



SRM Valliammai Engineering College

(An Autonomous Institution)

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Department of Physics

Personal Details

Name :	Dr. H. Krishnan		
Designation :	Professor & Head		
Educational Qualification :	M.Sc., M.Tech., Ph.D		
Experience:	29 yrs		
Area of Specialization :	Material Science		
Date of Joining :	20.9.2004		
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Educational Details

S.No	Degree	Branch/Specialization	Institution / University	Year
1	B.Sc.,	Applied Science	Thiagarajar College of Engineering, M.K University .	1983
2	M.Sc.,	Materials Science	P.S.G. College of Technology, Bharathiyar University	1985
3	M.Tech.,	Materials Science	IIT, Kanpur	1987
4	Ph.D	Physics	Indian Institute of Technology (Madras)	1993

Professional Society Memberships

1. Indian Science Congress Association
2. Indian Association of Crystal Growth
3. Indian Society for Technical Education
4. Indian Physics Associations

Publication Details

Journals:

1. K. Sarojini, H.Krishnan, Charles C Kanagam, S.Muthu, published the research paper entitled "Synthesis, X-ray structural, characterization, NBO and HOMO–LUMO analysis using DFT study of 4-methyl-N-(naphthalene-1-yl) benzene sulfonamide" in the Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy Vol 96(2012) 657–667
2. K. Sarojini, H.Krishnan, Charles C Kanagam, S.Muthu published the research paper entitled "Molecular structure, vibrational spectroscopic and Homo Lumo studies of 4-methyl-N-(4-methylphenyl) benzene sulfonamide," in the AIP Conf. Proc. 1447 (2012) 2011-2113
3. K. Sarojini, H.Krishnan, Charles C Kanagam, S.Muthu published the research paper entitled "Synthesis, structural, spectroscopic studies, NBO analysis, NLO and LUMO of 4-methyl-N- (3-

- nitrophenyl) benzene sulphonamide” in the *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 108 (2013) 159-170
4. K. Sarojini, H.Krishnan, Charles C Kanagam, S.Muthu published the research paper entitled “Molecular structure, vibrational spectroscopic and Homo Lumo studies of 4-methyl-N- (2-methylphenyl) benzene sulphonamide” in the *Advanced material research* Volume 665 (2013) 101-111
 5. K.Sarojini, H.Krishnan have published the research paper entitled “Molecular docking studies of some sulfonamide derivatives as PBP-2X inhibitors as antibacterial agents” in *Romanian Journal of biophysics* Vol 24(3)-2014
 6. S.Raju, R.Muralidharan and H.Krishnan have published the research paper entitled “A comparative study on the spectral properties of thiourea potassium chloride and thiourea single crystals” in *International Journal of Chem Tech Research* Vol.6, No., pp 4212-4215
 7. S.Raju, R.Muralidharan, H.Smila and H.Krishnan have published the research paper entitled “Synthesis, Spectral and Antibacterial studies of Semi-Organic Single Crystal: Barium Thiourea Chloride” *Research Journal of Pharmaceutical, Biological and Chemical Sciences* 5[5], page no. 1440, on September-October 2014.
 8. H. Krishnan, has published the research paper entitled “Ferroelectric like transition on a hygroscopic barium thiourea chloride single crystal” – *Modern Physics Letters B*, Vol.29,1550047, 2015.
 9. Dr.H.Krishnan published a research paper on the ‘Growth and low temperature Raman studies on a Non Linear optical potassium thiourea chloride single crystals’ in *Optik - International Journal for Light and Electron Optics*, on 14th January 2016.
 10. ‘A Novel Proton Conducting Polymer Electrolyte membrane for Fuel cell application’ in *High performance polymers*, January 2017, 30(1),pp.116-125 GandhimathiSivasubramanian,Krishnan Hariharasubramanian , ParadesiDeivanayagamand JeyalakshmiRamaswamy.
 11. ‘High Performance SPEEK/SWCNT/FLY ASH Polymer Electrolyte Nanocomposite Membranes for Fuel Cell Application” in *Polymer Journal*, August 2017, 49, pp 703-709 , GandhimathiSivasubramanian,Krishnan Hariharasubramanian, ParadesiDeivanayagamand JeyalakshmiRamaswamy
 12. "Energy Material - The role of silicotungstic acid and fly ash in sulfonated poly (ether sulfone) composites for PEMFC applications," in *Journal of Macromolecular Science, Part A Pure and Applied Chemistry*, D. Paradesi, S. Gandhimathi, H. Krishnan, B. Baskar and Senthil Andavan GT, vol.56 (2) , pp. 146-152,2019.
 13. R. Nithya Balaji, H. Krishnan published a research paper in the title ‘Synthesis, Molecular structure and multiple biological activities of N-(3-methoxyphenyl)-3-(pyridine-4-yl)-1H-pyrazole-5-carboxamide’ in the *Journal of Molecular Structure* on 23rd February 2019.
 14. “Development of proton exchange polymer nanocomposite membranes for fuel cell applications” in *Polymers and Polymer Composites* , S.Gandhimathi, H. Krishnan, & D. Paradesi, Published online in November 16,2019. <https://doi.org/10.1177/0967391119888319>.
 15. R. Nithya Balaji, H. Krishnan Published a research paper in the title ‘Synthesis and biological evaluation of 4-phenylmorpholine-heterocyclic carboxamidehybrid: in vitroanti inflammatory and antioxidant activities” in the *Journal of Molecular Structure* on 10th December 2019.
 16. Rajendran Nithya Balaji, Hariharasubramanian Krishnan, Rajendran Sri Balan 2020, “Synthesis, Molecular structure in vitro and in silico studies of - phenyl morpholine – Heterocyclic amides” *Journal of Molecular Structure*, vol. 1204, pp. 127563.
 17. “Development of proton exchange polymer nanocomposite membranes for fuel cell applications” in *Polymers and Polymer Composites* , S.Gandhimathi, H. Krishnan, & D. Paradesi, vol.28 (7), pp.492-501,2020.
 18. “New series of organic–inorganic polymer nanocomposite membranes for fuel cell applications” in *High Performance Polymers* , S.Gandhimathi, H. Krishnan, D. Paradesi, , vol. 32(3), pp.296-305, 2020.
 19. “Unprecedented sulphonated poly(ether ether ketone) bismuth cobalt zinc oxide composites: physicochemical and electrochemical performance in fuel cell” in *Journal of Materials Science: Materials in Electronics* , **Gandhimathi Sivasubramanian**, Senthil Andavan Gurusamy Thangavelu, Berlina Maria Mahimai, Krishnan Hariharasubramanian, and Paradesi Deivanayagam

Research and Development Details

No. of Ph.D candidates guided : 03

No. of Ph.D candidates guiding : 02