

# RESUME



**Name: Dr C. Maria Magdalane**

**Designation: Assistant Professor**

**Department: Chemistry**

**Address:** HIG A68 TNHB Colony, K.T.C.Nagar, Tirunelveli– 627 011

## PERSONAL DETAILS

Date of Birth : 15-04-1977

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

Designation : Assistant Professor

Department : Chemistry

Community : OBC

Religion : Christian

Nationality : Indian

Mobile : 8072194281

Email ID : magichemsc@gmail.com

## ACADEMIC QUALIFICATIONS

Degree	Specialization	College	University	Year of Passing
B.Sc.	Chemistry	Auxilium College, Vellore	University of Madras	1997
M.Sc.	Chemistry	Loyola College	University of Madras	2000

M. Phil	Chemistry	Loyola College	University of Madras	2002
B.Ed.	Physical Science	Stella Matutina college of Education	Stella Matutina college of Education	2003
Ph.D.	Chemistry	Loyola College	University of Madras	2018

### ACADEMIC IDENTITY

*VIDWAN ID	-
*ORCID ID	-
*SCOPUS ID	-
*RESEARCHER ID/ PUBLONS ID	-
GOOGLE SCHOLAR LINK	<a href="https://scholar.google.co.in/citations?user=tRFsfXgAAAAJ&amp;hl=en">https://scholar.google.co.in/citations?user=tRFsfXgAAAAJ&amp;hl=en</a>

### TEACHING EXPERIENCE

<b>Date of Appointment</b>	23.10.2007
<b>Date of Retirement</b>	15.04.2037
<b>Teaching Experience</b>	UG -20
	PG -10
	M.Phil. -
<b>Research</b>	Guided M Phil:- Guided Ph D:- Guiding Ph.D Scholars: 03

COURSES/CLASSES TAUGHT	NAME OF THE INSTITUTIONS	DURATION		Years
		From	To	
UG & PG	Loyola College, Chennai.	2003	2007	5
UG & PG	St.Xavier's College, Palayamkottai	2007	Till Date	15

### AWARDS RECEIVED

1.	“Mary vargene Endowment Award” for physical science teaching competency By Stella Matutina college of Education for the year 2003-2004
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<b>ADMINISTRATIVE EXPERIENCE</b>			
<b>S. No</b>	<b>DESIGNATION</b>	<b>INSTITUTIONS</b>	<b>YEAR</b>
-	-	-	-

<b>MEMBERSHIP</b>		
<b>S. No</b>	<b>Designation</b>	<b>Particulars</b>
1.	Editorial board member	Journal of Hazardous Chemistry (Elsevier)
2.	Reviewer	Journal of Rare Earths
3.	Reviewer	Scientific Reports
4.	Reviewer	Applied Surface Science
5.	Reviewer	Journal of Hazardous Chemistry
6.	Reviewer	Photochemistry and Photobiology B

**ORIENTATION / REFRESHER COURSES / FACULTY DEVELOPMENT PROGRAMME UNDERGONE ( )**

<b>S. No</b>	<b>Name of the Training</b>	<b>Name of the Sponsoring Agency</b>	<b>Place and Date</b>
1	Orientation course	Academic Staff College, Pondicherry University	Academic Staff College, Pondicherry University, Pondicherry & 1-28 september 2012
2	Refresher course	Academic Staff College, Pondicherry University	Academic Staff College, Pondicherry University, Pondicherry & 8-28 June 2018
3	Refresher course	Academic Staff College, Pondicherry University	Academic Staff College, Pondicherry University, Pondicherry & 22 <sup>nd</sup> May 2019 to 04 <sup>th</sup> June 2019 with 'A <sup>+</sup> '
4	Faculty Development Program on Educational Video Creation(E-Content Development)	Rashtrapita Mahatma Gandhi Arts, Commerce & Science College, Saoli Dist-Chandrapur (M.S.) (Internal Quality Assurance Cell )	Rashtrapita Mahatma Gandhi Arts, Commerce & Science College, Saoli Dist-Chandrapur (M.S.) & Science College, Sengaon Dist- Hingoli (M.S.) & 12 June - 18 June 2020.

5	Faculty Development Program on Pedagogy and Research Methods	-	Academy of Maritime Education and Training (AMET) 25.05.2021 to 06.06.2021
6	Faculty Development Program/Refresher Enhancing Quality of Chemistry Education in India	National Resource Centre of Chemistry	Guru Angad Dev Teaching Learning Centre, S.G.T.B. Khalsa College, University of Delhi & 25th February to 03rd March 2021

### DETAILS OF RESEARCH WORK

Research Stages	Title of the Thesis	University where the work was carried out
Ph.D (Highly Commended)	Systematic investigation on photocatalytic effect and cytotoxicity behaviour of ceria based binary metal oxide [CeO <sub>2</sub> /MO; M = Cd, Y & La] nanostructures	University of Madras
Patent filed	<b>INDIAN PATENTS:</b> Two-dimensional (2D) plasmonic coupling strontium stabilized with cerium ions nanostructure and product thereof, PCT-NP- Patent No. 201741028257, Filed date: 02/05/2017	

### AREAS OF RESEARCH

Inorganic Chemistry with the following sub disciplines
<ul style="list-style-type: none"> <li>Materials Science &amp; Nanotechnology</li> </ul>
<ul style="list-style-type: none"> <li>Photocatalytic, Biocompatible Nanomaterials</li> </ul>
<ul style="list-style-type: none"> <li>catalytic activities of materials with special focus on metal oxides- semiconductors</li> </ul>
<ul style="list-style-type: none"> <li>catalytic conversion of hazardous chemicals</li> </ul>
<ul style="list-style-type: none"> <li>green chemistry, solar cells and sensors</li> </ul>

RESEARCH PROJECTS CARRIED OUT			
S. No	Title of the Project (Minor)	Name of the Funding Agency & Amount	Duration
-	-	-	-

PUBLICATIONS				
BOOKS	BOOK CHAPTERS	SCOPUS	WEB OF SCIENCE	UGC LISTED
	1			
OTHER INDEXED	AS A RESOURCE PERSON	PAPERS PRESENTED IN NATIONAL AND INTERNATIONAL SEMINARS	WEBINARS, SEMINARS, WORKSHOPS ATTENDED	
	2			

PUBLICATIONS: BOOKS			
S. No	Title of the Book	Publication	Year

BOOK CHAPTERS			
S. No	Title of the Paper	Name of the Book	ISSN No., Pg.No
1	Photocatalytic oxygen evolution reaction for energy conversion and storage of functional nanomaterials	Handbook of Functionalized Nanomaterials for Industrial Applications, <a href="https://doi.org/10.1016/B978-0-12-816787-8">https://doi.org/10.1016/B978-0-12-816787-8</a> . 00003-X	2020

PUBLICATIONS: SCOPUS INDEXED JOURNALS ( ) WEB OF SCIENCE ( )			
S. No	Title of the Paper	Name of the Journal	ISSN No., Volume, Issue, Impact factor & Pg. No
1	Fabrication and characterization of Th(MoO <sub>4</sub> ) <sub>2</sub> /TiO <sub>2</sub> nanocomposite for potential use in photocatalytic degradation of toxic pollutants	Applied Physics A	128 (5), 1-21

2	Photocatalytic activity of hierarchical CTAB-assisted TiO <sub>2</sub> nanoparticles for polluted water treatment using solar light illumination	<b>Applied Physics A</b>	128 (4), 1-9
3	Enhanced visible light-driven photocatalytic performance of CdSe nanorods	<b>Environmental Research</b>	203, 111855
4	Synthesis and characterization of TiO <sub>2</sub> doped cobalt ferrite nanoparticles via microwave method: Investigation of photocatalytic performance of congo red degradation dye	<b>Surfaces and Interfaces</b>	25, 101296
5	Selectivity, stability and reproducibility effect of CeM-CeO <sub>2</sub> modified PIGE electrode for photoelectrochemical behaviour of energy application	<b>Surfaces and Interfaces</b>	22, 100835
6	Green synthesis of ZnO doped Moringa oleifera leaf extract using Titon yellow dye for photocatalytic applications	<b>Materials Today: Proceedings</b>	36, 475-479
7	Synthesis and characterization of CeO <sub>2</sub> nanoparticles by hydrothermal method	<b>Materials Today: Proceedings</b>	36, 130-132
8	Facile synthesis and defect optimization of 2D-layered MoS <sub>2</sub> on TiO <sub>2</sub> heterostructure for industrial effluent, wastewater Treatments	<b>Scientific Reports</b>	10 (1), 1-15
9	High performance of pyrochlore like Sm <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> heterojunction photocatalyst for efficient degradation of rhodamine-B dye with waste water under visible light irradiation.	<b>Journal of King Saud University - Science</b>	32 (2), 1516-1522
10	Electrical and chemical stability of CuS nanofluids for conductivity of water soluble based nanocomposites,	<i>Surfaces and Interfaces</i>	19, 100475
11	Structural and morphological properties of Co <sub>3</sub> O <sub>4</sub> nanostructures: Investigation of low temperature oxidation for photocatalytic application for waste water treatment,	<i>Surfaces and Interfaces</i>	17, 100369
12	Stability and thermal conductivity of CuO nanowire for catalytic applications	<b>Journal of Environmental Chemical Engineering</b>	7 (4), 103255
13	Synthesis of titanium oxide nanoparticles using Aloe barbadensis mill and evaluation of its antibiobiofilm potential against Pseudomonas aeruginosa PAO1	<b>Journal of Photochemistry and Photobiology B: Biology</b>	201, 111667
14	Green synthesis of ZnO nanoparticle using Prunus dulcis (Almond Gum) for antimicrobial and supercapacitor applications,	<b>Surfaces and Interfaces</b>	17, 100376

15	Improved photocatalytic decomposition of aqueous Rhodamine-B by solar light illuminated hierarchical yttria nanosphere decorated ceria nanorods,	<b>Journal of Materials Research and Technology.</b>	8 (3), 2898-2909
16	Up-scalable synthesis of size-controlled white-green emitting behavior of core/shell (CdSe/ZnS) quantum dots for LED applications	<b>Journal of nanoscience and nanotechnology</b>	19 (7), 4026-4032
17	Investigation on antibacterial and photocatalytic degradation of Rhodamine-B dye under visible light irradiation by titanium molybdate nanoparticles prepared via microwave method	<b>Surfaces and Interfaces</b>	17, 100381
18	Photocatalytic activity and humidity sensor studies of magnetically reusable FeWO <sub>4</sub> -WO <sub>3</sub> composite nanoparticles	<b>Journal of Nanoscience and Nanotechnology</b>	19 (2), 859-866
19	Antioxidant and photocatalytic activity of aqueous leaf extract mediated green synthesis of silver nanoparticles using <i>Passiflora edulis</i> f. <i>flavicarpa</i>	<b>Journal of nanoscience and nanotechnology</b>	19 (5), 2640-2648
20	Self-cleaning mechanism of synthesized SnO <sub>2</sub> /TiO <sub>2</sub> nanostructure for photocatalytic activity application for waste water treatment,	<b>Surfaces and Interfaces,</b>	17, 100346
21	ZnO doped single wall carbon nanotube as an active medium for gassensor and solar absorber,	<b>Journal of Materials Science: Materials in Electronics</b>	30 (1), 147-158
22	Evaluation on La <sub>2</sub> O <sub>3</sub> garlanded ceria heterostructured binary metal oxide nanoplates for UV/ Visible light induced removal of organic dye from urban wastewater,	<b>South African Journal of Chemical Engineering</b>	26 (1), 49-60
23	Direct Electrodeposition of Gold Nanoparticles on Glassy Carbon Electrode for Selective Determination Catechol in the Presence of Hydroquinone	<b>Journal of Nanoscience and Nanotechnology</b>	
24	Structural, optical, morphological and microbial studies on SnO <sub>2</sub> nanoparticles prepared by co-precipitation method	<b>Journal of nanoscience and nanotechnology</b>	18 (5), 3511-3517
25	Optical, magnetic and photocatalytic activity studies of Li, Mg and Sr doped and undoped zinc oxide nanoparticles	<b>Journal of nanoscience and nanotechnology</b>	18 (8), 5441-5447
26	Optical and Structural Properties of Fluorine Doped SnO <sub>2</sub> on Si (100) for Photovoltaic Application	<b>Journal of Nanoelectronics and Optoelectronics</b>	13 (10), 1522-1532
27	Antibacterial, magnetic, optical and humidity sensor studies of $\beta$ -CoMoO <sub>4</sub> - Co <sub>3</sub> O <sub>4</sub>	<b>Journal of Photochemistry</b>	18 (7), 4544-4550

	nanocomposites and its synthesis and characterization.	<b>&amp; Photobiology, B: Biology</b>	
28	Equilibrium and kinetic studies of the adsorption of acid blue 9 and Safranin O from aqueous solutions by MgO decorated FLG coated Fuller's earth,	<i>Journal of Physics and Chemistry of Solids</i>	123, 43-51
29	Photocatalytic decomposition effect of erbium doped cerium oxide nanostructures driven by visible light irradiation: Investigation of cytotoxicity, antibacterial growth inhibition using catalyst.	<b>Journal of Photochemistry &amp; Photobiology, B: Biology</b>	185, 275-282
30	Antiproliferative effects on human lung cell lines A549 activity of cadmium selenide nanoparticles extracted from cytotoxic effects: Investigation of bio-electronic application,	<b>Materials Science and Engineering: C,</b>	C 76, 1012-1025
31	Elucidation of photocatalysis, photoluminescence and antibacterial studies of ZnO thin films by spin coating method,	<b>Journal of Photochemistry and Photobiology B: Biology</b>	173, 466-475
32	In vitro cytotoxicity effect and antibacterial performance of human lung epithelial cells A549 activity of Zinc oxide doped TiO <sub>2</sub> nanocrystals: Investigation of bio-medical application by chemical method,	<b>Mater. Sci. Eng. C</b>	C 74, 325-333
33	Evaluation on the heterostructured CeO <sub>2</sub> /Y <sub>2</sub> O <sub>3</sub> binary metal oxide nanocomposites for UV/ Vis light induced photocatalytic degradation of Rhodamine - B dye for textile engineering application,	<b>Journal of Alloys and Compound</b>	727, 1324-1337
34	Facile synthesis of heterostructured cerium oxide / yttrium oxide nanocomposite in UV light induced photocatalytic degradation and catalytic reduction: Synergistic effect of antimicrobial studies,	<b>J. Photochem. Photobiol. B:</b>	173, 23-34
35	Fabrication of Nano Poly Cresol Red over Glassy Carbon Electrode and its Application in Selective Determination of Uric acid in the Presence of Ascorbic Acid,	<b>Journal of Nanostructures</b>	(2), 155-164
36	Structural, optical, morphological and microbial studies on SnO <sub>2</sub> nanoparticles prepared by co-precipitation method	<b>Journal of nanoscience and nanotechnology</b>	18 (5), 3511-3517
37	Photocatalytic degradation effect of malachite green and catalytic hydrogenation by UV-illuminated CeO <sub>2</sub> /CdO multilayered nanoplatelet arrays: Investigation of antifungal and antimicrobial activities	<b>Journal of Photochemistry and Photobiology B: Biology</b>	169, 110-123
38	Synthesis, humidity sensing, photocatalytic and antimicrobial properties of thin film	<b>Journal of Nanostructures</b>	7 (1), 47-56



	nanoporous PbWO <sub>4</sub> -WO <sub>3</sub> nanocomposites		
39	Photocatalytic activity of binary metal oxide nanocomposites of CeO <sub>2</sub> /CdO nanospheres: investigation of optical and antimicrobial activity	<b>Journal of Photochemistry and Photobiology B: Biology</b>	163, 77-86
40	Well-aligned graphene oxide nanosheets decorated with zinc oxide nanocrystals for high performance photocatalytic application	<b>International Journal of Nanoscience</b>	14 (03), 1550007
41	Synthesis and characterization studies of MgO: CuO nanocrystals by wet-chemical method	<b>Molecular and Biomolecular Spectroscopy</b>	142, 405-409
42	Zinc (II) oxide–yttrium (III) oxide composite humidity sensor	<b>physica status solidi (a)</b>	191 (1), 230-234

#### **PUBLICATIONS: UGC LISTED JOURNALS ()**

<b>S. No</b>	<b>Title of the Paper</b>	<b>Name of the Journal</b>	<b>ISSN No., Volume, Issue, Impact factor &amp; Pg. No</b>

#### **PUBLICATIONS: OTHER INDEXED JOURNALS ()**

<b>S. No</b>	<b>Title of the Paper</b>	<b>Name of the Journal</b>	<b>ISSN No., Volume, Issue, Impact factor &amp;Pg.No</b>

#### **AS A RESOURCE PERSON**

<b>S. No</b>	<b>Name of the Event</b>	<b>Name of the Sponsoring Agency</b>	<b>Place and Date</b>
1	Delivered Invited Lecture in the Three Days International Virtual Seminar on “The Role of Nanotechnology Against COVID-19” entitled “Nanostructured Biocatalyst for Sustainable Development”	-	Department of Nanoscience and Technology, Alagappa University, Karaikudi held on 20 -22 May 2020.
2	Delivered Invited Talk in the One Week Virtual	SPARC- Scheme for Promotion of Academic	Department of Nanoscience and

Program International Short-Term Course on “2D-QDs : Synthesis and Applications in Electroluminescent diode, Sensor and Solar cell”	and Research Collaboration	Technology, Alagappa University, Karaikudi, India and Brunel University London, UK during 2-6, August 2021
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<b>WEBMINARS/SEMINARS/ CONFERENCES / SYMPOSIA / WORKSHOP</b>			
<b>PAPER PRESENTED: National () International ()</b>			
<b>S. No</b>	<b>Name of the Event</b>	<b>Name of the Sponsoring Agency</b>	<b>Place and Date</b>
1	Article “Environmental Pollution” Published in “National Seminar in Environmental Education – challenges and practices”	-	St. xavier’s college, Palayamkottai and 10 <sup>th</sup> and 11 <sup>th</sup> January 2013
2	Presented paper in UGC Sponserd National conference, Recent development in chemistry,	UGC	SBK College, Aruppukottai, 13 <sup>th</sup> and 14 <sup>th</sup> Feb- 2015
3	Presented paper entitled” Synthesis and characterization of Cerium Oxide-Lead oxide Nano Composite”	-	Einstien College of Engineering, Tirunelveli and 6 <sup>th</sup> and 7 <sup>th</sup> March 2015
4	Presented Paper in National conference on Material Sciences	-	St. Xavier’s college, Palayamkottai, 23 <sup>rd</sup> and 24 <sup>th</sup> of February, 2017
5	Presented paper in National seminar on “Advances in the synthesis of nanomaterials and their multidimensional applications in chemical and bio-sciences”	-	Andhra Loyola College, Vijayawada, 14 <sup>th</sup> and 15 <sup>th</sup> September 2016.

<b>WEBMINARS/SEMINARS/ CONFERENCES / SYMPOSIA / WORKSHOP</b>			
<b>ATTENDED:</b>			
<b>S. No</b>	<b>Name of the Event</b>	<b>Name of the Sponsoring Agency</b>	<b>Place and Date</b>
1	Attended the National seminar on “Environmental Education Challenges and Practices”	-	t. Xavier’s college (Autonomous), Palayamkottai and 10 <sup>th</sup> and 11 <sup>th</sup> January 2013

2	Attended the “RSC Symposium on Recent Trends in Chemical Sciences”, Organised by department of chemistry	-	St. Xavier’s college (Autonomous), Palayamkottai on 12 <sup>th</sup> December 2014
3	Participated National Workshop on “Innovations in water Resources, Management in Educational Institutions”	LIFE (Loyola Institute of Frontier Energy) and ERI (Entomology Research Institute)	Loyola college (Autonomous), Chennai-34 on 24 <sup>th</sup> , 25 <sup>th</sup> November 2016.
4	Participated International seminar on “Models and methods in Bio-Inorganic chemistry”.	UGC	Department of Chemistry, Loyola college (Autonomous), Chennai-34 on 22 <sup>nd</sup> February 2017
5	Participated ARPIT Course for Career Advancement Scheme (CAS) promotion Online Refresher Course in Chemistry for Higher Education Faculty with a "A" Grade in the proctored examination	Ministry of Human Resource Development (MHRD)	Sri Guru Tegh Bahadur Khalsa College, Delhi, 30.03.2019
6	Attended online course on Basic concepts & Applications of electrochemistry	-	Government Arts College (A) Kumbakonam - 612 002. 21 - 22 May 2020
7	Two days International Webinar on Advanced Functional Materials for Bio-medical and Energy	-	Loyola College, Chennai. 24 <sup>th</sup> and 25 <sup>th</sup> June 2020
8	Attended International Webinar on Biomaterials on Health Care Application	-	Dept. Of Bio-Technology, Karunya Institute of Technology, Coimbatore. May 28-30, 2020

### COUNTRIES VISITED

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**EXTRA-CURRICULAR ACTIVITIES/ CO-CURRICULAR ACTIVITIES  
ATTENDED(NCC/NSS/YRC/SPORTS/LITERARY AND CULTURAL ACTIVITIES)**

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**Date: 09.01.2023**

**Name: Dr.C.Maria Magdalane**