



### **Dr Aparna Thankappan**

Assistant Professor

Post Graduate & Research Department of Physics

Baselius College

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### **Personal data**

Date of Birth: 20.03.1986

Nationality: Indian

Gender: Female

### **Education**

BSc *Physics*(2003-2006)

Bharata Matha College, Thrikkakkara, Kerala

MSc *Physics*(2006-2008)

St. Paul's College, Kalamassery, Kerala

MTech *Optoelectronics and Laser Technology*(2009-2011)

Cochin University of Science and Technology

PhD in *Photonics*(2011-2015)

Cochin University of Science and Technology

Thesis title: Ph.D thesis title : Studies on betanin natural dye incorporated ZnO composites for photonic device applications

Post doctoral Fellow (DSKPDF) (2015-2017)

International and Interuniversity Centre for Nanoscience and Nanotechnology

Mahatma Gandhi University, Kottayam

### **Research area**

Semiconductor nanocomposites; solar cell; perovskites; energy storage ; Non linear optics; bio nanocomposites; natural dye

### **Work experience**

S.No	Positions held	Name of Institutes	From	To	Pay yscale
1	Assistant professor	Baselius College, Kottayam	4.6.2018	Current	Rs. 15600+6000(AGP )

**Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.**

S. No	Name of award	Awarding agency	Year
1	DSKPDF	UGC	2015
2	GATE	National coordination board-MHRD	2012
3	GATE	National coordination board-MHRD	2009

**Publications**

	Author (s)	Title	Name of Journal	Volume	Page	Year
1	A Thankappan, S Thomas	Structural and Spectral Characterization of ZnO Nanowires by Thermal Decomposition Method—a Comparative Study	Brazilian Journal of Physics	52 (4)	131	2022
2	Abhay Gusain, , Aparna Thankappan, and Sabu Thomas	Roll-to-roll printing of polymer and perovskite solar cells: compatible materials and processes	Journal of Materials Science	55	13490–13542	2020
3	Koshy, Obey; Thankappan, A.; Vibin, Bini; Thomas, S.; Mujeeb, A	“Naked Eye Detection of Hydrogen Peroxide by Laser Ablated Silver Nanoparticle Coated Flexible Paper”	Journal of Bionanoscience	10	377-380	2016
4	Aparna, V.P.N. Nampoori, Thankappan Sabu Thomas	Investigations of intensity dependant nonlinear optical properties of betanin/ZnO composites embedded in PVA	Optics & Laser Technology	83	28–34	2016
5	Aparna Thankappan, Divya S, Anju.K. Augustine, Girjavallaban C.P, Radhakrishnan P, Sheenu Thomas, and V.P.N. Nampoori	“Highly efficient betanin dye based ZnO and ZnO/Au Schottky barrier DSSC	Thin Solid Films	583	102–107	2015
6	ArindamSarkar, Aparna Thankappan, and V.P.N. Nampoori	Effect of silver nanoparticles on fluorescence and nonlinear properties of naturally occurring betacyanin dye	Opt. Mater	39	211-217	2015
7	S. Divya, Aparna Thankappan,C. P. G. Vallabhan, V. P. N. Nampoori,P. Radhakrishnan, and A. Mujeeb	Electrolyte/photoanode engineered performance of TiO <sub>2</sub> based dye sensitised solar cells	Journal of Applied Physics	115	064501	2014
8	Aparna Thankappan, C.L. Linslal,S.Divya, P.V. Sabitha,Sheenu	Optical nonlinear investigations on morphology controlled growth of ZnO crystals	Optics & Laser Technology	64	133–139	2014

	Thomas, V.P.N. Nampoori					
9	Aparna Thankappan, Sheenu Thomas, V.P.N. Nampoori	Novel composites based on polymer micro-rods for photonic device applications	Optics & Laser Technology	58	63-70	2014
10	Ani Augustine Jose,PranamPrakash ,AparnaThankappan ,SheenuThomas,V.P .N.Nampoori	study of regulation of anthocyanin production from confederate rose by spectroscopic method and their nonlinear optical characterization	I.J.S. N.,	4	294-298	2013
11	Aparna Thankappan, Sheenu Thomas andVPN Nampoori	Optical limiting performance of ZnO nanoflakes and nanoplates embedded in PVA matrix	QScience Connect	3 3		2013
12	Aparna Thankappan, Sheenu Thomas, and V. P. N. Nampoori	Tuning the face orientation of ZnO nano/microcrystals by a wet chemical method	Chinese Optics Letters	1 1	101801	2013
13	Aparna Thankappan, Sheenu Thomas, V.P.N. Nampoori	Solvent effect on the third order optical nonlinearity and optical limiting ability of betanin natural dye extracted from red beet root	Optical Materials	3 5	2332– 2337	2013
14	Aparna Thankappan, Divya S. Sheenu Thomas, V.P.N. Nampoori	Optical characterization of ZnO nanoplates embedded in polymeric matrices for optical limiting applications	Optics & Laser Technology	52	37-42	2013
15	Aparna Thankappan,Sheenu Thomas, V. P. N. Nampoori	Effect of betanin natural dye extracted from red beet root on the non linear optical properties ZnO nanoplates embedded in polymeric matrices”	Journal of Applied Physics	112	1231 04	2012
16	Aparna Thankappan, Misha Hari, S. Mathew, Santhi Ani Joseph, ErniRolf,Debajeet Bora, ArturBrau, V.P.N. Nampoori	“Synthesis of monocrystalline zinc oxide microrods by wet chemical method for light confinement applications”	Physica E	44	2118- 2123	2012

#### Books/Report/ chapters/ general articles etc.

S. No	Title	Authors Name	Publisher	Year of Publication
1	Polymeric and Nanostructured Materials: Synthesis, Properties, and Advanced Applications	Aparna Thankappan, Sabu Thomas, Nandakumar Kalarikkal,	Apple Academic Press	2018

2	Perovskite photovoltaics- basic to advanced concepts and implementation	Aparna Thankappan, Sabu Thomas	Elsevier	2018
3	Biopolymers and Biomaterials	Aneesa Padinjakkara, Aparna Thankappan, Fernando Gomes Souza, Jr., Sabu Thomas,	Apple Academic Press	2019
4	Thermal Lens Technique: An Investigation on Rhodamine 6G Incorporated in Zinc Oxide Low Dimensional Structures	Aparna Thankappan, V.P.N Nampoori	Apple Academic Press	2018
5	Optimization of betanin dye for solar cell applications	Aparna Thankappan, V.P.N. Nampoori, Sabu Thomas	Apple Academic Press	2018