



Directorate of Outcome

Outcome Report(Event/Activity Organized @ AUH)

1. General Information

Date: 16th March 2022

Event Type: Seminar Series

Event Title: Heavy Metal Management

Event Theme: Research Seminar

Venue: MS Teams, Seminar series 2022

Web/Video Link of the https://teams.microsoft.com/l/meetup-join/19%3ag_XfCwXmijPj35p-CGh-4xSqHnkZwYiwhG-elk9HdHs1%40thread.tacv2/1647339300487?context=%7b%22Tid%22%3a%228d46a076-d093-416d-a57b-8692cde13bf8%22%2c%22Oid%22%3a%227ce44f60-41fc-4d76-abf2-4c5c0596742b%22%7d

Organized by: Department of Chemistry, Biochemistry and Forensic Sciences

Event Level: Institutional

Student Participation*: No. of Students from AUH (Course wise):-26M.Sc (AC); 5 M.Sc(BC); 15M.Sc(FS)

Faculty Participation*: No. of Faculty Members from AUH (Deptt. wise):- 3

Participation from outside AUH*: No. of Students & Faculty Members-NIL

(Enclose attendance sheets in given format)

Event Coordinator(s) with designation: Dr. Dipti Vaya (Associate Professor)

Details of Expert/Speaker/Resource Person/Judge:

SN	Country Name	Expert Name	Organization Name	Designation	Specialization	Contact No.	E-mail Id	CV of Expert (Yes/No)	Major Areas where Amity can Collaborate with expert	Recommended by
1	India	Dr. .Dipti Vaya	Amity University Haryana	Associate Professor, CBFS, ASAS, AUH	Photocatalysis	9717760941	dvaya@ggn.amity.edu	NA	NA	NA

Criteria of Inviting Resource Person/Judge/Speaker/Judge (Write a paragraph): The resource person was invited because she has expertise in wastewater treatment

Were the guest known in advance and if yes, from what previous interaction (Write a paragraph)?

Yes, Dr.Dipti Vaya is known in advance to the students. She is an Associate Professor, CBFS, ASAS, AUH

Outcome of the Event with Time Lines (Proposed/Achieved)

Envisaged Outcome	Tangible/Intangible	Achieved/Proposed	Target date & responsibilities (if proposed)	Details of outcome
1. Outcome related to Academia Connect				
a) Collaborations for Research Papers/Conference Papers/ Book Chapter etc.	NA	NA	NA	NA
b) Collaborations & MOU for Research Guidance [PhD, PG & UG (summer training, Dissertation)] & Projects/Use of Instruments etc.	NA	NA	NA	NA

c) Collaboration for Funded Projects				NA
2. Outcome related to Industry Connect				
a) Placement	NA	NA	NA	NA
b) Collaborations for Research Papers	NA	NA	NA	NA
c) Collaborations & MOU for Research Guidance [PhD, PG & UG (summer training, Dissertation)] & Projects/Use of Instruments	NA	NA	NA	NA
d) Collaboration for Funded Projects	NA	NA	NA	NA
3. Outcome related to Society Outreach				
a) Benefit to society in terms of Health & Hygiene	NA	NA	NA	NA
b) Benefit to society in terms of Education	NA	NA	NA	NA
4. Outcome related to Students Learning & Grooming				
				Students learnt and understood about the heavy metal management. They learnt about method of chemical precipitation and disadvantages of heavy metals. They understood about coagulation and flocculation method, how it is performed. They acquired knowledge about membrane separation and the technique used in adsorption and photocatalyst. They learnt about nanoadsorbent
5. Any other NA				

2. Event Report along with glimpses of the event (Photographs)

Seminar started with introduction of speaker. The seminar "**Heavy Metal Management**" held on 16th March 2022 by Dr. Dipti Vaya.

Dr. Dipti Vaya started with explaining different heavy metal, minimum concentration needed for living beings. Different methods are discussed for removal of heavy metal. She then explained conventional and modern techniques of removal of heavy metals. Each process was explained with fundamental basics, associated with pros and cons of each process. Students understood various terminologies such as coagulant, flocs, flocculation,

After that she told students about purification techniques through membrane. It is a technique in which feed water is forced through a SPM membrane at high pressure to separate specific materials from

the solution. As per pore size, this process can be categorised as micro filtration, ultra filtration and osmosis.

Meeting ended with open discussions among speaker, students and faculty members of CBFS.

2.1 Future plan for utilizing the contacts developed with the Invited Guests : NA

2.2 Budget of the Event(Budget Sanctioned, Total Expenditure&Revenue Generated): NA

2.3 Details of Awards if Any:NA

Awardee Details	Award / Position / Recognition Secured	Title of Innovation/ Start-up Secured the Award / Recognition	Award/Recognition/ Achievement Received for

3.8 Photographs with caption *(also share high resolution JPEG files of photographs)*

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AMITY UNIVERSITY
HARYANA

ESTABLISHED BY THE HARYANA ACT NO.10 OF 2019 AND UGC RECOGNISED • LOCATED AT GURGAON (MANESAR)

**Contemporary Research Endeavors
The Seminar Series**

“Heavy Metal Management”

**Speaker : Dr. Dipti Vaya, Associate Professor, CBFS,
ASAS, AUH**

**Organized by: Department of Chemistry, Bio-Chemistry
and Forensic Sciences, ASAS**

Venue: MS –Team (Seminar Series, 2022)

Date: 16th March, 2022 (Wednesday)

Time: 3:50- 4:45 pm

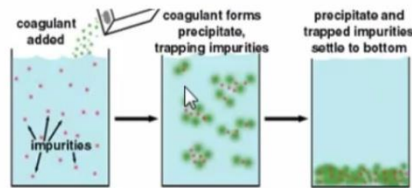
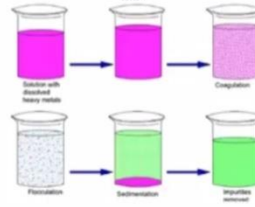
Audience

**Compulsory to all students of M.Sc. Applied
Chemistry, M.Sc. Bio Chemistry and M.Sc. Forensic
Science (Second Semester)
Others are welcome to attend**

COAGULANT AND FLOCCULATION METHOD

16 March 2022

- Coagulation is obtained when a chemical reaction occurs after the use of a coagulant
- In an aqueous solution, colloidal materials join together to form flocs or small aggregates.
- Suspended materials like metals are attracted to these flocs.
- Slow mixing of water could help form small flocs which could increase in size such that they settle down inside the solution. This process is known as flocculation.



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9Q32+9QJ, Haryana 122504, India

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Google Map (Normal) (Zoom Level 17)



Google Map (Normal) (Zoom Level 17)

CHEMICAL PRECIPITATION

- Remove ionic components.
- Metal ions are usually converted into hydroxide and make them insoluble & precipitated.
- Metal ions are also converted into sulphite and carbonates
- Least expensive, simple and easily operable equipment
- It is not quite effective for treating wastewater having high acid content besides also producing a large amount of toxic sludge that needs treatment with chemical stabilization followed by proper disposal.
- This process can be ineffective in the removal of metal ions of low concentration.

Author:

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Introduction

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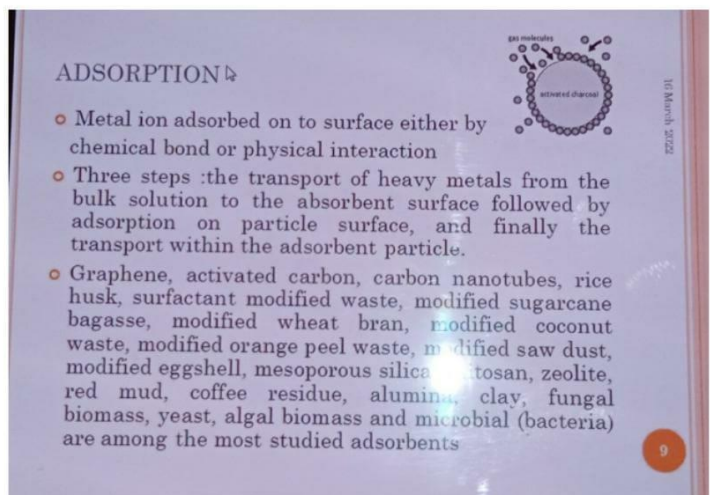
Satellites	Latitude	Longitude	Weather	Altitude	Azimuth	VA	HA	Zoom
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Google Map (Normal) (Zoom Level 17)



Google Map (Normal) (Zoom Level 17)



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Graphical representation of ionic liquid

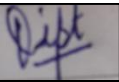
3.9 Scanned copy of attendance sheets

3.10 Few Scanned feedback forms of participants NA

Attendance Sheet of Faculty Members (AUH)				
Event Title: Heavy Metal Management				
Date: 16th March 2021				
S.No.	Participant Faculty Name	School	Designation	
1	Prof. Seema R Pathak	ASAS	Head, CBFS.ASAS	
2	Dr. Dipti Vaya	ASAS	Associate Professor	
3	Dr. Kamal Nayan Sharma	ASAS	Assistant Professor	
Name & Signature of the Event Coordinator				

Attendance Sheet of Students (AUH)

Event Title: Heavy metal Management Date:16th March,2022			
S.No.	Participant Name	School	Programme & Semester
1	JyotiYadav	ASAS	M.Sc. Chemistry
2	Reena	ASAS	M.Sc. Chemistry
3	Anjali	ASAS	M.Sc. Chemistry
4	Sushma	ASAS	M.Sc. Chemistry
5	Anjali	ASAS	M.Sc. Chemistry
6	SahilRathi	ASAS	M.Sc. Chemistry
7	Shalu	ASAS	M.Sc. Chemistry
8	DikshaGahlot	ASAS	M.Sc. Chemistry
9	Sanju Sharma	ASAS	M.Sc. Chemistry
10	Sunil	ASAS	M.Sc.Chemistry
11	Jyoti yadav	ASAS	M.Sc. Chemistry
12	Jatin yadav	ASAS	M.Sc. Chemistry
13	Mansi	ASAS	M.Sc. Chemistry
14	Sonam	ASAS	M.Sc. Chemistry
15	Priyanshu Vats	ASAS	M.Sc. Chemistry
16	Ameer aalam	ASAS	M.Sc. Chemistry
17	Chandankumar	ASAS	M.Sc. Chemistry
18	Lakshay	ASAS	M.Sc. Chemistry
19	Kuldeep	ASAS	M.Sc. Chemistry
20	Priyanka	ASAS	M.Sc. Chemistry
21	Ashish ahlwat	ASAS	M.Sc. Chemistry
22	Ritika gera	ASAS	M.Sc. Chemistry
23	Reenu kumari	ASAS	M.Sc. Chemistry
24	Akshay	ASAS	M.Sc. chemistry
25	Geeta saini	ASAS	M.Sc. Chemistry
26	Akshima	ASAS	M.Sc. Chemistry
27	NishaSaxena	ASAS	M.Sc. Biochemistry
28	Pratibha Gaur	ASAS	M.Sc. Biochemistry
29	Ashutosh	ASAS	M.Sc. Biochemistry
30	Ayesha begum	ASAS	M.Sc. Biochemistry
31	Garima k	ASAS	M.Sc. Biochemistry
32	Shruthikakevin	ASAS	M.Sc. Forensic science
33	Raghavendrakumaupadhya	ASAS	M.Sc. Forensic science
34	Yogita yadav	ASAS	M.Sc. Forensic science
35	Palak Singhal	ASAS	M.Sc. Forensic science
36	Ankita	ASAS	M.Sc. Forensic science
37	Pranav Raj	ASAS	M.Sc. Forensic science
38	Upasha Saini	ASAS	M.Sc. Forensic science
39	Prerna	ASAS	M.Sc. Forensic science
40	Akansha Saharan	ASAS	M.Sc. Forensic science
41	Aastha	ASAS	M.Sc. Forensic science
42	Divya	ASAS	M.Sc. Forensic science
43	Thomas Joseph	ASAS	M.Sc. Forensic science
44	Mayank kapoor	ASAS	M.Sc. Forensic science
45	Pallavi	ASAS	M.Sc. Forensic science
46	Manisha	ASAS	M.Sc. Forensic science

			Dipti Vaya 
Name & Signature of the Event Coordinator			



Dr. Supreet
Outcome Coordinator, ASAS



Prof. A. K. Yadav
Director, ASAS