

RESUME

Name Upadhyay Ramesh Venkataramaiah

Designation: Principal

Institution: P.D. Patel Institute of Applied Sciences
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Date of Birth: 1st Feb. 1960.

Educational Qualification:



| Sr. No. | Degree | University | Year | Subjects | Percentage |
|---------|--------|------------|------|----------|------------|
| 1. | M.Sc. | Saurashtra | 1981 | Physics | 70.05 |
| 2. | Ph.D | Saurashtra | 1985 | Physics | --- |

Details of professional training & research experiences

- i) Attended the workshop on "European Advanced course on Magnetic Fields and Powder Technology" at Minsk, Belarus, USSR. May-1991 to June 1991.
- ii) Commonwealth Academic Staff Fellow at Department of Chemistry, University College of North Wales, Bangor, UK. During Oct. 92 to 31st July 1993.
- iii) Under Academic Link Interchange Scheme visited Department of Chemistry, University College of North Wales, Bangor, UK. May-1995 to July-1995.
- iv) Under the Indo-French research project visited the University of P & M Curie, Paris, France, May-1997 to July-1997.
- v) Attended and presented a research paper at 8th International Conference on Magnetic Fluid, held in Romania, 1998.
- vi) Under the Indo-French research project visited the University of P & M Curie, Paris, France during May-June-1999.
- vii) STINT-Visiting Professor, Royal Institute of Technology, Stockholm, Sweden 2005, 06,07

Field of Specialization: Soft Condensed Matter Physics.

Details of Administrative experiences

1. Started the department of Physics, Bhavnagar University Bhavnagar in 1988 as Head and continued till 1990.
2. Acted as Registrar of University for 5 months during 1996.
3. Acted as Academic Registrar, OSD and worked for NAAC accreditation. The University got Grade B
4. Head, Department of Physics from 2002 to 2008 at Bhavnagar University.
5. Principal and Dean Faculty of Applied Sciences, CHARUSAT from 2008.
6. Member of Board of Studies in many Universities of Gujarat.

Project details (2009-)

| Project Title | Start Date | Completion Date | Project Cost (Lakhs) | Sponsoring Agency |
|--|------------|-----------------|----------------------|---------------------|
| Frequency ...magnetic dispersion | 2009 | 2011 | 5 lacs | GUJCOST |
| Neutron diffraction.....Co-Zn nanoparticles | 2009 | Dec. 2012 | 5.00 | UGC-DAE-CSR, Mumbai |
| Synthesis of NMR-fluids and study.....SANS techniques. | Dec 2009 | Nov. 2012 | 40 lacs | BRNS-DAE |
| Ferrofluids: S&T Applications | Sept. 2012 | Jan. 2015 | 283 lacs | DST |
| Nano-lubricant | 2016 | Continuing | 08.00 | Industry-Lubgraf |
| Magnetorheological Fluid | 2019 | Continuing | 2.00 | ISRO |

Professional recognition, awards, fellowship received:

1. **Commonwealth Academic Staff Fellowship.**
2. **UGC Career Award**
3. **INSA Visiting Fellow**
4. **Vikram Sarabhai Award, Guj. Govt.**
4. **Fellow of Gujarat Academy of Science.**
5. **Hari Om Ashram Award for Best research papers.**
6. **FOUR Research Patents**
7. **Membership of professional bodies/societies (Eight)**

Research Guidance: 12 (completed)

3 (working)

Publication: Research Paper published in peer review Journals: > 170

Conference paper presented (National & International):> 60

h-index: 21

List of publications- R V Upadhyay (2011-)

1. Structural characterization of microwave-synthesized zinc substituted cobalt ferrite nanoparticles, H Parmar, Rucha Desai, R V Upadhyay, Applied Physics A: Materials and Processing, 104 (2011) 345.
2. Nanoengineering of methylene blue loaded silica encapsulated magnetic nanospheres and nanocapsules for photo-dynamic therapy, Nidhi Andhariya, B Chudasama, R V Mehta, R V Upadhyay, J. Nanopart. Res., 13 (2011) 3619.
3. Biodegradable thermoresponsive polymeric magnetic nanoparticles : a new drug delivery platform for doxorubicin, Nidhi Andhariya, B Chudasama, R V Mehta, R V Upadhyay, J. Nanopart. Res., 13 (2011) 1677.
4. Antifungal activity of multifunctional Fe₃O₄-Ag nanocolloids, B Chudasama, A K Vala, N Andhariya, R V Upadhyay, R V Mehta, J. Magn. Magn. Mater., 323 (2011) 1233.
5. Macroscopic and microscopic structural integrity in magnetic colloids "cationic micellar solution: Rheology, SANS and magneto-optical study, Rajesh Patel R.V. Upadhyay , V.K. Aswal , J.V. Joshi , P.S. Goyal, J. Magn. Magn. Mater., 323 (2011) 849.
6. Experimental investigation of ultrasonic velocity anisotropy in magnetic fluid: Influence of grain-grain interaction, Kruti Shah, R V Upadhyay, Pramana - Journal of Physics, 77 (2011) 345.
7. Magneto-Rheological Properties of Mn_{0.7}Zn_{0.3}Fe₂O₄ Nanomagnetic Fluid, Kruti Shah, Rucha Desai, R V Upadhyay, AIP Conf. Proc. 1349 (2011) 1159.
8. Neutron Diffraction Investigation of Co_{1-x}Zn_xFe₂O₄ Nanoparticles, Harshida Parmar, V Siruguri, R V Upadhyay, AIP Conf. Proc., 1349 (2011) 1173.
9. Investigations on trivalent arsenic tolerance and removal potential of a facultative marine aspergillus niger, Anjana K Vala, Vishnu Sutariya R V Upadhyay, Environ. Sus. Energy, 30 (2011) 586.
10. Corrosion Inhibition Of Mild Steel In Acidic Media Using A Nanomagnetic Fluid As A Novel Corrosion Inhibitor, Smita Jauhari, Kinnari Parekh and R.V.Upadhyay, CORROSION (2011) ID no. 11381, pg. 1-10.
11. Surface Spin Glass like Behavior of Monodispersed Superparamagnetic Mn_{0.5}Zn_{0.5}Fe₂O₄ Magnetic Fluid, Kinnari Parekh, László Almásy, Hyo Sook Lee and R V Upadhyay, Applied Physics A 106 (2012) 223.

12. Development of curcumin based ophthalmic formulation of curcumin, Anjana D, K Anith Nair, N Somashekara, M Venkata, R Sripathy, Rajesh Y, H Parmar, R V Upadhyay, S R Verma, C N Ramchand, *Ame. J. Infect. Dis.*, 8 (2012) 41.
13. Low temperature magnetic ground state in bulk $\text{Co}_{0.3}\text{Zn}_{0.7}\text{Fe}_2\text{O}_4$ spinel ferrite system: Neutron diffraction, magnetization and ac-susceptibility studies. H Parmar, P Acharya, R V Upadhyay, V Siruguri, S Rayaprol, *Solid State Commun.*, 153 (2012) 60.
14. Influence of large size magnetic particles on the magneto-viscous properties of ferrofluid., Kruti Shah, R V Upadhyay, V K Aswal, *Smart. Mater. Struct.*, 21 (2012) 75005.
15. Molecular Medicine-Prospects and Challenges, Ramchand, C.N., R. Sripathy, N. Somashekara, A. Buch, H. Pant, A. Vyas and R. Upadhyay, *Ame. J. Infect. Dis.*, 8 (2012) 19.
16. Magnetoviscous Effect In Thermosensitive Magnetic Fluids, Rucha Desai, R. V. Upadhyay, V. K. Aswal, *AIP Conf. Proc.*, 1447 (2012) 383.
17. Micro-Structural Characterization of Water Based Magnetic Fluid, R V Upadhyay, V K Aswal, Rucha Desai, *International journal of Nanoparticles*, 5 (2012) 243.
18. Study of the magnetorheology of bimodal magnetite suspension, Kruti Shah, R. V. Upadhyay, and V. K. Aswal, *AIP Conf. Proc.* 1447 (2012) 1209.
19. Investigation of dynamic magnetic properties of Surfactant Coated Monodispersed Fe_3O_4 Nanomagnetic Particles, Kinnari Parekh and R. V. Upadhyay, *Journal of Nanofluid*, 1 (1) (2012) 93.
20. Magnetization dynamics in rare earth Gd^{3+} doped $\text{Mn}_{0.5}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4$ magnetic fluid: Electron Spin Resonance study, Kinnari Parekh and R. V. Upadhyay, *J. Magnetic Resonance* 225 (2012) 46.
21. UV Light Induced Photodegradation of Organic Dye by ZnO Nanocatalysts, C. K. Sumesh, Bhavin Patel and Kinnari Parekh, *AIP Conf. Proc.* 1536 (2013) 123.
22. Plate-like iron particles based bi disperse magnetorheological fluid, Kruti Shah, Jong-Seok-oh, Seung-Bok Choi, R V Upadhyay, *J. Appl. Phys.*, 114 (2013) 213904.
23. Influence of ultrasonic frequency on the field induced hysteresis phenomena observed in magnetic fluid, Kruti Shah, R V Upadhyay, *Magnetohydrodynamics*, 49 (2013) 381.
24. Progressive freezing of finite cluster in locally canted spin $\text{Co}_{0.3}\text{Zn}_{0.7}\text{Fe}_2\text{O}_4$ spinel ferrite system, R V Upadhyay, H Parmar, P Acharya, A Banerjee, *Solid State Commun.*, 163 (2013) 50.
25. Folic acid conjugated magnetic drug delivery system for controlled release of doxorubicin, Nidhi Andhariya, B Chudasama, R V Mehta, R V Upadhyay, *J. Nanopart. Res.*, 15 (2013) 1416.
26. A low sedimentation magnetorheological fluid based on plate-like iron particles and verification using a damper test. Kruti Shah, D0 Xuan P, Min Sang Seong, R V Upadhyay, Seung Bok Choi, *Smart. Mater. Struct.*, 23 (2014) 27001.

27. Rheological properties of soft magnetic flake shaped iron particle based magnetorheological fluid in dynamic mode, R V Upadhyay, Zarana Laherisheth, Kruti Shah, *Smart. Mater. Struct.* 23 (2014) 15002.
28. Augmentation of chain formation in a magnetic fluid by addition of halloysite nanotubes, Desai Rucha, Upadhyay R V, Mehta R V, *J Phys D: Appl Phys.*, 47 (2014) 165501-1
29. Structural and magnetic properties of nickel–zinc ferrite nanocrystalline magnetic particles prepared by microwave combustion method, H Parmar, R V Upadhyay, S Rayaprol and V Siruguri, *Indian J Phys.*, 88 (2014) 1257.
30. Ultrasonic velocity and rheological measurement of coolants, Jay Patel, Kinnari Parekh and R V Upadhyay, *Solid State Phenomena*, 209 (2014) 194.
31. Size induced inverse spins canting in CO–Zn system: Neutron diffraction and magnetic studies, Harshida Parmar, RV Upadhyay, S.Rayaprol, VSiruguri, *J. Magn. Magn. Mater.*, 377 (2015) 133.
32. Dilution dependent magnetorheological effect of flake-shaped particle suspensions destructive friction effects, Erik Siebert, Zarana Laherisheth and Ramesh V Upadhyay, *Smart Materials and Structures*, 24 (2015) 075011.
33. Ultrasonic propagation: A technique to reveal Field induced structures in magnetic nanofluids, Kinnari Parekh, Jaykumar Patel and R V Upadhyay, *Ultrasonics* 60 (2015) 126-132.
34. The Effect of Spherical Nanoparticles on Rheological Properties of Bi-Dispersed Magnetorheological Fluids, K.Thiruppathi Kannappan, Zarana Laherisheth, Kinnari Parekh and R V Upadhyay, *AIP Conference Proceedings* 1665, (2015) 130020-1-3; doi: 10.1063/1.4918168.
35. Maneuvering thermal conductivity of magnetic nanofluids by tunable magnetic fields, Jaykumar Patel, Kinnari Parekh and R V Upadhyay, *J. Appl. Phys.* 117, (2015) 243906-1-8
36. Temperature dependence quasi-static measurements on a magnetorheological fluid having plate like iron particles as dispersed phase, Zarana Laherisheth and Ramesh V Upadhyay, *Journal of Intelligent Material Systems and Structures*, DOI: 10.1177/1045389X15590271, June 29 (2015) 1-8.
37. Prevention of Hot-spot temperature in a distribution transformer using Magnetic fluid as a coolant, Jay Patel, Kinnari Parekh and R V Upadhyay, *International Journal of Thermal Sciences* 103 (2016) 35-40.
38. Performance of Mn-Zn ferrite magnetic fluid in a prototype distribution transformer under varying loading capacity. Jay Patel, Kinnari Parekh and R V Upadhyay, *International Journal of Thermal Sciences* (2016)
39. The role of inter-particle force between micro and nano magnetic particles on the stability of magnetorheological fluid, Zarana Laherisheth, Kinnari Parekh and R V Upadhyay, *AIP Advances* 7, 025206 (2017)

40. Temperature dependent acoustic properties of temperature sensitive magnetic fluid subjected to magnetic field. Kinnari Parekh , Jaykumar Patel, and R V Upadhyay, *Journal of Molecular Liquids*, 248, 569-576 (2017).
41. Influence of particle shape on the magnetic and steady shear magnetorheological properties of nanoparticle based MR fluids. Zarana Laherisheth and R V Upadhyay, *Smart. Mater. Struct.* 26, 054008, (2017)
42. Nano-lubricant: magnetic nanoparticle based, Kinjal Trivedi, Kinnari Parekh, R V Upadhyay, *Mater. Res. Express* 4, 114003 (2017)
43. The effect of magnetic field on the structure formation in an Oil-based magnetic fluid with multicore iron oxide nanoparticles. Zarana Laherisheth, Kinnari Parekh and R V Upadhyay,, *Journal of Nanofluids*, Vol. 7 pp 1-8, (2018)
44. Effect of particle concentration on the lubricating properties of magnetic fluids. Kinjal Trivedi, Anjana Kothari, Kinnari Parekh, R V Upadhyay. *Journal of Nanofluids*, Vol. 7 pp 1-8, (2018)