

Report of Chemistry Department (2021-22)



Mehr Chand Mahajan
DAV College for Women
Sector-36(Chandigarh)

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Department Name: P.G. Department of Chemistry.

Session: 2021-22

Names of Programmes/Courses/ offered:

- B.Sc. (Medical)
- B.Sc. (Non-Medical)
- B.Sc. (Microbial Food and Technology)
- M.Sc. (Chemistry)

Faculty Publications /Awards/Achievements/Activities:

Faculty Publications:

- **Dr. Madhuri Tanaji Patil, Advance Synthesis & Catalysis,**

Kaur, M.; Singh R.; Patil M. T.; Kumar, K.; Sahoo, S. C.; Singh, K. N.; Chaudhari, V. D.; Salunke D. B. Microwave-assisted Groebke-Blackburn-Bienaymé multicomponent reaction to synthesize imidazo fused heterocycles via in-situ generated isocyanides from N-formylamines: An undergraduate organic laboratory experiment, *Journal of heterocyclic Chem.*, 2021, 1-10. DOI: 10.1002/jhet.4386.

Dr. Madhuri Tanaji Patil, Singh R.; Singh, R.; Kaur, M.; Patil M. T. Sahoo, S. C.; Salunke D. B. Groebke–Blackburn– Bienaymé multicomponent reaction coupled with unconventional Pictet–Spengler cyclization for the synthesis of imidazo[4,5-b] pyridine fused polycyclic heterocycles, *Journal of heterocyclic Chem.*, 2021, 1-10. DOI.org/10.1002/jhet.4438.

Dr. Madhuri Tanaji Patil, Kumar, S.; Patil, M. T.; Salunke, D. B. Indole based prostate Cancer Agents, *Physical Sciences Reviews*, 2022, DOI. org/10.1515/psr-2021-0131

Dr. Madhuri Tanaji Patil, Crystal Growth & Design, Access to Enantiomeric Organic Compounds with Potential for Synthesis via Racemic Conglomerates: Inositol Derivatives as a Case in Point, 6, 2021, International, Peer Reviewed.

- **Dr. Nisha Dawra** Publication: Advances in spectrophotometric determination of Chromium (III) and Chromium (VI) in water: a review, **International Journal of Environmental Analytical Chemistry**, May 2022, International, First Author, Peer Reviewed, Scopus.

- **Dr. Manjot Kaur, Sharma, E.; Kaur, M.; Kaur, B.;Kaur, A..Singh.P.; Singh, K. N.;**Intermolecular nucleophilic addition reaction of C-7 anion from *N*-[bis (dimethylaminophophoryl)]indole to electrophiles/arynes: Synthesis of 7-substituted indoles, *SYNLETT* 2022, 34, 84-87.

- **Dr. Shweta Sareen, Sareen, S., Mutreja, V., Verma, M. et al.** Synthesis of micro-mesoporous materials by pseudomorphic transformations. *J Porous Mater* (2022). <https://doi.org/10.1007/s10934-022-012728>

- **Dr. Shweta Sareen**, Sareen, S., Kaur, S., Mutreja, V., Verma, M. *et al.* Coral reef Shaped Mesoporous Silica Obtained from Coal Fly Ash with High Adsorption Capacity. Topics 8n Catalysis (Accepted).
- **Dr. Archana Gupta**, A Review of Adsorbents for Heavy Metal Decontamination: Growing Approach to Wastewater Treatment, Archana Gupta 1, Vishal Sharma 2,* , Kashma Sharma 3, Vijay Kumar 4 , Sonal Choudhary 2 ,Priyanka Mankotia 2, Brajesh Kumar 5,6 , Harshita Mishra 7, Amitava Moulick 7 , Adam Ekielski 8 and Pawan Kumar Mishra 9,* Materials 2021, 14, 4702. <https://doi.org/10.3390/ma14164702>.
- **Dr. Archana Gupta**, Polyacrylonitrile Crosslinked with Diethylenetriamine and Its Use for the Removal of Lead Ions from Aquatic Systems. Archana Gupta, 2022, DOI: 10.1002/slct.202201262.

Departmental Activities:

- **Two days skill-based Lecture cum workshop** on “Refreshing the basic Chemistry Lab skills post lockdown”. by Dr. Angshuman Roy Choudhury, asst. professor IISER, Mohali and Dr. Rishu Asst. Professor, MCM DAV, on 9-10th September 2021.
- **Special lecture on “Nanoscience- A World beyond visual limits** “by Dr. Nishima Wangoo Department of applied science, UIET, Panjab university, Chandigarh, on 22nd September 2021.
Coordinators – Dr. Shefali Dhiman and Dr. Sagarika Dev.
- **Webinar on “Nanotech and Future Implications”** by Dr. Ashish Pal Scientist, INST, Mohali, on 22nd feb 2022.
Coordinators – Dr. Shefali Dhiman and Dr. Sagarika Dev.
- **Organises a poster making competition on the** theme “Chemistry in other Disciplines “on 16th March 2022.
Coordinators –Dr. Shefali Dhiman and Dr. Sagarika Dev.
- **Inauguration of “Central Instrumentation Lab”** setup out of DST- FIST grant with special lecture on “”by Dr. Rohit Kumar Sharma Department of Chemistry Panjab University, Chandigarh, on 25th march 2022.
Coordinators – Dr. Shefali Dhiman and Dr. Sagarika Dev.
- **Special lecture on “Advanced Technological approaches for Environmental Remediation Application”** by Dr. Savita Chaudhary Department of chemistry Panjab University, Chandigarh, on 8th April 2022.
Coordinators – Dr. Rishu and Dr. Madhuri Tanaji Patil.
- **Webinar on “COPYRIGHT”** to mark the celebrations of World Intellectual Property Day on April 26, 2022, by Mr. Vijay Gupta Advocate Lexntech IP Law Office, New Delhi.

Coordinators – Dr.Rishu, and Dr. Nisha Dawra.

- **Organises Lecture cum Workshop** on “Basic learning and Handling of Spectroscopic Techniques (UV-VIS, FTIR, NMR) by Dr. Swatika Sharma, Dr. Yesbinder Kaur and Dr. Manjot Kaur on 18th -19th may 2022.

Coordinators –Dr. Qudrat Hundal, Dr.Rishu, Dr. Madhuri Tanaji Patil, Dr. Aanchal Batra and Dr. Nisha Dawra.

- **Webinar on the intellectual property awareness program** under national intellectual property awareness mission on May 25, 2022, by Dr. Manoj Kumar Singh, Examiner of Patents & Designs Ministry of Commerce and Industry, GOI.

Coordinators – Dr.Rishu, and Dr. Nisha Dawra.

Activities of Faculties:

➤ **Dr. Shefali Dhiman**

- Organised Special lecture on “Nanoscience- A World beyond visual on 22nd September 2021.
- Organised Webinar on “Nanotech and Future Implications” on 22nd feb 2022.
- Organised a poster making competition on the theme “Chemistry in other Disciplines “on 16th March 2022.
- Organised and attended Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee on 18th and 19th May 2022.

➤ **Dr. Sagarika Dev**

- Organised Special lecture on “Nanoscience- A World beyond visual on 22nd September 2021.
- Organised Webinar on “Nanotech and Future Implications” on 22nd feb 2022.
- Organised a poster making competition on the theme “Chemistry in other Disciplines “on 16th March 2022.
- Organised and attended Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee on 18th and 19th May 2022.

➤ **Dr. Qudrat Hundal**

- Organised and attended Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee on 18th and 19th May 2022.

- Attended a webinar on “Process of Writing & Publishing Quality Research Papers in Indexed Journals” organised under the aegis of Internal Quality Assurance cell (IQAC) on 30th July 2021.
- Participated in Expert lecture on NAAC-Revisiting the quality benchmarks: An assessor’s perspective organised under the aegis of IQAC on 28th July 2021.
- **Dr. Madhuri Tanaji Patil**
- Organised and attended Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee on 18th and 19th May 2022.
- Delivered online talk entitled, “DST WOS-A, a Catalyst in the Journey of Women in Science” on the theme Women in science & technology and science & technology for women during Vigyan Mahotsav as a part of Azadi Ka Amrit Mahotsav, Department of Science & Technology (DST), Govt. of India & Haryana State Council for Science, Innovation & Technology, Department of Science & Technology, Govt. of Haryana.
- **Dr. Rishu**
- Organised and attended Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee on 18th and 19th May 2022.
- Organised and co-ordinated in conducting the intellectual property awareness program under national intellectual property awareness mission on May 25, 2022.
- **Dr. Aanchal Batra**
- Organised and attended Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee on 18th and 19th May 2022.
- Attended online two week interdisciplinary refresher course in “**ADVANCED CONCEPTS IN DEVELOPING MOOCS**” from 07-21 jan, 2022.
- **Dr. Nisha Dawra**
- Organised and attended Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee on 18th and 19th May 2022.
- Organised Webinar on World Intellectual Property Right Day, 26-4-2022
- Organised Webinar on National Intellectual Property Awareness Program (NIPAM), 25-5-2022

➤ **Dr.Swatika Sharma**

➤ Delivered Lecture as a Resource Person in 2 days (18th and 19th May, 2022) Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee.

➤ **Ms. Sonia Devi**

➤ Organised and attended Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee on 18th and 19th May 2022.

➤ Organised and attended inter college competition organised by department of Environment Science on world atmosphere day i.e.9th April 2022.

➤ Participated in the intellectual property awareness program under national intellectual property awareness mission on May 25, 2022.

➤ **Dr. Yesbinder Kaur**

➤ Delivered Lecture as a Resource Person in 2 days (18th and 19th May, 2022) Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee.

➤ **Dr. Manjot Kaur**

➤ Delivered Lecture as a Resource Person in 2 days (18th and 19th May, 2022) Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee.

➤ **Dr. Shweta**

➤ Organised and attended Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee on 18th and 19th May 2022.

➤ Participated in the intellectual property awareness program under national intellectual property awareness mission on May 25, 2022.

➤ **Dr. Archana**

➤ Organised and attended Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee on 18th and 19th May 2022.

➤ **Dr. Aashima**

➤ Organised and attended Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee on 18th and 19th May 2022.

➤ **Ms.Priyanka**

➤ Organised and attended Lectures cum Workshop on ‘Basic Learning and Handling of Spectroscopic Techniques’ organized by PG department of Chemistry under the aegis of Skill development committee on 18th and 19th May 2022.

➤ Organised and attended inter college competition organised by department of Environment Science on world atmosphere day i.e.9th April 2022.

Students Publications /Awards/Achievements/Activities:

Student Activities:

S. No	Name or Number of students	Name of project	Name of supervisor/Inst.	Dates
1.	20 (Approx.)	National workshop on Good laboratory in Biological and Chemical Sciences	Bhaskara Charya College of Applied Sciences	10 th March 2022
2.	5 (Approx.)	One day workshop on High Pressure Liquid Chromatography	DAV College, Sector-10	11 th April 2022

Student Awards:

- Tania Singla (B.Sc. NM-III) stood 1st in poster making competition on the theme “Chemistry in other Disciplines “on 16th March 2022.
- Charlie Verma (B.Sc. MFT-II) stood 2nd in poster making competition on the theme “Chemistry in other Disciplines “on 16th March 2022.
- Antra Sen (B.Sc. MFT-II) stood 3rd in poster making competition on the theme “Chemistry in other Disciplines “on 16th March 2022.

Student Achievements:

- Aarya Sharma (B.Sc III, 5th Semester), Stood at 6th position in PU Examinations.

Panjab University, Chandigarh, December 2021.

- Aarusha Nangla, (M.Sc. Chemistry, 2020), 1st Sem, Dec 2021, stood at 3rd position in PU Examination, 2021, Panjab University.

- Simran Khosla have got job as PGT-Chemistry in Sri Guru Gobind Singh Public School, Sector-35.