- 1) Name: Dr. R.DHANALAKSHMI
- 2) Designation: Assistant Professor
- 3) Department: CHEMISTRY
- 4) Qualifications:

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

Additional: M.Sc (YOGA),

5) Experience (in years): Teaching: 13 Research: 15

6) Area of Specialization: Nanochemistry, Photochemistry

7) Contact: E-mail: dhanalakshmiramamoorthy@gmail.com Mobile Number: 866774739, 948847780

8) Grants Received (Conference/Workshop/Seminar/any other):

Event Title	Agency	Fund Received	Date
Nil	Nil	Nil	Nil

9) Project Completed:

Project Title	Agency	Fund Received	Duration
.Title of the Research Project	.UGC Minor project	235000	2tears
- A Novel approach of	order received		
chemically modified			
PAMAM-ZnO-TiO ₂			
nanocore shell: Synthesis –			
characterization and			
photocatalytic activity			

10) Project ongoing :

Project Title	Agency	Fund Received	Duration
NII	Nil	NII	NII

11) Research Guidance:

Programme	No. of Scholars	
	Completed	Pursuing
Ph. D.	Nil	4
M. Phil.	8	Nll

12) Research Publications:

	International	National
Total Number of Publications	20	-



Papers Published

1. Photooxidation of Oxalic Acid on Sm 2 O 3 : Synergism by Semiconductors C. Karunakaran, R. Dhanalakshmi and P. Anilkumar Catalysis letters (2009), volume 130 , pages 222-226.

2. Photodegradation of carboxylic acids on Pr 6 O 11 surface. Enhancement by semiconductors (2009) C. Karunakaran, R. Dhanalakshmi and P. Anilkumar Chemical Engineering Journal, 2009, Volume 151, Issues 1–3, 15 Pages 46-50

3. Selectivity in photocatalysis by particulate semiconductors , C. Karunakaran, R. Dhanalakshmi and Central European Journal of Chemistry ,(2009), volume 7, pages134–137

4. Enhanced phenol-photodegradation by particulate semiconductor mixtures: Interparticle electron-jump (2009).C. Karunakaran, R.Dhanalakshmi, P. Gomathisankar and G. Manikandan Journal of Hazardous Materials(2009), volume 176, pages799-806.

5. Semiconductor-photocatalyzed degradation of carboxylic acids: Enhancement by particulate semiconductor mixture by C Karunakaran, R. Dhanalakshmi, P Gomathisankar International Journal of Chemical Kinetics (2009), volume 41, pages 716-726.

6. Phenol degradation on Pr 6 O 11 surface under UV-A light. Synergistic photocatalysis by

semiconductors C. Karunakaran, R. Dhanalakshmi Radiation Physics and Chemistry (2009) volume78, pages8 – 12.

7. Degradation of carboxylic acids on Y 2 O 3 surface under UV light. Synergism by semiconductors C. Karunakaran, R. Dhanalakshmi Radiation Physics and Chemistry(2009), volume 78, 173 - 176.

8. Photocatalytic performance of particulate semiconductors under natural sunshine-Oxidation of carboxylic acids C. Karunakaran, R. Dhanalakshmi Solar Energy Materials &Solar Cells(2008), volume, 92, pages 588 – 593.

9. Semiconductor-catalyzed degradation of phenols with sunlight C. Karunakaran, R. Dhanalakshmi Solar Energy Materials & amp; Solar Cells (2008) Volume 92, pages 1315 - 1321.

10. Substituent Effect on Nano TiO 2 and ZnO-Catalyzed Phenol Photodegradation Rates

C. Karunakaran, R. Dhanalakshmi International Journal of Chemical Kinetics (2009), volume 41, pages 275-283.

11. Inhibition of photooxidation of iron (II) by some semiconductors C. Karunakaran, R. Dhanalakshmi., Journal of Photochemistry and Photobiology A: (2005), volume 170,pages 132-138.

12. Photodegradation of phenol on Y 2 O 3 surface Synergism by semiconductors

C. Karunakaran, R. Dhanalakshmi Journal of Hazardous Materials, (2009) volume167,pages 664-668.

13. Photomineralization of phenol on Al 2 O 3 : synergistic photocatalysis by semiconductors

Res Chem Intermed C. Karunakaran, R. Dhanalakshmi and P.Gomathisankar (2011) volume 36: pages 361–371.

14. C. Karunakaran, R. Dhanalakshmi, Photodegradation of carboxylic acids on Al 2 O 3

and SiO 2 nanoparticles, Indian Journal of chemistry, 2011 Vol.50A, ,pages 163-170

15. C. Karunakaran, R. Dhanalakshmi, Phenol photodegradation on ZrO2.

Enhancement by semiconductors, Spectrochimica Acta PartA: Molecular and

Biomolecular Spectroscopy, 2012, Volume 92, Pages 201-206.

16. R. Dhanalakshmi, R. Ramaraj Synthesis and characterization of TiO2/ Cu2O Nano

composite embedded in silicate sol-gel treated with organic dye. International Journal

of earth science and engineering, 2013, Volume 06, No. 02 (01), pages .79-81.

17. R. Dhanalakshmi, R. Ramaraj, Functionalized silicate supported TiO2-ZnO

nanocomposite film and it's application in simultaneous photocatalytic degradation of

toxic molecules, Photocatalytic Materials and Surfaces for Environmental

Cleanup III, 764 (2013).

18.R. Dhanalakshmi et al., Plant – Based Green Synthesis, Characterisation And Antimicrobial Effect Of Hemidesmus Indicus Biofunctionalized Metal Doped Mgo-Co3o4 Nanocomposites, Journal of Emerging Technologies and Innovative Research, 2019, Volume 6, Issue 6, pages 554-564.

19. R. Dhanalakshmi et al., Photocatalytic degradation of alizarin red and xyelene orange dyes using au-zno-in2o3 8 -pt nanocomposite, Journal of Advanced Scientific Research, J Adv Sci Res, 2020; volume11 (3) Suppl 7 pages : 179-183.

20. Ramamoorthy Dhanalakshmi, Alagarsamy Pandikumar, Kabilan Sujatha and Paramaswamy Gunasekaran, Photocatalytic and antimicrobial activities of functionalized silicate sol–gel embedded ZnO–TiO2 nanocomposite materials, Mater. Express, 2013, Vol. 3, pages 1-10.

13) Chapters in Books: Nil

14) Other Publications (Proceedings): NII

15) Books Published: Nil

16) Presentation in Seminar / Conference:

International:

National: 1. National seminar on Recent trends in Heteroatom chemistry, Annamalai university, 28 and 29 March-2007.

2. National seminar on Theoretical and chemical science, Annamalai University, 22-23 Feb, 2008.

3. National seminar on current trends in chemistry, Annamalai University, 24 and 24, March, 2004.

4. International conference on Design and application of structures, drives, communicational and computing systems, K.L.N. College of information technology, 21and 22 December, 2012.

5. National seminar on current trends in chemistry, Cochin university science and technology, 18 and 19, Jan, 2008.

6. National conference on emerging trends in chemical research, Annamalai University, 17 and 28, Oct, 2008.

7. National seminar on Modern trends in chemistry, , PSNA college of Engineering and Technology,23 and 24 Feb,2012.

8. National seminar on Recent advances in chemistry, Annamalai university, 10^{th} and 11^{th} , March,2006.

9. National seminar on emerging trends in chemistry, Cardamom planter's Association college, 23 and 24, September, 2010.

10. National conference on Advance nanomaterials , Periyar university, 6and 7, Feb, 2012.

17) Participation in Conference:

1. The Indian science congress Association, Annamalai university, 3-7, Jan, 2007.

18) Participation in Seminar:

1. UGC sponsored national seminar on Recent trends in chemistry, H.K.R.K.College, March 15 and 16, 2012.

2. one day international seminar on Emerging trends in chemistry and energy science, Saraswathi narayanan college, Madurai. 7 Fen 2020.

3. International year of chemistry celebration, Madurai Kamaraj University, 19th December 2011.

4. Indo-Norwegian satellite meeting on Advances in solar cell materials and technologies, Madurai Kamaraj University, 17th December, 2011.

5. National seminar on nanostructured materials and applications, Madurai kamaraj university, 04and 05, March, 2011.

19) Participation in Workshop:

1. Research methodology workshop, Annamalai University, 9-12, Feb, 2006.

2. Green chemistry work shop, Pondicherry University, 7 and 8, march, 2008.

3. National workshop on Instrumental techniques in chemistry, Annamalai University, 3 - 4, November, 2007.

20) Participation in Orientation Programme/ Induction Programme/ Short term Courses:

Orientation:

From 27.10.2015 to 23.10.2015
 <u>Refresher:</u>

 From 02.11.2016 to 22.11.2016
 From 09.12.2020 to 22.12.2020
 From 21.06.2022 to 05.07.2022

4)From 21.07.2023 to 04.08.2023

Short/ term courses

Phython with Data Analystics from 07.08.2023 to 13.08.202

21) Participation in Faculty Development Programme: Nil

22) Conference/ Seminar/ Workshop Organized:

1. Two days International Webinar on "Nanotechnology for sensor, Electrocatalyst materials and Medicinal Applications" Organised by PG & RESEARCH DEPARTMENT OF CHEMISTRY 13.7.20 to 14.07.20

2. One day National Webinar on International Yoga day celebration 03.07.2020

3. National Webinar on "Synthesis, Structural Characterization and Computational studies of Heterocyclic compounds. July 26 2020.

23) Invited Speaker/ Session Chair - Conference/ Seminar/ Workshop: Nil

24) Other Co-curricular / Administrative Responsibilities: Nil

25) Member in Board of Studies: Nil

26) Editorial/ Review Board Member: Nil

27) Membership in Professional Bodies: Nil

28) Awards received: DST- Women scientific award (Dr.D.S. Kothari postdoctoral fellow)

29) Consultancy: Nil

30) Patents: Nil

31) Any other information:

* Note : Please provide the total Numbers and details for each metrics