

**NAGAVARAPU NARASIMHA RAO****Department of Physics**

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**PERSONAL PROFILE**

- Name : NAGAVARAPU NARASIMHA RAO
- Father's Name : PEETHAMBARA RAO
- Phone No : 9908454641
- Date of Birth : April 04, 1984
- Marital Status : Married
- Languages known : English, Telugu
- Nationality : Indian

<b>COURSE</b>	<b>YEAR</b>	<b>UNIVERSITY/ BOARD</b>	<b>COLLEGE/ INSTITUTION</b>	<b>PERCENTAGE</b>
Ph.D	2012	Nagarjuna University Guntur	A.N.U .P.G Center Nuzvid	Awarded
M.Phil	2010	Nagarjuna University Guntur	A.N.U .P.G Center Nuzvid	'A' Grade
M.Sc	2007	Nagarjuna University Guntur	A.N.U .P.G Center Nuzvid	75.75
B.Sc (computers)	2004	Nagarjuna University Guntur	Immaculate Degree college Kanchikacherla	70.77

## **Area of Research: Physics/Materials Science/ Glasses and Ceramics**

Synthesis of glasses / glass ceramics by melt-quenching technique and characterizing them by DSC, XRD and SEM followed by Dielectric measurements (viz., constant, loss and ac conductivity as a function of temperature and frequency) along with a few Spectroscopic properties such as Optical absorption, ESR, FTIR, Raman, Fluorescence spectra and Nonlinear optical properties of glasses etc.,

**Research experience:** 12 years

- **Research activities:** Worked as a Research Fellow in a Major Research Project sponsored by University Grants Commission (UGC), Govt. of India, From 2010.
- Number of papers published : 15
- Conferences attended : 34

### **Research activities/Abilities of Applicant:**

- The applicant is well versed in developing, characterization and the studies on different physical properties of a variety of glasses and glass ceramics.
- Ph. D on TeO<sub>2</sub> based glasses ceramics. As it is evident from the Publications, M.Phil on P<sub>2</sub>O<sub>5</sub> based glasses.
- Capable of handling various sophisticated equipment LCR meters for measuring dielectric properties, optical absorption, and luminescence and IR spectrophotometers.

### **Teaching Experience:**

- Worked as Lecturer in Physics at Immaculate Jr. & Degree College, Kanchikacherla for a period of 2007 to 2008.
- Worked as Guest Faculty in the Department of Physics, A.N.U Nuzvid Campus, for a period of 2009 to 2010.
- Worked as Guest Faculty in the Department of Physics, K.R.U. Dr. M.R.A.R. PG Centre, Nuzvid, for a period of 2012 to 2018.
- Currently working as Academic Consultant in the Department of Physics, K.R.U. Dr. M.R.A.R. PG Centre, Nuzvid (Since 2018-19).

## Publications

1. DC field induced optical effects in  $\text{ZnF}_2\text{-PbO-TeO}_2\text{:TiO}_2$  glass ceramics.  
**N. Narasimha Rao**, I. V. Kityk, V. Ravi Kumar, Ch. Srinivasa Rao, M. Piasecki, P. Bragiel and N. Veeraiah,  
*Ceramics International* 38 (2012) 2551-2562.
2. Piezoelectric and elastic properties of  $\text{ZnF}_2\text{-PbO-TeO}_2\text{:TiO}_2$  glass ceramics.  
**N. Narasimha Rao**, I. V. Kityk, V. Ravi Kumar, P. Raghava Rao, B.V. Raghavaiah,  
P. Czaja, P. Rakus and N. Veeraiah  
*Journal of Non-Crystalline Solids*, 358 (2012) 702–710.
3. Physical properties of  $\text{ZnF}_2\text{-PbO-TeO}_2\text{:TiO}_2$  glass ceramics–Part III Dielectric dispersion and ac conduction phenomena.  
**N. Narasimha Rao**, L. Pavić, A. Moguš-Milanković, V. Ravi Kumar, I.V. Kityk and N. Veeraiah  
*Ceramics International* 40 (2014)5989-5996.
4. Influence of silver ions on some physical properties of  $\text{CaF}_2\text{-MoO}_3\text{-P}_2\text{O}_5$  glasses.  
**N. Narasimha Rao** and V. Ravi Kumar  
*ANU. J. Phy.sci 1 (2009)52*
5. Low temperature dielectric dispersion and electrical conductivity studies on  $\text{Fe}_2\text{O}_3$  mixed lithium yttrium silicate glasses  
N. Ch. Ramesh Babu, M. A. Valente, **N. Narasimha Rao**, M.P.F. Graça, G. Naga Raju, M. Piasecki, I. V. Kityk and N. Veeraiah  
*Journal of Non-Crystalline Solids*, 358 (2012)3175.
6. Influence of valence and coordination of manganese ions on spectral and dielectric features of  $\text{Na}_2\text{SO}_4\text{-B}_2\text{O}_3\text{-P}_2\text{O}_5$  glasses.  
A.V. Ravi Kumar, Ch. Srinivasa Rao, **N. Narasimha Rao**, V. Ravi Kumar, I.V. Kityk and **N. Veeraiah**,  
*Journal of Non-Crystalline Solids*, 358 (2012)1278.
7. The structural influence of aluminium ions on emission characteristics of  $\text{Sm}^{3+}$  ions in lead aluminium silicate glass system.  
K. Bhargavi, M. Srinivasa Reddy, P. Raghava Rao, **N. Narasimha Rao**, M. Sundara Rao, V. Ravi Kumar and N. Veeraiah,  
*Materials Research Bulletin*, 47 (2012) 267-273.

8. The influence of nickel ions on spectroscopic and magnetic properties of PbO– Bi<sub>2</sub>O<sub>3</sub>– B<sub>2</sub>O<sub>3</sub> glass system,  
T. Satyanarayana, P. Venkateswara Rao, **N. Narasimha Rao**, M. Rambabu and V. Ravi Kumar,  
*IOP Conf. Series: Materials Science and Engineering*. 2(2009) 012033.
9. On some physical properties of TiO<sub>2</sub> mixed lead tellurite glass ceramics  
V. Ravi Kumar\*, **N. Narasimha Rao** and P. Raghava Rao  
*INTERNATIONAL JOURNAL OF LUMINESCENCE AND ITS APPLICATIONS* 32 (2013) ISSN No. 2277 – 6362
10. Effect of Doping Ti<sup>3+</sup> Ions on Spectroscopic Behavior of Lead Bismuth Phosphate Glasses  
V. Ravi Kumar, G. Naga Raju, S.V.G.V.A.Prasad, P. Raghava Rao, **N. Narasimha Rao**  
*International Journal of Science and Research (IJSR) ISSN (Online): 2319-7064*  
*Paper ID: ATOM-201405*
11. Influence of Mo<sup>5+</sup> ions on spectroscopic properties of PbO–ZnF<sub>2</sub>–P<sub>2</sub>O<sub>5</sub> glass system  
P. Venkateswara Rao, G. Naga Raju, P. Raghava Rao, **N. Narasimha Rao**, P. SyamPrasad  
*Karbala International Journal of Modern Science 1 (2015) 101e109*
12. Spectroscopic and physical properties of erbium doped Li<sub>2</sub>O–BaO–P<sub>2</sub>O<sub>5</sub> glasses  
N.Ch. Ramesh Babu\*, P. Raghava Rao, **N. Narasimha Rao**, B.J.R.S.N. Swami, M. Vasu Babu, G. Naga Raju, N. Veeraiah  
*Materials Today: Proceedings 5 (2018) 26314–26321*
13. Renewable energy sources – Natural resource management  
P. Raghava Rao, **N. Narasimha Rao**, B.J.R.S.N. Swami, A. Chittibabu, K. Kumara raja  
*Research review international journal of multidisciplinary, ISSN:2455-3085*
14. Influence of silver ions on dielectric properties of CaF<sub>2</sub>–MoO<sub>3</sub>–P<sub>2</sub>O<sub>5</sub> glasses.  
**N. Narasimha Rao**, P. Raghava Rao, B.J.R.S.N. Swamy and V. Ravi Kumar  
*Recent advances in Material science (conference proceedings) ISBN: 9789387769519*
15. *Dielectric properties of* PbO–B<sub>2</sub>O<sub>3</sub>–Bi<sub>2</sub>O<sub>3</sub> glasses doped with V<sub>2</sub>O<sub>5</sub>  
P. Raghava Rao, **N. Narasimha Rao**, B.J.R.S.N. Swamy, N.Ch. Ramesh Babu and V. N. Veeraiah  
*Recent advances in Material science (conference proceedings) ISBN: 9789387769519*

## Conferences/Seminars/ Workshops attended

1. National Symposium on Science and Technology of Glass and Glass-Ceramics (NSGC-2008), October 13-17<sup>th</sup>, 2008, BARC, Mumbai.  
*Nickel ion as a structural probe in PbO – Al<sub>2</sub>O<sub>3</sub> -B<sub>2</sub>O<sub>3</sub> glass system by means of spectroscopic and dielectric studies*  
V. Ravi Kumar and **N.Narasimha Rao**
2. International Seminar on Science and Technology of Glass Materials (ISSTGM-2009), March 16-19<sup>th</sup>, 2009, Department of Physics, Acharya Nagarjuna University Campus, Guntur.  
*The influence of nickel ions on spectroscopic and magnetic properties of PbO- Bi<sub>2</sub>O<sub>3</sub>- B<sub>2</sub>O<sub>3</sub> glass system*  
T. Satyanarayana, P. Venkateswara Rao, **N. Narasimha Rao**, M.Rambabu and V. Ravi Kumar
3. National Seminar on Physics and Chemistry of Materials (NSPCM-2009), July 30-31<sup>st</sup>, 2009, Department of Physics and Chemistry, S.V.R.M. College, Nagaram.  
*Influence of Copper ions on some physical properties of lead bismuth arsenate glasses*  
T. Satyanarayana, V. Ravi Kumar, **N. Narasimha Rao**, P. Raghava Rao, M. Nagarjuna, N. Srinivasa Rao M.V. Ramachandra Rao and N. Veeraiah.
4. National Seminar on Nano Materials & Their Applications (NSNMA-2009), December 10-11<sup>th</sup>, 2009, Department of Physics, Dharma Apparao College, Nuzvid.  
*Titanium oxide as a crystallizing agent in lead arsenate glasses*  
G. Nagarjuna, T. Satyanarayana, V. Ravi Kumar, **N. Narasimha Rao**, P.V.V. Satyanarayana
5. National Seminar on Advanced materials for Display and other application, May 31- June 1<sup>st</sup>, 2010, Department of Physics V.S.R. & N.V.R. College, Tenali, India,
6. UGC sponsored national seminar on novel materials for display applications, October 28&29<sup>th</sup>, 2010, Department of Physics, S.V.R.M. College, Nagaram,
7. International Conference on Multi Functional Materials (ICMM-2010), December 07-09<sup>th</sup>, 2010, Department of Physics, Banaras Hindu University, Varanasi.  
*Influence of modifier ions on emission characteristics of Tm<sup>3+</sup> ions in aluminium phosphate glasses*  
V. Ravi Kumar, **N. Narasimha Rao** and O. Nagabushanam
8. National Conference on Luminescence and its Applications (NCLA-2011), February 7-9<sup>th</sup>, 2011, Department of Physics, Pt. Ravishankar Shukla University, Raipur.  
*Fluorescence features of Sm<sup>3+</sup> ions in Na<sub>2</sub>SO<sub>4</sub>-MO-P<sub>2</sub>O<sub>5</sub> glass system – influence of modifier oxide*  
M. Nagarjuna, P. Raghava Rao and **N. Narasimha Rao**

9. Theme Meeting on Laser Glass Science & Technology, March 1<sup>st</sup>&2<sup>nd</sup>, 2011, Srivenkateswara University, Tirupati.
10. International Conference on specialty Glass and Optical fiber: Materials, Technology & Devices (ICGF-2011), August 4-6<sup>th</sup>, 2011, CGCRI, Kolkata  
*Influence of silver ions on some physical properties of CaF<sub>2</sub>-MoO<sub>3</sub>-P<sub>2</sub>O<sub>5</sub> glass System.*  
**N. Narasimha Rao**, N. Krishna Mohan and V. Ravi Kumar
11. Two day National seminar on recent trends in advanced materials, January 27 – 28<sup>th</sup>, 2012, Department of Physics, Sir. CRR College, Eluru.
12. Two day National workshop on fundamentals and applications of Nano Materials, March 30-31<sup>st</sup>, 2012, Acharya Nagarjuna University, Guntur.
13. Intellectual Property and Innovation Management in Knowledge Era ( NRDC, New Delhi), February 5<sup>th</sup>, 2013, Krishna University Nuzvid.
14. National seminar on on chemistry our life,our future(CLF-2011),December 29<sup>th</sup>, 2011, KRU PG Centre Nuzvid.
15. National seminar on Multifunctional Materials (NSMFM), March 6-7<sup>th</sup>, 2013, Department of Physics, Andhra Loyola College, Vijayawada.
16. Recent trends in surface science and technology (RTSSN-2013), November 30-31<sup>st</sup> 2013. Vijayawada.
17. Work shop on condensed matter physics & Embedded systems, Deember 17<sup>th</sup>, 2013, Vijayawada.
18. UGC Sponsored national workshop on green chemistry its need and role in our society, February 10-11, 2014, Department of Physics, Dharma Apparao College, Nuzvid.
19. Recent trends in material science, February 22<sup>nd</sup> 2014 Department of Physics Kakinada
20. Two day workshop on advances in material processing, March 28-29<sup>th</sup> 2014, Acharya Nagarjuna University, Guntur
21. NUGC Sponsored national seminar on development of advanced materials in physics & Electronics and their applications. October 15-16<sup>th</sup>, 2014
22. National conference on advanced technology oriented materials (ATOM-2014). December 8-9<sup>th</sup>, 2014.
23. International seminar on glass and other functional materials (ISGFM-14). December 11-13<sup>th</sup>, 2014, Department of physics Acharya Nagarjuna University, Guntur.
24. UGC Sponsored two day national conference on Emerging frontiers of material science, February 12- 13<sup>th</sup>, 2015.

25. Emerging technologies in physics teaching and training (ETPTT-2015). August 7- 8<sup>th</sup> 2015. Department of Physics and Chemistry, S.V.R.M. College, Nagaram
26. National seminar on recent trends in applied physics, December 16- 17<sup>th</sup>, 2015
27. Recent trends in Material science, Nano science and Nanotechnology, 3-4<sup>th</sup> January Siddhartha degree College, Vuyyuru,
28. UGC sponsored national seminar on recent advances in material science 14<sup>th</sup> February 2019, JKC College Guntur.  
Influence of silver ions on dielectric properties of  $\text{CaF}_2\text{-MoO}_3\text{-P}_2\text{O}_5$  glasses.
29. Two day national seminar on materials for societal advancement with emphasis on health and energy, 22 – 23 rd February 2017, PB Siddhartha College Vijayawada.
30. National seminar physics and Chemistry of Nano crystalline materials 1- 2<sup>nd</sup> December 2017, KVR College Nandigama  
Spectroscopic and physical properties of erbium doped  $\text{Li}_2\text{O-BaO-P}_2\text{O}_5$  glasses
31. National Conference on Luminescence and applications ( NCLA 14-16<sup>th</sup> February 2018), Thiruvananthapuram.  
Optical absorption and Luminescence properties of  $\text{Li}_2\text{O-BaO-P}_2\text{O}_5$  glasses doped with  $\text{Ho}^{3+}$  ions
32. UGC sponsored national seminar on optical characterization Techniques (NSOCT 19) 28<sup>th</sup> march 2019 Andhra Loyola College Vijayawada.
33. Integrating Science and technology for global sustainability 9-11<sup>th</sup> November 2018
34. One day faculty development program organized by (NAIPUNYA) 15<sup>TH</sup> November 2019, Ramachandra College of engineering Eluru.

**DECLARATION:**

I hereby declare that the information furnished above is true to the best of my knowledge.

Date:

Place:

(N. Narasimha Rao)