Dr. N. BALAMURUGAN, MSc, M.Phil., PhD.
Associate Professor& Head
Department of Physics, CET,
SRM Institute of Science and Technology,
Ramapuram, Chennai-600 089
E-mail: hod.phy.rmp.et@srmist.edu.in
balamurn@srmist.edu.in
Mobile: 99411-22214

Dr. N. Balamurugan serves as the Associate Professor and Head (in charge) of the Department of Physics. He has a total of 18 years of teaching and research experience, including 8 years specifically in the fields of Spectroscopy and Crystal Growth. Dr. Balamurugan earned his M.Sc. degree in Physics, graduating with first class honors from Bharathidasan University. He also holds an M.Phil. in Physics from Bharathidasan University, Tiruchirappalli and a Ph.D. from Anna University - CEG Campus, Chennai. He has published over 20 research articles in refereed international journals and in the proceedings of international conferences. Additionally, he is a recognized supervisor at both Anna University and Bharath Institute of Higher Education and Research, Chennai, where he is currently guiding three Ph.D. scholars. Their research focuses on the synthesis, spectroscopic investigations, ab initio DFT calculations, and molecular docking studies of various organic compounds. His current research work involves the synthesis and characterization of Zileuton derivatives.

PROFESSIONAL EXPERIENCE: 18 YEARS

POST	DURATION	INSTITUTION
Associate Professor & HoD (i/c)	Nov 2024 – Till Date	SRM Institute of Science and Technology, Ramapuram - Campus
Associate Professor & Director, International Relations	April 2022 – Oct 2024	Bharath Institute of Higher Education and Research, Chennai.
Assistant Professor	July 2016 – July 2020	Dhanalakshmi College ofEngineering, Chennai.
Assistant Professor	Dec 2014 – Mar 2016	Sri Lakshmi Ammaal Engineering College, Chennai.
Assistant Professor	June 2011 – Dec 2014	PERI Institute of Technology, Chennai.
Lecturer	July 2008 – June 2011	Apollo Engineering College, Chennai.
Lecturer	Aug 2004 – July 2008	PSB Polytechnic College, Kelambakkam, Chennai.

LIST OF PUBLICATIONS

Paper Published National and International Journals

1. C. Charanya, S. Sampathkrishnan, R. Kumutha, J. Praveen, A. Bhaskaran, A. Prabakaran, **N. Balamurugan, 2023**, "Synthesis, Quantum computational analysis and Molecular docking of 3-(2-Hydroxyphenyl)-1-phenyl propanone: A combined experimental and theoretical analysis", **Polycyclic Aromatic Compound, vol.43 No.10, pp. 8903-8932**.

2. C. Charanya, S. Sampathkrishnan and **N. Balamurugan, 2023,** "Molecular docking and Quantum chemical computations of 4-Chloro-2-[(furan-2-ylmethyl)amino]-5- sulfamoylbenzoic acid based on density functional theory", **Polycyclic Aromatic Compound, vol.43 No.1, pp. 826-849.**

3. L. Antony Selvam, S.Prathap, S.Muthu, **N.Balamurugan,** M.Victor Antony Raj, **2022**, "Quantum chemical computational studies on 2, 4-difluoroaniline calculated by DFT method", **Materials Today Proceedings**, Vol (50), pp. 2780-2783.

4. L. Antony Selvam, S.Prathap, S.Muthu, **N.Balamurugan,** M.Victor Antony Raj, **2022**, "Quantum chemical computational studies on 2, 4-difluoroaniline calculated by DFT method", **Materials Today Proceedings**, Vol (50), pp. 2760-2763

5. Charanya, S. Sampathkrishnan and **N. Balamurugan, 2021**, "Quantum Chemical Computations, Molecular Docking, Vibrational Spectroscopic Analysis, Non-Linear Optical Properties and DFT Calculation of 2-[(2,3Dimethylphenyl)Amino]Benzoic Acid", **Polycyclic Aromatic Compound, vol.41 (9), pp. 1813 - 1834**.

6. C. Charanya, S. Sampathkrishnan and **N. Balamurugan, 2020, "** Quantum chemical computations, Molecular docking, Experimental and DFT calculation of 4-Amino-3- phenylbutanoic acid", **Polycyclic Aromatic Compound,** vol.40 (3), pp. 1-19.

7. C. Charanya, S. Sampathkrishnan, and **N. Balamurugan**, **2019**, "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, No2, pp. 1-14.

8. Revathi Haldorai, M. Thirumalaikumar, S.Sampathkrishnan, C.Charanya and **N.Balamurugan, 2019,** "Quantum chemical vibrational study, FTIR and FT-Raman spectra of 1, 3-Diphenyl Propenone", **Spectroscopy and Spectral Analysis**, 39(12). pp 3932- 3939.

9. C. Charanya , S. Sampathkrishnan, **N. Balamurugan**, **2019**, "Natural Bond Orbital (NBO), Natural Population Analysis and Mulliken analysis of atomic charges of 4-Amino-3-phenylbutanoic acid", **Spectroscopy and Spectral Analysis**, 39(3). pp 977-981.

10. C. Charanya, S. Sampathkrishnan, A. Bhaskaran, **N. Balamurugan**, **2018**, "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, (21), pp. 106-111.

11. C. Charanya , S. Sampathkrishnan, **N. Balamurugan**, **2017**, "Natural Bond Orbital (NBO), Natural Population Analysis (NPA) and Non Linear Optical Properties of (1S, 2R)- 2-amino-1-phenylpropan-1-ol Using DFT Method", **Spectroscopy and Spectral Analysis** , 37(09). pp 2984-2988.

12. C. Charanya, S. Sampathkrishnan, **N. Balamurugan**, **2017**, "Quantum mechanical analysis, spectroscopic (FT-IR, FT-Raman, UV-Visible) study, and HOMO-LUMO analysis of(1S,2R)-2-amino-1-phenylpropan-1-ol using Density Functional Theory", **Journal of Molecular Liquids**, vol. 231, pp 116-125.

13. C. Charanya, S. Sampathkrishnan, **N. Balamurugan**, **2016**, "Natural Bond Orbitals (NBO), Natural Population Analysis, Mulliken Analysis of Atomic Charges of L- Alaninium Oxalate", **Spectroscopy and Spectral Analysis**, Vol.36, No.8, 4259-4265, 2016.

14. **N. Balamurugan,** S. Sampathkrishnan & C. Charanya, **2016**, "Natural Bond Orbitals (NBO), Natural Population Analysis, Mulliken Analysis of Atomic Charges of 2-[(2, 3- Dimethylphenyl) Amino] Benzoic Acid", **Spectroscopy and Spectral Analysis**, vol. 36, No.4, pp 1273-1276.

15. **N. Balamurugan,** S. Sampathkrishnan & C. Charanya, **2016**, "Vibrational spectroscopic study of N-[4-[1-hydroxy-2-[(1-methyl ethyl) amino] ethyl] phenyl] methane sulfonamide", **Spectroscopy and Spectral Analysis**, vol. 36, No.3, pp 880-886

16. **N. Balamurugan, C.** Charanya & S. Sampathkrishnan, **2015,** "Vibrational Spectroscopic Studies of L-Alaninium Oxalate", **Optics and Spectroscopy**, vol.119, no.3, pp. 432-440.

17. **N. Balamurugan,** C. Charanya, S. Sampathkrishnan & S. Muthu, **2015**, "Molecular structure, vibrational

spectra, first order hyper polarizability, NBO and HOMO-LUMO analysis of 2-amino-5-bromo-benzoic acid methyl ester"' **Spectrochimca Acta Part A: Molecular and Biomolecular Spectroscopy**, vol.137, pp. 1374-1386.

18. **N. Balamurugan,** C. Charanya & S. Sampathkrishnan, **2014**, "Molecular Structure, vibrational spectra, theoretical NBO and HOMO-LUMO analysis of Bi-Glycine Hydrobromide by DFT method", **Asian Journal of Chemistry**, vol.26, no.14, pp. 4259- 4265.

19. S. Sampathkrishnan, **N. Balamurugan,** R. Kumutha & S. Mahalakshmi, **2013**, "Solubility Studies of Halo-glycine by Quantum Mechanical Method", **Asian Journal of Chemistry**, vol.25, no.4, pp. 2007-2011.

20. S. Sampthkrishnan, **N. Balamurugan**, R. Kumutha, Y. Vidyalakshmi, S. Muthu, **2012**, "Growth and Characterization of New Non Linear Optical Bis-Glycine Hydro Bromide (BGHB) Single Crystal", **Journal of Minerals & Materials Characterization & Engineering**, vol. 11, No.6, pp.597-607.

RESEARCH INFORMATION

Web of Science Researcher ID: Q-4998-2018

Scopus Author ID: 57203904946

ORCiD: 0000-0002-8892-9564