04

Ph.D.  **IN ALL SPECIALIZATIONS**
Programs

Important Note:

1. Eligibility Criteria: B.Sc. with Chemistry/equivalent diploma
2. Admission will be purely on merit basis following all reservation and other rules as per Government of Maharashtra
3. Intake capacity for each specialization is 20 .

Board of studies



1. Prof. Y. S. Malghe

Professor and Head, Department of Chemistry, The Institute of Science, Mumbai

2. Dr. R. M. Patil

Professor, Department of Chemistry, The Institute of Science, Mumbai

3. Dr. Mrs. G. R. Barabde

Professor, Department of Chemistry, The Institute of Science, Mumbai

4. Dr. Mrs. V. M. Kamble

Professor, Institute of Forensic Science, Mumbai

5. Dr. R. A. Tayade

Associate Professor, Department of Chemistry, The Institute of Science, Mumbai

6. Dr. Mrs. R. P. Sonawane

Professor, Department of Chemistry, The Institute of Science, Mumbai

7. Dr. Mrs. S. R. Ambadekar

Professor, I. Y. College, Jogeshwari, Mumbai

8. Mr. Bharat Rout

Head, Department of Chemistry, Elphinstone College, Mumbai

9. Prof. S. S. Garje

Department of Chemistry, University of Mumbai

10. Dr. Vivek Polshettiwar

Associate Professor 'G', Department of Chemical Sciences, TIFR, Mumbai

11. Dr. S. R. Dharwadkar

Retired-Scientist H, BARC, Mumbai

12. Anil Nimkar

Quality Management & Analytics Director Natura Yuva AG

13. Dr. Ajit Datar Consultant, Shimadzu



CREDIT DISTRIBUTION (NEP)

Dr. Homi Bhabha State University, Mumbai.

Proposed structure for Two Year PG Program (M.Sc.) Degree

Level	Semester	Major		Minor	OE	VSC, SEC (VSEC)	AEC, VEC, IKS	OJT/FF	Cum. Cr/Sem	Degree/Cum. Cr.
		Mandatory	Elective							
6.0	I	DSC1 -1 Physical Chemistry (4+2)	Organic Chemistry (4+2)	Research Methodology (4)	--	--	--	--	22	44 PG Diploma in Discipline
		DSC1 -2 Inorganic Chemistry (4+2)	OR Analytical Chemistry (4+2)							
	II	DSC1 -1 Physical Chemistry (4+2)	Organic Chemistry (4+2)	--	--	--	OJT/FP (4)	22		
		DSC1 -2 Inorganic Chemistry (4+2)	OR Analytical Chemistry (4+2)							
	Cum Cr.	24	12	04				04	44	
	I	DSC1 -1 Inorganic Chemistry (4+2)	Organic Chemistry (4+2)	Research Methodology (4)	--	--	--	--	22	
		DSC1 -2 Physical Chemistry (4+2)	OR Analytical Chemistry (4+2)							
	II	DSC1 -1 Inorganic Chemistry (4+2)	Organic Chemistry (4+2)	--	--	--	OJT/FP (4)	22		
		DSC1 -2 Physical Chemistry (4+2)	OR Analytical Chemistry (4+2)							
	Cum Cr.	24	12	04				04	44	
	I	DSC1 -1 Organic Chemistry (4+2)	Physical Chemistry (4+2)	Research Methodology (4)	--	--	--	--	22	44 PG Diploma in Discipline
		DSC1 -2 Analytical Chemistry (4+2)	OR Inorganic Chemistry (4+2)							
II	DSC1 -1 Organic Chemistry	Physical Chemistry (4+2)		--	--		OJT/FP (4)	22		

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		(4+2)	OR Inorganic Chemistry (4+2)							
		DSC1 -2 Analytical Chemistry (4+2)								
Cum Cr.		24	12	04				04	44	
I	DSC1 -1 Analytical Chemistry (4+2)	Physical Chemistry (4+2)	OR Inorganic Chemistry (4+2)	Research Methodology (4)	--	--	--	--	22	44 PG Diploma in Discipline
	DSC-2 Organic Chemistry (4+2)									
II	DSC1 -1 Analytical Chemistry (4+2)	Physical Chemistry (4+2)	OR Inorganic Chemistry (4+2)		--	--		OJT/FP (4)	22	
	DSC-2 Organic Chemistry (4+2)									
Cum Cr.		24	12	04				04	44	

Exit Option: Award of PG Diploma in Discipline with 44 credits OR Continue with Discipline.

6.5	III	DSC1 -5 Atomic and Molecular Structure and Spectroscopy (4+2)	DSE1 -3 Advanced Instrumental Techniques I OR Polymer Chemistry (4+2)					RP (4)	22	88 PG Degree in Discipline
		DSC1 -6 Statistical and Irreversible Thermodynam ics (4+2)								
	IV	DSC1 -7 Symmetry and Spectroscopy (4+2)	DSE1 -4 Advanced Instrumental Techniques II OR Surface and Electrochem istry (4+2)					RP (6)	22	
		DSC1 -8 Solid State and Nano chemistry (4)								
Cu m Cr.		46	24	04				14	88	

Two-year PG Degree in Discipline with 88 Credits.

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Proposed structure for Two Year PG Program (M.Sc.) Degree

6.5	III	DSC1 -5 Chemistry of Inorganic Solids (4+2)	DSE1 -3 Coordination and Bioinorganic chemistry OR Inorganic Materials (4+2)					RP (4)	22	88 PG Degree in Discipline
		DSC1 -6 Spectral methods in Inorganic Chemistry (4+2)								
	IV	DSC1 -7 Properties of Inorganic Solids and Applications of Group Theory (4+2)	DSE1 -4 Properties of Organometal lics and main group chemistry I OR Applied Inorganic Chemistry (4+2)					RP (6)	22	
DSC1 -8 Instrumental methods in Inorganic Chemistry (4)										
	Cu m Cr.	46	24	04				14	88	

Two-year PG Degree in Discipline with 88 Credits.

6.5	III	DSC1 -5 Organic Spectroscopy (4+2)	DSE1 -3 Natural Products OR Stereochemi stry of organic compounds OR Heterocyclic and Medicinal Chemistry (4+2)					RP (4)	22	88 PG Degree in Discipline
		DSC1 -6 Synthetic Organic Chemistry I (4+2)								
	IV	DSC1 -7 Advanced Organic Spectroscopy (4+2)	DSE1 -4 Photochemis try and pericyclic reactions OR Bioorganic Chemistry OR Polymer Chemistry (4+2)					RP (6)	22	
DSC1 -8 Synthetic Organic Chemistry II (4)										
	Cu m Cr.	46	24	04				14	88	

Two-year PG Degree in Discipline with 88 Credits.

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Proposed structure for Two Year PG Program (M.Sc.) Degree

6.5	III	DSC1 -5 Quality Aspects in Analytical Chemistry I (4+2)	DSE1 -3 Environmental and Certain Industrially Important Materials OR Pharmaceutical and Organic Analysis (4+2)					RP (4)	22	88 PG Degree in Discipline
		DSC1 -6 Advanced Instrumental Techniques I (4+2)								
	IV	DSC1 -7 Quality Aspects in Analytical Chemistry II (4+2)	DSE1 -4 Forensic analytical chemistry OR Clinical and Consumer Product Analysis (4+2)					RP (6)	22	
		DSC1 -8 Advanced Instrumental Techniques II (4)								
	Cum Cr.	46	24	04				14	88	

Two-year PG Degree in Discipline with 88 Credits.



FESTS & EVENTS

RSM 2024



The 35th Research Scholar Meet (RSM-2024), organized by the Indian Chemical Society's Mumbai Branch in association with The Institute of Science, Dr. Homi Bhabha State University Mumbai, took place on the 23rd and 24th of February. The primary theme of this esteemed gathering was to facilitate interaction among research scholar students, providing them with a platform to present their work through oral presentations or poster presentations. This event served as a crucial opportunity for budding researchers to showcase their findings, exchange ideas, and foster collaborative efforts within the scientific community. By encouraging scholarly discourse and knowledge sharing, the RSM-2024 aimed to not only enhance the visibility of ongoing research but also to inspire further exploration and innovation in the field of chemistry. With a focus on fostering research endeavors, the agenda of the 35th RSM-2024 was set to stimulate intellectual dialogue and academic growth among participating scholars. Through engaging presentations and discussions, attendees were able to delve into the latest advancements, methodologies, and challenges within the realm of chemical research. By nurturing an environment conducive to scholarly exchange and networking, this event aimed to catalyze interdisciplinary collaborations and propel scientific inquiry forward. Ultimately, the RSM-2024 underscored the importance of continuous learning and collaboration in driving meaningful progress in the field of chemistry, thereby laying the groundwork for future breakthroughs and advancements in scientific knowledge.

FESTS & EVENTS

RSM 2024



FESTS & EVENTS

PROF. B. C. HALDAR BIRTH CENTENARY CELEBRATION



Prof. B. C. Halдар Birth Centenary Celebration One Day
Conference on Chemistry for Sustainable Development Towards
Net Zero ...2070

Organized by Department of Chemistry, The Institute of Science,
Dr. Homi Bhabha State University, Mumbai

On 23rd December 2023 To celebrate the birth centenary of Prof. B. C. Halдар One Day Tributes and Conference is organized on topic 'Chemistry for Sustainable Development Towards Net Zero ...2070' It was held on 23rd December 2023 at the National Gallery of Modern Art (NGMA). The Conference Started with Director Prof. S. B. Kulkarni welcoming the guests. Prof. A.D. Sawant Chief Trustee GJTF spoke about the Centenary program and Conference. A volume was released comprising of memories (wrote by his Students and colleagues) of Prof. B. C. Halдар Prof. G .D. Yadav Former VC of ICT addressed the audience. Followed by a brief address by Dr. R. Chidambaram, the Former AEC Director BARC, Principal Scientific Advisor. And Prof M. M. Sharma Emeritus Prof. of eminence and former Director of ICT. The presidential address was delivered by Hon. Prof. Rajnish Kamat, VC. HBSU. Mumbai Tributes to Prof. B. C. Halдар were paid by Kasturi Halдар daughter of of Prof. B. C. Halдар. The afternoon session started at 12 PM Lecture 1 Prof. G. D. Yadav Former VC of ICT, and National Science Chair spoke on "Hydrogen as the Saviour for Achieving the net-zero Goal & Sustainability." Lecture 2 Prof. Prabuddha Ganguli, CEO of Vision IPR spoke on the "Weaving of R & D and Intellectual Property Rights for Social Good." Lecture 3 Prof. Vimal Jain UM-DAE CEBS spoke on "Inorganic Chemistry at Cross rods of Catalysis and Material Science." Lecture 4. Prof. Raghunath Acharya HBNI-DAE, Head -Nuclear Analytical Chemistry, BARC "Recent R & D activities on Nuclear Analytical Chemistry Utilizing Research Reactors and Particle Accelerators" The last evening session was Tributes and Reminiscence by Students and colleagues of Prof. B. C. Halдар which was conducted by Prof Thakkar. 150 delegates were present for this conference.

FESTS & EVENTS

PROF. B. C. HALDAR BIRTH CENTENARY CELEBRATION



Things that set us apart

Merit-Based Selection ✓

Diverse Fields of Study ✓

Spacious laboratories ✓

Modern instrumentation facilities such as HPLC, ✓

UV-Visible, UV. Visible near IR, Fluorescence and

FT-IR spectrophotometers, Electrochemical

Workstation, Semiconductor Parameter

Analyzer, XRD , TGA/DTA, Impedance analyser,

Microwave synthesis system, rota evaporators,

High temperature furnace

Mentorship Opportunities ✓

Helping Students Focus on Learning ✓



Internship, Placements & Job Opportunities

✓ Department provides internships to M Sc students in various research laboratories and industries nearby Mumbai.

✓ Institute is having a placement cell.

✓ Department conducts placement drive through placement cell.

✓ Students of department are placed in various chemical and pharmaceutical industries.

✓ Also students are absorbed in various research institutes and academia.



*"Invest in Your Future
With Our Program"*

More Information

1. Prof. Y. S. Malghe - ✉ yimalghe@yahoo.com

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3. Dr. Shubhangi Patil - ✉ shubhangi.patil@iscm.ac.in

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