SRI VENKATESWARA COLLGE OF ENGINEERING
(AUTONOMOUS), SRIPERUMBUDUR

Department of Applied Physics

List of Publications

S.No.	Name of the Faculty (all co-authors)	Title of the paper	Name of the Journal Vol. No, pages
1	**G. Bharathy** , Johanan Christian Prasana , V.S. Jeba Reeda , M. Prasath , A. Manikandan	Molecular structural, vibrational spectra, dual descriptor, electronic transition and biological evaluations of ethyl 4-hydroxy-3-methoxycinnamate using density functional theory	Chemical Physics Impact, Vol 8, 2024
2	R. Revathi, A. Ashok, G. Anitha,* , Anuj Kumar, **M. Sukumar**,, S. Revathi,, Abdullah M. Al-Enizi, M. Sundararajan,*, Bidhan Pandit, Manish Gupta, Chandra Sekhar Dash, S. Yuvaraj, and Mohd Ubaidullah	Impact of In3+doped BiFeO3 nanoparticles prepared by direct combustion method: structural, elemental, optical, vibrational, morphology and magnetic studies	J Mater Sci: Mater Electron, Vol 35,PP 1-10,2024
3	R. Revathi · **M. Sukumar** · Anuj Kumar · Manish Gupta · P. Aji Udhaya · Satbir S. Sehgal · Bidhan Pandit · M. Sundararajan8 · A. Subramani · Chandra Sekhar Dash · N. Senthilkumar · Mohd Ubaidullah	Facile Synthesis of Ni2+ Doped MgFe2O4 Spinel Nanoparticles: Structural, Optical, Magnetic, and Dielectric Behavior	Journal of Inorganic and Organometallic Polymers and Materials Vol 34, PP 374-386, 2024
4	R. Josphineleelaa,⇑, G. Diwakarb, **T. Senthilnathanc**, Hanumant Sharan Singhd, K.R. Senthil Kumare, M. Anusuyaf	Experimental study on the effects of modification with nanoclay on the properties of an SMA mixture	Materials Today: Proceedings, PP 1-6, 2023

5	R. Revathia, S. Revathib, R. Jothiramalingamc,, **M. Sukuma**r, N. Mohamed Basithe, M. Sundararajanf,, S. Yuvarajg, S. Arokiyrajh	Green synthesis of emerging ZnO and Ca-doped ZnO nanoparticles towards optical, magnetic properties and its antibacterial application	Digest Journal of Nanomaterials and Biostructures, Vol 18, NO 34 PP 1587-1597, 2023
6	G. Anithaa∗, R. Jothiramalingamb , M. **Sukumar**, A. Ronibossd, S. Yuvaraje, G. Ramkumara, M. Sundararajanf, S. Arokiyarajg	Influence of Sr2+ substitution on structural, optical and catalytic properties of CoAl2O4 nanoparticles	Digest Journal of Nanomaterials and Biostructures, Vol 18, NO 3 PP 915-925, 2023
7	**M. Sukumar** ,, Jothi Ramalingam Rajabathar , Hamad AL-Lohedan , S. Suresh ,Chandra Sekhar Dash , M. Sundararajan ,, Partha Sarathi Subudhi , Selvaraj Arokiyaraj ,Ekrem Yanmaz, S. Yuvaraj , R.S. Rimal Isaac	Synthesize and characterization of copper doped nickel ferritenanoparticles effect on magnetic properties and visible light catalysis for rhodamine dye degradation mechanism	Journal of Alloys and Compounds, Volume 953, 25 Page 1-16, 2023
8	N. Subhashini,a S. Revathi, Mohd Ubaidullah, Abdullah M. Al-Enizi, S. Muthulakshmi, D. Thiripurasundari,a Shoyebmohamad F. Shaikh, Ayman Nafady,Meera Moydeen Abdulhameed,b Nouf B. Alanzi, Rayana Ibrahim Alkhalifah,Chandra Sekhar Dash, M.	Gd3+-substituted BiFeO3 perovskite nanoparticles: facile synthesis, characterization, and applications in heterogeneous catalysis,	Dalton Transactions V 52, pp 2735-2748, 2023

	Sundararajanand **M. Sukumar**		
9	P. Rajeswaran , A. Alfind Paul Frit , R. Rajesh, B. Vijayakumar , Pradeep Katta , **N.R. Sheela** , S. Muthu	Quantum computational, spectroscopic and molecular docking studies on 6-amino-3-bromo-2-methylpyridine,	Journal of the Indian Chemical Society, V 100, pp 1-9,,2023
10	C. Charanya ,**S. Sampathkrishnan**, R. Kumuth, J. Praveena, A. Bhaskaran, A.Prabakar and N. Balamurugan	Synthesis, Quantum Computational Analysis and Molecular Docking of 3-(2-Hydroxyphenyl)-1-Phenyl Propanone: A Combined Experimental and Theoretical Analysis.	Polycyclic Aromatic Compounds, Online Journal page 1-20, 2022
11	S.Rajesh, S.Muthu, **N.R.Sheela**,	Investigations of 6-Fluoro-4-Oxo-3,4-Dihydro-2H-Chromene-2-Carboxylic Acid by Quantum Computational, Spectroscopic, TD-DFT with Various Solvents and Molecular Docking Studies,	Polycyclic Aromatic compounds, 2022
12	R.Rajesh, S.Muthu. & **N.R.Sheela**	Effect of Amino, Chloro, and Methyl Functional Groups on 4-(4-Hydroxyphenyl) Piperazine by Density Functional Theory and Molecular Docking Studies	Journal of Polycyclic Aromatic Compounds, Vol 41 2022
13	C. Charanya, **S. Sampathkrishnan** & N. Balamurugan	Molecular Docking and Quantum Chemical Computations of 4-Chloro-2-[(furan-2- ylmethyl)amino]-5-sulfamoylbenzoic Acid Based on Density Functional Theory,	Polycyclic Aromatic Compounds, Volume 43 issue 1 PP 826-849, 2022
14	B. R. Raajaraman, **N. R. Sheela** & S. Muthu	Spectroscopic, quantum computational, molecular docking and biological parameters of 4-phenylbutyrophenone: a neuroleptic agent,	Chemical Paper , Vol. 75, PP 3931-3948,2021
15	**G. Bharathy**, Johanan Christian Prasana , S. Muthu, Ahmad Irfan, Fazilath Basha Asif A. Saral S. Aayisha , R. Niranjana devi	Evaluation of electronic and biological interactions betweenN-[4-(Ethylsulfamoyl)phenyl]acetamide and some polar liquids (IEFPCMsolvation model) with Fukui function and molecular docking analysis,	Journal of Molecular Liquids,340, 2021

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17	C. Charanya, **S. Sampathkrishnan** & N. Balamurugan	Quantum Chemical Computations, Molecular Docking, Experimental and DFT Calculation of 4-Amino-3-Phenylbutanoic Acid,	Polycyclic Aromatic Compounds, Volume 42 issue 4 page 1302-1321,2020
18	B.R.Rajaraman, **N.R.Sheela**, S.Muthu.	Quantum Chemical, Vibrational Spectroscopic and Molecular Docking Studies of 1- (diphenylmethyl) piperazine.	Polycylic Aromatic Compounds, Online Journal page 1-22, 2020.
19.	C. Chranya, **S. Sampathkrishnan**, N. Balamurugan	Quantum Chemical Computations, Molecular Docking, Vibrational Spectroscopic Analysis, Non-Linear Optical Properties and DFT Calculation of 2-[(2,3- Dimethylphenyl) Amino]Benzoic Acid	Polycyclic Aromatic Compounds Dec 2019 Online Journal
20	C. Chranya, **S. Sampathkrishnan,** N. Balamurugan	Quantum Chemical Studies, Spectroscopic Analysis and Molecular Structure Investigation of 4-Chloro-2-[(Furan-2-Ylmethyl)Amino]-5-Sulfamoylbenzoic acid	Macedonian Journal of Chemistry and Chemical Engineering Vol. 38, No. 2, 2019
21	Rubarani. P.Gangadharan **S.Sampath Krishnan** and M. Thirumalaikumar	Quantum chemical and Corrosion Inhibition studies of (4-Chlorophenyl)-N-(4-Methylphenl) Nitrone	Spectroscopy and Spectral Analysis Vol.39, No.12, pp. 3940-3945,2019
22	BR. Raajaraman , **N.R. Sheela** , S. Muthu	Influence of acetyl, hydroxy and methyl functional groups on 2-phenylbutanoic acid by quantum computational, spectroscopic and ligand-protein docking studies	Journal of Molecular Structure Vol 1188 (2019) pp.99-109
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30	C. Charanya, **S. Sampathkrisshnan**, A. Bhaskaran, N. Balamurugan	Molecular Docking, Quantum Chemical Analyses of Molecular Structure and Spectroscopic Investigations of N-[1-(1-Benzothien-2-yl)ethyl]-N-hydroxyurea: A Combined Experimental and Theoretical Studies	International Journal of Current Research and Review, Vol 10, No.21, pp.106-111, Nov.2018.
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72	S. Sakthivel, T. Alagesan, Abdulaziz A. Al-Saadi, **S. Renuga, S. MUTHU**	Vibrational spectra of 3,5-diamino-6-chloro-N-(diaminomethylene) pyrazine-2-carboxamide: Combined experimental and theoretical studies	*SpectrochimicaActa Part A: Elsevier* Volume 127, 5 2014, Pages 157-167
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90	S. Muthu , T. Rajamani , M. Karabacak , A.M. Asiri	Vibrational and UV spectra, first order hyperpolarizability, NBO and HOMO–LUMO analysis of 4-chloro-N-(2-methyl-2,3-dihydroindol-1-yl)-3-sulfamoyl-benzamide	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 122 (2014) 1–14

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