

**Dr. K. CATHERINE SIRIYA PUSHPA**

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E.Mail: [pushpamahesh04@gmail.com](mailto:pushpamahesh04@gmail.com)**EDUCATIONAL QUALIFICATION:**

Degree	Year of Passing	Institution	Percentage/ Grade
Ph.D	January 2017	National College, Trichy.	Commended
B.Ed	2006-2007	Auxillium College of Education, Thanjavur	First Class with Distinction
M.Phil	2005-2007	Bharathidasan University, (CDE) Trichy	First Class with Distinction
M.Sc	2003-2005	A.V.V.M Sri Pushpam College, Poondi, Thanjavur.	First Class with Distinction
B.Sc	2000-2003	Rajah Serfoji Govt. College, Thanjavur.	First Class with Distinction

**EXPERIENCE:****Teaching Experience:**

July 2015- Feb 2023	Head & Assistant Professor, Bon Secours College for Women, Thanjavur
Aug 2011- May 2012	Assistant Professor, St. Joseph's College of Engineering & Technology, Thanjavur
Jul 2008- Apr 2010	PG Assistant, Sacred Heart Girls Hr.Sec School, Thanjavur.
Dec 2007- Jun 2008	Assistant Professor, Idhaya College of Arts and Science for Women, Kumbakonam.
Jun 2007- Dec 2007	Assistant Professor, Annai College Arts and Science, Kumbakonam.

### **Research Experience:**

**Ph.D** - June 2012- July 2015 - Full- Time Research Scholar , National College, Tiruchirappalli.

**Title of the Thesis:** Tuning the magnetic behaviour and improving the antibacterial efficiency of ZnO nanopowders through simultaneous doping of Zr with F/Mn/Fe for biomedical applications

**M.Phil.,** - September 2005 - February 2007- Bharathidasan University (CDE), Tiruchirappalli.

**Title of the Dissertation:** Optical studies on ZnO:SnO<sub>2</sub> films fabricated by spray pyrolysis technique

### **FIELD OF SPECIALIZATION**

- Material Science

### **PAPERS PUBLISHED:**

**ORCHID ID:** <https://orcid.org/0000-0003-3403-2222>

1. Advances in Materials Science and Engineering, "*Structural, Morphological, Optical and Antibacterial Activities of Zinc Oxide Nanopowders: A Comparative Study of Green and Soft Chemical Synthesis*" Volume: 2022, ID 7778328, 11 pages. **Impact Factor: 1.726**
2. AIP conference Proceedings, "*Microwave Assisted Green Synthesis of Zinc Oxide Nanoparticles for Biological Applications*" 2270 (1), 110003. **Impact Factor: 0.402**
3. Journal of Inorganic and Organometallic Polymers and Materials, "*Uniform and Well-dispersed ZnO:Fe Nanoparticles with High Photoluminescence and Antibacterial Properties Prepared by Soft Chemical Route*" Vol 27 (2017) **Impact Factor: 1.55**
4. Journal of material science materials in electronics," *Effect of size reduction on the magnetic and antibacterial properties of ZnO: Zr: Mn nanoparticles synthesized by a cost-effective chemical method*" DOI 10.1007/s10854-016-4498-1 **Impact Factor: 2.478**
5. Ceramics International, "*Formation of hexagonal plate shaped ZnO microparticles- A study on antibacterial and magnetic properties*" Doi-10.1016/j.ceramint.2016.01.132. **Impact Factor: 4.527**

6. Materials Research Innovations,” *Zr+F co-doping induced variations in antibacterial and magnetic behaviours of ZnO nanopowders*” Vol: 20 (2016) 26-31 **Impact Factor: 2.12**
7. Ceramics International. “ *Tuning the magnetic behaviour and improving the antibacterial efficiency of ZnO nanopowders through Zr+Fe doping for biomedical applications*” Vol:41 (2015) 12910-12916. **Impact Factor: 4.527**
8. Superlattices and Microstructures:” *Effect of Al doping on the structural and optical properties of ZrO<sub>2</sub> nanopowders synthesized using solution combustion method*” Vol:75 (2014) P.No:533-542 **Impact Factor: 3.12**
9. Asian Journal Of Chemistry: “*Structural, Magnetic And Electrical Properties Of BiFeO<sub>3</sub> Nanopowders Prepared By Combustion Process*” Vol: 25, P.No: 333-335 **Impact Factor: 0.535**

#### **AWARDS RECEIVED:**

- National College, Trichy. “*Structural and optical Properties of ZnO Nanopowders Prepared by Combustion Method*”: **BEST ORAL AWARD 2<sup>ND</sup> PRIZE**
- National College, Trichy. “*Structural and optical Properties of ZnO Nanopowder*”: **BEST ORAL AWARD 2<sup>ND</sup> PRIZE**
- Annamalai University, Chidambaram.” *Enhancing the antibacterial and magnetic properties of ZnO nanopowders through Zr+F co-doping*”: **BEST POSTER AWARD 1<sup>st</sup> PRIZE**
- A.V.V.M Sri Pushpam College Poondi. “*Enhancement of antibacterial activity of ZnO nanopowders by simultaneous doping of Zr and Mn*”: **BEST POSTER AWARD**

**International Conferences In Which Papers Are Presented: 7**

**National/State Level Conferences in Which Papers Are**

**Presented: 13**

**International/National/State Level Workshops and Seminars Attended: 40**

**Guest Lecture/ Chairperson: 2**

**Orientation program Organised: 1**

#### **COMPUTING SKILLS**

- Good at Microsoft Office

**PERSONAL INFORMATION:**

Age/D.O.B	39 Years; April 13, 1983
Marital Status	Married
Nationality	Indian
Languages Known	English, Tamil
Permanent Address	No: 1241, Periya Kurumbai Street, East Gate, Thanjavur-613001

I hereby declare that all the information and facts stated above are true and correct to the best -of my knowledge and belief.

K. CATHERINE SIRIYA PUSHPA