

Ref: MSRCASC/CHEM/BIOCHEM/2024-25

Date: 04/04/2025

Circular

The Department of Chemistry and Biochemistry is organizing a Guest Lecture on "Use of Ultrasound in Organic Synthesis" by **Dr. M. A. PASHA**, Former UGC-BSR Faculty Fellow and Former Chairman, Bangalore University, Bangalore. All the M.Sc and VI Semester- B.Sc chemistry students are hereby informed to attend the program unfailingly.

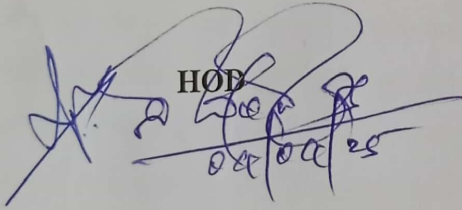
Attendance is mandatory for all the students

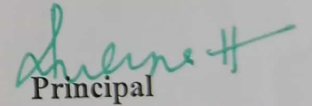
Date: 09/04/2025

Time: 11:00 AM- 1:00 PM

Venue: Kuvempu Seminar Hall

Coordinators: **Dr. Amreen Khanum & Mrs. Malini M. R**


HOD


Principal

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Department of Chemistry and Biochemistry

Report on Guest Lecture: "Use of Ultrasound in Organic Synthesis"

Event Coordinators: Dr. Amreen Khanum, Mrs. Malini M.R.

Number of Participants: 67

The Department of Chemistry/ Biochemistry organized a Guest lecture on “ **Use of Ultrasound in Organic Synthesis**” delivered by **Prof. M.A Pasha**, Retired professor, UGC-BSR Faculty Fellow and Former Chairman, Bangalore University, Bangalore, on 09th of April 2025 in Kuvempu Seminar Hall. The lecture was held for VI Sem B.Sc. and M.Sc. Chemistry students and spanned two insightful and engaging hours (11:00 to 1:00 pm).

Prof. Pasha began the session by introducing the fundamental principles of **ultrasound and sonochemistry**, elaborating on how ultrasonic waves (typically 20 kHz–10 MHz) can influence chemical reactions. He explained the concept of **acoustic cavitation**, which leads to the formation, growth, and implosive collapse of bubbles in a liquid, creating highly reactive environments that can significantly enhance reaction rates and yields.

The lecture covered various key aspects, including:

- **Mechanism of ultrasound-assisted reactions** in organic synthesis.
- **Advantages** of ultrasound over conventional heating methods: energy efficiency, shorter reaction times, better yields, and environmentally friendly processes.
- Examples of **named reactions** and organic transformations (e.g., esterification, oxidation, coupling reactions) that benefit from ultrasonic activation.
- Real-life applications and **case studies** from Prof. Pasha's own research and published works.
- Discussion on the synergy of ultrasound with **catalysts and green solvents**, promoting sustainable chemistry.


Prof. Pasha also highlighted the use of **ultrasound in multicomponent reactions (MCRs)** and how it contributes to the principles of **green chemistry** by minimizing waste and resource consumption.


The students showed active interest and participated enthusiastically in the interactive question and

answer session that followed the lecture. Many queries related to experimental setups, safety, and scalability of ultrasound-assisted methods were addressed in detail.

The session concluded with a vote of thanks by Ms. Apoorva (M.Sc student), who appreciated Prof. Pasha's contribution and the depth of knowledge shared with the students. The lecture was highly informative and inspired many students to explore sonochemistry in their future academic and research endeavors.




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Department of Chemistry & Biochemistry

Organizes

GUEST LECTURE

on

"USE OF ULTRASOUND IN ORGANIC SYNTHESIS"

Resource Person

Dr. M. A. PASHA

Former UGC-BSR Faculty Fellow

Former Chairman

Bangalore University

Bangalore



Coordinators

- **Dr. Amreen Khanum**
- **Mrs. Malini M. R.**

Heads of the Department

- **Mrs. Ramya Kumari B. S.**
- **Dr. Surendra A. S**

Date: 09/04/25

Venue: Kuvempu Seminal Hall

Time: 11:00 AM -1:00 PM

DEPARTMENT OF CHEMISTRY/ BIOCHEMISTRY

A Guest Lecture on " Use of Ultrasound in Organic Synthesis"

Date: -9/4/25

List of Participants

Sl.No.	Name	Program	Signature
01.	Ananya. S. S	MSc -OC (2nd yr)	Ananya
02.	Apoorva. S. O	- " -	Apoorva
03.	Shambhu. B. T	- " -	Shambhu
04.	Yamini. S	B.Sc BT / Chem 2nd year	Yamini
05.	Vasuki	47	Vasuki
06.	Chinmaye	17	Chinmaye
07.	Musfira	11	Musfira
08.	Anusuya	12	Anusuya
09.	Mandana CA	B.Sc BT / Chem 3rd year	Mandana.CA
10.	Heishabh Gupta	B.Sc. BT / Chem 3rd year	Gupta
11.	Shreya Agrawal	B.Sc. MB / Chem 3rd year	Shreya
12.	Mahee Prabhu	11	Mahee
13.	Hema Shree S	11	Hema
14.	Joysoni Dey	M.Sc BC	Joysoni
15.	Manoj. C. R	M.Sc BC	Manoj
16.	JYOTHIKA. A	M.Sc BC	Jyoti
17.	Jezziel John Johnson	BSC BT / CHEM 3rd year	Jezziel

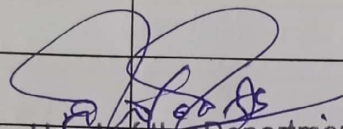
18.	Manisha Kumari	BSc Gen/BC 3rd Year	Manisha Kumari
19.	Mani Singh	"	Mani Singh
20.	Soha Khanum	"	Soha Khanum
21.	Loganarshi S	M.Sc Biochem	Loganarshi S
22.	Swathi R	"	Swathi R
23.	Deekshitha G	"	Deekshitha G
24.	Varun. NM	"	Varun. NM
25.	Abdul Umar	"	Abdul Umar
26.	Rohit. P	"	Rohit. P
27.	Jayanthi.	"	Jayanthi. H
28.	Abdeep. S	"	Abdeep. S
29.	Yashwanth. P	BSc BT/CHE	Yashwanth. P
30.	Parinitha. G	" — "	Parinitha. G
31.	Priyanka. S	" — "	Priyanka. S
32.	Keertana. S	" — "	Keertana. S
33.	G. T. Rishitha.	" — "	G. T. Rishitha.
34.	Sandhya. L	" — "	Sandhya. L
35.	Vidya Nikkam	" — "	Vidya Nikkam
36.	Radhika Modi	" — "	Radhika. Modi
37.	Riyanka	" — "	Riyanka
38.	Monika. J	" — "	Monika. J
39.	Akshatha. K. M	" — "	Akshatha. K. M
40.	Harshavardhini. B.R.	" — "	Harshavardhini. B.R.
41.	P. Lalasa	" — "	P. Lalasa

42.	Rachana. A	Msc (II sem) Organic Chemistry	Sahana A
43.	Dimple R. S	- u -	Dimple R. S
44.	Lekshmi Gopala	- u -	Lekshmi Gopala
45.	Sahana J	- u -	Sahana J
46.	Nandini Deb Singha	- u -	N Singha
47.	Siddhi Shridhar Paudishi	- u -	Siddhi
48.	Krishna Chirag Shah	- u -	Krishna
49.	Mitali Prasad	B.Sc (6th sem) Chemistry	Mitali
50.	Pooja T	M.Sc. 2nd year 4th Sem. Biochem	P T
51.	Srujana Patel J.	M.Sc 2nd year 4th Sem Biochem	S
52.	Arya Anilkumar	MSc Biochemistry 4th sem	Arya
53.	Brunda H.N	MSc Biochemistry 4th sem	Brunda
54.	Sandhya J.	- u -	Sandhya J.
55.	Bhumika S.	- u -	B. Gowda
56.	Jalaja B.S.	- u -	Jalaja B.S.
57.	Anusha S.	- u -	Anusha S.
58.	VISHWAJEET U.R	- u -	V. U. R.
59.	AARDRA R. S	- u -	A. R. S.
60.	Chinmaya Balachandran	(VII th sem) BSc - BT/chem	Chinmaya
61.	Lakshmi. A.S	(VIII th sem) BSc - BT/chem	Lakshmi
62.	Megha Raj	(VIII th sem) BSc BT/chem	Megha
63.	Devika. A	(VIII th sem) BSc BT/chem	Devika
64.	Niveditha R	(VIII th sem) BSC BT/chem	Niveditha R.
65.	D. Abhishek	BSC BI/chem	Abhishek
66.	Prajwal Kambar	BSC BT/CH	Prajwal Kambar

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K. Balaji

B.Sc mBkH

Balaji

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