Profile:

Name: Dr. R.Poonguzhali

Designation: Assistant Professor, Department of Physics

Area of Interest: Nanotechnology and Electrochemistry

About me

Gmail: poonguzhali.r.phy@psvpec.in

Research scholar link: https://scholar.google.co.in/citations?user=VuDrONgAAAAJ&hl=en

Orchid id: https://orcid.org/0000-0003-1550-7528

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Professional information:

FACTOR OF PUBLICATIONS
Cumulative impact factor: 85.47
No. of Journal Publications: 17
No. of Citations: 706
h-index: 15
i10-index: 16

Publication

1. M.Parthibavarman, M.Karthik, P.Sathishkumar, **R.Poonguzhali, "**Rapid synthesis of novel Cr-doped WO_3 nanorods: an efficient electrochemical and photocatalytic performance," ***Journal of the Iranian Chemical Society***" 15 (**2018**) 1419 - 1430. [Springer Publication Impact factor: **2.019].**
2. M.Karthik, M.Parthibavarman, A.Kumaresan, S.Prabhakaran, V.Hariharan, **R.Poonguzhali**, S.Sathishkumar, "One-step microwave synthesis of Pure and Mn doped WO_3 nanoparticles and its structural, optical and electrochemical properties," Journal of ***Materials Science: Materials in Electronics***, 28 **(2017)** 9 [Springer Publication Impact factor:**2.478**]

3. **R.Poonguzhali,** R.Gobi*, N.Shanmugam, A.Senthilkumar, G.Viruthagiri, N.Kannadasan "Enhancement in electrochemical behavior of copper doped MnO_2 electrode", ***Materials Letters.,*** 157 **(2015)** 116-122**,** [Elsevier Publication Impact factor: **3.423**]

4. **R.Poonguzhali**, N.Shanmugam, R.Gobi*, A.Senthilkumar, G.Viruthagiri, N.Kannadasan "Effect of Fe doping on the electrochemical capacitor behavior of MnO_2 nanocrystals", ***Journal of Power Sources***., 293 **(2015)** 790-798 [Elsevier Publication Impact factor: **9.127**]

5. **R.Poonguzhali**, N.Shanmugam, R. Gobi*, A.Senthilkumar, "Influence of Zn doping on electrochemical capacitor behavior of MnO_2 nanocrystals", ***RSC Adv.,*** 5 **(2015)** 45407 [RSC Publication Impact factor:**3.245**].

6. N.Kannadasan, N.Shanmugam*, K.Sathishkumar, S.Cholan, **R.Poonguzhali**, G.Viruthagiri, "Optical behavior and sensor activity of Pb ions incorporated ZnO nanocrystals", ***SpectrochimicaActa Part A: Molecular and Biomolecular Spectroscopy***, 143 **(2015)** 179 -186. [Elsevier Publication Impact factor: **4.098**].

7. P.Dhamodharan, R. Gobi*, N.Shanmugam, N.Kannadasan, **R.Poonguzhali**, S. Ramya, "Synthesis and characterization of surfactants assisted Cu^{2+} doped ZnO nanocrystals", ***Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy,*** 131 **(2014)** 125-131. [Elsevier Publication Impact factor: **4.098**].

8. P.Prasannalakshmi, N.Shanmugam, N.Kannadasan, K.Sathishkumar, G.Viruthagiri, **R.Poonguzhali**, "Influence of thermal annealing on the photocatalytic properties of TiO_2 nanoparticles under solar irradiation", ***Journal of Materials Science: Materials in Electronics***, 26 **(2015)** 7987-7996. [Springer Publication Impact factor: **2.478**].

9. N.Kannadasan, N.Shanmugam*, S.Cholan, K.Sathishkumar, G.Viruthagiri, **R**.**Poonguzhali,** "The effect of Ce^{4+} incorporation on structural, morphological and photocatalytic characters of ZnO nanoparticles", ***Materials Characterization***, 97**(2014)** 37-46 [Elsevier Publication Impact factor:**4.342**].

10. N.Kannadasan, N.Shanmugam*, K.Sathishkumar, S.Cholan, **R.Poonguzhali**, G.Viruthgiri, "Synthesis of Ce^{4+} ions doped ZnO electrode as a sensor for hydrogen peroxide", ***Journal of Materials Science: Materials in Electronics,*** 25 (11), 5137- 5143 **(2014)**. [Springer Publication Impact factor: **2.478**].
11. N.Kannadasan, N.Shanmugam*, S.Cholan, K.Sathishkumar, G.Viruthagiri, **R.Poonguzhali**, "Optical and electrochemical characteristics of Pb ions doped ZnO nanocrystals", ***Current Applied Physics,*** 14 **(2014)**1760-1766,. [Elsevier Publication Impact factor: **2.48**].
12. N.Kannadasan, N.Shanmugam*, S.Cholan, K.Sathishkumar, **R.Poonguzhali**, G.Viruthagiri, "Synergistic effect of bimetal ions (Ce, Pb) incorporation on optical, structural, and sensory activity of ZnO nanocrystals, ***Journal of Solid State Electrochemistry,*** 1-12 **(2014)**. [Springer Publication Impact factor: **2.647].**
13. **R.Poonguzhali**, N. Shanmugam, R. Gobi*, N. Kannadasan, G. Viruthagiri, "Effect of thermal annealing on the structural, morphological and supercapacitor behavior of MnO_2 nanocrystals", ***Material Science in Semiconducting Processing***., **27 (2014)** 553-561 [Elsevier Publication Impact factor: 3.927].

NATIONAL PUBLICATIONS:

1. M.Shanmugam, G.Sivakumar, **R.Poonguzhali**, A. Santhakumar, M. Kumara Dhas, "Influence of Bamboo Leaf Ash on the Physical, Mechanical and Dielectric properties of the Reinforced Ceramic Insulator" ***Int. J. Adv. Sci. Eng.*** 364-368 **(2017)**364**.**
2. **R.Poonguzhali,** R.Gobi, M.Shanmugam, V.Karthik, "Synthesis and Characterization of Ce Doped MgO Nanocrystals***," Int. J. Adv. Sci. Eng.*** 435- 441 **(2017)** 435.
3. R.Gobi, **R.Poonguzhali,** N.Shanmugam, G.Viruthagiri, A. Senthilkumar, "Preparation and Characterization of Nanostructured Ni Doped MnO_2 Electrodes for Electro chemical Supercapacitors***" Int. J. Adv. Sci. Eng***. 185-191 **(2016)**185.
4. **R.Poonguzhali**, N. Shanmugam, R. Gobi*, A. Senthilkumar, "Growth behavior of Fe doped MnO_2 nanocrystals for high performance electrochemical capacitor", ***Int.J.Curr.Res.Chem.Pharma.Sci.***,1**(2014)**7-13.

Certification

NPTEL

1. Renewable Energy engineering: Solar, Wind And Biomass Energy System, Jan-April 2024
2. Non-conventional energy Resources, Jan-April 2024
3. Physico- chemical processes for wastewater treatment, Jan-April 2024
4. Physics of Renewable Energy Systems, Certificate award to Elite, July - Oct 2023
5. Basic Environmental Engineering And Pollution Abatement, July - Oct 2023
6. Introduction to Laser, Jan-April 2022.

EDUCATION DETAILS

1. Ph.D.,Physics, 2016, Annamalai University, Chidambaram.
2. M.Sc., Physics, 2011, Seethalakshmi Ramasami College, Bharathidasan University, Thiruchirappalli.
3. B.Sc., Physics, 2009, Dhanalakshmi Srinivasan College Arts and Science for Women, Bharathidasan University.

Work Experience:

- Working as Assistant Professor in Prince Shri Venkateshwara Padmavathy Engineering College, Ponmar, and Chennai from November 2025 till date.
- Worked as Guest Lecturer in Pachiyappa's College for Women, Kanchipuram.
- Worked as Assistant Professor in Trinity College for Women, Namakkal.
- Worked as Assistant Professor in Mahendra Arts and Science College, Namakkal.
- Worked as Assistant Professor in Bharathiyar Institute of Engineering for women, Attur

LIST OF FDP AND CONFERENCES ATTENDED

1. 7- Day International Online Facuty Development Programme on *Recent Developments And Applications in Advanced Materils,* ST.Joseph College of Engineering, Chennai from 03.03.2025 to 09.03.2025.
2. National Facuty Development Programme on *Innovative Trends in Designing aterials and Mathematical Modeling for Sustainable Development,* vivekanandha Arts and science college For women, Salem from 27.1.2025 to 31.01.2025.
3. National Facuty Development Programme on *Methods of material synthesis*, Bhavan's Vivekanda College, secundrabad from 18th to 22nd January 2022.

4. National seven day online Facuty Development Programme on *Quality enhancement strategies For Higher education institutions*, Sri Saradha College for Women, Salem from 05 Jan to 12 Jan 2022.
5. Faculty Training Programme - *Physics*, Periyar University, 15th, 16th Nov 2018.
6. Development Programme on *Creative Thinking*, Mahendra Enginering College, Namakkal on 15th, 16th Dec 2016.
7. National Faculty Development Programme on *Technology Enhanced Learning*, Bharathiyar Institute Of Engineering For Women on 30th Nov 2015.
8. National webinar on International day of Light (IDL - 21) held on 16 May 2021, Department Of Physics, St.Joseph University, Nagaland.
9. International Workshop on Energy Technology and Sensor Systems (TENSYS), University of Malaya held on 21& 22 December 2021.
10. International conference on Recent trends in Material science and Technology (ICRTMST - 2018), Sri Vijay Vidyalaya College of Arts and Science, Dharmapuri.
11. National conference on Nanomaterials (NCN - 2017), PG & Research department of Physics, Arignar Anna Goverment Arts College, Namakkal.
12. One day national seminar on Recent Trends in Physics, Bharathi College, Mandya.
13. International conference on Research advances in Communication, Computation, Electrical science and Structures on March 2016, Bharathiyar Institute of engineering for women, Attur.
14. Second International Workshop on Advanced Functional Nanomaterial (SIWAN- 2013) Anna University.
15. International Conference on Emerging trends in Chemical sciences (IETC-2013), chemistry Division, School of Advanced Sciences, VIT University.
16. National seminar on Chemistry Education and Research & National convention of Chemistry Teachers (NCCT-2013), Department of chemistry, Annamalai University.
17. National conference on Frontier Topics in Advanced Materials (NCFTAM-2013), PG &Research Department of physics, Bishop Heber College, Tiruchirappalli.
18. National conference on advanced materials and its Application (NCAMA-2014), Department of Engineering physics, Annamalai University.

CONFERENCES AND SEMINARS ORGANIZED

1. National Conference on Advanced Materials & Research on 21 Aug 2017, Department of Physics, Mahendra Arts and Science College, Namakkal.
2. International Conference on Functional material for Bio-Energy, Green Technology and Environmental Sustainability on 08 Aug 2019.
3. Organized an International Webinar on "Nanostructured, metal oxides for Supercapacitor applications (IWNMS-2020) by Department of Physics and IQAC, Trinity College for Women, Namakkal on 12th June 2020.
4. Organized a one day webinar based event entitled "Luminescence studies on rare earth activated zirconia nanophosphor and its nanocomposite" organized by the Department of Physics, and SWAYAM on 11th January 2021.
5. Convener of State Level Webinar on "Nanotechnology and Energy Sources" Organized by Department of Physics, Trinity College for Women, Namakkal on 7th June 2021.
6. Organizing a online event entitled "Novel Crystals for Linear Optics (NLO) Application" Organized by Department of Physics and IQAC, Trinity College for Women, Namakkal on 30th June 2021.
7. Organized webinar event in the title of "A qualitative research approach on Characterization techniques" by Department of Physics and IQAC, Trinity College for Women, Namakkal on 8th July 2021.
8. Organized webinar on "Introduction to Li-Ion Batteries and Electric Vehicles Applications" by Department of Physics and IQAC, Trinity College for Women, Namakkal on 29th October 2021.

ACADEMIC ACTIVITIES

- Acted as a Questions setter for two various colleges.
- Acted as an examiner for practical and theory examination.