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SCHOLAR scholar.google.com/citations?user=cpb7nT4AAAAJ&hl=en

RESEARCHGATE researchgate.net/profile/Jessica-Philip-2?ev=hdr_xprf

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SCOPUS 2057192685518



Dr. Jessica Elizabeth Philip

M.Sc., Ph.D.

Department of Chemistry

PROFILE

The Department of Chemistry, a recognised Research Centre of Mahatma Gandhi University. Works on metal complexes and their biological activity, teaches inorganic, spectroscopy and organic chemistry at undergraduate and postgraduate level.

APPOINTMENT

Joined 1 June 2023 · **Teaching** 3 years · **Research** 5 years

SPECIALISATION

Coordination chemistry · Bioinorganic chemistry · Modern synthetic organic chemistry · Reaction mechanisms · Computational chemistry · Spectroscopy · Group theory and Quantum mechanics

RESEARCH INTERESTS

Metal complexes as antimicrobial agents · cytotoxicity · Green synthesis routes · DFT studies of ligand systems

COURSES HANDLED

Inorganic Chemistry · Organometallic Chemistry · Organic Chemistry · Spectroscopy · nuclear chemistry · Instrumental Methods of Analysis

LABORATORIES

Postgraduate Chemistry Laboratory · Central Instrumentation Facility

QUALIFICATIONS

Ph.D. — Chemistry

Department of Applied Chemistry, Cochin University of Science and Technology, Cochin-22
Awarded

2018

M.Sc. — Chemistry

St. Thomas College, Pala, Mahatma Gandhi University
First Class with Distinction

B.Sc. — Chemistry

Alphonsa College, Pala, Mahatma Gandhi University
First Class with Distinction

EXPERIENCE

St. George's College Aruvithura · Teaching

Jun 2023 – Present

Senior Research Fellow

CUSAT · Research

CSIR fellowship; synthesis and spectral characterisation of metal complexes

RESPONSIBILITIES	FYUGP Department level faculty advisor			2024 – 2026
Department of Chemistry				
RESEARCH GUIDANCE	ten postgraduate dissertations			Completed, 2022–2026
M.Sc. / PG · Mahatma Gandhi University · Supervisor				
JOURNAL PAPERS	[1] Jessica Elizabeth Philip et al., “Influence of pseudohalide anions on non-covalent supramolecular synthons in Hg(II) complexes with an 8-aminoquinoline ligand: DFT approach and biological implications,” <i>RSC Adv.</i>, Royal Chemical Society, vol. 16, pp. 332, 2026. doi: 10.1039/D5RA09546H. WEB OF SCIENCE [2] Jessica Elizabeth Philip et al., “Reenvisioned Pyrazine–Dangling Cu(II) Complex: Advanced Synthesis, Characterization, Crystal Structure, Integrated-DFT Assessment, Antibacterial, and In Vitro Cytotoxicity Rationalization,” <i>ChemistrySelect</i>, European Chemical society, vol. 11, no. 33, pp. e74310, 2026. doi: 10.1002/slct.74310. [3] Jessica Elizabeth Philip et al., “8-Aminoquinoline-Based Promising Zn Complexes with Dicyanamide and Tricyanomethane Anions: Supramolecular R44(8)/R22(16) Synthons, DFT Rationalization, and Biological Insights,” <i>ACS Omega</i>, American Chemical Society, vol. 15, no. 10, pp. 14770-14786, 2025. doi: 10.1021/acsomega.4c09312. SCOPUS			
CITATION METRICS	754	16	16	21
CITATIONS H-INDEX I10-INDEX PUBLICATIONS				
Source: Google Scholar, as on August 2026				
TRAINING & FDPS	NEP orientation and sensitization			
FDP · UGC-HRDC, University of Kerala · Thiruvananthapuram · Online				
LANGUAGES	Malayalam · English · Hindi			
INSTRUMENTATION AND SOFTWARE	UV-Visible and FTIR spectroscopy, NMR, EPR, ICP-AAS, HPLC, GC-MS, SEM, TEM, EDX, TG-DTA, Cyclic voltammetry, Single crystal XRD data interpretation, Gaussian 09, ChemDraw, Origin			
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