CURRICULUM VITAE

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Brief Overview

I have done my Ph.D. degree (FULL-TIME) in Physics on topic "**Fluorescence kinetics of bismuth phosphate glasses for visible and infrared applications: Rare earths as luminescentcentres**" from Sri Venkateswara University, Tirupati. I have published more than 20 research papers in international (Scopus indexed) journals and presented papers in various national and international conferences and attended workshops. I am a life member of various national and international bodies. Apart from research, I have more than 14 years of teaching experience in dealing graduate, under graduate and post graduate courses.

Career Objective

To join a leading university as an Assistant Professor with the aim of imparting knowledge and inspiring students through innovative teaching techniques and foster quality education required for a student's development. As an Assistant Professor, where I can contribute to the university with my exceptional interpersonal, technical, communication and teaching skills.

Educational Qualifications

Qualification	***University/Board***	***Year***	***Percentage (%)***
Ph.D. (Physics)	Sri Venkateswara University, Tirupati, Andhra Pradesh, India.	***Topic:*** ***Fluorescence kinetics of bismuth phosphate glasses for visible and infrared applications: Rare earths as luminescent centres*** ***(November-2020)***	
M.Sc. (Physics)	Sri Venkateswara University, Tirupati, Andhra Pradesh, India.	April-2007	68.21
B.Sc. (Mathematics, Physics & Chemistry)	Sri Venkateswara University, Tirupati, Andhra Pradesh, India.	April-2005	67.91
Intermediate (Mathematics, Physics & Chemistry)	Board of Intermediate Education, Andhra Pradesh, India.	March-2002	77.5
SSC	Board of Secondary School Education, Andhra Pradesh, India.	March-2000	64.5

- **Qualified State Eligibility Test for Lecturership (APSET-2015).**

Research Experience

- Five years of research experience in the preparation and characterizations of several rare earth doped glasses for lasers and photonic device applications.

Awards/Fellowships

- **Research Fellowship in Science for Meritorious Students (RFSMS) scheme** for pursuing my Ph.D degree, sponsored by University Grants Commission, New Delhi, Govt. of India.

Experimental Skills

- Abbe's refractometer for refractive index measurements.
- UV-Visible-NIR absorption spectrophotometer (Jasco V-570).
- Fourier transform infrared spectrometer.

Personal Strengths

- Comprehensive Analytical Skills.
- Highly motivated, committed person with professional attitude.
- Excited by the challenge of research and experimentation.
- People friendliness and hard working.
- Work effectively and independently or a part of team with communication guidance.
- Adequate knowledge on the preparation of presentations, project proposals and reporting making.

Computer knowledge

- MS-Office
- Origin 7.0, Origin 8.5
- Programming languages: C, MatLab
- Oracle

Teaching Experience

- Working as Asst. Professor (Adhoc) in Physics in JNTUA College of Engg., Pulivendula since February 2021.
- During my Ph.D (2015 – 2020) course, as a part of utilizing the research fellowship, I had assisted the Department of Physics, Sri Venkateswara University, Tirupati, in handling the theory, tutorial and practical classes for M.Sc. Physics and Spectroscopy students.
- Worked as Asst. Professor in Physics in KORM College of Engineering, Kadapa during 2014-2015.
- Worked as Contract Lecturer in **Physics** in Govt. Polytechnic, Rayachoti during 2011-2014.
- Worked as Contract Lecturer in **Physics** in Govt. Polytechnic, Vempalli during 2008-2011.

Books Published

1. ***S. Damodaraiah,*** Fluorescence kinetics of bismuth phosphate glasses, Lambert Academic Publishing, ISBN: 978-620-4-74101-7.

Research Publications

1. **S. Damodaraiah**, R.P. Vijaya Lakshmi, Y.C. Ratnakaram, Role of bismuth content on structural and luminescence properties of Ho^{3+} doped phosphate glasses, ***Journal of Molecular Structure*** *1200 (2020) 127157*.

2. **S. Damodaraiah**, V. Reddy Prasad, R.P. Vijaya Lakshmi, Y.C. Ratnakaram Luminescence behaviour and phonon sideband analysis of europium doped Bi_2O_3 based phosphate glasses for red emitting device applications, ***Optical Materials*** 92 (2019) 352-358.

3. **S. Damodaraiah**, V. Reddy Prasad, Y.C. Ratnakaram, Investigations on spectroscopic properties of Nd^{3+} doped alkali bismuth phosphate glasses for 1.053μm laser applications, ***Optics and Laser Technology*** 113 (2019) 322-329.

4. **S. Damodaraiah**, Y.C. Ratnakaram, Energy transfer studies and neutral to warm white light generation in Dy^{3+}-Sm^{3+} co-doped bismuth phosphate glasses for lighting applications, ***Journal of Luminescence*** 207 (2019) 553-560.

5. **S. Damodaraiah**, V. Reddy Prasad, Y.C. Ratnakaram, Investigation of Green and 1.53 μm emission characteristics of Er^{3+} doped bismuth phosphate glasses for laser applications, ***Journal of Alloys and Compounds*** 741 (2018) 269-280.

6. **S. Damodaraiah**, V. Reddy Prasad, Y. C. Ratnakaram, Structural and luminescence properties of Sm^{3+}-doped bismuth phosphate glass for orange-red photonic applications, ***Luminescence*** 2018; 33:594–603.

7. **S. Damodaraiah**, V. Reddy Prasad, Y.C. Ratnakaram**,** Impact of Bi_2O_3 on structural properties and lasing effects in Nd^{3+} doped bismuth phosphate glasses at 1.053 μm emission, ***Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*** 181 (2017) 264–269.

8. **S. Damodaraiah**, V. Reddy Prasad, S. Babu, Y.C. Ratnakaram, Structural and luminescence properties of Dy^{3+} doped bismuth phosphate glasses for greenish yellow light applications, ***Optical Materials*** 67 (2017) 14-24.

9. V. Reddy Prasad, **S. Damodaraiah**, Y.C. Ratnakaram and R.P. Vijaya Lakshmi, Near-UV-excited Dy^{3+}-doped calcium borophosphate (CBP) phosphors for white LED applications, ***Indian Journal of Physics*** (2020) https://doi.org/10.1007/s12648-019-01671-9

10. B. Nagaraja Naick, **S. Damodaraiah**, V. Reddy Prasad, R.P. Vijaya Lakshmi, Y.C. Ratnakaram, Judd-Ofelt analysis and luminescence studies on Dy^{3+} -doped different phosphate glasses for white light emitting material Applications, ***Optik - International Journal for Light and Electron Optics*** *192 (2019) 162980.*

11. B. Nagaraja Naick, V. Reddy Prasad, S. **Damodaraiah**, A.V. Reddy, Y.C. Ratnakaram, Absorption and luminescence studies of Sm^{3+} ions activated in distinct phosphate glasses for reddish orange light applications, ***Optical Materials*** 88 (2019) 7-14.

12. K. Anilkumar, S. **Damodaraiah**, S. Babu, V. Reddy Prasad, Y.C. Ratnakaram, Emission spectra and energy transfer studies in Dy^{3+} and Dy^{3+}/Eu^{3+} co-doped potassium fluorophosphate glasses for white light applications, ***Journal of Luminescence*** *205 (2019) 190-196*.

13. V. Reddy Prasad, B. Haritha, **S. Damodaraiah**, Y.C. Ratnakaram, Influence of Nd^{3+} and Er^{3+} concentration on NIR luminescence properties in calcium borophosphate (CBP) phosphors, ***Infrared Physics and Technology*** 94 (2018) 184–190.

14. V. Reddy Prasad, **S. Damodaraiah**, Y.C. Ratnakaram, Optical spectroscopy and luminescence properties of Ho^{3+} doped zinc fluorophosphate (ZFP) glasses for green luminescent device applications, ***Optical Materials*** 78 (2018) 63-71.

15. V. Reddy Prasad, **S. Damodaraiah**, S.N. Devara, Y.C. Ratnakaram, Photoluminescence studies on holmium (III) and praseodymium (III) doped calcium borophosphate (CBP) phosphors, ***Journal of Molecular Structure*** 1160 (2018) 383-392.

16. Kapuluri Anil Kumar, Singarapu Babu, Vasanthapalli Reddy Prasad, **Samadam Damodaraiah**, Yadala Chenchu Ratnakaram, Spectral investigations on Eu^{3+}, Sm^{3+}-doped and Sm^{3+}/Eu^{3+} co-doped potassium-fluoro-phosphate glass emitting intense orange-red for lighting applications, ***Luminescence*** 2017; 32: 1456–1465.

17. V. Reddy Prasad, **S. Damodaraiah**, M. Seshadri, S. Babu and Y.C. Ratnakaram, Intense orange emission in Pr^{3+} and NIR emission at 1.53 μm in Er^{3+} doped zinc phosphate glasses for potential broadband optical amplifier, ***Indian Journal of Physics*** 91 (2017)

1265-1275.

18. V. Reddy Prasad, **S. Damodaraiah**, S. Babu, Y.C. Ratnakaram, Structural, optical and luminescence properties of Sm^{3+} and Eu^{3+} doped calcium borophosphate phosphors for reddish-orange and red emitting light applications, ***Journal of Luminescence*** 187 (2017) 360–367.

19. K. Anil Kumar, S. Babu, V. Reddy Prasad, **S. Damodaraiah**, Y.C. Ratnakaram, Optical response and luminescence characteristics of Sm^{3+} and Tb^{3+}/Sm^{3+} co-doped potassium-fluoro-phosphate glasses for reddish-orange lighting applications, ***Materials Research Bulletin*** 90 (2017) 31–40.

20. B. Nagaraja Naick, **S. Damodaraiah**, H. Nagabhushana & Y. C. Ratnakaram, Effect of Li, Mg and Sr on structural and photoluminescence properties of Nd^{3+} -doped phosphate glasses for laser applications, ***Phys. Chem. Glasses: Eur. J. Glass Sci. Technol. B*** 61(2), (2020) 80–90.

Conference Proceedings

1. V. Reddy Prasad, **S. Damodaraiah**, and Y. C. Ratnakaram, Energy transfer mechanism of Sm^{3+}/Eu^{3+} co-doped $2CaO\text{-}B_2O_3\text{-}P_2O_5$ phosphors, *AIP Conference Proceedings 1942, 140005 (2018)*, doi: 10.1063/1.5029136.

2. **S. Damodaraiah**, V. Reddy Prasad, and Y. C. Ratnakaram, Structural, optical and luminescence properties of Dy^{3+} doped bismuth phosphate glasses: Insights from ^{31}P MAS NMR, absorption and photoluminescence, *AIP Conference Proceedings 1832, 070012 (2017)*, doi: 10.1063/1.4980447.

3. V. Reddy Prasad, **S. Damodaraiah**, and Y. C. Ratnakaram, NIR emission at 1.53 μm in Er^{3+} doped lead free zinc phosphate glasses for potential broadband optical amplifiers, *AIP Conference Proceedings 1832, 070007 (2017)*, doi: 10.1063/1.4980442.

4. V. Reddy Prasad, **S. Damodaraiah**, S. Babu, Y.C. Ratnakaram, Spectroscopic investigation of Nd^{3+} doped zinc phosphate glasses for NIR emission at 1.05 μm, *Materials Today: Proceedings 3 (2016) 3805–3809*.

Participated and Papers Presented at National & International Conferences

1. **S. Damodaraiah**, Fluorescence kinetics of bismuth phosphate glasses for visible and infrared applications: rare earths as luminescent centres, National Laser Symposium (NLS-28), 8-11 January 2020, VIT, Chennai. **(Thesis presentation)**

2. **S. Damodaraiah**, Y.C. Ratnakaram Energy transfer studies in Dy^{3+}/Sm^{3+} co-doped bismuth phosphate glasses for white light applications, National Laser Symposium (NLS-27), 3-6 Dec. 2018, RRCAT, Indore.

3. **S. Damodaraiah,** Y.C. Ratnakaram, Nd^{3+} doped bismuth phosphate glasses for 1.06 μm solid state laser applications, International Conference on Science, Technology and Applications of Rare Earths. (ICSTAR-2018), 23-25 Sept. 2018, Tirupati.

4. **S. Damodaraiah,** V. Reddy Prasad, Y.C. Ratnakaram, Investigation of 1.53μm emission characteristics of Er^{3+} doped bismuth phosphate glasses for laser applications, National Laser Symposium (NLS-26), 20-23 Dec. 2017, BARC, Mumbai.

5. **S. Damodaraiah,** V. Reddy Prasad, Y.C. Ratnakaram, Investigation of Green Luminescence Applications of Er^{3+} doped Bismuth Phosphate Glasses, International Conference on Recent Advances in Applied Physics (ICRAAP-2017), 21st & 22nd Sept. 2017, Annamalai University, Chidambaram.

6. **S. Damodaraiah**, Attended and Participated in 104th Indian Science Congress, January 3-7, 2017, Sri Venakteswara University, Tirupati.

7. **S. Damodaraiah,** V. Reddy Prasad, Y.C. Ratnakaram, Structural, Optical and Luminescence Properties of Dy^{3+} Doped Bismuth Phosphate glasses: Insights from ^{31}P MAS NMR, Absorption and Photoluminescence, Solid State Physics Symposium (SSPS-2016), 25-30 Dec, 2016, KIIT, Bhubaneswar, Odisa.

8. **S. Damodaraiah,** S. Babu, V. Reddy Prasad, Y.C. Ratnakaram, Investigation of Luminescence of Dy^{3+} doped Bismuth Phosphate Glasses for Yellow Laser Emission, National Laser Symposium (NLS-25), 20-23 Dec, 2016, KIIT, Bhubaneswar, Odisa.

9. **S. Damodaraiah,** V. Reddy Prasad, S. Babu, Y.C. Ratnakaram, Structural , Spectroscopic Properties of Nd^{3+} Doped Bismuth Phosphate Glasses for Laser Applications, Asia Student Photonics Conference 2016, 12-14 Dec, 2016, Manipal

University, Udupi.

10. V. Reddy Prasad, **S. Damodaraiah**, Y.C. Ratnakaram, Concentration effect on NIR luminescence behaviour of Nd^{3+} doped calcium borophosphate (CBP) phosphors, International Conference on Science, Technology and Applications of Rare Earths. (ICSTAR-2018), 23-25 Sept. 2018, Tirupati.
11. Haritha, **S. Damodaraiah,** V. Reddy Prasad, Y.C. Ratnakaram, Spectroscopic investigations of Er3+ doped in different multi component phosphate glasses, National Conference on Materials for Energy and Environment - Its Development and Applications (NCMfEE-2018), 29-30 April 2018 Osmania University, Hyderabad.
12. Haritha, **S. Damodaraiah,** V. Reddy Prasad, Y.C. Ratnakaram, Emission properties of Ho^{3+} doped different phosphate glasses for 2 μm laser materials, National Conference on Materials for Energy and Environment - Its Development and Applications (NCMfEE-2018), 29-30 April 2018, Osmania University, Hyderabad.
13. V. Reddy Prasad, **S. Damodaraiah,** Y.C. Ratnakaram Luminescence properties of Pr^{3+} doped calcium borophosphate (CBP) phosphors, National Conference on Materials for Energy and Environment - Its Development and Applications (NCMfEE-2018), 29-30 April, 2018, Osmania University, Hyderabad.
14. V. Reddy Prasad, **S. Damodaraiah**, Y.C. Ratnakaram, Energy transfer mechanism of Sm^{3+}/Eu^{3+} co-doped $2CaO\text{-}B_2O_3\text{-}P_2O_5$ (CBP) phosphor, 62nd DAE Solid State Physics Symposium (DAE-SSPS 2017), 25-30 Dec. 2017, BARC, Mumbai.
15. V. Reddy Prasad, **S. Damodaraiah,** Y.C. Ratnakaram, Luminescence studies on Ho^{3+} doped calcium borophosphate (CBP) phosphors, International conference on Advanced Materials,14-15 Dec. 2017, St. Joseph's college, Tiruchirapalli, Tamilnadu.
16. V. Reddy Prasad, **S. Damodaraiah,** Y.C. Ratnakaram, NIR emission at 1.53 μm in Er^{3+} doped lead free zinc phosphate glasses for potential broadband optical amplifiers, Solid State Physics Symposium (SSPS-2016), 25-30 Dec, 2016, KIIT, Bhubaneswar, Odisa.
17. V. Reddy Prasad, **S. Damodaraiah,** Y.C. Ratnakaram, Effect of Pr^{3+} concentration on luminescence properties in lead free zinc phosphate glasses, National Laser Symposium (NLS-25), 20-23 Dec, 2016, KIIT, Bhubaneswar, Odisa.
18. V. Reddy Prasad, **S. Damodaraiah,** S. Babu, Y.C. Ratnakaram, Reddish-orange and red

emitting light light of Sm^{3+} and Eu^{3+} calcium borophosphate phosphors prepared my solid state reaction method, Asia Student Photonics Conference 2016, 12-14 Dec, 2016, Manipal University, Udupi.

19. K. Anil Kumar, **S. Damodaraiah,** S. Babu, V. Reddy Prasad, Y.C. Ratnakaram, Concentration Quenching and Cross-relaxation Channels in Eu^{3+} Doped Red Emitting Potassium Phosphate Glasses as Optical Materials, 2nd Andhra Pradesh Science Congress [APSC-2016], 7-9 Nov. 2016, P.B. Siddhartha College, Vijayawada.

Workshops Attended

1. National Workshop on NMR spectroscopy, 3-5 August 2018, CSIR-CLRI, Chennai.
2. Diffraction and other Characterization Techniques in Materials Science, 12-13 April 2017, Kakatiya University, Warangal.
3. BTNT 2016 Oxford Instruments Nanotechnology, 22-23 November 2016, IISC, Bangalore.
4. Initiating Change & Dialogue within the SVU Community to Improve Research & Development, 28-29 June 2016, Sri Venkateswara University, Tirupati.
5. Smart Materials-Applications & Characterizations, 27th April 2016, Vellore Institute of Technology, Vellore.
6. Spectroscopic Techniques and Applications in Material characterization (STAMC-2016), 15-17 February 2016, Sri Venkateswara University, Tirupati.

Membership of National and International bodies

- Indian Science Congress Association (ISCA)
- Rare earth Association of India (REAI)
- Indian Laser Association (ILA)

Personal Details

Name	:	S. Damodaraiah
Father's Name	:	S. Ramaiah
Date of Birth	:	2nd April 1985
Nationality	:	Indian
Marital status	:	Married
Languages known	:	Telugu, Hindi and English
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DECLARATION

I hereby solemnly affirm that all the above details provided are true to the best of my knowledge.

Place : Pulivendula

S. Damodaraiah

(S. DAMODARAIAH)