

## Dr. MANJUNATHA S O

Asst. Prof., Dept. of Physics,  
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### Education and Research

October 2011 - February 2016	Ph.D, Manipal University, Manipal, Karnataka, India. <b>Thesis Title:</b> Mixed exchange interaction: A structural, electrical, magneto transport, magnetic and thermal studies of doped manganites. <b>Supervisor: Prof. Ashok Rao</b>
2009-2011	M.Sc Physics (First class), Davanagere University, Karnataka, India.
2006-2009	B.Sc (First class), Sahyadri Science College (Autonomous), Kuvempu University, Karnataka, India.

### Teaching Experience

January 2022 - Present	Assistant Professor, Dept. of Physics, B. M. S. College of Engineering, Basavanagudi, Bangalore - 560019, Karnataka, India.
January 2016 – January 2022	Assistant Professor, Dept. of Physics, FMPS, M S Ramaiah University of Applied Sciences, Bangalore - 560058, Karnataka, India.
September 2015 - January 2016	Assistant Professor, PG Dept. of Physics, Vijaya College, BHS HES, Jayanagara, Bangalore, Karnataka, India.

### Research Interest

- Development of thermoelectric materials for green energy applications.
- Electrical, Magneto-transport, Magnetic, Magneto-caloric and Thermal properties of Manganites (Bulk, Nano and Thinfilms) for spintronic and other applications.
- Manganite based magnetic bioactive glass scaffolds for biomedical applications.

### Project Details

- Title :** Development of Tellurium-free, low-cost binary metal chalcogenides for thermoelectric applications
- Agency :** DST-SERB
- Scheme :** Teachers Associateship for Research Excellence (TARE)
- Duration :** 3 years ( November 2020 – October 2023)
- Mentor :** Prof. Kanishka Biswas, NCU, JNCASR, Bangalore

### Scientific Skills

- Experience in bulk sample preparation using Solid State Reaction technique and nano particle synthesis using solution combustion technique.
- Experience in synthesis of rare earth doped borate glass systems using melt quenching technique.
- Experience in Rietveld Refinement technique to analyse XRD data using FULL PROF program.
- Hands on experience on handling TGA-DSC, IR and UV-Visible spectrometer instruments.

- Hands on experience on measurement of micro hardness of samples using Clemex (MMT X7) micro hardness tester.
- Hands on experience in magnetic property measurement using vibrating sample magnetometry.
- Hands on experience on using temperature dependent four probe resistivity measurement setup with superconducting magnetic system (Oxford Spectromag).
- Hands on experience on using cryogenic thermo electric power measurement system.
- Experience in analysis of structural, magneto-transport, magnetic, magneto-caloric and thermal properties of mixed oxide manganite systems.
- Interfacing measurement systems to computer using LabView software.

### Scholarship and Award

- Manipal University scholarship for 4 years to pursue Ph.D under institute fellowship program.
- DST-SERB TARE fellowship for 3 years from November 2020 to October 2023.
- Exemplary Faculty Award 2021, M S Ramaiah University of Applied Sciences, Bangalore.

### Publications

1. K. Manjunatha, V. Jagadeesha Angadi, M. C. Oliveira, S.R. de Lazaro, E. longo, R.A.P. Ribeiro, **S. O. Manjunatha**, N. H. Ayachith, "Towards shape-oriented Bi-doped CoCr2O4 nanoparticles from theoretical and experimental perspective: Structural, Morphological, Optical, Electrical and Magnetic properties" Journal of Materials Chemistry C 9 (2021) 6452. (IF-7.059) (SJR: Q1)
2. V. Jagadeesha Angadi, K. Manjunatha, K. Praveena, Vinayak K. Pattar, Brian Jeevan Fernandes, **S.O. Manjunatha**, Jakeer Husain, S.V. Angadi, L.D. Horakeri, K.P. Ramesh, "Magnetic properties of larger ionic radii samarium and gadolinium doped manganese zinc ferrite nanoparticles prepared by solution combustion method", Journal of Magnetism and Magnetic Materials 529 (2021) 167899. (IF-3.046) (SJR: Q2)
3. R.C. Bhatt, **S.O. Manjunatha**, Ashok Rao, Riya Thomas, V.P.S. Awana, C.F. Lin, Y. K. Kuo, "Thermal properties of  $La_{0.7}Ca_{0.2}Sr_{0.1}MnO_3: PdO$  composites", Physica B 550 (2018) 117-121. (IF-1.453) (SJR: Q2)
4. Ashok Rao<sup>1\*</sup>, **S. O. Manjunatha**<sup>2</sup>, Ramesh Chandra Bhatt<sup>3</sup>, V. P. S. Awana<sup>3</sup>, C.F. Lin<sup>4</sup>, and Y. K. Kuo<sup>4</sup> "Thermal properties of  $Pr_{2/3}Sr_{1/3}MnO_3: PdO$  composites" Solid State Communications 265 (2017) 37-40. (IF-1.9) (SJR: Q2)
5. **S.O. Manjunatha**, Ashok Rao, W. J. Lin, Y.-K. Kuo, "Magnetic in-homogeneity and Griffiths phase in Bi substituted  $La_{0.65-x}Bi_xCa_{0.35}MnO_3$  manganites", Physica B 498 (2016) 82–91. (IF-1.453) (SJR: Q2)
6. **S. O. Manjunatha**, Ashok Rao, P.D. Babu, Tarachand, G.S. Okram, "Magnetic, Magneto-transport and thermo-electric properties of Cr substituted  $La_{0.8}Ca_{0.2}Mn_{1-x}Cr_xMnO_3$ ", Solid State Communications 239 (2016) 37-43. (IF - 1.9) (SJR: Q2)
7. Mamatha D Daivajna, Neeraj Kumar, V.P.S. Awana, Bhasker Gahtori, J. Benedict Christopher, **S.O. Manjunatha**, K.Z. Syu, Y.K. Kuo, Ashok Rao, "Electrical, Magnetic and Thermal properties of

- Pr<sub>0.6-x</sub>Bi<sub>x</sub>Sr<sub>0.4</sub>MnO<sub>3</sub> Manganites*", Journal of Alloys and Compounds 588 (2014) 406-412. (IF- 4.65) (SJR: Q1)
8. **S.O. Manjunatha**, Ashok Rao, V.P.S Awana, G.S. Okram, "Investigation on magnetic, electrical and thermoelectric power properties of Bi-substituted lanthanum calcium manganites.", Journal of Magnetism and Magnetic Materials 394 (2015) 130-137. (IF-3.046) (SJR: Q2)
  9. **S.O. Manjunatha**, Ashok Rao, Tarachand, G.S. Okram, "Studies on Magnetoresistance and thermoelectric power properties of Cr substituted La<sub>0.65</sub>Ca<sub>0.35</sub>Mn<sub>1-x</sub>Cr<sub>x</sub>O<sub>3</sub>(0≤x≤0.07) manganites", Physica B 475 (2015) 1-9. (IF- 1.453) (SJR: Q2)
  10. **S.O. Manjunatha**, Ashok Rao, Subhashini, G.S. Okram, "Investigation on structural, magneto-transport, magnetic and thermal properties of La<sub>0.8</sub>Ba<sub>x</sub>Ca<sub>0.2-x</sub>MnO<sub>3</sub> (0 ≤ x ≤ 0.2) manganites", Journal of Alloys and Compounds 640 (2015) 154-161. (IF- 4.65) (SJR: Q1)
  11. **S.O. Manjunatha**, Ashok Rao, T.-Y. Lin, C.-M. Chang, Y.-K. Kuo, "Effect of Ba substitution on structural, electrical and thermal properties of La<sub>0.65</sub>Ca<sub>0.35-x</sub>Ba<sub>x</sub>MnO<sub>3</sub> (0 ≤ x ≤ 0.25) manganites", Journal of Alloys and Compounds 619 (2015) 303. (IF- 4.65) (SJR: Q1)

### Citation indices

Citations - 277 ; h-index - 7 ; i10-index - 7

Google Scholar profile: <https://scholar.google.co.in/citations?user=dSk0YWGAAAAJ&hl=en>

### National, International conferences and Workshops

1. **S.O. Manjunatha**, Ashok Rao "Investigation on the presence of Griffiths like phase in LCMO manganites", CMPA - 2012, MIT, Manipal, 19-20<sup>th</sup>, October, 2012.
2. **S.O. Manjunatha**, Ashok Rao "Studies on magnetic inhomogeneity in Barium substituted LCMO manganites", CMPA - 2013, MIT, Manipal, 13-14<sup>th</sup>, October, 2013.
3. **S.O. Manjunatha**, Ashok Rao "Structural and morphological studies of barium doped La<sub>0.65</sub>Ca<sub>0.35-x</sub>Ba<sub>x</sub>MnO<sub>3</sub> ceramic perovskites", IUMRS-ICA - 2013, IISc Bangalore, 16-21<sup>st</sup>, December, 2013.
4. **S.O. Manjunatha**, Ashok Rao, "Influence of grain size on the electrical and mechanical properties of La<sub>0.65</sub>Ca<sub>0.35-x</sub>Ba<sub>x</sub>MnO<sub>3</sub> Manganites", ICAFM - 2014, NIIST Trivendrum, 19-21<sup>st</sup>, February, 2014.
5. **S.O. Manjunatha**, "Three dimensional structure (DRUG) determination using X-ray crystallography", CAMP, Manipal University, 26 February, 2013.
6. **S.O. Manjunatha**, "Thematic workshop on physics of phase transitions", UGC-DAE Consortium for Scientific Research, Indore, 24-25 October, 2013.
7. **S.O. Manjunatha**, "Manipal Research Colloquium-2015", Manipal University, 6-8 April, 2015.

## Reference

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## Personal Profile

Father Name : Onkarappa C (LATE)  
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