

# **SRM Valliammai Engineering College**

(An Autonomous Institution)

SRM Nagar, Kattankulathur-603203, Chengalpattu District, Tamil Nadu

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## **Department of Physics**

	Personal Details		
Name:	Dr.S.Padmaja		
Designation:	Assistant Professor (OG)		
Educational Qualification:	M.Sc.,M.Phil.,Ph.D.,		
Experience:	13.9 years		
Area of Specialization :	Nano technology and Thin films and Polymer nanocomposites		
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Educational Details					
S.No	Degree	Branch/Specialization	Institution / University	Year	
1	B.Sc	Physics	VVV College/Madurai Kamaraj University	2004	
2	M.Sc	Physics	VHNSN College/Madurai Kamaraj University	2006	
3	M.Phil	Physics	Madurai Kamaraj University	2008	
4	P.hD	Physics	PSG College of Technology/Anna University	2016	

### **Professional Society Memberships**

- 1. Life member in Indian Association for Physics Teachers (IAPT)
- 2. Life member in Institute of smart structures and Systems (ISSS)
- 3. Life member in Indian Association for crystal growth (IACG)

#### **Publication Details**

- 1. "Structure and optical properties of CdS/PEO nanocompostie solid films for optical applications" **S.Padmaja**, S.Jayakumar, R.Balaji et al, Materials Science in Semiconductor Processing, 16 (2013) 1502-1507.
- 2. "Enhanced optical properties of CdS/PMMA nanocomposites solid films" **S.Padmaja**, S.Jayakumar, R.Balaji, Materials Technology, 30 (2015) 276-281.
- 3." A Comparative studies on the properties of CdS:PEO and CdS:PMMA solid films" **S.Padmaja**, S.Jayakumar, R.Balaji ,K.Vaideki, Materials Research Bulletin, vol 80 (2016) 36-43.
- 4. "Studies on Structural, Optical and Thermal properties of CdS:PEO nanocomposites solid films of different concentrations", **S.Padmaja**, S.Jayakumar, Optik, Vol. 158 (2018) 332-340.

- 5. "Functional group analysis of CdS:PEO nanocomposites solid films" **S.Padmaja**, S.Jayakumar, "Materials Today" proceedings, vol.5(2018),14473-14480.
- 6. Tunable luminescence and Transmittance Nature of CdS:PMMA Nanocomposites for Optoelectronic Applications" **S.Padmaja**, S.Jayakumar, Optics and Laser technology, vol 112 (2019) 409-412.
- 7. "Encapsulation of CdS in Polymer matrix by novel in situ method for Optical applications", **S. Padmaja**, S. Jayakumar, R. Balaji, C. Sudarshan, ISBN-978-935-059-049-2.
- 8. "Thermal and Electrical studies on CdS:PMMA nanocomposite solid films", S.Padmaja, ISBN-456-
- 9. "Investigations on CdS reinforced PMMA Solid films of different molar concentrations for optical applications" **S.Padmaja**, Journal of advance materials and applications.

#### **Other Particulars**

## **Books published:**

1. Co-authored a book in Engineering Physics under Anna University 2017 regulations.

## Papers presented in International Conferences:

- 1.Presented a paper in "Synthesis and Characterization of Polymer matrix CdS nanocomposites" in the "International conference on nanoscience and nanotechnology" conducted by Coimbatore Institute of Technology, Coimbatore from 6-8 th July 2011.
- 2. Presented a paper in "Encapsulation of CdS in Polymer matrix by novel in situ method for Optical applications" in the "International Conference on Advanced Materials 2011" conducted by PSG college of Technology, Coimbatore from 12-16th December 2011.(ISBN 978-935-059-049-2, pages: 443-447).
- 3. Presented a paper in "Fabrication of Cadmium Sulphide quantum dots encapsulated in Poly (methylmetacrylate) matrix" in the "Fifth ISSS National Conference on Mems, Smart materials, structures and systems" conducted by Karpagam University, Coimbatore from 21-22nd, September 2012. (Proceedings of ISSS).
- 4. Presented a paper in "Comparison of properties of CdS:PEO and CdS:PMMA nanocomposites" in the International conference on "International conference on "Sustainable Energy Technology" conducted by PSG College of Technology, Coimbatore, from 11-13th December 2015.
- 5.Presented a paper in Functional group analysis of CdS:PEO nanocomposites solid films in ICAFM'17 organized by department of Mechanical Engineering, ACET, on 3-5 May 2017.
- 6. Presented a paper in "Properties of CdS nanocomposite Solid films" in ICRTNM-2021, organized by department of Physics, St.Joseph's College for women, Alappuzha, Kerala, from 18-20 January 2021.