

Dr. MANJUNATHA S

Assistant Professor

Department of Chemistry

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Present Status

Have obtained Master of Science in Analytical Chemistry from Bangalore University, Bengaluru in the year 2010 and Ph.D. degree from Visveswaraya Technological University, Belgaum in the year 2018. Ph.D. Thesis deals with synthesis and investigation of structural, optical and photoluminescence properties of rare earth doped zirconia nanoparticles. I was a INUP Research fellow at Centre for Nanoscience and Engineering (CeNSE), Indian Institute of Science (IISc) Bengaluru from 2014-16. I have eight years of teaching experience in BMS College for Women, Basavanagudi, Bengaluru. Presently, I am working as an Assistant Professor in the Department of Chemistry, BMS College of Engineering, Bengaluru.

Educational Qualification

Course	Specialization	Institution and University	Year of Passing
Ph.D	Nanomaterials	Visveswaraya Technological University	2018
M.Sc.	Chemistry	Dept. of Chemistry, Central College, Bangalore University, Bangalore - 01	2010
B.Sc.	PCM	Govt. Science College, Bangalore - 01	2008

Technical Skill

- Experience in synthesis of metal-oxide nanoparticles and structural and optical characterization of them by various techniques such as XRD, SEM, TEM, FTIR, UV-Visible, and photoluminescence.
- Clean room technology

Research interests

- Synthesis and characterization of pure and doped oxides nanoparticles for optical applications.
- Coating thin films by sol-gel and microwave assisted techniques, analysis of evolution of microstructures and property correlation.

Papers published in International journals

1. **S. Manjunatha** and M S. Dharmaprakash, Eu^{+3} ion as a luminescent probe in $\text{ZrO}_2\text{: Gd}^{+3}$ co-doped nanophosphor, International journal of chemical, Molecular, Nuclear, Materials and Matallurgical Engineering, 11(1) (2017) 56-59.
2. **S. Manjunatha** and M S. Dharmaprakash, Synthesis and characterization of cerium doped ZrO_2 blue-green emitting nanophosphors, Materials Letters, 164 (2016) 476-479.
3. **S. Manjunatha** and M S. Dharmaprakash, Microwave assisted synthesis of cubic Zirconia nanoparticles and study of optical and photoluminescence properties, Journal of Luminescence, 180 (2016) 20-24.
4. **S. Manjunatha**, R. Hari Krishna, Tiju Thomas, B.S. Panigrahi, M.S. Dharmaprakash, Moss-Burstein effect in stable, cubic $\text{ZrO}_2\text{: Eu}^{+3}$ nanophosphors derived from rapid microwave-assisted solution-combustion technique, Materials Research Bulletin 98 (2018) 139–147.
5. **S. Manjunatha** and M S. Dharmaprakash, Thermal stability, optical and Photoluminescence properties of single phase $\text{Ce}_x\text{Zr}_{1-x}\text{O}_2$ ($x=0.05$) crystalline blue-emitting nanophosphors synthesized by Microwave Method Accepted in Materials Research Express.
6. Shivakumar Manjunatha, **S. Manjunatha**, Dharmaprakash M Sidlingappa, Manjappa Sidlingappa, Synthesis of Cerium- Doped Zirconia Nanoparticles for the Electrochemical Detection of Dopamine by Modified Carbon Paste Electrode, ChemistrySelect, 4(19), (2019) 5839.

Papers presented in International conferences

1. **S. Manjunatha** and M S. Dharmaprakash, “Eu⁺³ Ion as a Luminescent Probe in ZrO₂: Gd⁺³ Co-Doped Nanophosphor” World Academy Science Engineering and Technology, Singapore, 8-9 January 2017.
2. **S. Manjunatha**, Nanda N and M S. Dharmaprakash, “Synthesis and characterization of ZrO₂: Eu⁺³ nanophosphors by surfactant assisted microwave hydrothermal route” International Conference on Smart Engineering Materials (ICSEM), R V College of Engineering, Bengaluru, 20-22 October 2016.
3. **S. Manjunatha** and M S. Dharmaprakash, “Ultra-fast synthesis of cubic stabilized ZrO₂: Eu⁺³ nanophosphors and study of photoluminescence property”, International Conference on Advanced Materials and Applications (ICAMA-2016), BMS College of Engineering, Bengaluru, 15-17 June 2016.
4. **S. Manjunatha** and M S. Dharmaprakash, “A comparative study of the porosity and phase formation of ZrO₂ nanoparticles synthesized by microwave and conventional combustion route”, International Conference on Nanoscience, nanotechnology and Advanced Materials (NANOS-2015), GITAM University, Vizag, 14-17 December 2015.
5. **S. Manjunatha** and M S. Dharmaprakash, “Sol-gel synthesis of Ce⁺⁴ doped zirconia nanoparticles and study of photoluminescence properties”, International Union for Material Research Society- International Conference in Asia (IUMRS-ICA), Indian Institute of Science (IISc), Bengaluru, 16-20 December 2013.

Workshops and Seminars/Symposiums

1. Presented paper in the “National Symposium on Nano Science and Technology” (NSNST-2016), Centre for Nano-science and Engineering, IISc, Bengaluru, 29-30 June 2016.
2. Participated in two days seminar on “ Impact of Mankind on Environment” BMS College for Women, Bengaluru, 25-26 August 2015.
3. Participated in “INUP Hands-on Training Workshop on Nanofabrication Technologies” A hands-on training on photovoltaics and micro and nano characterization techniques, Centre for Nano-science and Engineering, IISc, Bengaluru, 7-16 October 2014.

4. Attended in INUP familiarization workshop on “nanofabrication Technologies” Centre for Nano-science and Engineering, IISc, Bengaluru, 17th June 2013.

5. Attended one dar workshop on “Latex for Research Documentation” BMS College of Engineering, Bengaluru, 18th March 2013.

6. Attended workshop on “Nanomaterials and Applications” Siddaganga Institute of Technology, Tumkur, 20-27 January 2011.