



**RAMAIAH**  
College of Arts, Science &  
Commerce

ಎಮ್ ಎಸ್ ರಾಮಯ್ಯ ಕಲಾ, ವಿಜ್ಞಾನ ಮತ್ತು ವಾಣಿಜ್ಯ ಕಾಲೇಜು

**M S Ramaiah College of Arts, Science and Commerce**

Re-accredited 'A' by NAAC, Permanently Affiliated to Bengaluru City University.

Approved by Government of Karnataka, Approved by AICTE, New Delhi.

Recognized by UGC under 2f & 12B of UGC act 1956



(National Institutional Ranking Framework, Ministry of Education, Govt of India)

Ranked 62<sup>nd</sup> in NIRF India Ranking by MHRD, New Delhi

DBT Star College Scheme

MSRCASC/Chem-Bio/22-23/

Dated: 29/12/2022

## CIRCULAR

Value added Program under DBT Star College scheme on “**Extraction of Aromatic compounds from plants and its applications**” will be starting for students of VI Sem B.Sc. from 15<sup>th</sup> January to 10<sup>th</sup> May 2023. This course will enlighten the students with recent developments in Life science and Chemical Sciences with respect to various applications of Aromatic compounds. This course covers 30 credit hours going to be held on every Saturday, each covering 4 hours and free hours.

**Duration:** 30 Hours

**Venue:** Chemistry and Biochemistry Laboratories, MSRCASC Campus.

Head

Department of Chemistry  
Head of the Department  
**CHEMISTRY / BIO-CHEMISTRY**  
M.S. Ramaiah College of Arts,  
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Bangalore - 560 054

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DBT Star College Scheme

## Department of Chemistry/ Biochemistry

Value Added program on

**Title: Extraction of Aromatic compounds from plants and its applications**

**Date: 15/01/2023 to 10/05/2023**

**Number of participants:35**

**Duration: 30hrs**

Department of Chemistry & Biochemistry organized Value-Added course on “**Extraction of Aromatic compounds from plants and its applications**” from 15/01/2022 to 10/05/2022 for Chemistry and life science students to acquire knowledge and information on extraction of aromatic compounds from plants and its applications

**Objective:** The purpose of this event is to address the role of aromatic compounds extracted from plant sources and its applications in various field especially in chemical and Life Science research.

This program was for selected students interested in pursuing further career in the field of research and industry. Further to inculcate research interest, zeal, enthusiasm and contemporary knowledge in Chemistry and life science research, this program fulfills all the needed requirements and also the skills needed by the industry. The resource persons of this program were faculty of Department of Chemistry and Biochemistry, MSRCASC, Industry experts and renowned Professors from Prestigious Institution with a sound experience in research. Topic of the program selected is also based on the research experience of the faculty that they sought. The order of the sessions is made

to maintain the flow of the main topic of the add-on course. For this course 30 hrs. syllabus was framed with 3 units each of 10hrs, to teach the course, resource persons were from inside the institute.

### **Resource Persons:**

1. Dr. Shashidhar Bharadwaj S. Assistant Professor, MSRCASC, Bengaluru.
2. Dr. Vibha Vinayakumar Bhat Assistant Professor, MSRCASC, Bengaluru.
3. Mrs. Ramya Kumari B. S. Assistant Professor, MSRCASC, Bengaluru.

### **Course Contents covered:**

1. Soxhlet methods.
2. Extraction of Aromatic compounds from plants and separation of compounds by Chromatography methods.
3. Determination of Physical and Chemical properties of extracted compounds.

### **Conclusion:**

In spite of recent technological development in the field of extraction, hydrolytic maceration, expression and cold fat extraction techniques are inevitable for certain types of raw material. For these materials, no substitutes are available at present, although hydro distillation or solvent extraction can be used for essential oils of citrus and flower oils or other perfumery materials. Nonetheless, the real replication of essential oil or the true natural fragrances present in these materials can only be produced by expression and cold fat extraction. Only technological improvements for easy extraction can be made without affecting the basic principles of these processes. Keeping this in mind basic principle of extraction and determination of parameters of extracted compounds this concept was included in the course content. So that students are benefited.

Chemistry and Life science students enrolled for the course, actively participated and got benefited by the program.

**Geo Tag Photographs:**



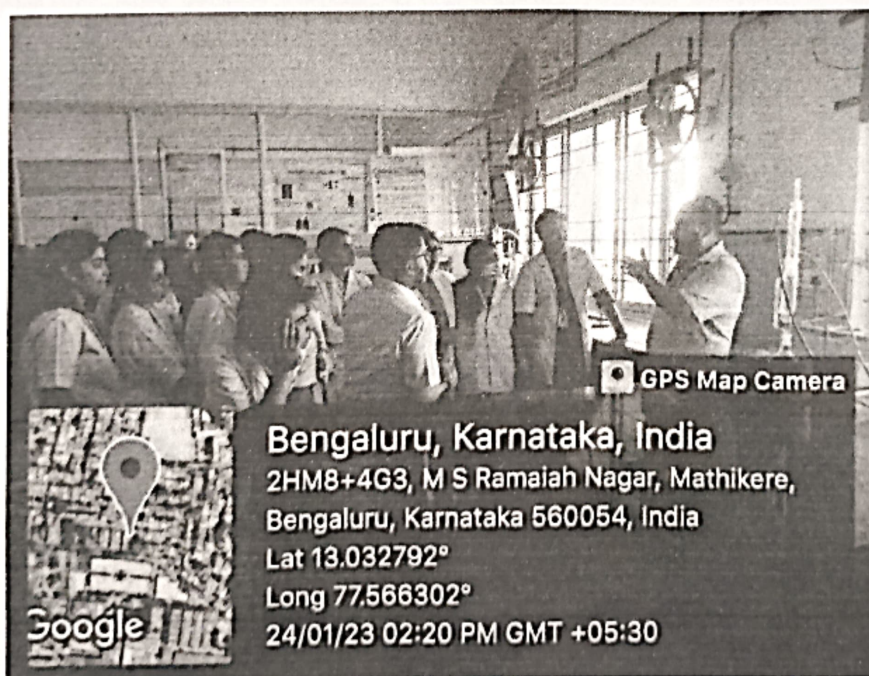
**Explanation for soxhlet extraction**



**Extraction of Aromatic compounds from plants**



**Determining the Viscosity of Aromatic plants**



**Evaporation of solvent and collection of sample**

## Resource Persons

Industry experts and renowned Professors from Council of Scientific and Industrial Research - Central Institute of Medicinal and Aromatic Plants.

## Coordinators

1. **Dr. Shashidhar Bharadwaj S.**  
Assistant Professor,  
MSRCASC, Bengaluru.
2. **Dr. Vihba Vinayakumar Bhat**  
Assistant Professor,  
MSRCASC, Bengaluru.
3. **Mrs. Ramya kumari B. S.**  
Assistant Professor,  
MSRCASC, Bengaluru.

## Hands on training on Extraction of Aromatic compounds from plants

### Contents covered

1. Soxhlet methods.
2. Extraction of Aromatic compounds from plants and separation of compounds by Chromatography methods.
3. Determination of Physical and Chemical properties of extracted compounds.

## About the programme

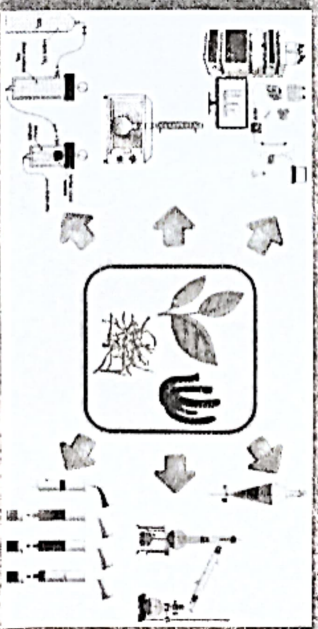
Department of Chemistry & Biochemistry takes initiative for invariad of co-academic activities to bring students growth in all the respects. In the similar lines, department has organized an add-on course entitled "Extraction of Aromatic compounds from plants and its applications" for UG students of Chemistry. This program is preferably for selected students interested in pursuing further career in the field of research and industry. Further to inculcate research interest, zeal, enthusiasm and contemporary knowledge in Chemistry research, this program fulfills all the needed requirements and also the skills needed by the industry.

Our resource persons of this program are faculty of Department of Chemistry, MSRCASC, Industry experts and renowned Professors from Prestigious Institution with a sound experience in Chemistry research. Topic of the program selected is also based on the research experience of the faculty that they sought. The order of the sessions is made to maintain the flow of the main topic of the add-on course. Department is thankful to the management for giving an opportunity to organize such programs.



**RAMAIAH**  
College of Arts, Science & Commerce  
An Autonomous & Affiliated to Bangalore University  
Approved by UGC, Group 'A' (30/10/1956) & 1994  
**nif**  
National Institutional Awarded Programme, Ministry of Education, Govt of India  
Basant 67, A-10th, 10th Floor by 46/20, New Delhi  
191 Sree College, Science

## Value-added Course On "Extraction of Aromatic compounds from plants and its applications"



**Duration:**  
January 15th to May 10th - 2023

**Venue:**  
Chemistry UG/PG Labs/ Chemistry  
Research Center and Room No. 504

**Organized by:**  
Department of Chemistry and  
Biochemistry  
M.S. Ramiah College of Arts, Science and  
Commerce, Bengaluru - 560054

## M.S. Ramaiah College of Arts, Science and Commerce

Dr. M S Ramaiah, a visionary and philanthropist established "Gokula Education Foundation (GEF)", in the year 1962, to deliver education and healthcare for the betterment of mankind. Under the tutelage of GEF, M.S Ramaiah college of Arts, Science and Commerce (MSRCASC) was established in 1994. MSRCASC is Re-accredited with "A" Grade by NAAC, permanently affiliated to Bengaluru City University (BCU), and approved by AICTE.

The college offers seven UG courses and four PG courses in Arts, Science, and Commerce, to around 2000 students. The Department of Life Sciences conducts 2 UG and 4PG Programs in Microbiology, Chemistry, Biotechnology and Biochemistry to about 800 students. The dedicated academic faculties from our college have extensive teaching experience and have pursued doctoral and postdoctoral work in eminent institutes in India and abroad. Ramaiah College not only educates young students to excel academically, but also strives hard to ingrain social responsibilities in them.

## Department of Chemistry and Biochemistry

The Department of Chemistry and Biochemistry was established in the year 1994 and currently conducts both UG and PG courses in Chemistry and Biochemistry. The syllabus is constantly supported by current day, real life applications carrying utility value. The department has very good infrastructural facilities to carry out teaching and research activities. Highly qualified faculties are assigned with theory and practical classes and are instructed to emphasize on the 'learning' of the students. The department undertakes research projects of national importance in the field of biological chemistry and has attracted funds from various agencies.

Through the sincere effort of our faculty we have obtained many University ranks, 90-100% results in both UG and PG courses consistently. Our students have been placed in various companies and many are pursuing their higher educations in India and abroad. We encourage students in doing research, present papers at National conferences, publish their findings in Journals of repute and also participate in co-curricular and extra-curricular activities.

## Organizing Committee Members

**Dr. Vatsala G.**  
Principal,  
MSRCASC, Bengaluru.

**Dr. Prasanna Kumar S. G.**  
Associate Professor,  
HOD of Chemistry/Biochemistry,  
MSRCASC, Bengaluru

**Dr. Shashidhar Bharadwaj S.**  
Assistant Professor  
MSRCASC, Bengaluru

**Dr. Yibha Vinayakumar Bhat**  
Assistant Professor  
MSRCASC, Bengaluru

**Mrs. Ranjya Kumari B.S.**  
Assistant Professor  
MSRCASC, Bengaluru



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**nirf** (National Institutional Ranking Framework, Ministry of Education, Govt of India)  
Ranked 55<sup>th</sup> in NIRF India Ranking by MHRD, New Delhi  
DBT Star College Scheme

## *Certificate of Participation*

This Certificate is presented to

**Vidya Shree**

of M. S. Ramaiah College of Arts, Science and commerce for successfully attending the value added program on  
"Extraction of Aromatic compounds from plants and its applications" which was organized by Department of  
Chemistry/Biochemistry, M. S. Ramaiah College of Arts, Science and Commerce, Bengaluru from 15<sup>th</sup> January to 10<sup>th</sup> May,  
2023.

**Dr. Shashidhar Bharadwaj S.**  
Coordinator

**Mrs. Ramya Kumari B. S.**  
Coordinator

**Dr. Vibha V Bhat**  
Coordinator

**Prof. Prasanna Kumar S. G.**  
HOD, Chemistry/Biochemistry

**Dr. Yatsala G.**  
Principal