Name : Dr. N. Arunadevi

Designation : Assistant Professor

Department : Chemistry

Qualification : M.Sc., M.Phil.,Ph.D

Experience : Teaching -22 Years

Research : 19 Years

Area of Specialization(s) : Advanced materials, Nano metal oxides

Email(OfficialID) : arunadevi@psgrkcw.ac.in

Academic Qualifications

Degree	Branch	Institution/University Name	Year of Graduation
Ph.D.	Chemistry	Anna University, Chennai	2009
M.Phil.	Chemistry	Bharathiar University, Coimbatore	2002
M. Sc.	Chemistry	PSGR Krishnammal College for Women, Coimbatore	2001
B.Sc.	Chemistry	PSGR Krishnammal College for Women, Coimbatore	1999

Additional Qualifications

Diploma/ Vocational/ Certification	Area of Specialization	Institution/University/Agency Name	Year
Certification	PGDCA		2002

Research Guidance

Programme	No. of Scholars	
	Completed	Pursuing
M.Phil.	2	-
Ph.D	2	-

- **Guided 4 PG students from Indira Gandhi National Tribal University, Amarkantak, Madhya Pradesh, India.**

Research Publications (Indexed)

- **International Peer reviewed Journals- 71**
- **Book Chapters – 18**

Other Publications: International/National

3

Patent

Patent was published on the topic , "Process for the preparation of cadmium naphthoate crystals and uses thereof for Second order non-linear applications, Application number 202141037446

S.No	Name of the Faculty	Title of the Invention	Application No.	Date of Filing	Publication Date
1.	Dr. N. Arunadevi	Process for the preparation of cadmium naphthoate crystals and uses thereof for Second order non-linear applications	202141037446	18.08.2021	03.09.2021

Book Published

NIL

Book Chapter Published

1. Chapter 1 - Introduction to smart and intelligent nanomaterials for biosensors in the Book Smart and Intelligent Nanostructured Materials for Next-Generation Biosensors. https://doi.org/10.1016/B978-0-443-19146-6.00008-3.

2. Mxenes: An Overview of future Utility in the Energy Storage and Conversion in the book Clean Energy production Technologies https://doi.org/10.1016/b978-0-443-19146-6.00008-3.
3. Chapter 3 Sensors for the detection of marine organic and inorganic pollutants in the book Sensors for Marine Biosciences https://doi.org/10.1088/978-0-7503-5999-3ch3.
4. Metal oxides : Advanced Inorganic materials, in the book , "Inorganic anticorrosive Materials, Elsevier, 2021, DOI: 10.1016/b978-0-323-90410-0.00002-7
5. Self-assembled nanomaterials for fabrication of electrochemical biosensors for biomedical applications, RSC, Electrochemistry, Volume 18, 2024, https://doi.org/10.1039/9781837676408-00174.
6. Chapter 4 "Bionanocomposites for rejuvenation of heavily contaminated

environment" in the **Elsevier book** Nanobiotechnology for Bioremediation: Fundamentals and mechanisms.

7. Chapter 12 "Three-Dimensional Approaches based on Nanotechnology Towards Wound Management" in the **Elsevier book** Nanotechnical Aspects for Next Generation Wound Management.

8. Chapter 6 "Nanomedicine and nanotechnology for cancer treatment" in the **Elsevier book** Nanotechnology for Drug Delivery and Pharmaceutical Sciences.

9. Chapter 4 "Problems and strategies to overcome the biofilm-based problems" in the **Elsevier book** Next-generation Antimicrobial Nanocoatings for Medical Devices and Implants .

10. Chapter "Electrochemical biosensors based on graphene and its allied derivatives for lifestyle disease diagnosis" in **RSC book.**

Short Term Course

- Short Term course on "Energy" University of Liverpool, UK

Letter of Appreciation

The 11th International Symposium on Hydrogen Energy, Renewable Energy and Materials (HEREM 2025)

Acted as a Resource Person

6

Reviewer in journal

- **Review Editor** in Frontiers in Medical Technology - Nano-Based Drug Delivery
- **Special Editor** In "Characterization of Nano-Based Drug Delivery Systems" Journal -Frontiers in Medical Technology.
- **Special Issue Editor,** on Biogenic Hybrid nanomaterials: A promising land for the integrative design to attain sustainability to circumvent environmental consequences (BHNano) In Environmental Science and Pollution Research Journal, Springer. (Springer, IF 5.2). https://www.springer.com/journal/11356/updates/23888936?referer=www.springeronline.com
- **Special Issue Editor** "Nano-Based Drug Delivery and Diagnostics: Innovation and Applications" MDPI, Molecules, https://www.mdpi.com/journal/molecules/special_issues/A4YN348WTG (MDPI, IF 4.9),

- **Special Issue editor** – Journal of Molecular Structure "Self-assembled complexes: From molecules to bioderived materials for sustainable sensing technologies (IF – 4.6) https://www.sciencedirect.com/special-issue/10VC7CS4L0L

- **220 articles reviewed in Scopus Indexed Journals -** Materials Letters, Journal of Luminescence, Journal of nanostructure in chemistry, oriental journal of Chemistry, MDPI - Molecules, Colloids and Interfaces

Paper Presentations in Conference

International 64

National 32

Presentations in Seminar

27

Participation in Conference

86

Participation in Seminars

25

Participation in Workshop

20

Participation in Faculty Development Programme

36

Participation in Webinar

40

Conference/Seminar/Workshop Organized

2

Grants

- Selected for **Sakura Science Exchange Program** to visit Ochanomizu University, Tokyo, Japan, from January 25th 2025 to February 2nd, 2025 which was fully funded by Japanese Science and Technology.

- **Received UGC- SERO Sponsored Minor projec**t entitled "Metal Based Biologically active compounds- Synthesis, Pharmacological Studies and Catalytic activity of Novel transition complexes with Hydrazine as Co-ligand" - MRP5695/15 (SERO/UGC) – 2015-16 – Rs. 1.65 Lakhs

- **Received GRG Trust Project entitled** "Growth and characterization of DAST and its Derivative Crystals for Tetra Hertz Communications" – 2017-19 – Rs. 5 lakhs
- **Received GRG Trust Project entitled** "Whey protein: Nano-structural and mechanical characterization for development of functional foods" GRG/03/2019/Major – 2019 Rs. 3 lakhs.
- **Received GRG Trust Project entitled "**Applications of novel metal complexes of aromatic acids as catalyst for organic reactions And potential drugs for cancer" GRG/10/2020 – Major project – 2020 Rs. 2 lakhs.

Membership in Professional Bodies

Name of the Professional Body	Nature of membership	Duration
NIL		

Awards/Honors

- Received "**Research Recognition of Women in SDG award"** for giving talk in "Electrocatalytic behaviour of amino guanidium metal complexes for hydrogen evolution reaction : A sustainable approach for energy production" at First International Conference on Technologies, Sustainable Development Goals and Academia 2022 (ICTSGA-1) ,July 1-2, 2022, 2022 , Jointly organized by Indian Institute of Technology, Patna, SPAST Foundation, and Indira Gandhi National Tribal University, Amarkantak with cash prize of **100 Dollars.**
- Received "**Best Faculty Award"** from PSGR Krishnammal College for Women, Coimbatore.
- "**Women of Worth Award"** (***WoW)*** from Rotary Club, Coimbatore, 2025
- **Best Thesis Award** for my Research candidate from KPR Institute of Engineering & Technology
- Recognized as **Highly Valued Special Editor** from Journal of Molecular Structure

Indexing and Citations

h-index – 16: Citations - 788

Contribution

- Acting as a Coordinator for NAAC -Criterion III since 2014 onwards
- Selection committee for "Best Outgoing Student"
- Acting as a IQAC -Core Team member