Luann Romayne D'souza, M.Sc., Ph.D.

Email: dsouzaluann@gmail.com

Phone: 8308080449



PERSONAL DETAILS

Full name Luann Romayne D'souza
Date of Birth 19th September 1993

Gender Female
Nationality Indian

Religion Roman Catholic

Marital Status Single

Languages English, Konkani, Hindi

Residential Address Kurtarkar Landmark, Block 5, Flat No. 403, Gogol- Margao, Goa 403601

Contact Number **8308080449**

Email Address dsouzaluann@gmail.com

ACADEMIC PROFILE			
Qualifying Degree	Year	Institution	Percentage
Ph.D. (Chemistry)	2024	Goa University, Goa	
Master's Degree in Science (Inorganic Chemistry)	2016	Goa University, Goa	72.35 (<i>Grade A</i>)
Bachelor's Degree in Science (Chemistry)	2014	Carmel College of Arts, Science and Commerce for Women, Nuvem- Goa	86.38
Higher Secondary School Certificate (HSSC)	2011	MES Higher Secondary School, Zuarinagar- Goa	73.16
Secondary School Certificate (SSC)	2009	St. Therese's High School, Mangor Hill, Vasco- Da -Gama, Goa	80.50

PRE- DOCTORAL RESEARCH BACKGROUND

Bachelor's Degree project	Extraction of <i>caffeine</i> and <i>theobromine</i> from <i>tea powder</i> and their coordination compounds with Nickel, Copper and Zinc.
Master's Degree dissertation	Synthesis and Characterization of $Co_{0.5}Ni_{0.5}Fe_2O_4$ ferrites by combustion method and to study the effect of sintering temperature on its solid state properties.

DOCTORAL RESEARCH BACKGROUND

- I was recipient of the CSIR-SRF fellowship for 2 years.
- I completed my Ph. D. in Chemistry with an open Viva- Voce held on 21 March 2024 on the thesis entitled "Synthesis, Characterization And Selected Applications Of Transition Metal Carboxylates Containing N- Donor Ligands" under the guidance of Prof. Sunder N. Dhuri at the School of Chemical Sciences, Goa University.

Research Publications

Sr. No.	Title	Year	Journal	Impact Factor
1	New Mn(II) Mefenamates Appended by Substituted Bipyridine Linkers: Structural, Thermal, Magnetic and Biological Investigations. doi:10.1002/slct.202502302	2025	ChemistrySelect	1.9
2	Crystal structure, biological and docking studies of solvothermally isolated novel schiff base. doi:10.1016/j.molstruc.2023.136537	2024	Journal of Molecular Structure	4.0
3	Structural, Spectroscopic Characterization and Application of a Co(II) Coordination Polymer [Co(suc)(bpm)]·2H ₂ O doi:10.1002/slct.202203016	2022	ChemistrySelect	1.9
4	Construction of Pyrazine- Appended 1D and 3D Cobalt(II) SuccinateCoordination Polymers: Influence of Solvent on Architectures andApplications in Gas Adsorption and NAC Detection. doi:10.1021/acsomega.1c05216	2022	ACS Omega	4.1
5	Syntheses, spectroscopic, structural characterization of Co(III) and Co(II) carboxylates and electron transfer reactions with ferrocene derivatives. doi:10.1016/j.molstruc.2022.132572	2022	Journal of Molecular Structure	4.0
6	A Water-Rich Cobalt(II) Compound: Hydrothermal Synthesis, Spectroscopic, Thermal, Crystal Structure Characterization and Antimicrobial Properties. doi:10.1002/slct.202003878	2021	ChemistrySelect	1.9
7	Diaquabis((2,2'-bipyridine)(4-nitrobenzoato) (µ2-aqua))dicobalt (II)bis(4-nitrobenzoate) doi:10.1107/S2414314620007968	2020	IUCrData	
8	Synthesis, Characterization and Antimicrobial Properties of Mononuclear Copper(II) Compounds of N, N'-di(quinolin-8-yl)cyclohexane-1,2-diamine. doi:10.1016/j.ica.2019.119020	2019	Inorganica Chimica Acta	2.7

Manuscript under Revision

Manuscript Ref. No.: MOLSTRUC-D-25-05955 dated 11 June 2025.

Title: Crystal structures, *in vitro* and *in silico* biological studies of copper mefenamato complexes with aliphatic diamines. **Journal**: Journal of Molecular Structure (Elsevier).

Research Activities

Papers presented:

Sr. No.	Conference	Title	Year
1	Two- day National Seminar on Recent Advances in Applied Chemistry and Electronic Technologies organized by St. Xavier's College, Mapusa- Goa.	Two Synthetic Approaches Towards The Design Of Cobalt(II) Coordination Polymers Based On Terephthalate And Aromatic Nitrogen Based Ligands.	2018
2	Three- day International Conference on Frontiers in Chemical Sciences (FICS) held at the Department of Chemistry, Indian Institute of Technology Guwahati- Assam.	An Insight Into The Water- Rich Chemistry Of Cobalt N- Donor Supported Compounds Stabilised By Dicarboxylates.	2018
3	Two-day workshop on Material Science between University of Porto, University of Coimbra and Goa University organized by DICE and DRDRM held at the Department of Chemistry, Goa University and also at the 3rd National Conference on New Frontiers In Chemistry-From Fundamentals to Applications-III (NFCFA) organized by the Department of Chemistry at BITS Goa Campus, Zuarinagar-Goa.	Interplay Of Synthetic Conditions Onto The Structural Diversity Of Pyrazine Appended Cobalt(II) Succinates.	2019
4	International Conference on Smart Materials for Sustainable Technology (SMST-2020) organized by the Society for Interdisciplinary Research in Materials and Biology (SIRMB) at Bogmallo Beach Resort, Bogmallo-Goa.	The Stitching Of Cobalt(II) Succinates Using Pyrazine With Potential Applications In Gas Storage And Chemical Sensing.	2020
5	International Conference on "Advanced Materials: Properties and Applications" (ICAM) organized by the School of Physical and Applied Sciences and School of Chemical Sciences, Goa University.	Hydrothermal synthesis and characterization of a new coordination polymer: Role as an additive in ammonium nitrate fuels.	2023

Seminars/webinars/activities attended:

Participated in the One- Day State Level Workshop on "Shaping the Future of Education: Vocational Skilling, Curriculum Innovation and Outcome Based Learning" organized by the Teaching Learning and Educational Technology Cell- Centre for Teaching Learning (TLETC-CTL) and Internal Quality Assurance Cell (IQAC) of CES's Parvatibai Chowgule College of Arts and Science (Autonomous), Margao on 07 March 2025.

- Attended "Igniting Curiosity: A One- Day Symposium On Advanced Science for Young Researchers" organized by the School of Chemical Sciences (SCS) and the Indian National Young Academy Of Science (INYAS) on 08 November 2024 at Faculty Block E, Goa University.
- Attended the two- day workshop on *Raman Spectroscopy* from 26-27 August 2024 at Faculty Block E, Goa University.
- Convener for the One- Day Workshop for Post Graduate students in Chemistry on "Unleashing Research Potential: From the Laboratory to the Industry" held on 05 October 2024 at Parvatibai Chowgule College of Arts & Science (Autonomous), Margao.
- Appointed as invigilator for Goa University Admission Ranking Test 2024-25 conducted on 18 & 25 February 2024 at S. S. Dempo College of Commerce and Economics, Cujira- Bambolim.
- Appointed as invigilator for LDC Recruitment Examination 2023 conducted on 05 & 12 March 2023 at Faculty Block E, Goa University.
- Attended the One- Day National Seminar on "Recent Trends In Applied Organic Synthesis" on 26 November 2022 at the School of Chemical Sciences, Goa University.
- Attended a Three- Day Workshop on "*X- ray Crystallography*" from 21-23 July 2022 at the School of Chemical Sciences (SCS), Goa University.
- Attended the 5th International Conference on "Science and Technology for Society" (ICSTS-2022) organized by VMS Research Foundation, Nagpur held on 19 June 2022 at the Entertainment Society of Goa (ESG), Panaji, Goa.
- Participated in the *ChemQuest 3.0* Quiz organized by Xavier's College, Mapusa- Goa on 28 February 2022 through online mode.
- Attended the 2D- SAGE webinar talk by Dr. Aditya Sadhanala on 21 January 2022 at SCS, Goa University.
- Attended the 2D- SAGE webinar talk by Prof. Giulia Grancini on 10 March 2022 at SCS, Goa University.
- Attended the National webinar on "Emerging Trends in Heavy Metal Detection Sensors and C-H Functionalization" organized by Dhempe College of Arts & Science, Miramar-Goa on 22 April 2022.
- Attended the One- Day Seminar on "Recent trends in Structural Chemistry" organized by the Department of Chemistry, Goa University on 16 February 2019 at the Department of Chemistry, Goa University.
- Volunteered in the "*Noble Exhibition*" organized as a part of the Nobel Media Prize series, India 2018 events organized by Nobel Media AB, Department of Biotechnology, Govt. of India and Department of Science and Technology, Govt. of Goa from 10-28 February 2018 at Kala Academy, Panaji-Goa.
- Performed expertship and demonstrations for ISA and Semester End Inorganic Practical Examinations of M.Sc- Part 1 and Part II from SCS, Goa University for the AYs 2017-18, 2018-19. 2019-20 and 2020-21.
- Teacher mentor at "The Salters Chemistry Camp" organized by the Salters Institute (UK) in collaboration with the Royal society of Chemistry at Goa University from 22-24 November 2018 at the Department of Chemistry, Goa University.

EXPERTISE

Areas of research interest:

- Conventional/ Hydro/ solvo thermal crystal growth of coordination compounds & their polymers.
- Schiff base and quinoline ligand syntheses.
- Spectroscopic studies (UV- Vis, IR, ESR, XPS, PL)
- Thermal studies (TG- DTA- DSC)
- Magnetic studies (VSM & SQUID)
- Applications in NAC sensing & organic reaction catalysis.

Hands- on training with lab equipment & softwares:

- Conventional crystal growth methods, hydro/solvo thermal syntheses and ligand syntheses.
- Bruker D8 Quest Single- Crystal X-ray diffractometer (SCXRD)
- APEX: Software suite for X- ray crystal diffraction, WinGX: X- ray crystal solving & refinement & CCDC.
- Mercury 4 & Diamond 2 for crystal structure visualization.
- Shimadzu Infrared (IR) and Agiltron Raman spectrometers
- Agilent and Shimadzu UV- Vis spectrophotometers
- Elementar VarioMicro Cube CHNS analyzer
- Netzsch Thermal Analyzer (TG, DTA & DTG) & Perkin Elmer Thermal Analyzer (TG & DSC).
- Agilent Fluorescence Spectrometer & Electrochemical Workstation Cyclic Voltammetry.
- Shimadzu Gas Chromatography, Gouy Balance
- Agilent 4210 Microwave Plasma Atomic Emission Spectrometer.
- Proficiency with using softwares like,

Scifinder: Database for chemical literature Origin 8: Scientific graphing & data analysis,

Chemdraw: Sketching reaction schemes

Mendeley: Reference manager

XPSPEAK41: Fitting & analysis of XPS spectra

Grammarly: Grammar checker tool

WORK EXPERIENCE

1) Worked as an Assistant Professor in Chemistry for the M.Sc. in Analytical Chemistry Programme at CES's Parvatibai Chowgule College of Arts and Science (Autonomous), Margao-Goa for the following period,

a) Lecture Basis: From 18 June 2024 to 30 June 2024

b) Contract Basis: From 01 July 2024 to 09 November 2024

c) Contract Basis: From 04 December 2024 to 03 May 2025

Courses taught during the above mentioned period:

Sr. No.	Semester	Class	Course	
Odd Ser	Odd Semesters I & III (June to Nov 2024)			
1	I	M.Sc. Part 1	PGMP-CHE-DSC-401: General Inorganic Chemistry.	
2	I	M.Sc. Part 1	PGMP-CHE-DSC-405: Laboratory Course in Organic Chemistry	
3	III	M.Sc. Part 2	PGMP-CHE-DSRE-501: Research Methodology & Academic writing.	
4	III	M.Sc. Part 2	PGMP-CHE-DSE-504: Separation Techniques.	
5	III	M.Sc. Part 2	PGMP-CHE- GE-502: Environmental Chemistry.	
Even Se	mesters II &	IV (Dec 2024 to	May 2025)	
1	II	M.Sc. Part 1	PGMP-CHE-DSC-406: Spectroscopy in Chemistry.	
2	II	M.Sc. Part 1	PGMP-CHE-DSE-404: Topics in Inorganic Chemistry.	
3	II	M.Sc. Part 1	PGMP-CHE-DSC-410: Laboratory Course in Inorganic Chemistry.	
4	IV	M.Sc. Part 2	PGMP-CHE-DSRE-504: Synthesis of Inorganic Materials.	
5	IV	M.Sc. Part 2	PGMP-CHE- DSR-501: Dissertation*	

^{*} I have guided 07 students for dissertation under varied topics of my expertise such as coordination polymers, quinoline- based ligands and their metal compounds and Schiff bases and their metal compounds. Some of the work is under checks and progress so as to make it suitable for publication soon.

2) Worked as an Assistant Professor in Chemistry on Lecture basis at St. Joseph Vaz College, Cortalim- Goa from 26 June 2023 to 06 April 2024 and have taught the following courses,

Sr. No.	Semester	Class	Course	
1	III	S. Y.	CHC-103: Organic Chemistry (Section B).	
2	V	T.Y.	CHD-101: Basic Topics In Analytical Chemistry.	
3	V	T.Y.	CHD-102: Green methods and safety aspects in Chemistry (Section B).	
4	V	T.Y.	CHC-105: Physical Chemistry (Section A & B).	
5	V	T.Y.	CHC-107: Organic Chemistry (Section B).	
6	V	T.Y.	CHC-107: Practical in Organic Chemistry.	
7	VI	T.Y.	CHC-110: Organic Chemistry (Section A).	
8	VI	T.Y.	CHC-110: Practical in Organic Chemistry.	

REFERENCES

• Prof. Sunder N. Dhuri,

Email: sndhuri@unigoa.ac.in
Contact: 9260783531

• Prof. Vidhyadatta M. S. Verenkar

Email: vmsv@unigoa.ac.in
Contact: 8669609171

The above information furnished by me is true to the best of my knowledge and belief.

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(Luann R. D'souza)