



NAME	Dr Amrutha K
DESIGNATION	Assistant Professor of Chemistry, Post Graduate Department of Chemistry
QUALIFICATION	MSc, PhD
EMAIL	amrutha_k@stagnescollege.edu.in , amruthak101991@gmail.com
WORK EXPERIENCE (IN YEARS)	1 Year
EDUCATIONAL DETAILS	M.Sc. from St Agnes Center For PG studies and Research, St Agnes College (Autonomous), Mangaluru Ph.D. from National Institute of Technology Goa, Goa
SPECIALIZATION Ph.D.	Electron paramagnetic Resonance Spectroscopy (EPR), Optical absorption studies of transition metals
SPECIALIZATION PG	General Chemistry

ANY OTHER SPECIALIZATION	Synthesis, characterisation and application studies of Coordination metal complexes. Nano-material synthesis and its applications.
SUBJECTS TAUGHT AT UG/PG	Organometallic Chemistry, Analytical Chemistry, Spectroscopy, Engineering Chemistry, Physical and inorganic practical.
SKILL SETS	<p>Instrument handling: 1. CW EPR spectroscopy (both x and Q band)- power saturation studies, variable temperature analysis and single crystal experiments</p> <ol style="list-style-type: none"> 2. Optical absorption spectrophotometer- solution, solid (powder) and thin film samples 3. NMR spectroscopy 4. AFM <p>Software: Matlab, Easyspin, Mathcad, EPR-NMR programme.</p>

PARTICIPATION IN CONFERENCES/ SEMINARS/ WORKSHOPS

DATE	NATIONAL/ INTERNATIONAL LEVEL	TITLE	DETAILS OF ORGANISERS	PLACE	TITLE OF PAPER PRESENTED
06 and 07 March 2024.	National	Advanced materials for biological applications	SDM College, Ujire	Ujire, Karnataka	“Synthesis of chitosan functionalised Fe ₃ O ₄ nanoparticles and its photocatalytic degradation activity on malachite green and methylene blue dyes”
06 and 07 March 2024	National	Advanced materials for biological	SDM College, Ujire	Ujire, Karnataka	“Synthesis of cobalt doped calcium oxide nanoparticles and its enhanced photocatalytic

		applications			activity on methylene blue dye and malachite green dye”,
20-21 December, 2021	International	International virtual conference on Recent advances in material science and Organic synthesis	NIT Raipur	Raipur, Chattisgarh	“EPR study of Ni(II) ions in crystalline lattices at ambient temperature: Estimation of Spin Hamiltonian parameters and electron-spin relaxation”
22-24 October, 2021	International	49th Southeast magnetic resonance conference	Louisiana state university, LA	LA, United States	“CW EPR power saturation study and symmetry determination of Ni(II) at ambient temperature”
27 September – 1 October , 2021	International	42nd FGMR discussion meeting	German Chemical Society	Bonn, Germany	“Evaluation of product of relaxation time of Ni(II) doped in diamagnetic lattices at 300 K”
1-5 November, 2021	International	MODERN DEVELOPMENT OF MAGNETIC RESONANCE 2021	Zavoisky Physical-Technical institute, The Academy of sciences of the republic of Tatarstan	Kazan, Russia	“Determination of the Electron Spin Relaxation Rate of Ni(II) Ions in the Crystalline Environment at 300 K”
22-27 August, 2021	International	The 22nd International Society of Magnetic Resonance	ISMAR-APNMR-NMRSJ-SEST	Osaka, Japan	“Determination of electron spin relaxation time and symmetry of Ni(II) in the diamagnetic lattice at ambient temperature”,

		Conference, ,			
9-13 December , 2018	International	ICMAGMA-2018 conference	NISER	Bhubaneswar , orissa	“CW EPR power saturation studies on Ni(II) ion diluted in Zn(4-Chloropyrazole) ₆ (ClO ₄) ₂ lattice”

PUBLICATIONS

YEAR	TITLE OF THE JOURNAL	TITLE OF THE PAPER	VOLUME NO. / ISSUE NO. / PAGE	UGC/SCOPUS
2023	Materials Today: Proceedings	"Synthesis of Functionalized α -Fe ₂ O ₃ nanoparticles: Characterization and applications”,	https://doi.org/10.1016/j.matpr.2023.05.111	SCOPUS
2023	Inorganic Chemistry Communications	“Influence of cobalt doping on chemical and green synthesized magnesium oxide nanoparticles for enhanced photocatalytic evaluation, adsorption studies, antimicrobial analysis and corrosion inhibition study”,	157/111232	SCOPUS
2022	Magnetic Resonance in Chemistry	“Interpretation of EPR and optical spectra of Ni (II) ions in crystalline lattices at ambient temperature”	60/3/ 414-421	SCOPUS
2021	Journal of Physics and Chemistry of Solids	“EPR and optical studies of Ni (II) ions in Zn (4-chloropyrazole) ₆ (ClO ₄) ₂ at 300 K: Probing the structure, bonding, and electron spin relaxation”	157/ 110224	SCOPUS

2020	Magnetic Resonance in Chemistry	“Electron spin relaxation time of Ni (II) ion in hexapyrazole zinc (II) dinitrate at 300 K”	58/4/, 329-333	SCOPUS
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AWARDS AND ACHIEVEMENTS

DETAILS
Qualified GATE- 2015 with all India Rank 653

RESEARCH PROJECTS GUIDED

YEAR	TITLE OF THE PROJECT	NAME OF STUDENT
2023-24	Corrosion inhibition study of green synthesised Cobalt doped Chromium oxide nanoparticle.	Vishnupriya P
2023-24	Synthesis of cobalt doped calcium oxide nanoparticles and it's enhanced Photocatalytic degradation activity on methylene blue dye and malachite green dye	Vivekanand V Vernekar
2023-24	Synthesis of Chitosan Functionalised Iron Oxide nanoparticles and its Photocatalytic Degradation on malachite green and methylene blue dyes	Yashaswini R Naik

RESEARCH INTERESTS	EPR spectroscopy, coordination complexes and applications, Nanomaterial and applications
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NPTEL/FDP/COURSERA/ CERTIFICATE COURSES COMPLETED

TYPE	YEAR	TITLE	DETAILS OF THE SPONSORS/ORGANISERS	DURATION
FDP	10 June-19 June 2024	1st Faculty Development Program (FDP) on Density Functional Theory Modelling of Advanced Materials (DFT-Advanced)	Centre for Advanced Computational Research, Delhi.	10 days
FDP	4 – 10 February 2024	1st Faculty Development Program (FDP) on Density Functional Theory Modelling of Materials (DFT-M)	Centre for Advanced Computational Research, Delhi.	7 days
FDP	14 - 20 December 2023	Outcome based education and essential AI tools for teachers	Internal quality assurance cell(IQUAC) of Ramakrishna mission Vivekananda centenary college, Rahara, Kolkata	7 days
