Dr. THANGEESWARI. T

Professor in the Department of Physics

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EDUCATION

Ph.D., Material Science, Nano Materials
Anna University
2015
Title: Investigation On the Structural, Optical and Magnetic Properties of Bismuth and Rare Earth Metal Ions Doped Cobalt Doped Zinc Oxide Nanoparticles.
Name of the Supervisor: DR J. Velmurugan, Professor, Department of Medical Physics, Anna University, Chennai, Tamil Nadu, India.
Faculty in which Ph.D. was awarded: Science and Humanities.

M.Phil., in Nuclear Physics 78.25%
University of Madras
2002

M.Sc., Medical Physics 80.8%
Anna University
2001

B.Sc., Physics 71.47%
University of Madras
1999

HSC State Board 78%
K. Aramuganadar Girls Higher Secondary School, Chennai, Tamil Nadu, India
1996

Details of Book[s] Authored/ Contributions in Book Chapters

Book "Doped zinc oxides nano material for dilute magnetic semiconductor", ISBN No 978-620-2-05104-0 **Publisher** Lap Lambert Academic Link https://www.amazon.com/oxides-material-dilute-magnetic-semiconductor/dp/6202051043

Book Chapter "Advanced Engineering Research and Applications", Volume - 3, **ISBN No** 978-93-86138-65-1 RIP Publisher.

MASSIVE OPEN ONLINE COURSES (MOOC)

- ✓ NBA Accreditation and Teaching-Learning and Outcome Based Learning Aug-Oct 2024
- ✓ Structural Analysis of Nanomaterials July- Aug 2023
- ✓ Surface Engineering of Nanomaterials Jan-Mar 2023
- ✓ Fundamentals of Electronic Materials and Devices 20215.
- ✓ Solid State Physics Jul-Oct 2019

TEACHING EXPERIENCE: 19.2 YEARS

Professor & Head - 3 Years
Vel Tech Multi Tech Rangarajan Dr. Sakunthala Engineering College

Associate Professor - 4 Years
Vel Tech Multi Tech Dr. Rangarajan Dr. Sakunthala Engineering College

Assistant Professor - 11.9 Years
Vel Tech Multi Tech Dr. Rangarajan Dr. Sakunthala Engineering College

OPEN RESEARCHER ID

orcid
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Scopus Author ID
55846039600

RESEARCH

Details of Research Guidance
Supervisor ship Anna University Id: 1131145
No. of Ph.D. Scholars Registered: 2
No. of Ph.D. Scholars Graduated: 1

Publication details
SCI Indexed Journals Total Count: 14
Scopus Indexed Journals including SCI Total Count: 32
H-INDEX: 11

Awards :

R.S.O – Radiological Safety Officer awarded by BARC-Bhabha Atomic Research Center.

Research Publication details

1. **Investigation of natural iron oxide materials in photo-catalytic applications Thangeeswari, T.,** Valan, I.I., Arulkumar, E., Mahalakshmi, R. AIP Conference Proceedings, 2024, 3122(1), 050021
2. **Synthesis and characterization of folic acid decorated magnetic nanoparticles for industrial wastewater purification,** Karthick, S., **Thangeeswari, T**., Dharani, M.AIP Conference Proceedings, 2024, 3122(1), 050018
3. **Investigation of glucose biosensors by non-enzymatic photoluminescent detection using oleic acid treated Ag2S nanoparticles,** Ratchagar, V., **Thangeeswari, T**., Muniyappan, A.Materials Chemistry and Physics, 2024, 316, 129116
4. **Impact of pH levels on the morphological, dielectric and impedance spectral behaviour of cobalt oxide nanomaterials, Senthil, S., Ratchagar, V., Thangeeswari, T., Srinivasan, S., Murugan, R.Digest Journal of Nanomaterials and Biostructures, 2023, 18(4), pp. 1235–1247**
5. **Impact of reducing agents on the ammonia sensing performance of silver decorated reduced graphene oxide: Experiment and first principles calculations**, Applied Surface Science, 2021 | journal-article,DOI: 10.1016/j.apsusc.2021.149886, EID: 2-s2.0-85107132458, Part of ISSN: 01694332, Source:Thangeeswari TharmarviaScopus – Elsevier
6. **Copper Oxide Nanorod/Reduced Graphene Oxide Composites for NH₃ SensingACS Applied Nano Materials, 2021 | journal-article,**DOI: 10.1021/acsanm.1c01831, EID: 2-s2.0-85120642061, Part of ISSN: 25740970, Source:Thangeeswari TharmarviaScopus – Elsevier
7. **Experimental analysis and investigation of the performance of 3Al2O3·2Sio2· La2O3 ceramic-coated piston**Journal of Ceramic Processing Research, 2022 | journal-article, DOI: 10.36410/jcpr.2022.23.4.459, EID: 2-s2.0-85137182696, Part of ISSN: 12299162, Source:Thangeeswari TharmarviaScopus – Elsevier
8. **Effect of dopant concentration Mn in SnO2 nanoparticleson photocatalytic, magnetic and optical properties**, Digest Journal of Nanomaterials and Biostructures, 2022 | journal-article, DOI: 10.15251/DJNB.2022.174.1475, EID: 2-s2.0-85144831772, Part of ISSN: 18423582, Source:Thangeeswari TharmarviaScopus - Elsevier
9. **Enhanced dielectric, EMI shielding effectiveness, linear and nonlinear optical properties of CdO/SnO<inf>2</inf> nanocomposites***Nano-Structures and Nano-Objects* 2020 | journal-article DOI: 10.1016/j.nanoso.2020.100554 EID: 2-s2.0-85090117080 *Part of* ISBN: 2352507X **Source:** ThangeeswariTharmar*via*Scopus – Elsevier
10. **Enhanced Ferromagnetic Property at Room Temperature and Photocatalytic Efficiency of CdO/CeO<inf>2</inf>/PVP Nanocomposite** *Journal of Superconductivity and Novel Magnetism* 2020 | journal-article DOI: 10.1007/s10948-020-05467-5 EID: 2-s2.0-85084060747 *Part of* ISBN: 15571947 15571939 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
11. **Fourier transform infrared and fluorescence spectroscopic analysis of h bonding variation in human benign and cancerous breast tissues***International Journal of Pharmaceutical Research* 2020 | journal-article DOI: 10.31838/ijpr/2020.12.03.186 EID: 2-s2.0-85090617907 *Part of* ISBN: 09752366 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
12. **Influence of severe double shot peening on microstructure properties of Ti 6Al-4V and Titanium Grade 2 dissimilar joints using laser beam welding** *Optics and Laser Technology* 2020 | journal-article DOI: 10.1016/j.optlastec.2019.105883 EID: 2-s2.0-85073973751 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
13. **Investigation on various construction material LECA, thermal insulated and conventional blocks***IOP Conference Series: Materials Science and Engineering* 2020 | conference-paper DOI: 10.1088/1757-899X/764/1/012013 EID: 2-s2.0-85082587290 *Part of* ISBN: 1757899X 17578981 **Source:** ThangeeswariTharmar*via*Scopus – Elsevier
14. **Thermal and nonlinear optical properties of semiorganic single crystal: L-Threonine p-nitrophenolate (LTPNP)***IOP Conference Series: Materials Science and Engineering* 2020 | conference-paper DOI: 10.1088/1757-899X/764/1/012012 EID: 2-s2.0-85082598299 *Part of* ISBN: 1757899X 17578981 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
15. **Relaxation and Viscosity Analysis on the Mixture ofAnisole and Decyl Alcohol in Benzene at 303, 313, and323 K***Russian Journal of Physical Chemistry A* 2019-09 | journal-article DOI: 10.1134/s0036024419090152*Part of* ISSN: 0036-0244*Part of* ISSN: 1531-863X **Source:** ThangeeswariTharmar
16. **Impact of rare earth (Dy and Yb) ions doping on magnetic and optical properties of ZnO nanoparticles** *AIP Conference Proceedings* 2019-05-13 | conference-paper DOI: 10.1063/1.5100688 **Source:** ThangeeswariTharmar
17. **Condition monitoring in drilling operation based on vibration signals***International Journal of Recent Technology and Engineering* 2019 | journal-article DOI: 10.35940/ijrte.C4416.098319 EID: 2-s2.0-85073739381 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
18. **Enrichment of optical, magnetic and photocatalytic properties in PVP capped CdO/SnO<inf>2</inf> nanocomposites synthesized by microwave irradiation method***Journal of Materials Science: Materials in Electronics* 2019 | journal-article DOI: 10.1007/s10854-019-02351-4 EID: 2-s2.0-85074043490 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
19. **Redox Deposition of Manganese Oxide Nanoparticles on Graphite Electrode by Immersion Technique for Electrochemical Super Capacitors***Indian Journal of Science and Technology* 2016-01-19 | journal-article DOI: 10.17485/ijst/2016/v9i1/85782*Part of* ISSN: 0974-5645*Part of* ISSN: 0974-6846 **Source:** ThangeeswariTharmar
20. **Optical properties and FTIR studies of cobalt doped zno nanoparticles by simple solution method***Indian Journal of Science and Technology* 2016 | journal-article DOI: 10.17485/ijst/2016/v9i1/85776 EID: 2-s2.0-84996844876 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
21. **Effect of doping on the microstructure of ZnO nano particles***International Journal of Applied Engineering Research* 2015 | journal-article EID: 2-s2.0-85052669912 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier

22. **Enhancement in the optical and magnetic properties of ZnO:Co implanted by Gd³⁺ nanoparticles** *Journal of Materials Science: Materials in Electronics* 2015 | journal-article DOI: 10.1007/s10854-015-2703-2 EID: 2-s2.0-84925507725 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
23. **Influence of Co and Dy Doping on the Optical and Magnetic Properties of ZnO Nanoparticles for DMS Application***Journal of Superconductivity and Novel Magnetism* 2015 | journal-article DOI: 10.1007/s10948-015-3045-2 EID: 2-s2.0-84956893411 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
24. **Optical and magnetic properties of Yb ion-doped cobalt-based ZnO nanoparticles for DMS applications** *Bulletin of Materials Science* 2015 | journal-article EID: 2-s2.0-84942750447 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
25. **Structural and optical properties of Co-Bi doped ZnO nano particles for opto-electronic devices** *International Journal of Applied Engineering Research* 2015 | journal-article EID: 2-s2.0-84995807133 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
26. **Structural and optical properties of Co-Bi doped ZnOnano particles opto electronic devices***International Journal of ChemTech Research* 2015 | journal-article EID: 2-s2.0-84922511492 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
27. **Ferromagnetic property of ZnO: Co²⁺:Bi³⁺ Nanocrystals for DMSapplications***International Journal of ChemTech Research* 2014 | journal-article EID: 2-s2.0-84902180394 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
28. **Structural and luminescence properties of Ni, Pb, Cu- doped ZnO nano particles by co-precipitation method- Opto electronic devices***2014 International Conference on Science Engineering andManagement Research, ICSEMR 2014* 2014 | conference-paper DOI: 10.1109/ICSEMR.2014.7043677 EID: 2-s2.0-84961356613 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier
29. **Strong room temperature ferromagnetism in chemically precipitated ZnO:Co²⁺:Bi³⁺ nanocrystals for DMS applications***Journal of Materials Science: Materials in Electronics* 2013 | journal-article DOI: 10.1007/s10854-013-1481-y EID: 2-s2.0-84890435060 **Source:** ThangeeswariTharmar*via*Scopus - Elsevier *RecordlastmodifiedSep22,20205:18:27AM*

Seminars/ Conferences/ Workshops Attended And Papers Presented Details

1. **Thangeeswari, T.** Velmurugan, J & Priya, M 2014, 'Ferromagnetic property of ZnO: Co2+:Bi3+ Nanocrystals for DMS applications', International Journal of ChemTech Research, vol.6, pp. 2150-2152.
2. **Thangeeswari, T.** Velmurugan, J & Priya, M 2014, 'Structural and luminescence properties of Ni, Pb, Cu-doped ZnO nano particles by co-precipitation method-Opto electronic devices', IEEE-XPLORER conference proceedings, India, November 27-29.
3. **Thangeeswari, T.** Velmurugan, J & Priya, M 2014, 'Enhancement of ferromagnetic property in ZnO nanoparticle by doping Co and alkaline material', National Conference on emerging trends in Science and Humanities, Chennai, India, April 11.
4. **Thangeeswari, T.** Velmurugan, J & Priya, M 2013, 'Influence of divalent metal ions on the microstructure and optical property of ZnO nanoprticles by equi molar addition', International Conference on Nanomaterials: Science, Technology and Applications (ICNM 13), Chennai, India, December 5-7.
5. **Thangeeswari, T.** Velmurugan, J & Priya, M 2013, 'Synthesis and characterization of mixed ZnO nanoparticles and transition metal ions', National Conference on emerging trends in Science and Humanities, Chennai, India, April.
6. **Thangeeswari, T.** 2012, 'Room temperature synthesis and micro structural characterization of mixed ZnO nanoparticles and transition metal oxides', National Seminar on new materials research and nanotechnology (NSNMRN2012), Udhagamandalam, India, September.
7. **Thangeeswari, T.** 2015, 'Effect of doping on the microstructure of ZnO nanoparticles', National conference on trends and innovations in civil & mechanical Engineering-NCTICM, India, September.

Dated: 5/11/2025
Place: Chennai

(Dr. Thangeeswari .T)