CURRICULUM VITAE

Name	:	Dr Malge Amarkumar
Father Name	:	Vijaykumar
Date of Birth	:	27/10/1992
Qualifications	:	M.Sc, Ph.D in Physics
Religion, Nationality		Hindu, Indian
Caste (Category)	:	Veerashiva Lingayat (IIIB)
Languages R/W/S	:	English, Hindi, Kannada, Telugu
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Correspondence Address (Research Supervisor)	:	Prof. T Sankarappa M.Sc, M.Phil, PhD (Bristol) Department of Physics, Gulbarga University, Kalaburagi, Karnataka , India – 585106 Cell No: 9449663636, Email: sankarappa@rediffmail.com

Height :5′6″
Weight :65 Kg

OBJECTIVE:

To evolve teaching through analytical skills and contribute to the R&D projects through experimental research.

ACADEMIC CREDENTIALS:

Course	Board / University	Percentage	Grade	YOP	Medium of study
Ph.D (Physics)	Gulbarga University, Kalburgi	85	First Class	2023	English
M.Sc (Physics)	Gulbarga University, Kalburgi	72.94	First Class	2016	English
B.Sc (PME)	Gulbarga University, Kalburgi	72.57	First Class	2014	English
PUC (Science)	Department of PU Edu., Karnataka	56	First Class	2012	English
SSLC	KSE Edu., Karnataka	76	First Class	2010	Kannada

TEACHING EXPERIENCE:

I am having a total of SIX years teaching experience at PU, Under graduate and Post graduate levels. The details are as below

UG Students (2023-24, After PhD)	:	Govt. First Grade Degree College, Chitaguppa.
PG Students (2018-20, PhD period)	:	Gulbarga University, Kalaburagi.
PU Students (2016, After M.Sc)	:	Shri Mata Manikeshwari PU College, Bidar.

ACADEMIC PROJECTS AND RESEARCH:

I have carried out the projects during my under graduate (Project 1) and post graduate (Project 2) studies. I also worked under a DST project as a Project fellow during PhD period. The details are as mentioned below.

Project 1 (UG)	:	***LPG Gas Leak Alarm*** We had built a circuit comprises a gas sensor (MQ-6), operational amplifier (LM 358) and a buzzer as major components. It is basically the combustion phenomena due to which this circuit detects the leakage of LPG gas and other harmful chemical hazards.
Project 2 (PG)	:	***Studies Of Electrical Conductivity Of Some Borate Glasses*** We had prepared the borate glasses by melt quenching. Their phase confirmations (crystalline or non-crystalline)were analyzed from XRD spectra. Two probe method of measuring conductivity was done on the samples. The variation of conductivity as a function of temperature has been analyzed and the models related to the conductivity were explored. The obtained results were submitted to the department as a report.
Project 3 (DST-SERB)	:	***Physical, Thermal, Electrical And Optical Studies Of Borotellurite Glasses Doped With Transition Metal And Nano Rare Earth Ions.*** AR grade quality chemicals, high temperature stable alumina crucibles, high precision density kit, a spectrophotometer, a spectrofluorometer and a LaserJet colour printer were the procured part of this project. Borotellurite glasses doped with alkali element Li_2CO_3, transition elements ZnO, WO_3 and rare earth Dy_2O_3 were prepared. The prepared glasses were characterized for physical, thermal, electrical and optical studies. The results were analyzed and discussed in reputed international journals. The project was successfully completed within the given duration of 3 years.

Ph.D Program	:	***Physical Properties Of Some Metal Ions Doped Low Melt Oxide Glasses*** Glasses have been prepared by following the standard melt quenching technique in the designated temperatures. Physical, structural, thermal, electrical and optical properties were investigated experimentally on borotellurite glasses having dopants of alkali, transition metal and rare earth oxides. Atomic phase confirmations were analyzed from X-ray diffraction spectra. Room temperature density in the light of Archimedes principle has been determined. The other physical and polaron related parameters have also been determined. Functional groups present in the samples were analyzed using FTIR spectra. DTA thermogram spectra helped in determining the thermal parameters (T_g, T_m and T_c). Two probe method of measuring DC conductivity was done on the samples. The variation of conductivity as a function of temperature has been analyzed and the various models relating to conductivity have also been explored. Dielectric properties of samples have been studied as a function of temperature and frequency and analyzed the data. Polarization and Relaxation processes have been explored. Also the AC conductivity has been studied as a function of temperature and frequency. Optical absorption and photoluminescence studies have been carried out with the involving models and theories. The obtained results were interpreted and the same has been written for journal publications and the thesis.

OTHER RESEARCH DETAILS:

Glasses have been my main area of research work for the doctoral award. However, I have also worked on the conducting polymers. Polymers have been prepared by chemical oxidation method using APS as an oxidant and its composites have been prepared by in situ polymerization method. The prepared polymers and its composites have been characterized and measured. The measurements includes electrical properties, dielectric properties, optical properties and characterizations includes XRD, FTIR and SEM. Pure form and its composites have been compared and the obtained results have been published in international journals.

RESEARCH SKILLS:

I learned lot as a project fellow and research student under my supervisor during research and development (R&D) programme. I'm highlighting some of them.

I can

a.	Prepare the various compositions of glasses and polymers.
b.	Write publishable way of scientific research paper.
c.	Write research proposal, manage projects and supervise the students under it.
d.	Operate the electrical High temperature furnace and Muffle furnace.
e.	Operate statistical SYSTAT 13.2 tool and graphical software Origin 9.5.
f.	Operate the Rigaku Ultima - IV XRD machine and analyze data.
g.	Construct and operate the DC conductivity experimental setup and analyze data.
h.	Operate the high resistance Danbridge DB502 unit and analyze data.
i.	Operate the impedance analyzer Wayne Kerr 6500B unit and analyze data.
j.	Operate the spectrophotometer Dynamica DB30 unit and analyze data.
k.	Operate the spectrofluorometer Cary Eclipse unit and analyze data.
l.	Operate the citation reference tools such as Mendely, Endnote and Zotero.

OTHER SKILLS AND HOBBIES:

Skills	MS Word, MS Exel, MS Powerpoint, Nudi 5.0, Software upgrade & installations
Hobbies	Browsing internet, Reading books, Playing cricket, Travelling

RESEARCH PUBLICATIONS:

1.	*Investigation of physical and spectroscopic properties of WO_3 doped zinc – lithium-dysprosium borotellurite glasses,* Amarkumar Malge, T. Sankarappa, T. Sujatha, and et al.,*Optical Materials, 109 (2020) 110282*. (Elsevier)
2.	*Structural, Dielectric and AC Conductivity of Multicomponent Borotellurite Glasses*, Amarkumar Malge, T. Sankarappa, T. Sujatha, and et al.,*Glass Physics and Chemistry,47 (2021) l, S1 – S9*. (Springer)
3.	*Effect of Dy_2O_3 on Physical, Thermal and Electrical Properties of $B_2O_3 – TeO_2 – ZnO – Li_2O – WO_3$ glasses,* Amarkumar Malge, T. Sankarappa, G. B. Devidas, and et al., *Glass Physics and Chemistry, 49 (2023) 2, 129-135.* (Springer)
4.	*Dielectric relaxation in zinc - borotellurite glasses doped with alkali, transition and rare earth oxides*, Amarkumar Malge, T.Sankarappa, G.B.Devidas, and et al., *Journal of Physics: Conference Series,1451 (2020) 012014*. (IOP)

5.	*Dielectric And Relaxation Studies in Multi Oxides Doped Borotellurite Glasses*,Amarkumar Malge, T.Sankarappa, G.B.Devidas, and et al., *IOP Conf. Series: Materials Science and Engineering,1221 (2022) 012015*. (IOP)
6.	*Polaron conduction mechanisms in (B_2O_3) - (TeO_2) - (MoO_3) - (Er_2O_3) glasses*,*Amarkumar* Malge, T Sankarappa, J S Ashwajeet, and et al.,*Journal of Physics: Conf. Series 1172 (2019) 012012.* (IOP)
7.	*Dielectric properties and AC conductivity of rare earth ions doped borotellurite glasses*,Amarkumar Malge, T. Sankarappa, T. Sujatha, and et al., *AIP Conference Proceedings 2161 (2019) 020026.* (AIP)
8.	*Study of Polaron Transport Mechanism in Rare Earth Nano Particles Doped Zinc-Molybdenum-Boro-Tellurite Glasses*, Amarkumar Malge, T. Sankarappa, T. Sujatha, and et al.,*Materials Today: Proceedings 18 (2019) 5340 – 5344.* (Elsevier)
9.	*Structural and DC conductivity studies of borotellurite glasses doped with ZnO, Li_2O and Dy_2O_3*, Amarkumar Malge, T. Sankarappa, T. Sujatha, and et al.,*Materials Today: Proceedings, 26 (2020) 1960 – 1963*. (Elsevier)
10.	*Electrical transport studies in vanado – zinc - boro - phosphate glass nano-composites*,B. Dawalappa Husenkhan, T. Sankarappa, Amarkumar Malge, and et al., *AIP Conference Proceedings 2142 (2019) 070015.* (AIP)
11.	*Dielectric and AC conductivity studies in Li_2O doped vanado – zinc – boro - phosphate glass nano composites,*B. Dawalappa Husenkhan, T. Sankarappa, Amarkumar Malge, and et al.,*AIP Conf. Proce. 2162 (2019) 020100.* (AIP)
12.	*DC Conductivity of Lithium - Zinc - Boro - Phosphate Glasses,*B. Dawalappa Husenkhan, T Sankarappa, Amarkumar Malge,*Indian Journal of Science and Technology 14, 46 (2021) 3416 – 3424.* (ISEE)
13.	*Structural, Optical Absorption and Conductivity of PIn/Co_3O_4 Composites,*B. Raghavendra, T. Sankarappa, Amarkumar Malge, *Journal of Inorganic and Organometallic Polymers and Materials 30 (2020) 3586 – 3594.* (Springer)
14.	*Dielectric properties and AC conductivity of PIn and PIn/Co_3O_4 Composites*, B. Raghavendra, T. Sankarappa, Amarkumar Malge, *Materials Today: Proceedings 46 (2021) 4014 – 4018.* (Elsevier)
15.	*Structural, Optical and Electrical Conductivity Studies in Polycarbazole and its Metal Oxide Nano Composites*, B. Raghavendra, T. Sankarappa, Amarkumar Malge, *Journal of Inorganic and Organometallic Polymers and Materials 32 (2022) 2416 – 2427.* (Springer)

16.	*Dielectric properties and ac conductivity of CuO and Fe_2O_3 doped polycarbazole nanocomposites*,B. Raghavendra, T. Sankarappa, Amarkumar Malge, *IOP Conf. Series: Materials Science and Engineering 1248 (2022) 012002.* (IOP)
17.	*Dielectric relaxation studies in WO_3 mixed lead vanadate glasses*, Mohansingh H, Sankarappa T, Amarkumar Malge,and et al., *Materials Today: Proceedings, https://doi.org/10.1016/j.matpr.2022.11.330.*(Elsevier)
18.	*Physical and electrical studies of tellurite-lead-vanadate glasses doped with CoO,*Mohansingh Heerasingh, T. Sankarappa, Amarkumar Malge, and et al., *Materials Today: Proceedings, https://doi.org/10.1016/j.matpr.2023.04.451.* (Elsevier)
19.	*Dielectric, thermal and gamma shielding characteristics of $PbO–TeO_2–V_2O_5–CoO$ glasses,* Mohansingh Heerasingh, T. Sankarappa, Amarkumar Malge, and et al., *Materials Chemistry and Physics, 307 (2023) 128200.* (Elsevier)
20.	*Gamma radiation shielding efficiency of alkali oxide doped lead vanado tellurite glasses,*Mohansingh Heerasingh, T. Sankarappa, Amarkumar Malge, and et al., *Journal of the Maharaja Sayajirao University of Baroda,*57 (2023) 1,
21.	*DC conductivity in La_2O_3 doped zinc vanadate glasses,* Ashwini Devidas, T. Sankarappa, Amarkumar Malge, and et al.,*Materials Today: Proceedings, https://doi.org/10.1016/j.matpr.2023.04.449.* (Elsevier)
22.	*Electrical and gamma ray shielding characteristics of zinc - borovanadate glasses mixed with MnO*, Ashwini Devidas, T Sankarappa, Amarkumar Malge, and et al., *Journal of the Australian Ceramic Society, 59 (2023) 391-402.* (Springer)
23.	*Gamma-ray shielding characteristics and electrical properties of Na_2O doped zinc-boro-vanadate glasses*, Ashwini Devidas, T Sankarappa, Amarkumar Malge, and et al., *Transactions of the Indian Ceramic Society, 82 (2023) 1-8.* (Taylor & Francis).
24.	*Physical and Electrical Properties of Sm_2O_3 doped Boro – Zinc – Vanadate Glasses, IOP Conf. Series: Materials Science and Engineering*(accepted for publication).(IOP)
25.	*Spectroscopic Investigations On $(B_2O_3)–(TeO_2)–(ZnO)–(Li_2CO_3)–(WO_3)–(Dy_2O_3)$ Glasses*,Amarkumar Malge, T Sankarappa, Mohansingh H, and et al., (under communication)
26.	*Dielectric Properties and AC Conductivity Of Li_2O Doped Zinc Boroposphate Glasses*, B. Dawalappa Husenkhan, T Sankarappa, Amarkumar Malge, (under communication)

PAPERS PRESENTED IN NATIONAL AND INTERNATIONAL CONFERENCES:

1.	*National Conference on Science and Technology for Inclusive Development* jointly organised by KSTA and Gulbarga University, Kalaburagi during 6th and 7th Mar – 2018.
2.	*International Conference on Applied Physics, Power and Material Science (ICAPPM)*organised by SVIT college of Engineering, Secunderabad during 5th and 6thDec – 2018.
3.	*9th International Conference on Materials Processing and Characterization (ICMPC)*organised by GRIET college of Engineering, Hyderabad during 8th to 10th Mar – 2019.
4.	*Second International Conference on Sustainable Energy Resources, Materials and Technologies (ISERMAT)*organised by SSN college of Engineering, Chennai during 14th and 15th Mar – 2019.
5.	*Second International Conference on Applied Physics, Power and Material Science (ICAPPM)* organised by SVIT college of Engineering, Secunderabad during 20th and 21st Dec – 2019.
6.	*107th Indian Science Congress (ISCA)* organised by University of Agricultural Sciences, GKVK, Bangalore during 3rd to 7th Jan – 2020.
7.	*10th International Conference on Materials Processing and Characterization (ICMPC)*organised by GLA University, Mathura during 21st to 23rd Feb – 2020.
8.	*National Seminar on Characterization Techniques of Materials (NSCTM)*organised by Acharya Nagarjuna University, Guntur during 26th and 27th Mar – 2021.
9.	*Second International Conference on Physics of Materials and Nanotechnology (ICPN)*organised by Mangalore University, Mangalore during 28th to 30th Oct – 2021.
10.	*Second Global Conference on Recent Advances in Sustainable Materials (GC-RASM)*organised by A.J Institute of Engineering and Technology, Mangalore during 28th – 29th July 2022.
11.	*International Conference on Frontier Areas of Science and Technology (ICFAST)* jointly organised by Indian JSPS Alumni Association (IJAA) and University of Hyderabad (UoH), Hyderabad during 9th and 10th Sep – 2022.

PARTICIPATION IN CONFERENCES AND WORKSHOPS:

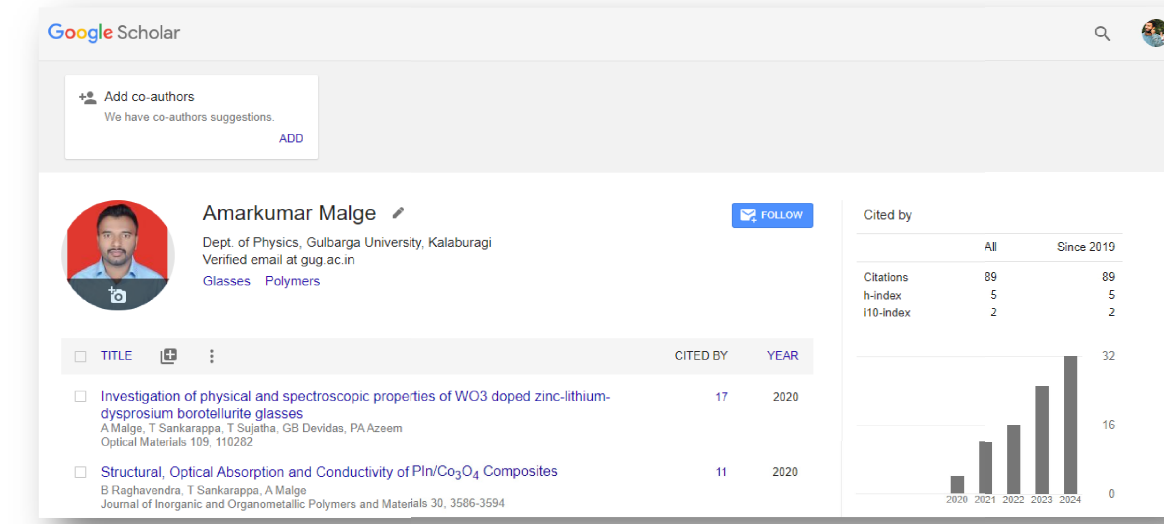
1.	*International Year of Crystallography (IYCr)* organised by Gulbarga University, Kalaburgi during 27th and 28th Mar – 2015.
2.	*International Conference on Functional Glasses (ICFG)* organised by Visvesvaraya Technological University Regional Center, Kalaburgi during 13th and 14th Nov – 2022.

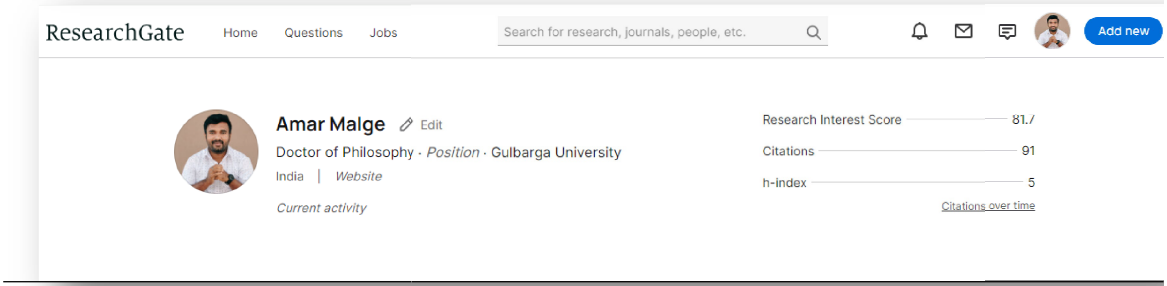
PARTICIPATION IN WEBINARS:

1.	*Recent Advancements in Thermal Analyzersfor Materials Characterization*on 24/07/2020
2.	*Physics Teaching andResearch in Universities: Challenges and Prospects*on 01/08/2020
3.	*Online Physics Education – Transition intothe Future*on 08/08/2020
4.	*An Overview of Funding Opportunities at DST* on 27/08/2020
5.	*Perspectives in Modern Physics* on 29/08/2020
6.	*Advances in Functional Materials*on 28/04/2022
7.	*Knimbus Digital Library Launch Program* on 16/07/2022
8.	*Research Data Analysis using Statistical Tool –SYSTAT 13.2*on 08/09/2022

RESEARCH PAPER CITATIONS:

I am having active accounts in Google Scholar and Research Gate. I am herewith attaching photocopies of these two accounts showing citations to my work as of now.





I hereby declared that the above information is true and correct to the best of my knowledge and belief.

– Dr Amarkumar Malge