# P G DEPARTMENT OF CHEMISTRY (SF) DEVA MATHA COLLEGE, KURAVILANGAD

Affiliated to Mahatma Gandhi University, Kottayam



# REPORT

# ADD-ON COURSE

In

# CHEMISTRY- INSTRUMENTATION AND ITS APPLICATIONS

DMCK/ SFCHEM /AD 31/2021

Academic Year 2021-22

## **ADD-ON COURSE REPORT**

Academic Year: 2021-22 Dates: 14 Feb 2022-19 Feb2022 Beneficiaries: II PG Chemistry Number of teachers coordinated: 3 Number of Students participated: 24

An add-on course was organized by the PG Department of Chemistry, Deva Matha College Kuravilangad from 14-19 <sup>th</sup> February 2022 on the topic "**CHEMISTRY** – INSTRUMENTATION AND ITS APPLICATIONS". The practical and theory sessions were taken by Neenumol K.K, Roopesh Michael and Riya Tresa. Theory classes were conducted by offline mode and practical classes in our department lab. An industrial visit to Hindustan Organic Chemicals Limited, Ernakulam was done as the part of this course. 24 students from our II PG completed this course. An examination was conducted after the course and the certificates were distributed.

### DEVA MATHA COLLEGE KURAVILANGAD

### ADD-ON COURSE FOR THE AY 2021-22

### Title: CHEMISTRY-INSTRUMENTATION AND ITS APPLICATIONS

#### (DMCK/SFCHEM/AD31/2021)

Instructional Hours: 30 hrs

Duration: 2 Months

Mode of Instruction: Offline

Intake Capacity: 25 students

Eligibility: BSc Chemistry

#### Course Objectives

- To introduce instrumentation and practical aspects of various spectroscopy techniques.
- 2. Exposure to advanced instrumentation facilities and maintenance.

#### Module 1 (10 Hours)

Introduction of instrumental techniques and hands on experience rotary evaporator, immersion coolers, Thermal instruments such as TGA-DTA, DSC etc,

#### Module 2 (10 Hours)

Chromatography- HPLC, Ion – exchange chromatography – Theory, Gas chromatography–Qualitative and quantitative studies using GC. Important applications of chromatographic techniques

#### Module 3 (5 Hours)

Surface Area Analyser -BET; Diffraction techniques- XRD.

#### Module 4 (5 Hours)

Industrial visit

#### References

- D.A. Skoog and D.M West, Principles of Instrumental Analysis, 2<sup>nd</sup> Edn., Saunders college, Philadelphia, 1980.
- Pecksock, Shields, Carrns and Mc William, Modern Methods of Chemical Analysis, John Wiley, 2<sup>nd</sup> Edn., 1976.H.H. Willard , L.L. Merrit, J.A. Dean and F.A. Settle, Instrumental Methods of Analysis, D, Van Nonstrand, N.Y, 1981.
- F.W. Fifield and D. Kealey, Principles and Practice of Analytical Chemistry, 2<sup>nd</sup> Edn., International Book Company, London, 1983.

### Course outcome

- CO1: The study of instrumentation and practical aspects of various spectroscopy techniques.
- CO2: Learn more about advanced instrumentation facilities and maintenance.

### GRADING

5 point scale (A+, A, B, C, FAILED)

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# हिन्दुस्तान ऑर्गेनिक केमिकल्स लिमिटेड HINDUSTAN ORGANIC CHEMICALS LIMITED

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P&A/TRG/IV/2022

20.04.2022

## TO WHOMSOEVER IT MAY CONCERN

Certified that the following second year students of MSc Chemistry, Postgraduate Dept of Chemistry, Devmatha College, Kuravilangad, Kottayam - 686633 have visited our organization as part of their Industrial Visit on 02<sup>nd</sup> April 2022 at 10.00 AM along with Teachers Mr. Roopesh Michael and Ms. Riya Tresa.

SI No.	Name	SI No.	Name
1	AISWARYA KJ	13	JISNA C
2	AJIN THOMAS	14	MARIYA JEBY
3	AKSHAYA TOMY	15	NEELIMA ANAND
4	AMALA JOY	16	NEENU THOMAS
5	AMALA MATHEW	17	SIYA ROSE
6	ANJU K V	18	SNEHA GEORGE
7	AMJUSREE RAJAN	19	SREELAKSHMI A P
8	APARNA P	20	SREELAKSHMI SREENIVAS
9	ARCHANA U K	21	VAISHNAVY VENUGOPAL
10	ARUNDHATHY VISWAMBHARAN	22	VISHNU A R
11	ASWIN RAJ	23	ANCYVT
12	HRIDHYA SURESH K	24	ANUJA PREM



(एन वी रविदेव N V RAVIDEV) महा प्रबन्धक (का एवं प्रशा) GENERAL MANAGER (P&A)

निगमित कार्यालय : 4 वॉ तल, वी टाइम्स स्क्वायर, सेक्टर-15, सीवीडी बेलापूर, नवी मुंबई - 400614 Corporate Office : 4th Floor, V Times Square, Sector 15, CBD Belapur, Navi Mumbai - 400614 Facebook : fb.me/hoclindia; twitter: twitter.com/organic\_ltd

Course Title: - CHEMISTRY - Instrumentation and its Applie DMCK/SFCHEM/AD31/								
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# DEVA MATHA COLLEGE, KURAVILANGAD

Re-Accredited by NAAC with 'A' grade Website : www.devamatha.ac.in, E-Mail : principaldmck@gmail.com



# CERTIFICATE

This is to certify that ......has successfully completed the Add-on course titiled :**Chemistry – Instrumentation and its Applications DMCK/SFCHEM/AD31/2021** conducted by Post Graduate Department of Chemistry, Deva Matha College, Kuravilangad during the academic year 2021-2022 with 'A+' grade.

Ms. Riya Tresa Course Co-ordinator

Kuravilangad 01-03-2022

Dr. Brincy Mathew General Co-ordinator

Dr. Sunil C. Mathew Principal

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1	Name of the student	Department	Class	Class no.	Email ID	Course title	Contact number	Feedback
2	Amala Mathew	Msc chemistry	2nd PG	20PG05	amalamathew909@g	CHEMISTRY INST	and the second	Its very useful cour
с. 8	Reeba Thyagarajan	Chemistry	1st PG	21PG14	reebatreeba@gmail.c			It is a worth full one
i.	VISHNU A R	Chemistry	2nd PG	211014	25 vishualappatt@gmail			The course was rea
5	Vaishnavy Venupopal	The second second	2nd PG	20PG24	vaishnavyvenu99jiiigr			and the second second second second
6	Amulya Elizabeth wils		1st PG	21PG08	amulyawilson416@g			5 Interesting
ç.	Sreelakshmi Sreeniva		2nd PG	20PG023	sreelakshmisreenivas			
à.	Archana U K	Chemistry	2nd PG	201 0023	11 archanakarthikeyan9			Informative and int
4	Anjustee Rajan	Msc chemistry	2nd PG	20PG08	anjusreerajan06@gm			
10	Jisna c	Chemistry	2nd PG	20PG16	jisna338@gmail.com			
11	Neelima anand	Msc.chemistry	2nd PG	20pg18	neelimaanand 1@gm			1 Stol States
12	Stephy sail	MSC Chemistry	1st PG	21PG17	Stephykadackal1Diao			Very interesting
13	Antana.P	Msc Chemistry	1st PG	21PG09	anjanapsby@gmail.ci			Very interesting
14	KAVYA M PRAMOD	Chemistry	1st.PG	21PG13	kavyampramod10@g			
191	KAVYA M PRAMUD	chemistry	ISLPO	219613	lowyampramod to [ag	CHEMISTRY AND	LIFI 9400280278	AND CONTRACTOR OF CONTRACTOR
15								It was an amazing We prepared carbo
	Sandra Arin Kunju	Chemistry	1st PG	21PG15	sandraannkunju2000	CHEMISTRY AND	LIFI 9746936518	We are so satisfied
扬	SREELAKSHMI A P	MSc.Chemistry	2nd PG	20PG22	sreepradeepan@gma	CHEMISTRY-INST	RUI 8156983953	3 Good
17	Ebin suresh	M.Sc Chemistry	1st PG	21PG02	ebinsuresh08@gmail	CHEMISTRY AND	LIFI 773671217	Really helpful as a
18	Arya PJ	MSc Chemistry	1st PG	21pg10	aryajayan.puthoor@g	CHEMISTRY AND	LIFE 9074746790	2 Interesting
19	Ajin Thomas	CHEMISTRY	2nd PG	02	maryajin125@gmail.c	CHEMISTRY-INST	RUI 9946286500	Good
29	Alswarya KJ	Chemistry	2nd PG	20PG01	alswaryajayan1999@	CHEMISTRY-INST	TRUI 9061662463	8 Excellent
21	Christy-Gigi	Chemistry	1st PG	21PG11	christygigi148@gmai	CHEMISTRY AND	LIFE 8943825958	It was amazing wo We prepared carbo
22	ASWIN RAJ	CHEMUSTRY	2nd PG	10	07 aswinra 158@gmail.c	CHEMISTRY- INST	RUI 9947551181	Excellent experience
23	Harilal C S	Chemistry	1st PG	21PG03	harilalcschittet111j@r	CHEMISTRY AND	LIFI 9744532696	It was amazing to v
24	Neenu Thomas	MSc Chemistry	2nd PG	016	roslinthomas90@gm	CHEMISTRY-INST	RUI 8086923757	Very good class. C
25	Sneha George	Chemistry	2nd PG	20PG21	shehaqeorge0007(8g	CHEMISTRY-INST	RUI 9497567609	I enjoyed the cours
28	JAYAKRISHNAN V	M.ac chemistry	1st PG	21PG04	jayakrishnanv93289g	CHEMISTRY AND	LIFI 7025310033	It's very interesting Each and every this
27	Anju K V	Chemistry	2nd PG	007	anjukley53@gmail.co	CHEMISTRY INST	TRUI 7510766095	5 Good
28	Akhila Johny	MSc chemistry	1st PG		1 akhilajohny001@gma	CHEMISTRY AND	LIFE 6238576071	Very good
29	Sebin Sebastian	Chemistry	1st PG	21PG06	sebinsebastian175@	CHEMISTRY AND	LIFE+918304068625	Very interesting cla
20	HRIDHVA SURESH K	Msc. Chemistry	2nd PG	20PG15	hridhyasuresh1999@	CHEMISTRY- INST	TRUI 9072914715	5 Excellent
51	Manya Jeby	Chemistry	2nd PG	20Pg17	mariyajeby99@gmail	CHEMISTRY-INST	RUI 8078762115	s
22	Geethu Krishnan J	Msc Chemistry	1st PG	21pg12	krishnangeethu566@	CHEMISTRY AND	LIFE 9645115926	Excellent classes
33	Amala Joy	MSc Chemistry	2nd PG	20PG04	ajoy50074@gmail.co	CHEMISTRY-INST	RUI 8301942448	3 Good
14	Sreelakshmi Sudhaka	Chemistry	1st PG	21PG16	sreelakshmis33333@	CHEMISTRY AND	LIFE 8089504098	8 Good
35	Ancy V T	Chemistry	2nd PG	006	ancyv11999@gmail.c	CHEMISTRY-INST	TRUI 7558819037	7 Good
36	Summin A J	m.sc chemistry	1st PB		18 summackson@gma			It was great experie
17	Theress Mathew	Msc. Chemistry	1st PG		19 theresamathew 1169			It was an awesome
38	Lopaz Lucka Edathil	Chemistry	1st PG	21PG05			LIFE+919846493044	It is a guite an inter
19	Arundhathy Viswamb		2nd PG	20pg12	arundhathykv00@gm			- ADD TO STORE OF STREET, TO FAIL TO F
40 /	Siva Rose	Msc Chemistry	2nd PG		20 siyarose2000@gmail			
41	Anuja Prem	Chemistry	2nd PG		9 98anujaprem@gmail.			3 It is very informativ
2	Akshaya Tomy	MSc. chemistry	2nd PG	20PG03	akshayatomy290@gr			
43	Christy Sebastian	MSc chemistry	1st PG	21P601	christysebastian0411			
65	Apama p	Mac chemistry	2nd PG	20PG10	apamajanardhanan94		T1.0	Contract of the second s

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Principal Deva Matha College Kuravilangad - 686 633



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Dr. Brincy Mathew

Add-on Course General Co-Ordinator