

FACULTY PROFILE

Name : Dr S Jone Kirubavathy

Designation : Assistant Professor

Department : Chemistry

Area of Specialisation : Coordination and Organometallic Chemistry,
Chemistry of Advanced Materials, Biomaterials

Education : MSc., MPhil., Ph. D

Other Qualifications : NET, SET, GATE



Academic Qualification

S. No	Degree	Year	Subject	University/Institution	% of marks
1.	Ph.D.	2016	Chemistry	P.S.G.R.Krishnammal College for Women, Coimbatore	Highly commended
2.	M. Phil	2009	Chemistry	P.S.G.R.Krishnammal College for Women, Coimbatore	Highly commended
3.	NET	2008	Chemical Sciences	UGC-CSIR	Qualified
4.	SET	2008	Chemistry	Bharathiar University	Qualified
5.	M. Sc	2008	Chemistry	The American College, Madurai, MKU	74.81
6	B. Sc	2006	Chemistry	P.S.G.R.Krishnammal College for Women, Coimbatore	91.55

Professional Experience

Teaching : 16

Research : 16

Contact Details

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IRINS Link : [PSGR Krishnammal College for Women \(irins.org\)](http://PSGR Krishnammal College for Women (irins.org))

LinkedIn Link : [\(25\) Jone Kirubavathy PSGRKCW \(Che\) | LinkedIn](https://www.linkedin.com/in/jonekiruba)

Research Supervision/Guideship

M.Phil. : 06

Ph.D. (completed) : 03

Ph.D. (in progress) : 03

Students Mentoring

1. Copyright : SCIENCE CONCEPTS – A CARTOONISTIC APPROACH, **G. Shanju**
2. Commercialization : Mentored for Udhayam Registration, **Company Name: KartoonEd**

Professional Highlights

Publications – Articles

UGC	: 2
SCOPUS-indexed	: 45
Peer Reviewed	: 28
Seminar Proceedings	: 04

Patents Published

1. ION CONDUCTING BIO-MEMBRANE FROM PLANT EXUDATE - 202241036290-published date – 29.12.2023
2. BIO-BASED MEMBRANE FROM SEAWEED EXTRACT - 202241036291- published date – 29.12.2023

Publications – Books & Chapters

Chapters Published : 07

1. Sensors for Marine Biosciences: Next-generation, 2025
2. Three-dimensional approaches based on nanotechnology towards wound management - <https://doi.org/10.1016/B978-0-323-99165-0.00007-1>
3. Bionanocomposites for rejuvenation of heavily contaminated environment - <https://doi.org/10.1016/B978-0-323-91767-4.00014-8>
4. Nanomedicine and nanocarriers for cancer treatment - <https://www.sciencedirect.com/science/article/pii/B9780323953252000018>
5. Metal Oxides: Advanced Inorganic Materials- <https://doi.org/10.1016/B978-0-323-90410-.00001-5>
6. Biosensors based on metal-organic framework (MOF): Paving the way to point-of-care diagnosis- <https://doi.org/10.1016/B978-0-323-90784-2.00004-6>
7. Moving bed biofilm reactors - <https://doi.org/10.1016/B978-0-12-823804-2.00019-7>

Significant Journal Publications – International indexed

S.No.	Author(s)	Title	Name of Journal	Year
1	P Dhanushiya, S Jone Kirubavathy	Biomembranes and biohydrogels in electrochemical, food and wound healing applications: review	Toxicological and Environmental Chemistry	2025
2	A Nagajothi, D Sudha, S Shanjitha, SJ Kirubavathy	Synthesis and evaluation of a [(2-Hydroxynaphthalene-1-Carbaldehyde)-(2-Benzothiazolamine 6-nitro)] Co-crystal: A fluorescent chemosensor for Fe ³⁺ detection with biomedical	Journal of Molecular Structure	2025
3	K Suvarna, P Dhanushiya, S Shanjitha, S Selvasekarapandian, S Jone Kirubavathy	Investigation of Corn Biomass/Polyvinyl Alcohol Based Bio-electrolyte for Lithium-ion Conducting Battery	Chemistryselect	2025

4	D Sudha, S. Jone Kirubavathy	Structural characterization, DNA interaction and pharmacological evaluation of Cu (II), Co (II), Ni (II), Fe (II) dihydrate complexes derived from pyridine-2, 5-dicarboxylic ...	Journal of Molecular structure	2024
5	K Suvarnna, S. Jone Kirubavathy	Synthesis, Structural, Chemosensor and Molecular Docking Studies of novel Imino Triphenol from Ammonium acetate and Salicylaldehyde	Journal of molecular structure	2024
6	S. Shanjitha, S. Jone Kirubavathy	Unveiling the dual functionality of dimeric Cu(I)/(II) crystal as luminescence and electrochemical probe for Zn 2+ and Glucose detection – Structural, sensing and molecular docking studies-	Applied Organometallic Chemistry	2024
7	S. Shanjitha, S. Jone Kirubavathy	An effective ‘Turn – off’ photoluminescence chemo sensors for the selective detection of organophosphates using single crystalline Cu(II) / Ni(II) complexes	Inorganic Chemistry Communications	2024
8	D Sudha, S. Jone Kirubavathy	Structural, optical, morphological and electrochemical properties of ZnO and graphene oxide blended ZnO nanocomposites	Ceramics International	2023
9	K Suvarnna, S Jone Kirubavathy	Development of Solid Bio-Electrolyte from Seaweed Extract – Polyvinyl alcohol Blend For primary Mg-ion Conducting Battery	Chemistry Select	2023
10	K Suvarnna, S Jone Kirubavathy	Investigation of Solid Bio-Membrane based on Corn Biomass as a Proton Conducting Bio-Electrolyte	Bulletin of Materials Science by Indian Academy of Science	2023
11	K Suvarnna, S Jone Kirubavathy, S	Corn silk extract–based solid-state biopolymer electrolyte and its application to electrochemical storage devices	Ionics	2022
12	S. Shanjitha, S. Jone Kirubavathy	Crystallization of 1, 4-cyclohexanedicarboxylic acid bridged tetra nuclear Cu(II) complex containing N-N chelating ligand – Crystal structure, Antimicrobial, Antioxidant, Cytotoxicity and Electrochemical studies,	Journal of Iranian Chemical Society	2022
13	D. Sudha, S. Jone Kirubavathy	2-Methylimidazolium pyridine-2, 5-dicarboxylato zinc (II) dihydrate: Synthesis, characterization, DNA interaction, anti-microbial, anti-oxidant and anti-breast cancer studies	Journal of Coordination Chemistry	2021
14	N Arunadevi, M Swathika, B Prabha Devi, P Kanchana, S Shanmuga Sundari, S Jone Kirubavathy, P Subhapriya, E Ranjith Kumar,	Structural, optical, thermal, biological and molecular docking studies of guanidine based naphthoate metal complexes	Surfaces and Interfaces	2021
15	K. Banupriya, A. Revathi, D. Sudha, S. Jone	Tetrapropylammonium Tribromocuprate	Materials Today Proceedings	2021

	Kirubavathy, R. Umarani,	Complex[(C ₃ H ₇) ₄ N]CuBr ₃ (II) - Synthesis, Thermal and Spectral Characterization,		
16	J. Saranya, S. Jone Kirubavathy, S. Chitra, A. Zarrouk, K. Kalpana, K. Lavanya, B. Ravikiran	Tetradendate Schiff base Complexes of Transition metals for Antimicrobial activity, https://doi.org/10.1007/s13369-020-04416-7	Arabian Journal for Science and Engineering	2020
17	V. P. Radha, D. Mahalakshmi, S. Jone Kirubavathy, S. Chitra	Synthesis, characterization, thermal, theoretical and antimicrobial studies of Schiff base ligand and its Co(II) and Cu(II) complexes	Journal of Serbian Chemical Society	2020
18	Jone Kirubavathy S, R Karvembu, N. S. P. Bhuvanesh, Israel V. Enoch, P Mosae Selvakumar, D Premnath, Chitra Subramanian, Prabakaran Mayakrishnan, Seung-Hyun Kim & Ill-Min Chung	Synthesis, structure, biological/chemosensor evaluation and molecular docking studies of aminobenzothiazole Schiff bases,	Journal of adhesion Science and Technology	2020
19	V. P. Radha, Subramanian Chitra, S. Jone Kirubavathy, Ill-Min Chung, Seung-Hyun Kim & Mayakrishnan Prabakaran	Transition metal complexes of novel binuclear Schiff base derived from 3,3'- diaminobenzidine: synthesis, characterization, thermal behavior, DFT, antimicrobial and molecular docking studies,	Journal of Coordination Chemistry,	2020
20	S. Jone Kirubavathy, S. Chitra	Synthesis, characterization, DFT, In- vitro anti-microbial, cytotoxicity evaluation, and DNA binding interactions of transition metal complexes of quinoxaline Schiff base ligand	Materials Today Proceedings	2020
21	S. Jone Kirubavathy, S. Chitra	Synthesis, Characterization, Biological and Photoluminescence Study of Co(II) Complexes of Fused Heterocyclic Ring Systems	Indian Journal of Pharmaceutical Education and Research,	2020
22	S. Jone Kirubavathy, R. Velmurugan, K. Paraameswari, S. Chitra	Synthesis, Characterisation and single crystal XRD and cytotoxicity study of tris(ethylenediamine)Cobalt (III) chloride oxalate trihydrate	Arabian Journal of chemistry	2019
23	S. Jone Kirubavathy, S. Chitra	Bioactive Hetero Bimetallic Ni(II)/Zn(II) Complexes With	Inorganic and Nanomaterial Chemistry	2019

		Compartmental SchiffBases And Triphenylphosphine As Co- Ligand: Synthesis,Characterization AndThermal Decomposition		
24	V.P. Radha, S. Jone Kirubavathy , S.Chitra	Synthesis, characterization and biological investigations of novel Schiff base ligands containing imidazoline moietyand their Co(II) and Cu(II) complexes	Journal of Molecular Structure	2018
25	S. Jone Kirubavathy , S.Chitra	Structural, theoretical investigations and biological evaluation of Cu(II), Ni(II) and Co(II) complexes of mercapto-pyrimidine schiff bases	Journal of Molecular Structure	2017
26	S. Jone Kirubavathy, J. Saranya, N. Sathya, IVMV Enoch, P. Mosae Selvakumar, S. Chitra	Synthesis, characterization and biological evaluation ofRu(III) mercaptopyrimidineSchiff base complexes	Appl Organometal Chem	2017
27	S. Jone Kirubavathy , R. Velmurugan , R. Karvembu, N.S.P. Bhuvanesh, Israel V.M.V. Enoch, P. Mosae Selvakumar, D. Premnath, S. Chitra	Structural and molecular docking studies of biologically active mercaptopyrimidine Schiffbases	Journal of Molecular Structure	2017
28	S. Jone Kirubavathy , R. Velmurugan, R. Karvembu, N. S. P. Bhuvanesh, IVMV Enoch, P. MosaeSelvakumar, D. Premnath, S. Chitra	,Co(II) complex of 2-amino-6-methyl aminobenzothiazole: Synthesis, structure and biological evaluation	Indian Journal of Chemistry	2016
29	S. Jone Kirubavathy , R. Velmurugan, B. Tamilarasan, R. Karvembu, N. S. P. Bhuvanesh, S. Chitra	Synthesis, Characterisation, single crystal XRD and biological evaluation of Nickel(II) salensulphadiazine complex	Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry	2016
30	S. Jone Kirubavathy , R. Velmurugan, R. Karvembu, N. S. P. Bhuvanesh, K. Parameswari, S. Chitra	Synthesis, structure and pharmacological evaluation ofCo(III) complex containing tridentate Schiff base ligand	Russian Journal ofCo- ordination Chemistry	2016

Reviewer in journal

- Journal of Coordination Chemistry
- Chemistry select
- European Journal of Inorganic Chemistry
- Journal of Pharmaceutical Research International
- Research on Chemical Intermediates
- Inorganic and Nano-Metal Chemistry
- Materials Today: Proceedings

Membership in Academic or Professional Organisations

Indian Science Congress Association

Association of Chemistry Teachers

Resource Person / Professional Engagement

1. Workshop / FDP– 04
2. Idea Hackathons – 08
3. Seminar/Conference Organized – 05

Projects Implemented

S. No.	Title	Cost in lakhs	Month of submission	Role as PI / Co-PI	Agency	Status
1	Studies on the synthesis and characterization of transition metal complexes of quinoxaline and Pyrimidine ligands and their pharmacological action	4.0	April 2016	PI	UGC	Completed
2	Porous Metal Organic Framework Composites For Environment Monitoring And Clinical Applications	2.0	May 2020	PI	GRG Trust Project	Completed
3	Synthesis of porous materials	0.3	2024	INSA Fellow	INSA, NewDelhi	Completed

Academic Administrative Responsibilities

1. DST NIMAT Coordinator (2019)
2. CIIED, Member (since 2020)
3. ED Cell Coordinator PSGRKCW (2019 – 2024)
4. CIIED Think Tank Coordinator (2023 -2024)
5. Institutions Innovation Council, Ministry of Education, IIC Convener, PSGRKCW (Since 2024)