

Dr. ASHOK H. SIDARAI, M.Sc., M. Phil., PGDCA., Ph.D.

Professor,

Department of Physics,

Karnatak University,

Dharwad - 580003

Mobile : 9481528089

E-mail :ashok_sidarai@rediffmail.com



Academic Qualifications:

Period	Qualification	University / Institute/ Board	Subject / field
1982-1985	B.Sc.	Karnatak University, Dharwad	Physics, Chemistry, Mathematics.
1985-1987	M.Sc.	Karnatak University, Dharwad	Physics.
2001-2002	M.Phil.	Karnatak University, Dharwad	Physics / Electronics.
2002-2003	PGDCA	Karnatak University, Dharwad	Computer application.
2005-2012	Ph.D.	Karnatak University, Dharwad	Physics / Fluorescence spectroscopy.

Title of the PhD Thesis: Study of Photophysical Properties of Some Organic Compounds.

PhD award year : March-2012

Research supervisor : Dr. J. S Kadadevarmath

Professor, Department of Physics,

Karnatak University, Dharwad – 580 003.

Title of the M.Phil : Implementation of Lack-In Amplifier For Low Noise Measurement

M.Phil award year : 2001

Research supervisor : Dr. D. K. Deshpande

Professor, Department of Physics,

Karnatak University, Dharwad – 580 003.

Professional Career

Period	Years	Organization	Designation	Nature of work / responsibility
1991-1999	8	J S S Science College, Dharwad.	Senior Lecturer	Teaching
1999-2003	4	Karnataka Science College, Dharwad.	Senior Lecturer	Teaching
2003- till date	14 th year ongoing	Department of Physics, Karnatak University Dharwad.	Professor	Teaching and Research

Research Interests

- ✓ Fluorescence Spectroscopy
- ✓ Materials science

M.Phil Guidance: 01

Ph.D Guidance : 02 Awarded
07 working.

Reviewer of the journals

- 1) Journal of Molecular Liquids-**Elsevier**.
- 2) Materials Science and Technology-**Taylor & Francis**.
- 3) Current Electrical Chemistry-**Bentham Science**.
- 4) Nanoscience & Nanotechnology-Asia-**Bentham Science**.
- 5) Materials Research Express- **IOP Publications**.
- 6) Letters in Organic Chemistry-**Bentham Science**.
- 7) Luminescence: the Journal of Biological and Chemical Luminescence-**Wiley**

Administrative services:

Membership of Professional Bodies/Association/Academy/Society

- President of PG (SC/ST) Teacher Associations Karnatak University Dharwad.
- In charge, Director- Student welfare Karnatak University Dharwad.
- Warden- Malaprabha Research Hostel, Karnatak University Dharwad.
- Coordinator, Dr. B. R. Ambedkar Studies. Karnatak University Dharwad.
- Member of PG Teacher Associations Karnatak University Dharwad.
- Member of Karnataka Vidyavaradhaksangh, Dharwad.
- Member of BOS Karnatak University Dharwad.
- Member of oral interview committee of Rani Channamma University for the selection of Teaching Assistance and Guest Faculty (2017-18).
- Member of National symposium on radiation and photochemistry (NSRP) and Trombay symposium on radiation and photochemistry (TSRP).
- Member of science and technology Karnatak University Dharwad.
- Member of Alumina association of Physics department Karnatak University Dharwad.
- Member of Alumina association of PG Teachers Karnatak University Dharwad.
- Member of Alumina association of JSS College Gokak.
- Member of Physics College Teachers association Karnatak University Dharwad.
- Member of Karnatak University College Teachers association.

Publications:

Papers published in journals

S. No	Authors	Journal name	Title, volume, year	Impact factor
1	Vani R. Desai, A.H. Sidarai , Shirajahammad M. Hunagund, M. Basanagouda, R.M. Melavanki, R.H. Fattepur, J.S. Kadadevarmath	Journal of Molecular Liquids	“Steady state absorption and fluorescence study: Estimation of ground and excited state dipole moments of newly synthesized pyridazin-3(2H)-one derivatives” Journal of Molecular Liquids. Volume 223, page no. 141-149, 2016.	6.165
2	Vani R. Desai, Shirajahammad M. Hunagund, MahanteshaBasanagouda, Jagadish S. Kadadevarmath, Ashok H. Sidarai	Journal of fluorescence	“Solvent Effects on the Electronic Absorption and Fluorescence Spectra of HNP: Estimation of Ground and Excited State Dipole Moments” Volume 26, page no. 1391-1400, 2016	2.217
3	U.P. Raghavendra, MahanteshaBasanagouda, A.H. Sidrai , J. Thipperudrappa	Journal of Molecular Liquids	“Spectroscopic investigations on the interaction of biologically active 4-aryloxymethyl coumarins with TiO ₂ nanoparticles” Volume 222, page no. 601-608, 2016	6.165
4	Shirajahammad M. Hunagund, Pradeep. Chavan, Vani. R. Desai, L. R. Naik, Jagadish. S. Kadadevarmath and Ashok H. Sidarai	International Letters of Chemistry, Physics and Astronomy	“Influence of Fe ³⁺ ion substitution on thermal and dielectric properties of titanium dioxide” Volume 67, page no. 9-13, 2016	0.876
5	Ashok H. Sidarai , Vani. R. Desai, Shirajahammad M. Hunagund, Mahantesha. Basanagouda, Jagadish. S. Kadadevarmath	International Letters of Chemistry, Physics and Astronomy	“Fluorescence quenching of DMB by aniline in benzene–acetonitrile mixture” Volume 65 page no. 32-36, 2016	0.876

6	Ashok H. Sidarai, Vani. R. Desai, Shirajahammad M. Hunagund, Mahantesha. Basanagouda and Jagadish. S. Kadadevarmath	Canadian Journal of Physics	“Effect of solvent polarity on the fluorescence quenching of TMC molecule by aniline in benzene-acetonitrile mixtures” Volume 94 page No. 1125-1132, 2016.	1.032
7	Shirajahammad M. Hunagund, Vani R. Desai, Jagadish S. Kadadevarmath, Delicia A. Barretto, Shyamkumar Vootla and Ashok H. Sidarai	RSC Advances	“Biogenic and chemogenic synthesis of TiO ₂ NPs via hydrothermal route and their antibacterial activities” Volume 6 page no. 97438-97444, 2016	3.36
8	Vighneshwar S. Bhat, Divyashree Bogar and Ashok H. Sidarai	International Journal of Engineering Research-Online	“Optimization and effect of turns in the coil on Wireless Power Transmission through induction” Vol.4, page no 33-35, 2016	1.632
9	Sumeet Birajadar, Shashikumar Barker Vandana Badiger, and Ashok H. Sidarai	International Journal of Engineering Research-Online	“Variation in the radius of coil and its influence on wireless power transmission through mutual inductance” Vol. 4, 45-47, 2016	1.632
10	Vani R. Desai, Shirajahammad M. Hunagund, Mahantesha Basanagouda, Jagadish S. Kadadevarmath, J. Thipperudrappa and Ashok H. Sidarai	Journal of Molecular Liquids	“Spectroscopic studies on newly synthesized 5-(2-hydroxy-5-methoxy-phenyl)—2H-pyridazin-3-one molecule” Vol. 225, 613-620, 2017	6.165
11	Vani R. Desai, Shirajahammad M. Hunagund, Malatesh S. Pujar, Mahantesha Basanagouda, Jagadish S. Kadadevarmath and Ashok H. Sidarai	Journal of Molecular Liquids	“Spectroscopic interactions of titanium dioxide nanoparticles with pharmacologically active 3(2H)-pyridazinone derivative” Vol. 233, page no. 166-172, 2017	6.165

12	Ashok H. Sidarai , Vani. R. Desai, Shirajahammad M. Hunagund, Mahantesha. Basanagouda, Jagadish. S. K	Journal of Solution Chemistry	“Study of fluorescence quenching on novel coumarin derivatives by aniline in different solvents” Vol. 46, page no. 1328, 2017	1.677
13	Vani R. Desai, Shirajahammad M. Hunagund, Mahantesha Basanagouda, Jagadish S. Kadadevarmath, Ashok H. Sidarai	Journal of Fluorescence	“Analysis of fluorescence quenching for newly synthesized biologically active 3(2H)-pyridazinone derivative by aniline”. Vol. 27, 1839, 2017	2.217
14	Vani R. Desai, Shirajahammad M. Hunagund, Malatesh S. Pujar, Mahantesha Basanagouda, Jagadish S. Kadadevarmath, Ashok H. Sidarai	Journal of Fluorescence	“Photophysical properties of a novel and biologically active 3(2H)-pyridazinone derivative using solvatochromic approach”. Vol. 27, 1793, 2017	2.217
15	Shirajahammad M. Hunagund, Vani R. Desai, Delicia A. Barretto, Malatesh S. Pujar, Jagadish S. Kadadevarmath, Shyamkumar Vootla and Ashok H. Sidarai	Journal of Photochemistry & Photobiology, A: Chemistry	“Photocatalysis effect of a novel green synthesis gadolinium doped titanium dioxide nanoparticles on their biological activities” Vol. 346, page no. 129, 2017	4.291
16	Ashok H. Sidarai , Vani. R. Desai, Shirajahammad M. Hunagund, Mahantesha. Basanagouda, Jagadish. S. Kadadevarmath	Journal of Fluorescence	“Study of photophysical properties on newly synthesized coumarin derivatives” vol 27, 2223, 2017.	2.217
17	Shirajahammad M. Hunagund, Vani R. Desai, Delicia A. Barretto, Jagadish S. Kadadevarmath, Shyamkumar Vootla and Ashok H. Sidarai	Advanced Science, Engineering and Medicine	“Free radical scavenging activities of thermally stable green synthesized titanium dioxide nanoparticles” . vol 9, 33, 2017	0.987

18	Vani R. Desai, Shirajahammad M. Hunagund, MahanteshaBasanagouda, Jagadish S. Kadadevarmath, Ashok H. Sidarai	Advanced Science, Engineering and Medicine	“Effect of Aniline Concentrations on Fluorescence Intensities for a Newly Synthesized Biological Active 5-(4-chloro-2-hydroxy-phenyl)-2-Phenyl-2HPyridazin- 3-OneMolecule”. vol 9, 719, 2017.	0.987
19	Vani R. Desai, Shirajahammad M. Hunagund,MahanteshaBasa nagouda, Jagadish S. Kadadevarmath, Ashok H. Sidarai	Journal of Advanced Science, Engineering and Medicine	Fluorescence Quenching of Newly Synthesized 3(2 H)-Pyridazinone Derivative 5-(2-hydroxy-naphthalen- 1-yl)-2-Phenyl-2 H -Pyridazin-3-One (HNP) Molecule by Aniline in Different Solvents Using Stern-Volmer Plots, 13, 68-73, 2017	0.987
20	Vani R. Desai, Shirajahammad M. Hunagund, Malatesh S. Pujar, MahanteshaBasanagouda, Jagadish S. Kadadevarmath, Ashok H. Sidarai	Journal of Molecular Liquids	Influence of concentrations of TiO ₂ nanoparticles on spectroscopic properties of a novel HMPP molecule. 273, 83-87, 2019. doi.org/10.1016/j.molliq.2018.09.134	6.165
21	Malatesh S. Pujar, Vani R. Desai, Shirajahammad M. Hunagund, MahanteshaBasanagouda, Jagadish S. Kadadevarmath, Ashok H. Sidarai	AIP Conference Proceedings	One-step synthesis and characterizations of cerium oxide nanoparticles in an ambient temperature via Co-precipitation method 1942(1):050026-1-050026-4doi.org/10.1063/1.5028657 (April-2018)	0.415
22.	Malatesh S. Pujar, Vani R. Desai, Shirajahammad M. Hunagund, MahanteshaBasanagouda, Jagadish S. Kadadevarmath, Ashok H. Sidarai	Advanced Materials Proceedings	Facial hydrothermal approach for the synthesis of zinc oxide Nanosheets 3(4), 184-188 doi.org/10.5185/amp.2018/019 (2018)	0.4

23.	Malatesh S. Pujar, Shirajahammad M. Hunagund, Raghavendra K. Sali, Shivaprasadgouda Patil and Ashok H. Sidarai	AIP Conference Proceedings	Effective Photo degradation of Solochrome Black using Efficient Photo catalytic Nano Ceria. 2100,020076-1-020076-5 doi.org/10.1063/1.5098630 (25 April 2019)	0.415
24.	Malatesh S. Pujar, Shirajahammad M. Hunagund, Raghavendra K. Sali, Aishwarya Nadgir and Ashok H. Sidarai	AIP Conference Proceedings	Biological and Photocatalytic Activities of ZnO NPs over Neutral red: Hydrothermal method. 2100,020075-1-020075-5 doi.org/10.1063/1.5098629 (25 April 2019)	0.415
25	Malatesh S Pujar, Shirajahammad M Hunagund, Delicia A Barretto, Vani R Desai, Shivaprasadagouda Patil, ShyamkumarVootla and Ashok Sidarai.	Bulletin of Materials Science	Synthesis of Cerium-Oxide NPs and their Surface morphology effect on biological activities. 43.24,2019. https://doi.org/10.1007/s12034-019-1962-6	1.783
26	Shivaprasadagouda Patil, Vani R. Desai, Mahanthesh M. Basanagouda, Shirajahammad M. Hunagund, Suresh M. Tuwar & Ashok H. Sidarai	Journal of Fluorescence	Estimation of Photophysical and electrochemical parameters of bioactive thiadiazole derivative. 30,741-750, 2020. https://doi.org/10.1007/s10895-020-02550-x	2.217
27	Rajaput M. Santoshakumar, Pujar S. Malatesh, Mallapa Jagadeeswar Nirupama, and Sidarai H. Ashok	AIP Conference Proceedings	Fluorescence quenching of anthracene by aniline in two solvents: S-V plot analysis. 2244,110018,2020. https://doi.org/10.1063/5.0010245	0.415
28	Shivaprasadagouda Patil, Vani R. Desai, Mahantesh Basanagouda, Malatesh S. Pujar, and Ashok H. Sidarai	AIP Conference Proceedings	Study of fluorescence quenching of Benzofuran derivative using zinc oxide NPs: Solvent effect. 2244, 070038, 2020 https://doi.org/10.1063/5.0009154	0.415
29	Raghavendra K. Sali, Malatesh S. Pujar, Aishwarya Nadgir, and Ashok H. Sidarai	AIP Conference Proceedings	Photocatalytic activities of CuO nanorod over methyl orange: Hydrothermal method. 2244, 070024, 2020, https://doi.org/10.1063/5.0009153	0.415
30	Aishwarya Nadgir, Malatesh S. Pujar, Mahantesh Basanagouda, Raghavendra K. Sali, and	AIP Conference Proceedings	Quenching efficacy of TiO ₂ on novel pyridine derivative: A photophysical investigation. 2244, 020001, 2020.	0.415

	Ashok H. Sidarai		https://doi.org/10.1063/5.0009152	
31	Aishwarya Nadgir & Malatesh S. Pujar & Vani R. Desai & Ashok H. Sidarai	Journal of Fluorescence	Re-usage of the Waste Drug as Molecular Chemosensor for Fe ³⁺ Ion: Application towards Fluorescent Ink. 30(5):1025-1033, 2020 doi: 10.1007/s10895-020-02573-4.	2.217
32	Malatesh S Pujar, Ashok H. Sidarai	Journal of Nano-And Electronic Physics	Fabrication and Interpretation of Zinc-Cerium Composite: Structural and Thermal Studies. 12(4), 04010, 2020. https://doi.org/10.21272/jnep.12(4).04010	0.68
33	Aishwarya Nadgir, Ashok H. Sidarai	Journal of Fluorescence	Photophysical Investigation of a Benzimidazole Derivative and Its Applications in Selective Detection of Fe ³⁺ , Thermosensing and Logic Gates (https://doi.org/10.1007/s10895-021-02790-5)	2.217
34	Raghavendra K. Sali, Malatesh S. Pujar, Shivaprasadagouda Patil, Ashok H. Sidarai	Advanced Materials Letters	Green Synthesis of ZnO and Ag-ZnO Nanoparticles using Macrotyloma Uniflorum: Evaluation of Antibacterial Activity	1.202

Books / Chapters

1. Title : **Spectroscopic study for a novel pyridazin-3(2H)-one derivatives.**
Authors : Vani R. Desai, Shirajahammad M. Hunagund, Mahantesha Basanagouda, **Ashok H. Sidarai**, Jagadish S. Kadadevarmath.

Year: February 2017

Publisher: LAMBERT Academic Publishing (LAP) Germany,

Editor: Aiasinschi ISBN: 978-3-330-03876-9

Papers published in conferences / seminars

1. “Fluorescence quenching of 7, 8 benzo-4-azidomethyl coumarin by aniline in benzene-acetonitrile mixture” at National symposium on radiation and photochemistry (NSRP-2007) organized by university of Madras, India.
2. “Fluorescence quenching of 5,6 benzo-4-azidomethyl coumarin by aniline in benzene-acetonitrile mixture” organized by Mahatma Gandhi University, Kottayam, Kerala, India.
3. “Fluorescence quenching of newly synthesized coumarin by aniline in toluene using steady state and transient state methods” 9thTrombay symposium on radiation and photochemistry (TSRP-2008) organized by University of Pune, India.
4. “Thermal and Elastic properties of Fe₂O₃ doped TiO₂nanopowder” in International Conference on Materials Science and Ionizing Radiation safety and Awareness, on Jan 28th-30th 2016 at Shivaji University Kolhapur, India.
5. “Estimation of dipole moments for Pyridazine dye using solvatochromic shift method”, in the 6th Asian Pacific Symposium on Radiation Chemistry (APSRC-2016), organised by BARC, Mumbai, during Jan. 5-9, 2016.
6. “Fluorescence quenching of coumarin dye by aniline in benzene acetonitrile mixture” in the 6th Asian Pacific Symposium on Radiation Chemistry (APSRC-2016), organised by BARC, Mumbai, during Jan. 5-9, 2016.
7. “Optimization and effect of turns in the coil on Wireless Power Transmission through induction” in National conference on light and its application (NLS-2016), Orgnosed by Dr. Francisco Luis Gomes district Library, Navelim, South Goa, India.

8. "Variation in the radius of coil and its influence on wireless power transmission through mutual inductance" in National conference on light and its application (NLS-2016), Organised by Dr. Francisco Luis Gomes district Library, Navelim, South Goa, India.
9. Selected for the participation and oral presented the paper entitled "One step green synthesis of TiO₂ nanoparticles using novel route and its antibacterial activities" in the Young Physicists' Colloquium for 2016 on 18 and 19 August 2016 at Saha Institute of Nuclear Physics, Kolkata, India.
10. "Study of dependence of fluorescence intensity for novel biologically active 3(2H)-pyridazinone derivative on TiO₂ Nanoparticle" in International conference on advances in nanomaterials and nanotechnology (ICANN-2016) November 4 & 5 2016 at Jamia Millia Islamia central university, New Delhi, India.
11. "Evaluation for antioxidant activities of biogenic and chemogenic synthesized TiO₂ Nanoparticles" in International conference on advances in nanomaterials and nanotechnology (ICANN-2016) November 4 & 5 2016 at Jamia Millia Islamia central university, New Delhi, India.
12. "Chemogenic synthesis and characterization of titanium dioxide nanoparticles via hydrothermal route" in DAE- BRNS 6th Interdisciplinary symposium on materials chemistry (ISMC-2016) December 06-10, 2016 at Bhabha atomic research centre Mumbai, India.
13. "Spectroscopic studies on newly synthesized BHP compound using solvatochromic Approaches" in in DAE- BRNS 6th Interdisciplinary symposium on materials chemistry (ISMC-2016) December 06-10, 2016 at Bhabha atomic research centre Mumbai, India.
14. "Analysis of fluorescence quenching of newly synthesized biologically active HMPP molecule by aniline" In Asia student photonics conference (ASPC-2016) December 12-14th, 2016, Manipal University, Manipal, India.

- 15. "Solvatochromic approaches for novel coumarin derivative"**
In Asia student photonics conference (ASPC-2016) December 12-14th, 2016, Manipal University, Manipal, India.
- 16. "Fluorescence quenching of biologically active coumarin derivative"**
In 9th annual KSTA conference, December 20 -21, 2016, Christ University, Bangaluru.
- 17. "Ground and excited state dipole moments of CHP molecule estimated using solvatochromic shift method"**
In 104th Indian Science Congress (ISC-2017), Jan 3 - 7, 2017, Sri Venkateswara University, Tirupati, India.
- 18. "Performance of series and parallel connected piezo elements on the energy harvesting: single diode and diode bridge"**
In National conference on "Science, Engineering and technology (NCSET-2017), May 2 and 3, 2017, VIT campus, Chennai.
- 19. A simple approach towards the energy generator via series and parallel connected piezo elements. In National conference on "Science, Engineering and technology (NCSET-2017), May 2 and 3, 2017, VIT campus, Chennai.**
- 20. One-step Synthesis and Characterizations of Cerium oxide Nanoparticles in an Ambient Temperature via Co-Precipitation Method. 62nd DAE SSPS-2017, BARC, MUMBAI.**
- 21. Synthesis and characterizations of Zinc oxide Nanoparticles, Nation Level Conference On Advances In Vlsi And Microelectronics, P C Jabin science college, Hubli.**
- 22. Facial hydrothermal approach for the synthesis of zinc oxide nanosheets. ICNANO, 01-03 March, 2017, VBRI, Saidabad, INDIA.**

- 23.** Determination of ground state and excited state dipole moments of DTYMC; solvatochromic shift method. 14th DAE-BRNS BIENNIAL TSRP-2018, Jan 3-7, 2018, BARC-MUMBAI.
- 24.** Analysis of photophysical properties of biologically active coumarin derivative. 14th DAE-BRNS BIENNIAL TSRP-2018, Jan 3-7, 2018, BARC-MUMBAI.
- 25.** Photophysical Study Of Benzofuron Derivative: Solvatochromic Approach. NSRP-2019 Feb 7-9, Visvabharatishantnikethan.
- 26.** A study on optical properties of pyridine derivative: solvatochromic approach, NSRP-2019 Feb 7-9, Visvabharatishantnikethan.
- 27.** Biological and photo catalytic activities of ZnO NPs over neutral red: Hydrothermal method, National conference on physics and chemistry of materials ON 27-28, Dec, 2018 at Devi Ahilya University, Indore.
- 28.** Effective Photo degradation of Solochrome Black using Efficient Photo catalytic Nano Ceria, National conference on physics and chemistry of materials ON 27-28, Dec, 2018 at Devi Ahilya University, Indore.
- 29.** Synthesis and spectroscopic investigation of copper oxide nanorods : hydrothermal method, AFMEEHC-2019 on 18-20, March, 2019 at University of Mysuru
- 30.** Sensitivity of Novel Pyridine Derivative Towards ZnO Nanoparticle: Quenching Effect, AFMEEHC-2019 on 18-20, March, 2019 at University of Mysuru

I hereby declare that the above particulars furnished by me are true to the best of my knowledge and belief.

Place: Dharwad

(Prof. Ashok H. Sidarai)