

Name: Dr. D. Arockia JencyDesignation: Assistant professorDepartment: PhysicsDate of Birth: 17.06.1984Date of Appointment: 05.07.2021

# **CONTACT DETAILS**

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# **Academic Qualification**

S. No.	Degree	University / Instituion	Year of Completion
1.	B.Sc.	Jeyaraj Annapackiam College for Women, Periyakulam	2004
2.	M.Sc.	Mother Teresa Women's University, Kodaikanal	2006
3.	Ph.D	Mother Teresa Women's University, Kodaikanal	2018

#### **Total Experience:**

UG: 9 Years PG: 2 Years

Area of Specialization: Nanoscience, Spectroscopy

### Fellowship and Award:

- Principal Investigator of Project entitled "Detection of organic pollutants by using SERS based sensors on functionalized metal nanoparticles" has been sanctioned for financial assistance of Rs.16,24,581/- Lakhs under DST-Women Scientist Scheme (WOS-A) Major Research Project, New Delhi. (Ref. No: SR/WOS-A/PS-40/2013).
- Principal Investigator of Project entitled "Decontamination of water by using bio synthesized graphene oxide coupled ZnS nanocomposite photocatalysts" has been sanctioned for financial assistance of Rs. 7500/- under TNSCST- Student Project Scheme - 2022-2023 (Ref. No: PS-182).

#### **Paper Presentation:**

- 1. International Conference on "Perspectives on Vibrational Spectroscopy" held at Mar Ivanios College, Kerala organized by Department of Physics on July 2014.
- International conference on "7<sup>th</sup> Bangalore India Nano" organized by the Nano Hub of India on December 2014.
- International Symposium on "Photonics Application and Nanomaterials" organized by Sree Chitra Trinal Institute of Medical Sciences & Technology, Trivandrum on October 2015.
- Presented a Paper in the International Workshop on "Advanced Functional Nanomaterials Organized by center for Nano science and Tech & center for International Affairs" Anna University, Chennai on December 2015
- National Conference "Study of Matter using Intense Radiation Sources and under Extreme Conditions" organized by UGC-DAE Consortium for Scientific Research, Indore on November 2016.
- 6. Fourth International Conference on "Nanoscience and Nanotechnology" organized by SRM University, Chennai on August 2017.
- International Conference on "Advanced Nanomaterials for Energy, Engineering, Biological and Medical Applications", Karur on December 2019.
- 8. International Conference on "Recent Advances in Materials Science" NIT, Trichy on May 2022.
- 9. International Conference on "Topical Drifts in Nanoscience and Green Chemistry", Nadar Saraswathi College, Theni on September 2022.

## **Publications**

1.SERS detection of Polychlorinated Biphenyls using  $\beta$ -cyclodextrin functionalized gold nanoparticles on agriculture land soil. **D. Arockia Jency**, M. Uma Devi and G.V. Sathe, Journal of Raman Spectroscopy, January 2015.

2. Glutathione Functionalized Gold Nanoparticles as Efficient Surface Enhanced Raman

Scattering Substrate for Poly Chlorinated Biphenyl Detection. D. Arockia Jency, M.

Umadevi, R. Parimaladevi, G.V. Sathe, Journal of Cluster Science, November 2017.

3. Detect, remove: A New Paradigm in Sensing and Removal of PCBs from reservoir soil via SERS-Active ZnO triggered gold nanocomposites. **D. Arockia Jency**, M. Umadevi, Journal of Applied Surface Science, January 2018.

4. Au-TiO<sub>2</sub> core shell motif scavenger: facile synthesis, high SERS effect, Synergistic photocatalytic activity, **D. Arockia Jency**<sup>1</sup>, M. Umadevi <sup>1\*</sup>, R. Parimaladevi<sup>1</sup>, Journal Name & Year: Journal of Cluster Science, May 2018

5. Colloidal design of Au @ Pt nanoflowers with good catalytic activity and SERS Investigations on river soil, **Arockia Jency D**<sup>1</sup>, Parimaladevi R, Arlin Jose Amali A, Sathe G.V, Umadevi M. Journal Name & Year: Journal of Colloids and Surface A, June 2018.

6. Built-in Electric Field Assisted Photocatalytic Dye Degradation and Photo Electrochemical Water Splitting of Ferroelectric Ce Doped BaTiO<sub>3</sub> Nanoassemblies, P. Senthilkumar, **D. Arockia Jency** <sup>2</sup>, T. Kavinkumar, Journal Name & Year: ACS Sustainable Chemistry - Engineering, June 2019

7. Enhanced Bioactivity of  $Fe_3O_4$ -Au nanocomposites- A comparative Antibacterial study, **Arockia Jency D**<sup>1</sup>, Sathyavathi K, Umadevi M, Materials Letters, October 2019.

8. Carboxymethyl Cellulose Grafted on Mesoporous Cobalt Oxide Milieu: Synthesis, Formation Mechanism and Electrochemical Features, MB Inbamani, AJ Dass, R Inbamani, Chemistry Select, 2022

### **Book Chapter Publication:**

Title: Nanomaterials for soil Remediation

Publisher and Year: Elsevier, Technology and Engineering/Material Science-2020 ISBN number: 978-0-12-822891-3

Seminars/Conference/Workshops Participated (Last five Years) – 20