

## CURRICULUM VITAE

### Personal Details.



Name : **Dr.MAHADEVIAH**  
Marital Status : Married  
Date of birth : **10-05-1976**  
Postal address : **Dr.Mahadevaiah**  
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Qualification : **M. Sc. in Polymer Science (2002)**  
**M.Sc. in Chemistry (2015)**  
**Ph.D. in Polymer Science (2009)**  
**PDF in Polymer Science**  
**B.Sc (PCM), B.Ed (Physics & Maths),**

**Interesting Field:** **Teaching and Research work**

Teaching Experiences : Total -**07** Years

**(Five** years in M.Tech in **Materials Science**, Center for materials Science, University of Mysore & **Two** Years in the **Department of Polymer Science**, Sir.M.V.PG.Center University of Mysore, Tubinakere –Mandya-571402)

Research Experience : **SEVEN** years Research experience (**Ph.D & PDF**) in the Department of Polymer Science Sir M.V.PG.Center. University of Mysore Tubinakere Mandya.

**SIX** Years (**Research Associate**) Research Experience In the Department of Center for Materials Science, Centerv for Materials Science, Vijnana Bhavana University of Mysore.

**VISITED COUNTRIES** : **SINGAPORE & MALASIYA**

**Singapore** Visited for paper Presented in ICMAT International Conferences and **Malaysia** for Scientific Lab visited (**2015**)

Languages Known : Kannada, English, Hindi and Tamil.

**Present Designation** : **Assistant Professor**, Department of Polymer Science,  
Sir.M.V.PG.Center University of Mysore, Tubinkere, Mandya – 571402

**Guided** : Guidance to the Ph.D student nearly 8-10 & Project **work** students of  
M.Sc polymers Science nearly 6-8 & nearly 6-8 students of M.Tech in  
Materials Science

**Published Research Papers** : **Forty Five** Research Articles published in International and  
National Journals.

**Conferences /Seminars:** **Thirty** Research papers were presented/Attended in National & International.  
Conferences.

**Organizing Committee:**

One of the Member in the organizing committee in International  
Conference on “**Advanced Functional Materials in Energy,  
Environment and Healthcare**” Three day’s conference held at  
Center for Materials Science, Vijnana Bhavan Manasagangothri,  
University of Mysore

**Experimental Skills :**

- Synthesis of different types of nanoparticles by various methods.
- Synthesis of polymers by Redox method.
- Preparations of polymer blend films and composites.
- To characterize polymer blends by measuring viscosity, density, refractive index, ultrasonic wavelength.
- Characterization of materials using XRD, FT-IR, UV/Visible spectroscopy, DSC, TGA and conductivity measurements.

**Area of Research Interests :**

- Synthesis of biodegradable polymer blends and composites.
- Synthesis of conducting polymers and nano composites.
- Synthesis and characterization of silk films and blends.

## Research Publications :

1. R Akarsh<sup>1</sup>, D Raghavendra<sup>1</sup>” **Mahadevaiah**<sup>2</sup>, H Somashekarappa<sup>1</sup> and R Somashekar<sup>2</sup> “Structure–property relation in copper nanoparticles-based PVA/PVP composites” Indian J Phys, 17, 2020
2. Ashwini Swaminathan<sup>1</sup> & Ranjithkumar Ravil & M. Sasikumar<sup>2</sup> & **Mahadevaiah** Dasaiah<sup>3</sup> & G. Hirankumar<sup>4</sup> & Sakunthala Ayyasamy<sup>1</sup> Preparation and characterization of PVA/PAM/NH<sub>4</sub>SCN polymer film by ultrasound-assisted solution casting method for application in electric double layer capacitor’ Ionics (2020) 26:4113–4128
3. **Mahadevaiah**<sup>1, #</sup>, Nawneet K. Kurrey<sup>2, #</sup>, Gowtham G. K<sup>3</sup>, Thejas Urs G<sup>1</sup>, Somashekar R<sup>1, \*</sup> “Laser Ablation Synthesized Copper Nanoparticles for Cancer Treatment: An Animal Cell Line Studies” (2018)
4. Thejas G Ur<sup>s1,2</sup>, G K Gowtham<sup>m3</sup>, M B Nandaprakas<sup>h1</sup>, **Mahadevaiah**<sup>h1</sup>, Y Sangapp<sup>a2</sup> and R Somashekar<sup>r1\*</sup> “Determination of force constant and refractive index of a semiconducting polymer composite using UV/visible spectroscopy new approach”. Indian Journals of Physics. (Published -2016)
5. K. Hemalatha, G. Thejas Urs, **Mahadevaiah**, H. Somashekarappa, K.Byrappa & R. Somashekar “ Effect of NiCuZnFe<sub>2</sub>O<sub>4</sub> on the microcrystalline properties of PVA /CMC polymer blends”. Materials Research Innovations (2016).
6. **Mahadevaiah**, L.R.Shivakumar, T.Demappa and Vasudev Singh., “Mechanical and Barrier Properties of Hydroxy Propyl Methyl Cellulose (HPMC) Edible Polymer films with Plasticizer combinations. Journal of Food Processing and Preservation. (Published-2016)
7. **Mahadevaiah**, Thejas Urs G, K.Byrappa and R. Somashekar,”Effect of Microwave irradiation on the Micro structural properties of Silk Fibroin Films.” Procedia Engineering 141(2016)53-58
8. N.Sandya Rani, J.Sannappa, T.Demappa and **Mahadevaiah**. “Effect of CdCl<sub>2</sub> concentration on the Structural, Thermal and Ionic Conductivity Properties of HPMC Polymer Electrolyte Films”. IONICS. Vol.21, issue.1 (2015) pp 133-140.
9. N.Sandya Rani, J.Sannappa, T.Demappa and **Mahadevaiah**. “Effect of CdCl<sub>2</sub> concentration and Gamma Irradiation on the Structural, Thermal and Electrical Conductivity Properties of HPMC Polymer Electrolyte Films”. Journal of Applied Physics, Vol.6,issue3(2014)pp30-41
10. **Mahadevaiah**, Thejas Urs G, K.Byrappa and R. Somashekar,”Preparation and Characterization of Mulberry Silk fibroin films “International Annals of Advanced Scientific Research, Vol.1, Issue 1(2014)pp001-007
11. **Mahadevaiah**, Thejas Urs G, K.Byrappa and R. Somashekar,”Microstructural parameters of Bivoltine Silk films Using X-Rays Diffraction studies” Indian Journal of Advances in Chemical Science. Vol 2, (2014) page3-5.
12. Thejas Urs G, **Mahadevaiah** and R. Somashekar, "Studies on Structural and Conducting Properties of Goethite Nanoparticles Doped HPMC Polymer Films.”Journal of Polymers, (2014) ID 201464, volume 2014, 6 pages.
13. **Mahadevaiah**, Thejas Urs G, T.Demappa and R. Somashekar, “Characterization of Zinc Nano ferrite Doped HPMC Polymers Using X-Ray Diffraction.” Journal of Nuclear physics, Material Science, Radiation and Applications. Vol 1 .No.2. (2014) pages 201-205.
14. N.Sandya Rani, J.Sannappa, T. Demappa and **Mahadevaiah**,"Structural, thermal and electrical studies of sodium iodide(NaI) doped hydroxy propylmethylCellulose (HPMC) polymer electrolyte films". IONICS. Vol.20, issue.2.(2014)pp201-207.

15. Hemalatha.T, **Mahadevaiah**, Somashekarappa.H and R. Somashekar “Characterization of montmorillonite doped PVA/SA blends using X-ray diffraction”. AIP Conf. Proc. **1591**, 819 (2014)
16. Y. Prakash, H. Somashekarappa, **Mahadevaiah** and R. Somashekar“Structure-property relation in HPMC polymer films plasticized with Sorbitol” AIP Conf. Proc. 1536, 493 (2013).
17. N.Sandya Rani, J.Sannappa, T. Demappa and**Mahadevaiah**,”Gamma radiation induced conductivity controlled and Characterization of Structural and thermal properties ofHydroxyPropylMethyl Cellulose Polymer complexed with Sodium Iodide ( NaI).Advanced in Applied Science Research, vol.4(3), p195-219(2013).
18. H.Somashekarappa, Y.Prakash. **Mahadevaiah**,T.Demappa. and R Somashekar,“Effect of Microwave radiation on HPMC Polymer filmsHPMC / PVP Polymer Blend films using the Wide angle X-ray Technique.Radiation Effects and Defects in Solids (2013).
19. H. Somashekarappa, Y.Prakash, **Mahadevaiah**,. Hemalatha.K and R Somashekar "Microstructural and Electrical Properties of COCl<sub>2</sub> Doped HPMC/PVP polymer blend Films.Solid State Physics (India) Vol.57,p532-533(2013).
20. N. Sandya Rani, J.Sannappa, T. Demappa and **Mahadevaiah**, “Structural and Ionic Conductivity Behavior inHydroxyPropylMethyl Cellulose (HPMC) Polymer films Complexed with Sodium Iodide ( NaI)”. Solid State Physics (India) Vol.57, p544-545(2013).
21. Y.Prakash. H.Somashekarappa, A Manjunath, **Mahadevaiah**, and R Somashekar, “Physico-Mechanical, AC Conductivity and MicrostructuralProperties of FeCl<sub>3</sub> doped HPMC polymer films” Advanced in Material Research-Vol. 2, No. 137-49, (2013).
22. N.Sandya Rani, J.Sannappa, T. Demappa and **Mahadevaiah**,”Structural and Ionic conductivity behavior in HPMC doped Sodium Iodide (NAI) Polymer films. Journal of Solid State Physics Vol.57 (2012).
23. Y.Prakash. **Mahadevaiah**, H.Somashekarappa,T.Demappa. and R Somashekar, "Microstructural parameters of HPMC/PVP polymer blends using wide angle X-ray technique” Journal of Research Updates in Polymer Science, Vol, 1.Page 24-31,( 2012).
24. B Lakshmeesha Rao, **Mahadevaiah**, S Asha, R Somashekar and Sangappa\*“Effect of ZnO Nano particles on Structural, Mechanical,Properties of HPMC Polymer Films” Journal of Solid State Physics Vol.57 (2012).
25. B.Lakshmeesha Rao, **Mahadevaiah**, Sangappa, S Asha and R.Somashekar. “Microstructural parameters in Electron –Irradiated PVA Films by Wide AngleX – Ray scattering studies (WAXS)” Advanced Materials Research Vol.585, page532-536, (2012).
26. P.Paramesha, T.Demappa,**Mahadevaiah**, Y.Prakash, H.Somashekarappa,K.Byrappa and R.Somashekar, “Polymeric Degradation of water soluble Chitosan/HPMC films Using WAXS data”Materials Research Innovations, Vol 16, No.2, page 126-129 (2012).
27. G.K. Nagaraja, T. Demappa and **Mahadevaiah**.”Polymerization kinetics of Acrylonitrile by oxidation. Reduction system using potassium Persulphate – Ascorbic acid in aqueous medium”.Journal of Applied Polymer Science Vol. 121, 1299 – 1303(2011).
28. Sangappa, T. Demappa **Mahadevaiah**, S.Ganesha. S.Divakar, Manjunath Pattabi and R.Somashekar.”Physical and thermal properties of 8MeV electron beam IrradiatedHydroxyPropylMethylCellulose films.” Nuclear Inst. And methods in physics Research, B.vol, 266, p3975-3980 (2008).
29. G.K. Nagaraj,T. Demappa and. **Mahadevaiah**“The study of free radical polymerization of Acrylonitrile by oxidation – Reduction system using potassium persulphate – Thiourea in aqueous medium.” Journal of Applied Polymer Science, 110, p3395-3400 (2008).

30. Sangappa, T. Demappa, **Mahadevaiah**, S. Ganesh, S. Divakar, R. Somashekar  
“Microstructural parameters in Electron –Irradiated Hydroxypropyl Methyl Cellulose Films using X – Ray Line Profile Analysis.” *Journal of Applied Polymer Science*, 109, p3983-3990, (2008).
31. **Mahadevaiah**, T. Demappa, Sangappa and Bibi Ahamed Katoon. “Polymerization of Acrylonitrile initiated by Ce (IV)—Sucrose Redox System: A kinetic study.” *Journal of Applied Polymer Science* Vol 108, No. 6 P 3760-3768 (2008).
32. **Mahadevaiah** and T. Demappa. “Polymerization of Acrylonitrile initiated by Ce (IV)-Oxalic acid redox system: A kinetic study. *Journal of Applied Polymer Science* vol 108, No. 6 P 1667-1674 (2008).
33. **Mahadevaiah** and T. Demappa. “Polymerization Kinetics of Methylmethacrylate by Oxidation: Reduction System Using Cerium (IV) / Lactic Acid in Aqueous Medium.” *Journal of Applied Polymer Science* vol 103, No. 6 P 3498- 3505 (2007).
34. **Mahadevaiah** and T. Demappa. “Kinetic studies on free radical polymerization of Acrylonitrile initiated by Chloramine –T /Hydrogen peroxide redox system.” *Journal of Applied Polymer Science* vol. 102, P 5877 – 5883 (2006).
35. **Mahadevaiah**, T. Demappa and G.K. Nagaraja, Polymerization of Acrylonitrile initiated by the Ce (IV) - Tartaric acid Redox system: A kinetic study. *Journal of Saudi Chemical Society*. Vol 10, No. 2, P 311-318 (2006).

### Communicated Papers

1. Dr Sakunthala Ayyasamy, **Mahadevaiah**, Dr Gurusamy Hirankumar, Dr. Kadarkarai Govindan, Mr Ranjithkumar Ravi, Miss Ashwini Swaminathan. Preparation and characterization of PVA/PAM/NH<sub>4</sub>SCN polymer film by ultrasound assisted solution casting method for application in electric double layer capacitor (**Journal of Polymer Testing**)
2. **Mahadevaiah**, Naweeth Kurrey, Gowtham G.K & Somashakar R. “Laser Ablation Synthesized Nanoparticles and Animal Cell Lines Studies” (**Journal of Bioscience**).
3. Gowtham G.K, Somashekarappa H, **Mahadevaiah**, & Somashakar R.  
Non Linear Optical Activity of Silk in Various forms comprehensive study of Biovoltine and Multivoltine breeds (**Journal of Applied Physics**)
4. Akarsh.R, Raghavendra D G, Mahadevaiah, Somashekarappa and Somashekar.R  
“Structure property relation in copper Nanoparticles based PVA/PVP composites” (**Indian Journal of Physics**)
5. Pavithra Shanmugaraj, Ashwini Swaminathan Ranjith kumar Ravi, **Mahadevaiah** Senthil Kuma P, A Sakunthala Ayyasamy “Preparation and Characterization of porous HEP/Graphene Oxide composite Membranes by solution casting technique” (**Journal of Materials Science: Materials in Electronics**)

### Conferences / seminars attended and Paper Presented

1. **Mahadevaiah** and T. Demappa Aqueous polymerization of Acrylonitrile initiated by Chloramine –T-Sodium metabisulphite Redox system; A kinetic study.” Indian council of Chemist’s 23<sup>rd</sup> Annual Conference held at Mumbai on 29-31<sup>st</sup> October 2004.
2. **Mahadevaiah**, T. Demappa and Debthosh Baidya “Polymerization of Acrylonitrile initiated by Ce (IV) oxidic acid redox system; A kinetic study Third National conference on polymers macro – 2005 polymer blends and Composites 15<sup>th</sup>, 10<sup>th</sup> April 2005 held at SJCE, Mysore.
3. **Mahadevaiah** and T. Demappa “Kinetic studies on free radical polymerization of MMA initiated by Ce (IV) – Lactic acid in aqueous medium. National seminar organized by Industrial Chemistry and General Chemistry, Kuvempu University (SHIMOGA) to be held on Jan 6 – 8 / 2006. PP – 10.

4. **Mahadevaiah** and T. Demappa “Kinetics and Mechanistic study of polymerization of Acrylonitrile by Ce (IV) – sucrose redox system A Kinetic study. National conference held at Mangalore University Mangalore on May2006.
5. International Year of Chemistry 2011, ONE DAY SEMINAR held at The Department of Polymer Science and Technology SJCE Mysore, on 25<sup>th</sup> November 2011.
6. **Mahadevaiah** and T. Demappa, Redox polymerization of Acrylonitrile initiated by potassium Persulphate. Ascorbic acid redox system; A kinetic study. National conference on Emerging area in chemical and Biological Science (NCE ACB – 2007) held on March 23-24 / 2007 at Kuvempu University, Jnana Sahyadri, Shankargatta – 577451 Shimoga. PP- 56.
7. **Mahadevaiah**, T. Demappa & Sangappa. “X – Ray diffraction line profile analysis for microstructural Parameters of HPMC pure and irradiated films.” 52<sup>nd</sup> Department of Atomic Energy solid state physics Physics. Symposium. On 27 – 31 December – 2007 held at Manasagangotri, Mysore.
8. **Mahaevaiah** and T.Demappa, “Vinyl polymerization of Acrylonitrile initiated by the Ce (IV) –Isobutyric acid redox system: A Kinetic Study.National level conference on eco-friendly Plastic and Rubber Systems, Macro-2008, on 19<sup>th</sup> – 20<sup>th</sup> May 2008 held at Dept. of Polymer Science Technology, S.J.College of Engineering Mysore. Abstract No.T2-2, page42.
9. **Mahaevaiah** and T.Demappa “Mechanical and barrier properties of HPMC edible Films with plasticizer combinations”. National level conference on the emerging areas in chemistry. NACEAC-2009, on 31<sup>st</sup>-07 –09- 01<sup>st</sup> -08- 2009 held at Dept. of studies in Chemistry, Manasagangotri, Mysore-06.
10. **Mahadevaiah**, Y.Prakash.T.Demappa. H.Somashekarappa and R Somashekar. “Effect of micro wave radiation on HPMC polymer films and HPMC/PVP polymer blend films using wide angle x-ray technique” National level conference2011, 16th and 17th September 2011held at Dept. of Chemistry, PES College of Science, ARTS and Commerce Mandya-571401.
11. **Mahadevaiah**, Y.Prakash.T.Demappa. H.Somashekarappa and R Somashekar. "Effect of micro wave radiation on HPMC polymer films and HPMC-FeCl<sub>2</sub> doped polymer blend films using wide angle x-ray technique” International conference (ICSSC2011) 08-10th December 2011held at Dept. of studies in Chemistry, Manasagangotri, Mangalore University, Mangalore - 574199.
12. **Mahadevaiah**, B Lakshmeesha Rao, S Asha, R Somashekar and Sangappa,“Effect of ZnO Nano particles on Structural and Mechanical Properties of HPMC Polymer Films 57th DAE Solid State Physics Symposium December 03-2012, on held at Dept. of Indian Institute of Technology, MUMBAI.
13. **Mahadevaiah**, N. Sandhya Rani, J Sannappa and T Demappa. “Structural and ionic conductivity behavior in Hydroxypropyl Methylcellulose (HPMC) polymer complexed with Sodium Iodide (NAI)”. 57<sup>th</sup> DAE Solid State Physics Symposium December 03-2012, on held at Dept. of Indian Institute of Technology, MUMBAI.
14. **Mahadevaiah**, Y.Prakash.T.Demappa.Hemalatha.K. H.Somashekarappa and R Somashekar. “Microstructural and electrical properties of COCl<sub>2</sub> doped HPMC/PVP polymer blend films”. 57<sup>th</sup> DAE Solid State Physics Symposium December 03-2012, on held at Dept. of Indian Institute of Technology, MUMBAI.
15. **Mahadevaiah** and T.Demappa. “Microstructural and electrical properties of ZnO nano particles doped HPMC polymer films”. Application of Nanotechnology in health care 2<sup>nd</sup> National Level Seminar 30<sup>th</sup> June -2012, on held at Dept. of BLDE Associate’s College of Pharmacy, Bijapura, Karnataka –INDIA.

16. **Mahadevaiah** and T.Demappa. “Microstructural and electrical properties of MMT nanoparticles doped HPMC polymer films.”**Nano Science andTechnology**”One day State Level Seminar 25<sup>th</sup> March -2013, on held at Dept. of Physics’, JSS College for WomenSaraswathipuram Mysore. Karnataka –INDIA.
17. **Mahadevaiah** “Two Day Brain Storming Workshop on Successfully Facing Competitive Examinations. 29<sup>th</sup>&30<sup>th</sup> November -2013, on held at UGC Academic Staff College & Research Scholars Association, University Of Mysore.
18. **Mahadevaiah**, Thejas Urs G and R.Somashekar “Preparation and Characterization of SilkFibroin Films Used For Treating Burn Injuries”.TWO DAY International Symposium on “Chemical Biology –Drug Discovery” on 09-10<sup>th</sup> January 2014 at the University of Mysore.
19. One day Technical Workshop on **Exploring SciFinder** (Chemical Abstracts) for Scientific Research in Academia on 4<sup>th</sup> January 2014 at the Department of Chemistry, University of Mysore.
20. One day Workshop on “**Computational Materials Science**” organized by Department of Physics MGM. Mysore on 24<sup>th</sup> January 2014.
21. **Mahadevaiah** and T.Demappa. “Microstructural and electrical properties of MMT nanoparticles doped HPMC polymer films.”**Nano Science andTechnology**”One day State Level Seminar 25<sup>th</sup> March -2013, on held at Dept. of Physics’, JSS College for WomenSaraswathipuram Mysore. Karnataka –INDIA.
- 22.**Mahadevaiah** “Two Day Brain Storming Workshop on Successfully Facing Competitive Examinations. 29<sup>th</sup>&30<sup>th</sup> November -2013, on held at UGC Academic Staff College & Research Scholars Association, University Of Mysore.
23. **Mahadevaiah**, Thejas Urs G and R.Somashekar “Preparation and Characterization of Silk Fibroin Films Used For Treating Burn Injuries”. TWO DAY International Symposium on “Chemical Biology –Drug Discovery” on 09-10<sup>th</sup> January 2014 at the University of Mysore.
24. One day Technical Workshop on **Exploring SciFinder** (Chemical Abstracts) for Scientific Research in Academia on 4<sup>th</sup> January 2014 at the Department of Chemistry, University of Mysore.
25. One day Workshop on “**Computational Materials Science**” organized by Department of Physics MGM. Mysore on 24<sup>th</sup> January 2014.
26. DAE SSPS 2015, AMITY University, **Noida**
27. **ICMAT 2015, Suntec, 28<sup>th</sup> June – 3<sup>rd</sup> July, 2015, Singapore**
28. National Training on —Application and Trouble of Scientific Equipmentl Organized by Department of IOE, MGM. Mysore on from 01st to 08th December 2017.
29. International Conference on Nano Materials and Their Applications  
Held at University of Mysore during March 1-2, 2018.
30. International conference on 18-20 March 2019 on. “Advanced Functional materials for Energy, Environment & Healthcare” held at Center for Materials Science and Technology, University of Mysore, Vijnana bhavan Mysore.

## References

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