# Dr M Chandra Shekhar Reddy

## Personal Information



Designation: Associate Professor & HOD (H&S) Qualification: Ph.D (Physics) Experience: 20 Years Specialization: Physics Date of Joining: 30/09/2013 Phone Numbers: 9885998825 Emai-Id: mcsreddy@cmrcet.org

#### Achievements/Publications/Workshops/Seminar/Guest Lectures

### **Publication**

- Emission characteristics of Dy<sup>3+</sup> ions in lead antimony borate glasses M. Chandra Shekhar Reddy, B. Appa Rao, M.G. Brik, A. Prabhakar Reddy, P. Raghava Rao, C.K.Jayasankar, N.Veeraiah Applied Physics B, Lasers and Optics 108 (2012) 455.
- Spectroscopic studies of lead antimony borate glasses doped with erbium ions M. Chandra Shekhar Reddy, K. Krishna Murthy Goud, P. Dharmaiah and B. Appa Rao, AIP conference proceedings 1536 (2013) 755. (International Conference on Recent Trends in Applied Physics & Material Science, 01-02 February 2013).

- Luminescence studies of lead antimony borate glasses doped with rare earth ions. B.Apparao and M.Chandra Shekhar Reddy, International Journal of Luminescence and Applications, 32 (Spl issue III) 2013. ISSN: 2277-6362. (Proceedings of the National Seminar on Multifunctional Material 6<sup>th</sup> and 7<sup>th</sup> March, 2013)
- Optical and ESR Studies of Lead Antimony Borate Glasses Doped with V<sub>2</sub>O<sub>5</sub>, M.Chandra Shekhar Reddy, E.Ramesh Kumar, B.Appa Rao, International Journal of Scientific & Engineering Research, Volume 5, Issue 3, March-2014, ISSN 2229-5518.
- Optical absorption and fluorescence properties of Er<sup>3+</sup> / Yb<sup>3+</sup> codoped lead bismuth alumina borate glasses. K. Krishna Murthy Goud, M. Chandra Shekhar Reddy, and B. Appa Rao, AIP Conference Proceedings 1591, 828 (2014).
- 6. Upconversion luminescence in Er3+/ Yb3+ co-doped lead bismuth indium glasses, Y Raja Rao, K Krishnamurthy Goud, E Ramesh Kumar, M Chandra Shekhar Reddy, B Appa Rao, International Journal of Recent Development in Engineering and Technology. Volume 3, Issue 1, July 2014), (ISSN 2347-6435(Online)
- 7. Optical studies of rare earths doped lead bismuth alumina borate glasses, K. Krishna Murthy Goud, M.Chandra Shekhar Reddy and B.

Appa Rao, International Journal of Innovative Research in Science, Engineering and Technology

- Luminescence properties of Tm<sup>3+</sup>/Yb<sup>3+</sup> codoped lead alumina bismuth borate glasses, K. Krishna Murthy Goud, M. Chandra Shekhar Reddy, and B. Appa Rao, AIP Conference Proceedings 1731, 070045 (2016).
- Intense upconversion fluorescence in Tm<sup>3+</sup>/Yb<sup>3+</sup> codoped alumina lead borate glasses., K Krishna Murthy Goud, M ChandraShekhar Reddy and B Appa Rao, IOP Conf. Series: Materials Science and Engineering 149 (2016) 012184.
- Lasing transitions of Nd<sup>3+</sup> ions in lead antimony borate glasses, B Appa Rao and M ChandraShekhar Reddy, Phys. Chem. Glasses: Eur. J. Glass Sci. Technol. B, April 2016, 57 (2), 59–67
- Physical and Optical Properties of PbO-Sb<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub> Glasses Doped with Gd<sub>2</sub>O<sub>3</sub>, Science Direct, Materials Today: Proceedings 3 (2016) 3970–3975

## List of Conferences / Seminars attended (National/ International).

1. International Conference on "*Specialty Glass & Optical Fibers* (*ICGF-2011*)", Kolkatha, August 4-6, 2011. The following papers are presented in the conference.

a) "Spectroscopic Properties of Lead Antimony Borate Glasses Doped with Dysprosium Oxide, M.Chandra Shekhar Reddy, K.Krishna Murthy Goud, A. Prabhakar Reddy, Manjula Devi and B. Appa Rao.

b) "Optical Properties of Rare Earth Doped  $Pb_3O_4$ - $Al_2O_3$ - $B_2O_3$ - $Yb_2O_3$ - $Tm_2O_3$  Glasses", K.Krishna Murthy Goud, M.Chandra Shekhar Reddy, A.Prabhakar Reddy, B. Appa Rao.

- International Conference on "*Recent Trends in Applied Physics & Material Science*", Government College of Engineering & Technology, Bikaner, Rajastan01-02 February 2013. Spectroscopic studies of lead antimony borate glasses doped with erbium ions M. Chandra Shekhar Reddy, K. Krishna Murthy Goud, P. Dharmaiah and B. Appa Rao, AIP conference proceedings 1536 (2013) 755.
- 3. National Seminar on "Advanced Materials and their Applications (NSAM-2013)" 27<sup>th</sup> and 28<sup>th</sup> February 2013, Department of Physics, Osmania University, "Influence of titanium ions on optical properties of alumina borate glasses", A.Prabhakar Reddy, M.Chandra Shekhar Reddy, M.Srinivas and B.Apparao.
- 4. National Seminar on "Multifunctional Materials (NSMFM-2013)", 6<sup>th</sup> and 7<sup>th</sup> March 2013, Department of Physics, Andhra Layola College (Autonomous), Vijayawada, Andhra Pradesh. Luminescence studies of lead antimony borate glasses doped with rare earth ions.

B.Apparao and M.Chandra Shekhar Reddy (The paper is published, International Journal of Luminescence and Applications, 32 (Spl. issue III) 2013. ISSN: 2277-6362 as Conference Proceedings)

- 5. International Conference on "*Recent Trends in Nano, Bio and Material Science (ICONBMS-2014)*"  $8^{th} - 10^{th}$  January, 2014, Department of Physics, Nizam College (autonomous), Osmania University, Hyderabad. "*White light emission from Dy*<sup>3+</sup> *doped PbO-Sb*<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub> glasses".
- 6. International Conference on Recent Advances in Physics for Interdisciplinary developments (ICRAPID -2014) 23<sup>rd</sup> and 24<sup>th</sup> January 2014, Satyabama University, Chennai in association with CNSNT, Chennai. The following papers are presented in the conference.
  - a) "Spectroscopic studies of vanadium doped lead antimony borate glasses"

b) "Spectroscopic studies of titanium ions in lithium gallium borate glasses"

c) "Spectroscopic properties of  $Tm^{3+/}Yb^{3+}$  codoped lead alumina bismuth borate glasses"

- National conference on Advanced Materials for Energy Applications (NCAMEA-2014) 31<sup>st</sup> January and 1<sup>st</sup> February 2014, Osmania University, Hyderabad.
  - *a)* "Luminescence and optical absorption properties of Nd<sup>3+</sup> doped lead antimony borate glasses".
  - b)Optical properties and up conversion luminescence in  $Tm^{3+}/Yb^{3+}$ co-doped lead alumina bismuth borate glasses
- International Conference on Borate and Phospahte Glasses, Jun 30 July 4, 2014, Pardubice in the Czech Republic.
  - a) Specific features of  ${}^{4}F_{3/2} \rightarrow {}^{4}I_{11/2}$  (1.06µm) lasing transition of Nd<sup>3+</sup> ions in antimony borate glasses.
- International seminar on glasses and other functional materials (ISGFM), 11-13, December, 2014., Acharya Nagarjuna University, Guntur
  - a) White light emission from Dy<sup>3+</sup> doped lead antimony borate glasses
  - b)Spectroscopic properties of  $Tm^{3+}/Yb^{3+}$  codoped lead alumina bismuth borate glasses
- International conference on "Emerging Areas of Research in Renewable Energy Resources and Electronics in India (NCEREE-2015)", Mahatma Gandhi University.

- a) FTIR and Optical Absorption Properties of Nd<sup>3+</sup> Doped Lead Antimony Borate Glasses
- International Conference on Materials Research and Applications (ICMRA-2016), 11-13 March, Physical and Optical Properties of PbO-Sb<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub> Glasses Doped with Gd<sub>2</sub>O<sub>3</sub>.
- National conference on Environmental radiation and functional materials (NCERF 2015), Department of Physics, Osmania University, February 28-March 01, 2015,
  - a) FTIR spectroscopy and Optical Absorption Properties of Gd<sup>3+</sup> Doped Lead Antimony Borate Glasses
  - b) Upconversion fluorescence in Er3+/Yb3+ codoped lead bismuth gallium borate glasses.
- 13. National Seminar on Multifunctional Materials and their Applications (NSMMA-2016)" 29<sup>th</sup> and 30<sup>th</sup> March, 2016
  - a) CIE Chromatic coordinates of dysprosium doped lead antimony borate glasses.
  - b) Effect of Yb<sup>3+</sup> on the spectroscopic properties in Yb<sup>3+</sup>/ Tm<sup>3+</sup> codoped alumina lead borate glasses.

### **Achievements**

1.

2

3

## **Workshops**

- 1. Refresher Courses, May 2006
- 2. Refresher Courses, July 2009
- 3 weeks JNTUH, Hyderabad
- 3 weeks JNTUH, Hyderabad