

CURRICULUM VITAE

1. Name: DR. G. H. MALIMATH
2. Designation: PROFESSOR
3. Highest Academic Qualification: M.Sc., Ph.D.
4. Correspondence Address: UG and PG Department of Physics,
Karnatak Science College,
Dharwad – 580 001,
Karnataka, India.
Email: gurukcd@gmail.com
Ph.: +919844781468
5. Date of Birth: 25-05-1967
6. Nationality: Indian
7. Research Experience: 15 Years
8. Teaching Experience: 27 Years
9. Research Areas: Design, Synthesis and Characterisation of Fluorophores as Energy Transfer Dye Lasers, Metal ion sensors, Environmental Pollutants (Aromatic amines and their derivatives) Sensors, Picric Acid Sensors and Photosensitisers for solar cell applications. Theoretical and experimental studies on Photophysical properties of Novel Fluorophores.



10. Number of Students Awarded Ph.D. and M.Phil. Degrees: 04

Name of the Scholar	Title of the Thesis	Degree	Year
Thippesh S. A.	Photophysical properties of 8-formyl-7-hydroxy-4-methyl coumarin	M.Phil	2008
Wali Shilpa Sangappa	Estimation of Dipole moment of 2 hydroxy-3-formyl quinoline by solvatochromic method	M.Phil	2013
Channabasayya V Maridevarmath	Dielectric and ultrasonic studies on some organic systems	Ph.D.	2018
Lohit Ishwar Naik	Energy transfer and quenching studies in dyes and dye doped systems	Ph.D.	2019

11. Administrative Positions Held:

- (i) Served as **Head of the department of Physics** (which also includes Electronics and Computer science optional subjects) during the academic years 2006 - 2011, 2013-2015 and 2019-2020(Nine years)
- (ii) More than five times, I Worked as a **Chief coordinator** at UG science central valuation centre, Karnatak University, Dharwad.

- (iii) More than five times, I worked as a **member of the Theory and practical time table committee** of KUD and assisted the university authorities towards the appointment of external examiners for Physics practical examinations.
- (iv) I worked as a **IQAC** coordinator, **UGC** coordinator, **AAA** coordinator, Chairman of **Science Association**, Chairman of **Cultural activities** and chairman of **Admission committee** of our college.
- (v) I also worked as a **Senior supervisor/Chief superintendent** of PUC, UG and PG exams.

12. Reviewer for Scientific Journals:

- a. Journal of Molecular Structure
- b. Journal of Photochemistry and Photobiology
- c. Journal of Molecular Graphics and Modelling
- d. Optik
- e. Methods and Applications in Fluorescence

13. Membership of Professional Bodies:

- 1. Life member for Indian society for Radiation and Photochemical sciences.
- 2. Life member for Indian society for Radiation Physics.
- 3. Life member for Karnatak University Physics teachers' forum.

14. Collaborations:

- i. Department of Chemistry, Karnatak University, Dharwad.
- ii. Department of Chemistry, Karnatak Science college, Dharwad.

15. Awards and Scholarships:

- a. Karnatak University Research Fellowship during the years 1990-93.
- b. Got selected for the **INTERNATIONAL RESEARCH AWARDS 2020** for the excellence in the research paper entitled "Synthesis, Photophysical, DFT and solvent effect studies on biologically active Benzofuran derivative" published in 'Chemical Data Collections' Elsevier journal. This is awarded by RULA awards & IJRULA in affiliation with World Research Council & United Medical Council.
- c. Got selected for the **Asia's outstanding Research Award-2023** for the excellence in the research paper entitled "A highly selective and sensitive thiophene substituted 1,3,4-oxadiazole based turn-off fluorescence chemosensor for Fe²⁺ and turn on fluorescence chemosensor for Ni²⁺ and Cu²⁺ detection" published in "Materials Chemistry and Physics" Elsevier journal. This is awarded by ISSN International Research Awards 2023 in affiliation with World Research Council & Times of Research.

16. Research Publications:

<p>1. Solute-solvent interaction and DFT studies on bromonaphthofuran 1, 3, 4-oxadiazole fluorophores for optoelectronic applications Lohit Naik, MS Thippeswamy, V Praveenkumar, G.H. Malimath, D Ramesh, Suraj Sutar, Hemantkumar M Savanur, SB Gudennavar, SG Bubbly Journal of Molecular Graphics and Modelling, Volume 118, 108367 2023. Impact Factor 2.51</p>
<p>2. Saussurea obvallatta leaves extract as a potential eco-friendly corrosion inhibitor for mild steel in 1 M HCl Arjun G Kalkhambkar, SK Rajappa, J Manjanna, G.H. Malimath Inorganic Chemistry Communications, Volume 143, 109799, 2022. Impact Factor 3.43</p>
<p>3. Effect of expired doxofylline drug on corrosion protection of soft steel in 1 M HCl: Electrochemical, quantum chemical and synergistic effect studies Arjun G Kalkhambkar, SK Rajappa, J Manjanna, G.H. Malimath Journal of the Indian Chemical Society, volume 99, 100639, 2022. Impact Factor 0.28</p>

<p>4. Studies on the Characterisation of Thiophene Substituted 1, 3, 4-oxadiazole Derivative for the Highly Selective and Sensitive Detection of Picric Acid MS Thippeswamy, Lohit Naik, CV Maridevarmath, Hemantkumar M Savanur, G.H. Malimath Journal of Molecular Structure, Volume 1264, 133247, 2022. Impact Factor 3.84</p>
<p>5. Humidity sensing behaviour of Rubidium-doped Magnesium ferrite for sensor applications Veeresh G Hiremath, IS Yahia, HY Zahran, B Chethan, G.H. Malimath, YT Ravikiran, V Jagadeesha Angadi Journal of Materials Science Materials in Electronics, Volume 33, 11591-11600, 2022. Impact Factor 2.47</p>
<p>6. Interactions of Environmental Pollutant Aromatic Amines with photoexcited states of Thiophene Substituted 1, 3, 4-Oxadiazole Derivative: Fluorescence quenching studies G.H. Malimath, M.S. Thippeswamy, Lohit Naik, CV Maridevarmath Journal of Fluorescence, Volume 32, 1543–1556, 2022. Impact Factor 2.21</p>
<p>7. Synthesis, spectroscopic properties, and DFT correlative studies of 3, 3'-carbonyl biscoumarin derivatives Shashikant Walki, G.H. Malimath, K.M. Mahadevan, Soniya Naik, Suraj M Sutar, Hemantkumar Savanur, Lohit Naik Journal of Molecular Structure, Volume 1243, 130781, 2021. Impact Factor 3.84</p>
<p>8. A comprehensive studies on photophysical and electrochemical properties of novel D- π-A thiophene substituted 1,3,4-oxadiazole derivatives for optoelectronic applications: A computational and experimental approach Thippeswamy M.S. Lohit Naik, C.V. Maridevarmath, G.H. Malimath. Chemical Physics, Volume 550, 111301, 2021. Impact Factor 2.35</p>
<p>9. Synthesis and Photophysical Properties of Multi-Functional Bisimidazolyl Phenol Zinc (II) Complex: Application in OLED, Anti-Counterfeiting and Latent Finger Print Detection Ravindra M Kempegowda, Mahadevan K Malavalli, G.H. Malimath, Lohit Naik, Kiran B Manjappa. ChemistrySelect Volume 6, 3033-3039, 2021. Impact Factor 2.30</p>
<p>10. A highly selective and sensitive thiophene substituted 1,3,4-oxadiazole based turn-off fluorescence chemosensor for Fe²⁺ and turn on fluorescence chemosensor for Ni²⁺ and Cu²⁺ detection Lohit Naik, CV Maridevarmath, MS Thippeswamy.M.S, Hemantkumar M Savanur, Imtiyaz Ahamed M Khazi, G.H. Malimath. Materials Chemistry and Physics, Volume 260, 124063, 2021. Impact Factor 4.09</p>
<p>11. Synthesis, characterization, photophysical and DFT studies of bicoumarin and 3-(3-benzofuranyl) coumarin derivatives Umesh Hanagund, Farzanabi shaikh, L. A. shastri, G.H. Malimath, Lohit Naik and V. S Sunagar Chemical Data Collections Volume 30, 100537, 2020. Impact Factor 0.51</p>
<p>12. Photophysical studies on D-π-A Imidazole-derivative for organic-dye-sensitized solar cell application Shashikant Walki, H M. Savanur, Yogananda K.C, Soniya Naik, Ravindra M K, G.H. Malimath, K.M. Mahadevan and Lohit Naik Asian Journal of Chemistry; Vol. 32, No. 11, 2829-2838, 2020. Impact Factor 0.535</p>
<p>13. Design of new Imidazole-derivative dye having donor- -acceptor moieties for highly efficient organic-dye-sensitized solar cells Shashikant Walki, Lohit Naik, H. M. Savanur, Yogananda K.C, Soniya Naik, Ravindra M K, G.H. Malimath and K.M. Mahadevan Optik, Volume 208, 164074, 2020. Impact Factor 2.97</p>
<p>14. Electronic excitation energy transfer studies in binary mixtures of novel optoelectronically active 1,3,4-oxadiazoles and coumarin derivatives Lohit Naik, I. M. Khazi and G. H. Malimath Chemical Physics Letters, Volume 749, 16, 137453, 2020. Impact Factor 2.719</p>
<p>15. Studies on the effect of temperature on dielectric relaxation, activation energy (ΔG^*), enthalpy (ΔH^*), entropy (ΔS^*) and molecular interactions of some anilines, phenol and their binary mixtures using X-band microwave bench C.V. Maridevarmath and G.H. Malimath The Journal of Chemical Thermodynamics, Volume 144, 106068, 2020. Impact Factor 3.269</p>
<p>16. Synthesis, photophysical, DFT and solvent effect studies on biologically active benzofuran derivative: (5-methyl-benzofuran-3-yl)-acetic acid hydrazide, C.V. Maridevarmath, Lohit Naik, V.S. Negalurmath M. Basanagouda and G.H. Malimath Chemical Data Collections, Vol. 21, 100221, 2019. Impact Factor 0.51</p>
<p>17. Synthesis, characterization and photophysical studies on novel benzofuran-3-acetic acid hydrazide derivatives by solvatochromic and computational methods, C.V. Maridevarmath, Lohit Naik, V.S. Negalurmath M. Basanagouda and G. H. Malimath Journal of Molecular Structure, 1188, 142-152, 2019. Impact Factor 3.841</p>
<p>18. Studies on photosensitization of TiO₂ nanoparticles by novel 1, 3, 4-oxadiazoles derivatives Lohit Naik, I. M. Khazi and G. H. Malimath Optik, 183, 732-741, 2019. Impact Factor 2.97</p>
<p>19. Dielectric, Photophysical, Solvatochromic, and DFT Studies on Laser Dye Coumarin-334,</p>

<p>C.V. Maridevarmath Lohit Naik and G.H. Malimath Brazilian Journal of Physics, 49,151–160, 2019. Impact Factor 1.364</p>
<p>20. Photophysical and computational studies on optoelectronically active thiophene substituted 1,3,4-oxadiazole derivatives. Lohit Naik, C.V. Maridevarmath, I. M. Khazi and G. H. Malimath Journal of Photochemistry & Photobiology A: Chemistry, 368 200–209, 2019. Impact Factor 5.141</p>
<p>21. Studies on Dielectric Relaxation in Relation to Viscosity of Some Anilines, Phenol and their Binary Mixtures at Microwave Frequencies C.V. Maridevarmath and G.H. Malimath Canadian Journal of Physics, 97(2), 210-215, 2019. Impact Factor 1.24</p>
<p>22. Turn-off fluorescence studies of novel thiophene substituted 1, 3, 4-oxadiazoles for aniline sensing Lohit Naik, I. M. Khazi and G. H. Malimath Sensors and Actuators A: Physical, Volume 284, 1, 145-157, 2018. Impact Factor 4.291</p>
<p>23. Resonance Energy Transfer Studies from Derivatives of Thiophene Substituted 1,3,4-Oxadiazoles to Coumarin-334 Dye in Liquid and Dye-Doped Polymer Media. Lohit Naik, Narahari Deshapande, I. M. Khazi and G. H. Malimath Brazilian journal of physics, 48, 16–24, 2018. Impact Factor 1.364</p>
<p>24. Computational and experimental studies on dielectric relaxation and dipole moment of some anilines and phenol. C.V. Maridevarmath and G.H. Malimath Journal of Molecular Liquids, 241, 845–851, 2017. Impact Factor 6.633</p>
<p>25. Study of molecular interactions in antidepressant Amitriptyline and Benzene at different temperatures G.H. Malimath and C.V. Maridevarmath Journal of Chemical and Pharmaceutical Research, Vol. 8(2), 237-241, 2016. Impact Factor 0.38</p>
<p>26. Study of molecular interactions in antihistamine drug Cinnarizine and Benzene at Different Temperatures G.H. Malimath and C.V. Maridevarmath Der Pharma Chemica Vol 8(2), 92-97, 2016. Impact Factor 0.32</p>
<p>27. Static and dynamic model fluorescence quenching of laser dye by carbon tetrachloride in binary mixtures J.S. Kadadevarmath, G.H. Malimath, R.M. Melavanki and N.R. Patil Spectrochimica Acta Part A: Molecular and Bimolecular Spectroscopy 117, 630–634, 2014. Impact Factor 4.831</p>
<p>28. Solvent effect on the dipole moments and photo physical behaviour of 2,5-di-(5-tert-butyl-2-benzoxazolyl) thiophene dye. J.S. Kadadevarmath, G.H. Malimath, N.R. Patil, H.S. Geethanjali and R.M. Melavanki Canadian Journal of Physics. Vol. 91(12): 1107-1113 2013. Impact Factor 1.24</p>
<p>29. Solvatochromic behavior of donor-acceptor substituted 1, 2-diphenylethenes in organic solvents. Reverse micelles and Polymer Matrix. A.K.Singh, G.R.Mahalaxmi and G.H. Malimath Journal of Photo science, (International, S.K) Vol. 4, No.-2, P.-53, 1997. (Now it is named as j. Photo chemical and Photo biological sciences.) Impact Factor 3.88</p>
<p>30. Role of internal mechanisms in energy Transfer processes in organic liquid scintillators. G.H. Malimath, G.C. Chikkur, H. Pal and T. Mukherjee Applied Radiation and Isotopes (International, Great Britain), Vol. 48, No.-3, P.359, 1997. Impact Factor 1.513</p>
<p>31. Effect of solvent on the fluorescence Quenching of organic liquid scintillators by Aniline and Carbon Tetrachloride. T.P. Giraddi, J. S. Kadadevarmath, G.H. Malimath and G.C. Chikkur Applied Radiation and Isotopes (International, Great Britain), Vol. 47, No.-4, P-461, 1996. Impact Factor 1.513</p>
<p>32. Electronic Excitation Energy Quenching of an organic liquid scintillator by carbon tetra chloride in different solvents. J. S. Kadadevarmath, T.P. Giraddi, G.H. Malimath and G.C. Chikkur Radiation Measurements, (International, Great Britain), Vol. 26, No.-1, P-117, 1996. Impact Factor 1.898</p>
<p>33. Quenching of 2-phenylindole by carbon tetrachloride and aniline in different solvents. T.P. Giraddi, J. S. Kadadevarmath, G.H. Malimath and G.C. Chikkur Indian Journal of Pure & Applied Physics (National, India) Vol. 34, P.-244, 1996. Impact Factor 0.846</p>
<p>34. Role of Energy migration in an organic liquid Scintillator system in the temperature 20 – 70°C range. G.H. Malimath and G.C. Chikkur Applied Radiation and Isotopes (International, Great Britain), Vol. 45, No.-2, P.143, 1994. Impact Factor 1.513</p>
<p>35. The Role of Diffusion, Migration and Long-Range interaction in Energy Transfer and Quenching process in an Organic liquid scintillator.</p>

B.G. Math, G.C. Chikkur and **G.H. Malimath**

Applied Radiation and Isotopes (International, Great Britain), Vol. 43, No.-11, PP 1349, **1992. Impact Factor 1.513**

36. Electronic Excitation Energy Transfer from donor to acceptor molecules and between donor molecules in an organic liquid system

B.G. Math, G.C. Chikkur and **G.H. Malimath**

SpectrochimicaActa (International, Great Britain), Vol. 47, No.-11, P 1633, **1991. Impact Factor 4.831**

17. Research Papers presented at National and International Conferences and Symposiums:

1.	Photophysical and DFT studies on two novel optoelectronically active 1,3,4-oxadiazoles derivatives. 15 th DAE-BRNS Biennial, Trombay Symposium on Radiation and Photochemistry held at BARC, Mumbai from January 5-9, 2020.
2.	Effect Of 2,4-dimethylaniline On The Fluorescence Of 1,3,4-oxadaizole Derivative. 15 th DAE-BRNS Biennial, Trombay Symposium on Radiation and Photochemistry held at BARC, Mumbai from January 5-9, 2020.
3.	Studies on characterization of 1,3,4-Oxadiazole derivative as metal ion sensor. 15 th DAE-BRNS Biennial, Trombay Symposium on Radiation and Photochemistry held at BARC, Mumbai from January 5-9, 2020.
4.	Photophysical studies on novel Benzofuran derivatives and computational and experimental methods National Symposium on Radiation and Photochemistry -2019 held at Shantiniketana, West Bengal from February 7-9, 2019.
5.	Photophysical, solvatochromic and computational studies on novel antimicrobial active 1,3,4-oxadiazole derivatives National Symposium on Radiation and Photochemistry -2019 held at Shantiniketana, West Bengal from February 7-9, 2019.
6.	Fluorescence studies of novel thiophenesubstituted 1,3,4-oxadazole derivatives for aniline sensing National Symposium on Radiation and Photochemistry-2019 held at Shantiniketana, West Bengal from February 7-9, 2019.
7.	Photophysical properties of two novel Benzofuran-3acetic acid hydrazide derivatives. 14 th DAE-BRNS Biennial, Trombay Symposium on Radiation and Photochemistry-2018 held at BARC, Mumbai on January 3-7, 2018.
8.	Energy transfer studies between derivatives of 1,3,4-oxadiazole and C-344 in liquid and polymer media. 14 th DAE-BRNS Biennial, Trombay Symposium on Radiation and Photochemistry-2018 held at BARC, Mumbai on January 3-7, 2018.
9.	Photophysical Properties of Laser Dye Coumarin 102 by Computational and Solvatochromic Methods. National conference on luminescence and application held at Indian Institute of Chemical Technology, Hyderabad, Andra Pradesh on January 9-11, 2017.
10.	Energy transfer studies using binary mixture of laser dyes in solvent and polymer media. National conference on luminescence and application held at Indian Institute of Chemical Technology, Hyderabad, Andra Pradesh on January 9-11, 2017.
11.	Study of molecular interactions in binary liquid mixture of Methyl 2 (benzyloxy) benzoate and benzene at different temperatures. International conference on Material science and ionizing radiation safety and awareness (ICMSIRSA -2016) held at shivaji university, Kolhapur on 28- 30 January, 2016.

12.	<p>Studies on enhancement of energy transfer efficiency using binary mixtures of laser dyes in solvent and PMMA matrix.</p> <p>International conference on advanced polymer science held at Dept of chemistry, Velloru institute of technology, Tamilnadu on October 24-26, 2016.</p>
13.	<p>Ground and Excited state properties of Thiadiazole derivative by experimental and theoretical approach.</p> <p>12th DAE-BRNS Biennial, Trombay Symposium on Radiation and Photochemistry held at BARC, Mumbai from 6-9 January, 2014.</p>
14.	<p>Studies on Photophysical properties of quinoline derivatives: Estimation of Ground and Excited State dipole moments from solvatochromic method using solvent polarity parameters.</p> <p>11th DAE-BRNS Biennial, Trombay Symposium on Radiation and Photochemistry held at BARC, Mumbai from 4-7 January, 2012.</p>
15.	<p>Steady state and time resolved methods of fluorescence quenching of biologically active carboxamide.</p> <p>National Symposium on Radiation and Photochemistry, Department of Chemistry, JNV University, Jodhpur, Rajasthan, 10 – 12th March, 2011.</p>
16.	<p>Photophysical properties of 8-formyl-7-hydroxy-4-methyl-coumarin in homogeneous media.</p> <p>3rd Asia pacific symposium (International) on radiation Chemistry, BARC, Mumbai(Lonovala), 14 – 17th September, 2010.</p>
17.	<p>Fluorescence quenching of coumarin derivative by aniline in different solvents.</p> <p>National Symposium on Radiation and Photochemistry, Dept. of Physics, Karnataka University, Dharwad, January 17-19, 2005.</p>
18.	<p>Effect of temperature on fluorescence Quenching of organic liquid scintillators.</p> <p>National Symposium on radiation and Photo sciences, Dept. of Chemistry, Sambhalpur University, Sambhalpur, Orissa., February, 15-17, 1999.</p>
19.	<p>Fluorescence quenching of BBOT by aniline in different organic solvents.</p> <p>Trombay Symposium on Radiation and Photochemistry, BARC Bombay, January 14-19, 1998</p>
20.	<p>Energy Transfer and quenching studies in an organic liquid scintillator system</p> <p>National Symposium on radiation and Photo sciences, Dept. of Physical and Nuclear Chemistry Andhra University, Visakhapatnam, January 8-10, 1997.</p>
21.	<p>Quenching of 2- Phenylindole by carbon tetrachloride and aniline in different solvents</p> <p>Ninth National Symposium on Radiation Physics, Dept. of Physics, Punjab University, Patiala. , October, 26-29, 1995</p>
22.	<p>Static and dynamic quenching of MPNo.1 and MPNo2 by aniline in various organic solvents.</p> <p>Ninth National Symposium on Radiation Physics, Dept. of Physics, Punjab University, Patiala. , October, 26-29, 1995</p>
23.	<p>Quenching of excitation energy of an organic scintillator by carbon tetrachloride in different solvents.</p> <p>National Symposium on radiation and Photo sciences, Dept. of Physics, Rani Durgavati Vishwavidyalaya, Jabalpur., February, 16-18, 1995.</p>
24.	<p>Electronic excitation energy transfer from toluene to PBD at different temperature and Viscosity.</p> <p>National Symposium on radiation and Photo sciences, Dept. of Physics, Rani Durgavati Vishwavidyalaya, Jabalpur., February, 16-18, 1995.</p>
25.	<p>Energy transfer from PBD to BBOT in benzene.</p> <p>Trombay Symposium on Radiation and Photochemistry, BARC Bombay, January 17-21, 1994.</p>

26.	An experimental method of studying the electronic excitation energy transfer mechanism in organic liquid scintillators. Ninth National Symposium on Radiation Physics (NSRP-9), Dept. of Physics, Osmania University, Hyderabad., November-1991.
-----	---