

**Guru Nanak College, Sri Muktsar Sahib Session:
2023-2024**

Name of the Department: Department of Chemistry

‘Pathways towards Green Hydrogen Production’

and

‘Porphyrins: The Pigments of Life’

Sponsored by DBT, New Delhi

(Under Star College Scheme)

- Name of the Activity Organized:** Extension lectures on (i) Pathways towards Green Hydrogen Production (ii) Porphyrins: The Pigments of Life
- Date and Venue of the Activity:** March 20, 2024
- Name of the Resource Person, Designation and Address:**
Dr. Amanpreet Kaur, Assistant Professor, Department of Chemistry, Guru Nanak Dev University Amritsar Punjab
Dr. Nivedita Chaudhri, Assistant Professor, Department of Chemistry, Guru Nanak Dev University Amritsar Punjab
- Objectives of Activity:** To provide the knowledge about green hydrogen production, their applications and significance of different types of pigments in life.
- Number and Details of the Participants/ Beneficiaries:** 133

S. No.	Class	Roll No.	Name of Student
1	B.Sc. I M	5201	JASNOORPREET KAUR
2	B.Sc. I M	5202	PUNEET KAUR
3	B.Sc. I M	5203	NEELAM RANI
4	B.Sc. I M	5204	SUNITA RANI
5	B.Sc. I M	5205	TARNVEER SINGH
6	B.Sc. I M	5206	JASLEEN SHARMA
7	B.Sc. I M	5207	ISHPREET KAUR
8	B.Sc. I M	5208	ANKIT KUMAR
9	B.Sc. I M	5209	ARSHNOOR SINGH
10	B.Sc. I M	5210	AMANJOT SINGH
11	B.Sc. I M	5211	SUKHMAN SINGH

12	B.Sc. I M	5212	EKAMVEER KAUR
13	B.Sc. I M	5213	RAMANDEEP KAUR
14	B.Sc. I M	5214	ARZOO
15	B.Sc. I M	5238	LOVEPREET SINGH
16	B.Sc. II M	5302	JASHANVEER KAUR
17	B.Sc. II M	5305	BAAWALPREET KAUR
18	B.Sc. III M	5401	KSHISH
19	B.Sc. III M	5402	VANDANA
20	B.Sc. III M	5403	KHUSHDEEP
21	B.Sc. III M	5404	KANIKA
22	B.Sc. III M	5405	JOT
23	B.Sc. III M	5406	ZEENAT
24	B.Sc. III M	5407	RAJNI
25	B.Sc. III M	5408	FOOLMALA
26	B.Sc. III M	5409	SUKHVEER
27	B.Sc. III M	5410	AMANJOT
28	B.Sc. I NM	5501	DAVINDER SHAKYA
29	B.Sc. I NM	5502	MUSKAN
30	B.Sc. I NM	5503	GURSHINDER SINGH
31	B.Sc. I NM	5504	SHIV BAJAJ
32	B.Sc. I NM	5505	RAMANDEEP KAUR
33	B.Sc. I NM	5506	KARANDEEP KAUR
34	B.Sc. I NM	5507	SIMRAN KAUR
35	B.Sc. I NM	5508	HARCHARAN SINGH
36	B.Sc. I NM	5509	MANJINDER KAUR
37	B.Sc. I NM	5510	TAMANNA
38	B.Sc. I NM	5511	PAYAL
39	B.Sc. I NM	5512	PAYAL RANI
40	B.Sc. I NM	5513	ARSHDEEP SINGH
41	B.Sc. I NM	5514	GURWINDER SINGH
42	B.Sc. I NM	5515	MANJOT KAUR
43	B.Sc. I NM	5516	ARSHPREET KAUR
44	B.Sc. I NM	5517	JASPREET KAUR
45	B.Sc. I NM	5518	JASHANPREET SINGH

46	B.Sc. I NM	5519	SUMANPREET KAUR
47	B.Sc. I NM	5520	CHAHAT
48	B.Sc. I NM	5521	RAMANDEEP KAUR
49	B.Sc. I NM	5522	REKHA RANI
50	B.Sc. I NM	5523	AMREEN KAUR BRAR
51	B.Sc. I NM	5524	SANIA
52	B.Sc. I NM	5525	RACHANDEEP SINGH
53	B.Sc. I NM	5526	RAJPREET SINGH
54	B.Sc. I NM	5527	SAHIBJEET SINGH DHILLON
55	B.Sc. I NM	5528	KRRISH ARORA
56	B.Sc. I NM	5529	ARPAN KUMAR
57	B.Sc. I NM	5530	SIMRAN
58	B.Sc. I NM	5531	HARPREET KAUR
59	B.Sc. I NM	5532	KHUSHDEEP KAUR
60	B.Sc. I NM	5533	SIMRANJEET KAUR
61	B.Sc. I NM	5534	ADARSHNOOR KAUR
62	B.Sc. I NM	5535	ANCHAL CHOUDHARY
63	B.Sc. I NM	5536	SMILE
64	B.Sc. I NM	5539	ARSHDEEP KAUR
65	B.Sc. I NM	5540	SHIVAM
66	B.Sc. I NM	5541	HUSSAN PREET SINGH
67	B.Sc. I NM	5542	KHUSHPREET KAUR
68	B.Sc. I NM	5543	ROBINDEEP KAUR
69	B.Sc. II NM	5724	AMITTOJ KAUR
70	B.Sc. III NM	5901	Gurwinder Kaur
71	B.Sc. III NM	5902	Akanksha
72	B.Sc. III NM	5903	Komalpreet Kaur
73	B.Sc. III NM	5904	Khushi
74	B.Sc. III NM	5905	Prabhjot kaur
75	B.Sc. III NM	5906	Anmolpreet kaur
76	B.Sc. III NM	5907	Ramandeep Kaur
77	B.Sc. III NM	5908	Harmandeep Kaur
78	B.Sc. III NM	5909	Manjot Kaur

79	B.Sc. III NM	5910	Noor
80	B.Sc. III NM	5911	Suneha
81	B.Sc. III NM	5912	Nimerveer Kaur
82	B.Sc. III NM	5913	Samanpreet Kaur
83	B.Sc. III NM	5914	Kulwinder Kaur
84	B.Sc. III NM	5915	Simranjeet kaur
85	B.Sc. III NM	5916	Deepka Rani
86	B.Sc. III NM	5917	Lovepreet Kaur
87	B.Sc. III NM	5918	Sukhpreet Kaur
88	B.Sc. III NM	5919	Aarti
89	B.Sc. III NM	5920	Amisha
90	B.Sc. III NM	5921	Simranjeet kaur
91	B.Sc. III NM	5922	Karan Sharma
92	B.Sc. III NM	5923	Navneet kaur
93	B.Sc. III NM	5924	Manider kour
94	B.Sc. III NM	5925	Ramandeep kaur
95	B.Sc. III NM	5926	Komalpreet kaur
96	B.Sc. III NM	5927	Yashdeep Singh
97	B.Sc. III NM	5928	Sukhwinder singh
98	B.Sc. III NM	5929	Pawanpreet kaur
99	B.Sc. III NM	5930	Rappu
100	B.Sc. III NM	5931	Shubham
101	B.Sc. III NM	5932	Palak
102	B.Sc. III NM	5933	Jashanjeet Singh
103	B.Sc. III NM	5934	Riya
104	B.Sc. III NM	5935	Neha
105	B.Sc. III NM	5936	Tanu
106	B.Sc. III NM	5937	Ranjeet Singh
107	B.Sc. III NM	5938	Neha kumari
108	B.Sc. II M	5301	SIMRAN KAUR
109	B.Sc. II M	5303	SUMEETPAL KAUR
110	B.Sc. II M	5304	PUNEET KAUR
111	B.Sc. II NM	5701	GAGANPREET KAUR
112	B.Sc. II NM	5702	JASHANPREET KAUR

113	B.Sc. II NM	5703	HARSAMRENDEEP KAUR
114	B.Sc. II NM	5704	JASHANPREET KAUR
115	B.Sc. II NM	5706	ARMAAN SINGH
116	B.Sc. II NM	5707	AMITTOJ SINGH BHATTI
117	B.Sc. II NM	5707	MITALI
118	B.Sc. II NM	5708	CHARANJEET KAUR
119	B.Sc. II NM	5709	SAMEER KALRA
120	B.Sc. II NM	5710	TANISHKA BANSAL
121	B.Sc. II NM	5711	MONIKA RANI
122	B.Sc. II NM	5712	MEHAK
123	B.Sc. II NM	5713	SATWINDER KAUR
124	B.Sc. II NM	5714	KHUSHI
125	B.Sc. II NM	5715	KASHISH
126	B.Sc. II NM	5716	KANCHAN
127	B.Sc. II NM	5717	VEERPAL KAUR
128	B.Sc. II NM	5718	ANMOL
129	B.Sc. II NM	5719	MEHAK WATTS
130	B.Sc. II NM	5720	JASHANDEEP KAUR
131	B.Sc. II NM	5721	SUKHMANJEET SINGH
132	B.Sc. II NM	5722	RUPINDER KAUR
133	B.Sc. II NM	5723	HARMANJOT SINGH

6. **Registration/Feedback link:** nil

7. **Video/You-tube Link:** Nil

8. **Outcome of the Activity:** The resource person Dr. Amanpreet Kaur well explained the student about Green Hydrogen Production. The Green hydrogen production refers to the process of generating hydrogen gas (H₂) using renewable energy sources or eliminating carbon dioxide (CO₂) emissions associated with traditional hydrogen production methods. She explained the advantages of Green Hydrogen Production that it does not produce carbon dioxide emissions, making it a carbon-neutral energy carrier and it helps to integrate renewable energy into the grid and store excess energy for later use.

The resource person Dr. Nivedita provide the knowledge about Porphyrins in details. It is a class of organic compound characterized by the macro cyclic structure composed of four

pyrrole rings. She discussed the significance of the porphyrins in biological system, their industrial application etc. She well explained different types of Porphyrins like chlorophyll, carotenoid, Heme and Anthocyanins etc.

The students learned the meaning of green hydrogen production methods of hydrogen Production, different types of electrolyzers used for green hydrogen production, biological processes, advantages of green hydrogen production. They also learned about pigments of life & their types like heme, chlorophyll, hemoglobin carotenoids , anthocyanins etc.

9. Photographs:

NAAC Accredited "A" Grade

Guru Nanak College, Sri Muktsar Sahib

Affiliated to Panjab University, Chandigarh, Governed by SGPC, Sri Amritsar Sahib
Sponsored by "Star College Scheme" of DBT, New Delhi

Extension Lectures
On
Pathways towards Green Hydrogen Production: Challenges and Opportunities
&
"Porphyrins: The Pigments of Life"

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Assistant Professor
Department of Chemistry
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20 March, 2024
Organized by :
Department of Basic Sciences

Dr. Nivedita Chaudhri
Assistant Professor
Department of Chemistry
Guru Nanak Dev University, Amritsar, Punjab



10. **Organizing Committee:** Ms. Rajveer Kaur, Ms. Amandeep Kaur

11. **Name of the Department Coordinator:** Ms. Kirandish Kaur

Dr. Anita Rani

DBT Program Coordinator

Dr. Rana Baljinder kaur

Principal