




**ARULMIGU PALANIANDAVAR COLLEGE OF ARTS AND CULTURE**  
**(Reaccredited With 'A' Grade by NAAC)**  
(Run by Arulmigu Dhandayuthapani Swamy Thirukkoil, H.R & C.E (Admin) Dept. Government of Tamilnadu)  
(A Government Aided College – Affiliated to Madurai Kamaraj University, Madurai)  
**DINDIGUL ROAD, PALANI - 624601**

Department of <b>PHYSICS</b>		
Name	<b>KULATHURAAN. K</b>	
Designation	Assistant Professor	
Qualification	M.Sc., M.Phil., Ph.d.,	
Email id	pkkmaterials@gmail.com	
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Experience	14 Years	
Date of joining	17.02.2009 (Permanent)	
No. Of Journal Publication ( <b>International</b> )	15	
No. Of Journal Publication ( <b>National</b> )	---	
No. Of Conference Attended ( <b>International</b> )	28	
No. Of Conference Attended ( <b>National</b> )	22	

**Academic Credentials**

Level	Degree	Specialization	University	Year of Completion
UG	Physics	General	M.S. University, Tirunelveli.	1997
PG	Physics	Electronics	Bharathidasan University, Tiruchirappalli.	2003
M.Phil.,	Materials Science	Conducting Polymers	M.K. University, Madurai.	2004
Ph.D.,	Physics	Materials Science, Nanophysics and Thin films	M.S. University, Tirunelveli.	2016
Other1	---	---	---	---
Other2	---	---	---	---

**\*\*Details of Journal Publications:**

1. International: 15

2.National: ---

**\*\*Details of Conference/Seminar Attended:**

1.International: 28

2.National: 22

\*\* Attach Separate Sheet

**Details of Journal Publications:**

Sl.No.	Title of the Paper	Name of the Journal	Level of the Journal
1.	Determination of the Thickness and Optical Constants of PMMA treated with Porous Silicon Thin film by the Envelope Method.	International Journal of Research and Analytical Reviews (UGC Approved Journal Sl.No. 43602) (ISSN: 2348-1269), Vol. 1, Issue 6, March <b>2019</b> .	International
2.	Surface Morphological and Photoluminescence Studies on PMMA/n-type Porous Silicon Junction.	International Journal of Research and Analytical Reviews (UGC Approved Journal Sl.No. 43602) (ISSN: 2348-1269), Vol. 1, Issue 6, February <b>2019</b> .	International
3.	Influence of Etching time on Refractive index of Nanocrystalline Porous Silicon.	International Journal of Advance Engineering and Research Development. Volume 4, Special Issue 6, Dec.- <b>2017</b> . (UGC Approved Journal in the year 2017-2018).	International
4.	Structural, optical and electrical characterization of nanostructured porous silicon: Effect of Current density.	SpectrochimicaActa Part A: Molecular and Biomolecular Spectroscopy (ISSN: 1386-1425), 152 ( <b>2016</b> ) 51-57.	International
5.	Functionalization of Biomolecules with Nanostructured Porous Silicon for Biomedical Application.	Surface Review and Letters (ISSN: 1793-6667), Vol. 22, No.2 ( <b>2015</b> ) 1550022.	International
6.	Physico-Chemical characteristics of Palar-Porundalar River dam for drinking water, Palani Town, Tamilnadu.	Elixir International Journal – Elixir Pollution (ISSN: 2229-712X), 75, 27547 – 27549 ( <b>2014</b> ).	International
7.	Influence of Concentration on Structural and Optical Characteristics of Nanocrystalline ZnO Thin Films Synthesized by Sol-Gel Dip Coating Method.	Progress in Nanotechnology and Nanomaterials, (ISSN: 2306-9317), 3 (1) 13 – 18 ( <b>2014</b> ).	International

8.	Structural and Optical properties of Nanostructured Porous silicon for Ethanol gas sensing application.	International Journal of Current Research (ISSN: 0975-833X), 6 (1) 4511 – 4515 (2014).	International
9.	Effect of Polymers pore-filling on Structural, Optical and Electrical properties of Porous Silicon.	AIP Conf. Proc. (ISSN: 81551-7616), 1591, 1 (2014).	International
10.	Structural and optical Characterization of PVP/ZnO nanocomposites prepared by Sol-gel Dip-Coating method.	International Journal of Current Research (ISSN: 0975-833X), 5 (11) 3408 – 3413 (2013).	International
11.	Structural and Photoluminescence properties of ZnO/PS heterojunction.	AIP Conf. Proc. (ISSN: 81551-7616), 1512, 672 (2013).	International
12.	Effect of Polymer fraction on refractive index of Nanocrystalline Porous silicon.	Journal of Applied Sciences (ISSN: 1812-5662), 12 (16): 1671-1675 (2012).	International
13.	Structural and Optical properties of Polymer Composites / Porous silicon.	AIP Conf. Proc. (ISSN: 81551-7616), 1451, 215-217 (2012).	International
14.	Application of GPS in Fisheries and Marine Studies.	International Journal of Advanced Research in Computer Science, 2 (6) 2011.	International
15.	Major and Minor Ions studies for identification of Sea water intrusion in thiruvanmiyur, Chennai.	International Journal of Water Resources and Environment Management, 2 (1) 2011.	International

**Details of Conference/Seminar Attended:**

S.No.	Name of the Seminar/ Conference/ Symposia Workshop, etc.	Name of the Sponsoring Agency	Place & Date
1.	One day National Seminar on “Materials Science and Applications” Determination of Porosity and (Effective Refractive Index of Etched p-type Silicon By Using Atomic Force Microscopy)	Mother Teresa Women’s University	Department of Physics Mother Teresa Women’s University, Kodaikanal, Tamilnadu. 30 <sup>th</sup> July 2018
2.	National Conference on “Energy Materials – 2018” (Structural and Electrical Characterization of Nanostructured Porous Silicon Fabricated for Different Etching Time)	UGC - SAP	Department of Physics Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu. June 28 – 29, 2018

3.	National Level Seminar on “Applications of Quantum Mechanics and Nanomaterials for Energy Storage”.	Our College Management	Department of Physics A.P.A College of Arts and Culture, Palani. 24.01.0218
4.	Science Academies Lecture Workshop on “Recent Trends in Applied Physics for Technology”.	Indian Science Academies, Govt. of India.	Department of Physics Vivekananda College Tiruvadakam West, Madurai. 29 <sup>th</sup> & 30 <sup>th</sup> December 2017.
5.	Science Academies Lecture Workshop on “Recent Trends in Advanced Material Science”.	Indian Science Academies, Govt. of India.	Department of Physics A.P.A College of Arts and Culture, Palani. 01.09.0217 & 02.09.2017
6.	International Conference on Advanced Functional Materials for Energy, Environment and Biomedical Applications (“Porous Silicon with $\beta$ -Cyclodextrin Modified Surface for Ethanol Gas Sensor”)	UGC-DSA:SOP and The Research Council of Norway	Madurai Kamaraj University, Madurai, Tamilnadu. 11-12, December 2017.
7.	One day International Seminar on Materials Science and Technology. (Influence of Biomolecules fraction on Refractive index of Nano-crystalline Porous Silicon)	UGC	Department of Physics, Mother Teresa Women’s University, Kodaikanal, Tamilnadu. 4 <sup>th</sup> August 2017.
8.	National Conference on Nanomaterials (Influence of Etching time on Refractive index of Nano-crystalline Porous Silicon)	BRNS – DAE Govt. of India.	Department of Physics, A.A. Govt. Arts College, Namakkal, Tamilnadu. 20 – 21 July, 2017.
9.	National Conference on Advanced Functional Materials. (Preparation and Characterization of Nanostructured Porous Silicon)	DST-SERP Govt. of India.	Department of Physics, SRM University, Chennai. Tamilnadu. May 8-9, 2015
10.	State Level Seminar on “Recent Trends in Advanced Physics”	IAPT, Tamilnadu Region	Department of Physics A.P.A College of Arts & Culture, Palani. 10.03.2017
11.	One day National Level Seminar on “Recent Trends in Biotechnology”	Our College Management	Department of Zoology A.P.A College of Arts & Culture, Palani. 12.01.2017
12.	Science Academies Lecture Workshop on “Emerging Trends in Material Science”.	Indian Science Academies, Govt. of India.	Department of Physics Raja Doraisingam Govt. Arts College, Sivagangai. 3 <sup>rd</sup> – 4 <sup>th</sup> January 2017.

13.	Inservice Training Programme to the Secondary Science Teachers.	TNSCS&T, Govt. of Tamilnadu	Department of Physics A.P.A College of Arts and Culture, Palani. 03.08.2015 – 07.08.2015
14.	National Conference on Advanced Functional Materials (NCAFM-2015).("Preparation and Characterization of Nanostructured Porous Silicon").	DST-SERB, Govt. of India.	SRM University, Chennai, Tamilnadu. May 8-9, 2015.
15.	One Day Workshop on Materials Characterization Techniques: AFM & XRD.	DST-PURE, Govt. of India.	School of Physics, Madurai Kamaraj University, Madurai. 19 <sup>th</sup> November 2104
16.	National Level Seminar on Recent Trends in Nano-Biotechnology, Bioinformatics, Bio-diversity and its Conservation and Environmental Impact on Global Warming".	UGC	Department of Zoology, A. P.A College of Arts and Culture, Palani, 13 <sup>th</sup> October 2014
17.	One day National Level Seminar on "Recent Advances in Chemistry"	UGC	Department of Chemistry A. P.A College of Arts and Culture, Palani, 11 <sup>th</sup> August 2014
18.	National Conference on Advanced Functional Materials ("Fabrication and Optical Properties of Porous Silicon Treated with $\beta$ -Cyclodextrin")	UGC	Department of Physics Bharathiar University Coimbatore. 30-31 January 2014
19.	National Conference on Advanced Functional Materials ("Structural Properties of LaAlO <sub>3</sub> by Combustion Synthesis")	UGC	Department of Physics Bharathiar University Coimbatore. 30-31 January 2014
20.	National Conference on Advanced Functional Materials ("Fabrication and Optical Properties of Porous Silicon Treated with H <sub>2</sub> SO <sub>4</sub> ")	UGC	Department of Physics Bharathiar University Coimbatore. 30-31 January 2014
21.	Science of Nano "SCINO'13" (Structural and Photoluminescence Properties of PVP/ZnSe Nanocomposites Prepared by Solgel Dip coating Method"	UGC	Department of Nanoscience and Technology Bharathiar University Coimbatore.
22.	National Seminar on New Materials Research and Nanotechnology. ("Study on Pigments Masterbatch Technology"	UGC	Dept. of Physics Govt. Arts College Ooty, Tamilnadu. 25 <sup>th</sup> – 27 <sup>th</sup> September 2013
23.	National Seminar on New Materials Research and Nanotechnology. ("Biological and Green Synthesis of Gold Nanoparticles Using Cymbopogon Citratus Extract")	UGC	Dept. of Physics Govt. Arts College Ooty, Tamilnadu. 25 <sup>th</sup> – 27 <sup>th</sup> September 2013

24.	Global Opportunities for Recent Developments in Science and Technology (“Longevity and Fecundity Activity of Methonalic Leaf Extract of Anthocephalus Cadamba”	CSIR	Department of Biotechnology Rev. Jacob Memorial Christian College, Ambilikikai.
25.	4 <sup>th</sup> International Conference on Recent Advances in Composite Materials.(“Structural and Optical properties of Nanostructured Porous silicon for Ethanol gas sensing application”).	AFOSR-AOARD (USA) & ONRG (Singapore)	International Centre, Goa, India, 18-21, February 2013
26.	National Science Day Awareness Programme on Energy and Environmental Conservation.	Our College Management	Department of Physics A.P.A College of Arts and Culture, Palani. 28 <sup>th</sup> February 2013
27.	National Seminar on Renewable & Non-Renewable Energy Sources.	Our College Management	Department of Chemistry A.P.A College of Arts and Culture, Palani. 21 <sup>st</sup> January 2013
28.	National Seminar on Advances in Materials Science. (“Structural properties of Zinc Selenide (ZnSe) thin films prepared by Brush Plate Method.	UGC	Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, 23 – 24, January 2012
29.	National Seminar on Advances in Materials Science. (“Structural studies of Nanocrystalline ZnO thin films coated on glass, silicon and porous silicon prepared by Sol-gel dip coating method”).	UGC	Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, 23 – 24, January 2012
30.	National Seminar on New Materials Research and Nanotechnology. (“Effect of Current density on Optical properties of Zinc Selenide (ZnSe) thin films Prepared by Electrodeposition Techniques”).	UGC, DST, BRNS, CSIR and TNSCST	Department of Physics Govt. Arts College, Ooty, Tamil nadu, 12 – 14, September 2012
31.	National Seminar on New Materials Research and Nanotechnology.(“Effect of Surface temperature on Nanocrystalline Zinc Selenide (ZnSe) thin films Prepared by Sol-gel dip-coating method”).	UGC, DST, BRNS, CSIR and TNSCST	Department of Physics Govt. Arts College, Ooty, Tamil nadu, 12 – 14, September 2012
32.	International Conference on Thin films and Applications. (“Effect of Polymer fraction on Refractive index of Nanocrystalline Porous silicon”).	UGC	School of Electrical and Electronics Engineering SASTRA University, Thanjavur, Tamilnadu, March 15 – 17, 2012.

33.	International Conference on Thin films and Applications. ("Fabrication and Characterization of PVP/ZnO nanocomposites prepared by Sol-gel Dip-Coating method").	UGC	SASTRA University, Thanjavur, Tamilnadu, March 15 – 17, 2012
34.	National Seminar on Advances in Materials Science (" Structural studies of Nanocrystalline ZnO thin films prepared by Sol-gel dip coating method")	UGC	Department of Physics Manonmaniam Sundaranar University Tirunelveli. 23 <sup>rd</sup> & 24 <sup>th</sup> January 2012.
35.	Indian Vacuum Society Symposium Thin films: Science & Technology. ("Structural and Optical properties of Polymer Composites/Porous Silicon")	Bhabha Atomic Research Centre (BARC), Mumbai.	Bhabha Atomic Research Centre (BARC), Mumbai. November 09 – 12, 2011
36.	International Conference and Workshop on New material ls and Devices for Photovoltaic Applications. ("Photoluminescence Studies of Porous Silicon & PMMA/PS heterojunction").	UGC	Department of Materials Science, Madurai Kamaraj University, Madurai, Tamilnadu. 10 – 12 <sup>th</sup> February 2011.
37.	57 <sup>th</sup> DAE Solid State Physics Symposium. ("Structural and Photoluminescence properties of ZnO/PS heterojunction",	Bhabha Atomic Center (BARC), Mumbai.	Department of Physics Indian Institute of Technology Bombay, Mumbai, India, December 3 – 7, 2012
38.	National Science Day Awareness Programme on Energy and Environmental Conservation.	Our College Management	Department of Physics A.P.A College of Arts and Culture, Palani. 28 <sup>th</sup> February 2012
39.	State Level Seminar on "Recent Developments in Nanomaterials and Device Applications".	UGC	Department of Physics A.P.A College of Arts and Culture, Palani. 24 <sup>th</sup> February 2012
40.	National Seminar on Advanced Materials: Processing & Applications. ("Optical properties of Zinc Selenide (ZnSe) thin films prepared by Brush plated techniques").	UGC	Bharathiar University, Coimbatore, Tamilnadu
41.	National Seminar on Recent Advancements in Materials Research. ("Optical and Electrical properties of Zinc Selenide (ZnSe) Thin Films Prepared by Brush Plated Method").	UGC	Department of Physics Scatt Christian College (Autonomous), Nagarcoil, Taminadu,
42.	National Seminar on Recent Advancements in Materials Research. ("Determination of the Thickness and Optical Constant of Zinc Selenide (ZnSe) thin films by the Envelope Method").	UGC	Department of Physics Scatt Christian College (Autonomous), Nagarcoil, Taminadu,

43.	National Seminar on Modern Trends in Chemistry.	UGC	Department of Chemistry A.P.A College of Arts and Culture, Palani. 24 <sup>th</sup> February 2012
44.	Indo-Norwegian Satellite Meeting on Advances in Solar Cell Materials and Technologies.	The Research Council of Norway	Department of Materials Science, Madurai Kamaraj University, Madurai. 17 <sup>th</sup> December 2011
45.	National Level Seminar on “Innovative Strategy for Technological Developments and Designing New Business Model in Renewable Energy Sector.	MNRE, Govt. of India.	Department of Physics V.H.N.S.N College, Virudhunagar. 03 & 04 March, 2011
46.	National Conference on Nanomaterials.	UGC	Department of Physics Karunya University Coimbatore. 3 – 4 December 2010
47.	One day State Level Workshop on “Nanoscience and Nanomaterials”	UGC	Department of Physics A.P.A College for Women, Palani. October 20, 2010
48.	One Day seminar on Astronomy.	NCSTC, DST & TNSCST	Department of Physics A.P.A College of Arts and Culture, Palani. 30 <sup>th</sup> March 2010
49.	National Conference on Advanced Trends in IT (“Application of GPS in Fisheries and Marine Studies”).	Our College Management	Department of Computer Science A.P.A College of Arts & Culture, Palani.
50.	National Conference on Advanced Trends in IT (“GPS in Disaster Management System”).	Our College Management	Department of Computer Science A.P.A College of Arts & Culture, Palani.