

PROFILE



Name : **Dr. A. JEGATHA CHRISTY**

Designation : Assistant Professor

Department : PHYSICS

Date of Birth : 05.03.1984

Date of Appointment : 18.06.2014

Academic

S. No.	Degree	University/Institution	Year of Completion
1.	B.Sc.	Jayaraj Annapackiam College for Women, Periyakulam	2004
2.	M.Sc.	Fatima College, Madurai.	2006
3.	PGDCA	Manipal Institute of Computer Education.	2006
4.	M.Phil.	Mother Teresa Women's University, Kodaikanal.	2007
5.	Ph.D	Mother Teresa Women's University, Kodaikanal.	2013

Total Experience

: UG - 12 Years
PG – 12 Years,
M.Phil. - 5 Years

Area Specialization/Interest

: Nanomaterials, Spectroscopy

Academic achievements :

Academic Affiliation:

- ☐ Fine Arts Coordinator (2019- till date)
- ☐ IQAC Staff in charge (2015- till date)
- ☐ OSA Staff in charge (2014- 2017)(2019- till date)
- ☐ Discipline committee (2017- till date)
- ☐ Press and Notice board in charge (2018-19)

Professional Affiliation:

- ☐ Member of the Board of Studies in Physics of Jayaraj Annapackiam College for Women (Autonomous), Periyakulam since 2014
- ☐ Member of the Board of Studies in Physics of Mother Teresa Women's University, Kodaikanal during 2018-'19
- ☐ Member of the Board of Studies in Physics of Fatima College, Madurai during 2018-'19

RESEARCH EXPERIENCE

PROJECTS COMPLETED:

- Title of the Project** : Tailoring the Surface morphology of metal oxide nanoparticles and its influence on dye effluent treatment
- Funding Agency** : UGC
- Period** : 2017-2019
- Amount Sanctioned** : Rs. 4,90,000/

RESEARCH GUIDANCE

- ❖ Approved Guide of Mother Theresa Women's University, Kodaikanal for Ph. D Physics from July 2017.
- M.Phil.(guided) – 6

PUBLICATIONS

1. M.Umadevi, **A. Jegatha Christy**, Preferential Solvation of Acridine in binary mixtures, *Spectrochimica Acta part A* 71 (2008) 773-778.
2. **A. Jegatha Christy**, M. Umadevi, Synthesis and characterization of mono dispersed Silver nanoparticles, *Adv. Nat. Sci: Nanosci. Nanotechnol.* 3 (2012) 035013
3. **A. Jegatha Christy**, M. Umadevi, Novel combustion method to prepare octahedral NiO nanoparticles and its photocatalytic activity, *Materials Research Bulletin* 48 (2013) 4248–4254
4. M.Umadevi, **A. Jegatha Christy**, Optical, structural and morphological properties of Silver nanoparticles and its influence on the photocatalytic activity of TiO₂, *Spectrochimica Acta Part A* 111 (2013) 80-85

5. M.Umadevi, **A. Jegatha Christy**, Synthesis, Characterization and Photocatalytic Activity of CuO Nano Flowers, *Spectrochimica Acta Part A* 109 (2013) 133-137
6. **A. Jegatha Christy**, L.C. Nehru, M. Umadevi, A novel combustion method to prepare CuO nanorods and its antimicrobial and photocatalytic activities, *Powder Technology* 235 (2013) 783-786
7. **A. Jegatha Christy**, M. Umadevi, Synthesis, Characterization and Photocatalytic activity of ZnO nanoflakes, *Journal of Nano Energy and Power Research* 2 (2014) 1-7
8. **A. Jegatha Christy**, A. Kevin , L.C. Nehru , M. Umadevi, Optical, Structural and morphological properties of Silver nanoparticles and their antimicrobial activity, *International Journal of ChemTech Research*, 2015,
9. **A. Jegatha Christy**, M. Umadevi, Solvatochromic Spectral Investigations of Acridine, *International Journal of ChemTech Research*, 2016, Vol.8, No.7, pp 383-390.
10. R. Jamuna, **A. Jegatha Christy***, Rapid solution combustion synthesis of NiO Nanostructures: Characterization and Evaluation of antibacterial activity, *International Research Journal of Engineering and Technology*, Volume: 04 Special Issue: 09 | Sep - 2017, pp205-209
11. D. Hariharan , **A. Jegatha Christy** , Jeyanthinath Mayandi , L.C. Nehru, visible light Photocatalyst: Hydrothermal green synthesized TiO₂ NPs for degradation of Picric acid *Materials Letters* 222 (2018) 45-49
12. R. David Prabu, S. Valanarasu, H. A. Herisalin Geno, **A. Jegatha Christy**, K.Jeyadheepan, A. Kathalingam, Effect of Neodymium doping on the structural, morphological, optical and electrical properties of copper oxide thin films, *Journal of Materials Science: Materials in Electronics*, July 2018, Volume 29, [Issue 13](#), pp 10921–10932
13. D. Hariharan, **A. Jegatha Christy**, Selvakumar Pitchaiya, Suresh Sagadevan P. Thangamuniyandi, U. Devan, L. C. Nehru , Green hydrothermal synthesis of gold and palladium doped titanium dioxide nanoparticles for multifunctional performance **30**, pages12812–12819(2019)
14. A. Rohini Devi, **A. Jegatha Christy**, K. Deva Arun Kumar, S. Valanarasu , Mohamed S. Hamdy, K. S. Al-Namshah, Abdullah M. Alhanash , Dhanasekaran Vikraman, Hyun-Seok Kim, Physical properties evaluation of nebulized spray pyrolysis prepared Nd doped ZnO thin films for opto-electronic applications, *Journal of Materials Science: Materials in Electronics* , Volume 30, [Issue 8](#), pp 7257– 7267 , April 2019

15. D. Hariharan, **A. Jegatha Christy**, Selvakumar Pitchaya, Suresh Sagadevan, P. Thangamuniyandi, U. Deva, L.C. Nehru, Green hydrothermal synthesis of gold and palladium doped Titanium Oxide Nanoparticles for multifunctional Performance, *Journal of Materials Science: Materials in Electronics.*, Volume 30, [Issue 13](#), pp 12812–12819, July 2019.
16. D. Hariharan, P. Thangamuniyandi, **A. Jegatha Christy**, R. Vasantharaja, P. Selvakumar, S.Sagadevan, A. Pugazhendhi, L.C. Nehru, Enhanced Photocatalysis and anticancer activity of green hydrothermal synthesized Ag@TiO₂ nanoparticles, *Journal of Photochemistry & Photobiology, B: Biology* 202 (2020) 111636.
17. I. Loyola Poul Raja , **A. Jegatha Christy** , R. David Prabu , N. Chidhambaram , Mohd. Shkire , S. AlFaifye , Aslam Khan, Significance of Ni doping on structure-morphology-photoluminescence, optical and photocatalytic activity of CBD grown ZnO nanowires for optophotocatalyst applications, *Inorganic Chemistry Communications* 119 (2020) 108082
18. K. Tharani, **A. Jegatha Christy** , Suresh Sagadevan , L.C. Nehru, Fabrication of Magnesium oxide nanoparticles using combustion method for a biological and environmental cause *Chemical Physics Letters* 763 (2021) 138216
19. I. Loyola Poul Raj, M. S. Revathy, **A. Jegatha Christy**, N. Chidhambaram, V. Ganesh, S. AlFaify , Study on the synergistic effect of terbium-doped SnO₂ thin film photocatalysts for dye degradation, *Journal of Nanoparticle Research* (2020) 22:359

Book Chapter:

1. **A. Jegatha Christy** , M. Umadevi and Suresh Sagadevan,
Chapter 16: Solution combustion synthesis of metal oxide nanoparticles for membrane technology,
Book: Metal Oxide Powder Technologies,
Publisher: Elsevier

Seminars/conferences/workshops participated: 45

Resource Person

1. Guest lecture on “Photocatalytic and antimicrobial investigations of nanoparticles” at Fatima College, Madurai on 29.01.2014
2. Guest Lecture on “Photocatalytic Activity of Metal Oxide nanoparticles” at Mary Matha College of Arts and Science, Periyakulam on 11th March 2020

Conferences Organized:

- ✓ Organizing committee member for International conference on Nanomaterials & Nanocomposites - synthesis, Properties & application organized by Department of Physics, Mother Teresa Women's University, Kodaikanal on 28th -29th 2012.
- ✓ Organizing committee member for International Conference on Material Science Research and Nano Technology organized by Department of Physics, Mother Teresa Women's University, Kodaikanal
- ✓ Organizing committee member for UGC Sponsored National Seminar on Recent Trends in Physics & Materials Research" at Jayaraj Annapackiam College for Women (Autonomous), Periyakulam
- ✓ Convener for UGC Sponsored National Seminar on Recent Advancement in Materials Science on 10th Feb.2017 at Jayaraj Annapackiam College for Women (Autonomous), Periyakulam
- ✓ Organizing Secretary for National level conference on "Recent Trends in Physics" at PG and Research centre of Physics, J.A.College for Women, and Periyakulam on 9th February 2018.
- ✓ One day Seminar on Energy Conservation in collaboration with Petroleum Conservation Research Association on 15th Sep 2017 at Jayaraj Annapackiam College for Women (Autonomous), Periyakulam
- ✓ One day Seminar on Energy Conservation in collaboration with Petroleum Conservation Research Association on 30 th Sep 2019 at Jayaraj Annapackiam College for Women (Autonomous), Periyakulam
- ✓ Organizing Secretary for the International Webinar on "Functional Properties and Bandgap Engineering of ZnO – GaN Alloys" on June 8th 2020 at Jayaraj Annapackiam College for Women (Autonomous), Periyakulam

Awards and Recognition

- ✓ Chairperson for Paper Presentation session in the UGC Sponsored National Conference on "Recent Trends in Physics & Materials Research" at Jayaraj Annapackiam College for Women (Autonomous), Periyakulam during 04, 05.02.2016

Membership

1. Life time member in Indian Physics Association, TIFR, Mumbai
2. Member in American Chemical society, New York

Contact details

E-Mail : jegathaphy@annejac.ac.in
