

RESUME

Dr. R. VIJAYALAKSHMI
DEPARTMENT OF PHYSICS
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CAREER OBJECTIVE

Aiming at excellence in the working field through hard work, dedication, and honesty at challenging environment.

ACADEMIC CHRONICLE

Degree	Name of the University	Name of the Institution	Month & Year of Passing	Aggregate Percentage
Ph. D. (Physics)	University of Madras	Presidency College, Chennai	April' 2015	-
M. Phil. (Physics)		Presidency College, Chennai	August' 2008	71%
M. Sc. (Physics)		Queen Mary's College, Chennai	April' 2007	79%
B. Sc. (Physics)		Bharathi Women's College, Chennai.	April' 2005	81%

TEACHING EXPERIENCES

Name of the Post	Name of the Department	Name of the Institution	Year of Experience
Guest Lecturer	Dept. of Physics	Bharathi Women's College (A), Chennai-108	3 Yrs (10.04.2015 to 13.04.2017)
Assistant Professor & HOD	Dept. of Physics	Thiruthangal Nadar College, Chennai-51	4 Yrs (01.06.2017 to till date)

TECHNICAL SKILLS

OPERATING SYSTEMS : Windows-98, MS-Office, XP

PACKAGES : DTP

TYPING : Higher (English)

RESEARCH PUBLICATIONS

1. V.Rajendran, **R.Vijayalakshmi**, Synthesis of single-crystalline ilmenite Nickel Titanate nanorods by a modified sol-gel route, *International Journal of Materials Research* (under review).
2. V.Rajendran, **R.Vijayalakshmi**, Effect of Rare Earth Dopant (Ce^{3+}) on the Structural, Optical and Dielectric Properties of $BaTiO_3$, *Materials Characterization* (under review).
3. **R.Vijayalakshmi**, V.Rajendran, Impact of Surfactants on Physical Properties of $BaTiO_3$ Nanoparticles, *International Journal of Nanoscience*, Vol. 12, No. 1 (2013) PP: 1 - 5.
4. **R.Vijayalakshmi**, V. Rajendran, Synthesis and Characterization of Nano- TiO_2 via Different Methods, *Archives of Applied Science Research*, Vol. 4 (2) (2012) PP: 1183 – 1190.
5. **R.Vijayalakshmi**, V.Rajendran, Synthesis, Structural Characterization and Optical Properties of Nanoparticles of $MTiO_3$ (M= Ni and Co) Obtained by the chemical method, *Int. J. Nanoparticles*, Vol. 6(1) (2013) PP: 28 -37.
6. **R.Vijayalakshmi**, V.Rajendran, Effect of Reaction Temperature on Size and Optical Properties of $NiTiO_3$ Nanoparticles, *E-Journal of Chemistry*, Vol. 9 (1) (2012) PP: 282-288.
7. **R.Vijayalakshmi**, V.Rajendran, Effect of Co-doping on Structural and Optical Properties of $NiTiO_3$ Nanoparticles, *Nanoscience and Nanotechnology: An International Journal*, Vol. 1 (1) (2011) PP: 1 – 5.
8. **R.Vijayalakshmi**, V.Rajendran, Synthesis of Nano – TiO_2 by Sol-Gel Route: Effect of Solvent and Temperature on the Optical Properties, *International Journal of Pure and Applied Physics*, Vol. 7 (1) (2011) PP: 105 – 115.
9. **R.Vijayalakshmi**, V.Rajendran, Synthesis and Characterization of Cubic $BaTiO_3$ Nanorods via Facile Hydrothermal Method and Their Optical Properties, *Digest Journal of Nanomaterials and Biostructures*, Vol. 5 (2), (2010) PP: 511 – 517.

10. **R.Vijayalakshmi**, K.V.Rajendran, Influence of Surfactants on the Synthesis of TiO₂ Nanoparticles, *AZO Journal of material*, Vol. 6 (2), (2010) PP: 1 – 8.

11. **R.Vijayalakshmi**, K.V.Rajendran, Effect of K⁺ doping on the Phase Transformation of TiO₂ Nanoparticles, *AZO Journal of material*, Vol. 6 (1), (2010) PP: 1 – 10.

National and International Conferences Paper Presented & Attended:

1. Effect of Rare Earth Dopant (Ce³⁺) on the Structural and Optical Properties of BaTiO₃, **Dr. R. Vijayalakshmi**, Emerging Trends in Science, Technology & Smart Computing (ETSTSC - 2021), Department of Physics, Electronics & Computer Science, Willingdon College, Sangli, March 5th 2021.
2. “Current Innovations and the Future of Therapeutic Developments (CIFTD-2020)” organised by Centre for Biomaterials Cellular & Molecular Theranostics (CBCMT) at Vellore Institute of Technology (VIT), Vellore, from 1st June to 3rd June 2020.
3. “International Conference on Materials and Spectroscopy (ICMS - 2018)” organised by Department of Physics, Saveetha Engineering College, Thandalam, Chennai - 602 105 from 11th December to 12th December 2018.
4. Synthesis, Structural Characterization and Optical Properties of Nanoparticles of MTiO₃ (M=Ni and Co) obtained by the Chemical Method, **R.Vijayalakshmi**, V.Rajendran, Second International Workshop on Advanced Functional Nanomaterials (SIWAN – 2013) – Chennai, 28th – 30th January 2013.
5. Effect of K⁺ doping on the Phase Transformation and Grain Growth of TiO₂ Nanoparticles, **R.Vijayalakshmi**, V.Rajendran, Twenty Fourth National Seminar on Crystal Growth – Chennai, 20th – 22nd December 2012.
6. Effect of Co-doping on Structural and Optical Properties of NiTiO₃ Nanoparticles, **R.Vijayalakshmi**, V.Rajendran, DST, DRDO, CSIR & BRNs Sponsored XVII National Seminar on Crystal Growth – Chennai, 9th – 11th January 2013.

7. **R.Vijayalakshmi**, National Seminar on Frontiers in Nanoscience and Nanotechnology, Chennai, 18th February 2012.
8. Synthesis and Characterization of NiTiO₃ Nanoparticles and its Optical Properties, **R.Vijayalakshmi**, V.Rajendran, National Laser Symposium (NLS-20), Chennai, 9th – 12th January 2012.
9. Synthesis and Optical Properties of Nanocrystalline Pure and Ce³⁺ – doped BaTiO₃ - **R.Vijayalakshmi**, V.Rajendran, Research: Perspectives and Procedures – Chennai, 23rd – 24th August 2012.
10. Impact of Surfactants on Physical Properties of BaTiO₃ Nanoparticles - **R.Vijayalakshmi**, V.Rajendran, National Seminar on Digenous Nanomaterials Development for Industrial Application – Chennai, 27th – 28th February 2012.
11. Effect of Solvent and Temperature on Nano-TiO₂ and Their Optical Properties, **R.Vijayalakshmi**, V.Rajendran, 13th National Seminar on Crystal Growth – Chennai, 27th – 29th January 2009.
12. **R.Vijayalakshmi**, Nano-Revelation 2012 – Chennai, 20th April 2012.
13. Growth and Characterization of bulk Di Glycine Hydrogen Bromide (DGHB) NLO Crystal, K.V.Rajendran, D.Sridevi, R.Padmavathy, **R.Vijayalakshmi**, S.Gnanam, K.Anandan, J.Gajendran, The Eighth National Laser Symposium (NLS-08) 7-10 January 2009.
14. Photocatalytic activity of PEG-capped Lead Oxide nanoparticles via facile hydrothermal process, V.Rajendran, S.Gnanam, K.Anandan, J.Gajendran, D.Sridevi, **R.Vijayalakshmi**, J.Uma, V.Revathi, S.Usharani, ICRAM-2012, 20-22, Feb.2012.
15. Preparation of VTO nanoparticles via sol-gel process and application in photocatalyst, V.Rajendran, S.Gnanam, J.Gajendran, K.Anandan, D.Sridevi, **R.Vijayalakshmi**, J.Uma, V.Revathi, S.Usharani, DAE-BRNS 6th National Symposium PLD-2011, November 9-11, 2011.

Workshops Attended:

S.No.	Title	Organizer	Date	
			From	To
1	National Workshop on Advanced Materials and their Applications (NWAMA - 2020)	Dept. of Physics, The Gandhigram Rural Institute (Deemed to be University)	03-02-2020	04-02-2020
2	Comprehensive e-Learning to e-Training guide for Administrative Work	Teaching Learning Centre, Ramanujan College, University of Delhi, Dept. of MHRD, PMMMNMTT.	25/05/2020	05-06-2020
3	Workshop on Hands on Training on Development of e-content (MOODLE) & Educational Video Creation	Teaching Learning Centre, (Under PMMMNMTT, Department of Higher Education, MHRD, GoI), Coimbatore Institute of Technology	23/01/2021	24/01/2021
4	Intellectual Property Right (IPR's) and Patents	IQAC and Institution Innovation Council (IIC), Rajarshi Shahu Mahavidyalaya (Autonomous), Latur	15/03/2021	15/03/2022
5	Intellectual Property Right and Patent Filling	Department of Physics, MUNGASAJI MAHARAJ MAHAVIDYALAYA, DARWHA	17/03/2021	17/03/2022
6	Online Assessment Tools: A step Forward	Mehr Chand Mahajan DAV College for Women, Chandigarh, India	22/03/2021	22/03/2022
7	Role of Non-teaching in NAAC Accreditation	Internal Quality Assurance Cell, (I.A.Q.C.) of Mungasaji Maharaj Mahavidyalaya, Darwha	05-04-2021	05-05-2021

FDP Attended:

S.No.	Title	Organizer	Date	
			From	To
1	High Impact in Teaching Skills	Thiruthangal Nadar College	19/08/2017	19/08/2017
2	Beyond Professionalism: An Innovative Teacher	Thiruthangal Nadar College	31/10/2018	31/10/2018
3	NAAC, The New Format: A Paradigm Shift	Thiruthangal Nadar College	14/09/2019	14/09/2019
4	Managing Online Classes and Co-Creating MOOCs	Teaching Learning Centre, Ramanujan College, University of Delhi, Dept. of MHRD, PMMMNMTT.	20/04/2020	06-05-2020
5	The Use of Virtual Physics Labs - Creating Next Generation Teachers	Department of Freshman Engineering, Geethanjali College of Engineering and Technology in association with Indian Society for Technical Education (ISTE), Telegana - 501301.	20/05/2020	24/05/2020
6	AI based Proctoring in Next Generation Education	Shri Shankarilal Sundarbai Shasun Jain College for women. Chennai - 17	23/05/2020	23/05/2020
7	Innovative Trends in Engineering and Technology	IQAC, Shree L.R. Tiwari College of Engineering, Maharashtra	25/05/2020	29/05/2020
8	Integrating SWAYAM MOOCs & Educational Apps in Teaching	IQAC & SWAYAM, Shrimathi Devkunvar Nanalal Bhatt Vaishnav College For Women, Chrompet, Chennai-600 044.	28/05/2020	29/05/2020
9	Physics of Materials	Department of Physics, Faculty of Engineering & Technology, Jain (Deemed-to-be University)	28/05/2020	30/05/2020
10	Recent Trends In Material Frontiers	St. Joseph's College of Engineering, Chennai-600119, Tamil Nadu, India	29/05/2020	30/05/2020
11	Materials: Recent Trends & Engineering Applications	Gokaraju Rangaraju Institute of Engineering and Technology	02-06-2020	07-06-2020
12	Recent Advances in Nanomaterials	Department of Science, St. Joseph's College of Engineering, OMR, Chennai-119.	04-06-2020	06-06-2020
13	Physics of Materials	Kalasalingam Academy of Research and Education, Krishnankoil-626 126, Tamil Nadu	08-06-2020	14/06/2020
14	Current Trends in Physics	Department of Physics, Vivekananda College, Tiruvedakam west, Madurai, Tamil Nadu	15/03/2021	15/03/2021

National and International Seminar/Webinar Attended:

S.No.	Title	Organizer	Date	
			From	To
1	Recent Trends in Materials Science and Nanoscience (RTMSN - 2020)	Dept. of Physics, Bharathi Women's College, Chennai - 108.	12-02-2020	12-02-2020
2	Taking Research Forward during the Pandemic	Loyola Institute of Frontier Energy (LIFE), Loyola College, Chennai - 34.	20/05/2020	20/05/2020
3	Overview and current trends of Pharmaceutical Industry	Dept. of Physics, Biotechnology and Biochemistry, Government city College, Hyderabad.	21/05/2020	21/05/2020
4	History of Nuclear Fission	Department of Physics, V.O.Chidambaram College, Thoothukudi - 628008.	25/05/2020	25/05/2020
5	Solid State Physics-Series 1: Electrons in Solids	University of Madras, Department of Theoretical Physics	26/05/2020	30/05/2020
6	Physics Webinar Series	Dept. of Physics, J.B.A.S College for women, Chennai - 18.	26/05/2020	28/05/2020
7	Energy sources for the future	Chevalier T. Thomas Elizabeth College for women, Sembium, Chennai - 11	27/05/2020	27/05/2020
8	Recent Advances in Crystal Technology	Department of Physics, Prathyusha Engineering College, Poonamalle, Chennai-602025	28/05/2020	28/05/2020
9	Mountains and Fountains in Physics and Engineering	Dept. of Physics, Dr. M.G.R.Educational and Research Institute, Chennai - 95.	29/05/2020	29/05/2020
10	Recent Advancements in Bio & Nanomaterials	PG and Research Department of Physics, Vivekanandha College of Arts and Science for Women	30/05/2020	30/05/2020
11	Graphene based Nanocomposites for Energy Storage	Department of Physics, V.O.Chidambaram College, Thoothukudi - 628008.	01-06-2020	01-06-2020
12	CSIR NET Exam in Physical Sciences	PG & Research Department of Physics, Bishop Heber College, Tiruchirappalli-620017, Tamil Nadu	02-06-2020	05-06-2020
13	Piezoelectric Based Energy Harvesting Techniques	Department of Electrical and Electronics Engineering, MSAJCE, Chennai.	03-06-2020	03-06-2020
14	Modelling & Experimental Techniques	Department of Physics, St. Aloysius College, Jabalpur (M.P.), India.	03-06-2020	04-06-2020
15	Hybrid Nanocomposites for Energy Storage	Department of Science and Humanities, RVS Technical Campus, Coimbatore, Kumaran Kottam Campus, Kannampalayam, Coimbatore-641 402	04-06-2020	04-06-2020

16	60 Years of Lasers : A Fascinating Journey	PG & Research Department of Physics, Loganathan Narayanasamy Government College, Ponneri-601 204, Tamil Nadu, India.	04-06-2020	04-06-2020
17	Nanostructured Materials for Controlling the Flow of Light	Department of Physics & Department of Electronics, Sri YN College, Narsapur-534275, Andhra Pradesh.	05-06-2020	05-06-2020
18	Recent Trends in Material Science	PG & Research Department of Physics, Muthurangam Govt. Arts College (A), Vellore-632 002.	06-06-2020	06-06-2020
19	Nanomaterials for Smart and Sustainable Energy Solutions	Department of Physics in Association with Internal Quality Assurance Cell, Rayat Shikshan Sanstha's Mahatma Phule College, Raigad, India - 410206.	08-06-2020	08-06-2020
20	Fiber Optic Communications: A Gist View	Department of Physics, Queens College of Arts and Science for Women, Near Thanjavur, Punalkulam, Gandarvakottai, Pudukkottai (Dt)-613 303	09-06-2020	09-06-2020
21	Marvels & Mysteries of the Universe	PG & Research Department of Physics, Pope's College, Sawyerpuram-628 251	09-06-2020	09-06-2020
22	Solid State Lasers	PG & Research Department of Physics, Pope's College, Sawyerpuram-628 251	11-06-2020	11-06-2020
23	A Journey towards Wave Mechanics	Department of Physics, B.S. Abdur Rahman Crescent Institute of Science and Technology, Chennai-600048, Tamil Nadu, India	12-06-2020	12-06-2020
24	Recent trends in Physics	Department of Physics with computer Applications, St. Joseph's College (Arts & Science) Kovur, Chennai - 600128.	12-06-2020	12-06-2020
25	Essentials of Nanotechnology and Nanoelectronics	Department of Physics, Saveetha Engineering College	13/06/2020	13/06/2020
26	Importance of Precise Measurements in Science & Technology and Advances in Material Science	Department of Physics, B.S. Abdur Rahman Crescent Institute of Science and Technology, Chennai-600048, Tamil Nadu, India	15/06/2020	15/06/2020
27	Electrocatalysts for Energy Application - PEMFC	Department of Physics, School of Basic Science, Vels Institute of science, Technology & Advance Studies, Chennai - 117	28/02/2021	28/02/2022
28	Matrix Presentation	Department of Mathematics, Thiruthangal Nadar College	15/03/2021	15/03/2022
29	Interesting Material Properties at Extremely Low Temperatures	Department of Physics, Shaheed Bheema Nayak Government Post Graduate College, Barwani, Madhya Pradesh, India	17/03/2021	17/03/2022

30	Emerging Trends in Organic Synthesis (ETOS - 2021)	Department of Chemistry and Chemical Sciences, Central University of Jammu in collaboration with Department of Chemistry, IIT Jammu.	19/03/2021	19/03/2022
31	Role of Modern Technology in Physics	Department of Physics, Shri Rajiv Gandhi Govt. College Banda Sagar MP	24/03/2021	24/03/2022

DECLARATION

I hereby declare that the above mentioned particulars are true of the best of my knowledge and I assure you that I will work in the right earnestness and fulfill the expectations of my superiors.

Place: Chennai

Signature

Date:

(R. Vijayalakshmi)