



## **KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

### **Datos Generales**

**Nombre:** KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

**Máximo nivel de estudios:** DOCTORADO

**Antigüedad académica en la UNAM:** 38 años

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### **Nombramientos**

**Vigente:** INVESTIGADOR TITULAR C TC Definitivo  
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Desde 01-03-2013

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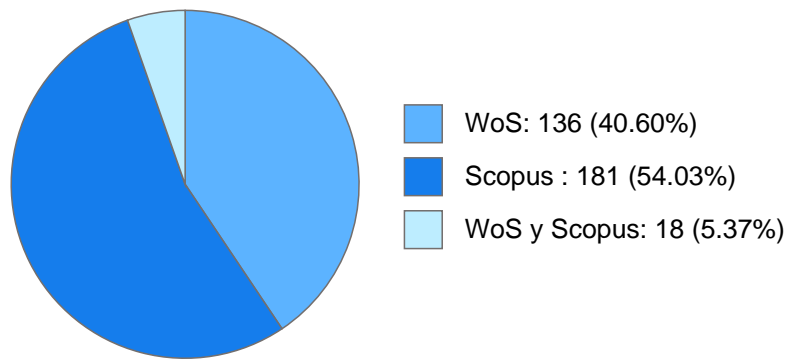
### **Estímulos, programas, premios y reconocimientos**

SNI III 2022 - VIGENTE  
SNI III - 2020  
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## KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

### DOCUMENTOS EN REVISTAS

#### Histórico de Documentos



#	Título	Autores	Revista	Año
1	Insights to the production of SnS-cubic thin films by vacuum thermal evaporation for photovoltaics	FABIOLA DE BRAY SANCHEZ SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	2024
2	Improved preservation of the color and bioactive compounds in strawberry pulp dried under UV-Blue blocked solar radiation	ANABEL LOPEZ ORTIZ KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY ARGELIA BALBUENA ORTEGA et al.	Cleaner And Circular Bioeconomy	2024
3	Antimony sulfide selenide thin film solar cells prepared from thermal evaporation sources produced via chemical reactions	ANGELICA LIZBETH ESPINOSA SANTANA KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING	2023
4	Optical absorption and light-generated current density in chemically deposited antimony sulfide selenide thin films used for solar cell development	JOSE CAMPOS ALVAREZ KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Sánchez J.D.G. et al.	JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS	2022
5	Improved thermoelectric power factor achieved by energy filtering in ZnO:Mg/ZnO hetero-structures	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Pham A.T.T. Vo P.T.N. et al.	Thin Solid Films	2021

## KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

6	Solar drying of strawberry using polycarbonate with UV protection and polyethylene covers: Influence on anthocyanin and total phenolic content	ANABEL LOPEZ ORTIZ KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rodríguez-Ramírez J. et al.	SOLAR ENERGY	2021
7	Thin film Sn <sub>2</sub> S <sub>3</sub> via chemical deposition and controlled heating ?Its prospects as a solar cell absorber	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Mohan R.N.	APPLIED SURFACE SCIENCE	2020
8	Thin film thermoelectric elements of p-n tin chalcogenides from chemically deposited SnS-SnSe stacks of cubic crystalline structure	ENUE BARRIOS SALGADO DIANA ERENDIRA LARA LLANDERAL SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR et al.	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	2020
9	Prospects toward UV-blue filtered solar drying of agricultural farm produce using chemically deposited copper chalcogenide thin films on cellular polycarbonate	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY ANGELICA LIZBETH ESPINOSA SANTANA LAURA GUERRERO MARTINEZ et al.	SOLAR ENERGY	2020
10	Thin film Zn-Mg-Al-O produced by r. f. Sputtering used in antimony sulfide solar cells	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR Sanal K.C. et al.	JOURNAL OF THE ELECTROCHEMICAL SOCIETY	2019
11	Antimony sulfide selenide prototype photovoltaic modules surpassing 4% conversion efficiency under the sun ? A technological outlook	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY FABIOLA DE BRAY SANCHEZ SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR et al.	SOLAR ENERGY	2019
12	Antimony sulfide-selenide thin film solar cells produced from stibnite mineral	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY LAURA GUERRERO MARTINEZ SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR et al.	Thin Solid Films	2018
13	Influence of the electron buffer layer on the photovoltaic performance of planar Sb <sub>2</sub> (SxSe <sub>1-x</sub> ) <sub>3</sub> solar cells	OSCAR ANDRES JARAMILLO QUINTERO MARINA ELIZABETH RINCON GONZALEZ KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY et al.	PROGRESS IN PHOTOVOLTAIC S	2018
14	Co-sputtered Zn <sub>1-x</sub> Mg <sub>x</sub> O films and interfacial band offsets at heterojunctions with SnS-CUB	VICTORIA ELENA GONZALEZ FLORES KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR et al.	JOURNAL OF ALLOYS AND COMPOUNDS	2018
15	Thermal stability of 'metastable' cubic tin sulfide and its relevance to applications	VICTORIA ELENA GONZALEZ FLORES SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	2018

**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

16	On the Stability of Operation of Antimony Sulfide Selenide Thin Film Solar Cells Under Solar Radiation	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Ríos-Ramirez B.	PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE	2018
17	Band offset in zinc oxy-sulfide/cubic-tin sulfide interface from X-ray photoelectron spectroscopy	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR Sanal, K. C.	APPLIED SURFACE SCIENCE	2017
18	Thin film solar cells of cubic structured SnS-SnSe	ENUE BARRIOS SALGADO MA. LUISA RAMON GARCIA LAURA GUERRERO MARTINEZ et al.	PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE	2017
19	Cubic and orthorhombic SnS thin-film absorbers for tin sulfide solar cells	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY ANA ROSA GARCIA ANGELMO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR	PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE	2016
20	Thin films of n-type SnSe <sub>2</sub> produced from chemically deposited p-type SnSe	ENUE BARRIOS SALGADO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	Thin Solid Films	2016
21	Cubic-structured tin selenide thin film as a novel solar cell absorber	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY ENUE BARRIOS SALGADO Nair M.T.S.	PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE	2016
22	Crystal structure of a large cubic tin monosulfide polymorph: an unraveled puzzle	ANA ROSA GARCIA ANGELMO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY et al.	Crystengcomm	2016
23	Stable Performance of Chemically Deposited Antimony Sulfide-Lead Sulfide Thin Film Solar Cells under Concentrated Sunlight	Rogelio GonzalezLua Jose EscorcíaGarcía DIEGO PEREZ MARTINEZ et al.	ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY	2015

**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

24	Structure and refractive index of thin alumina films grown by atomic layer deposition	M. Tulio AguilarGama Erik RamirezMorales ZEUZ MONTIEL GONZALEZ et al.	JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS	2015
25	Thin film solar cell of SnS absorber with cubic crystalline structure	ANA ROSA GARCIA ANGELMO R. RomanoTrujillo JOSE CAMPOS ALVAREZ et al.	PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE	2015
26	Thermal annealing of sequentially deposited SnS thin films	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rebeca Aragon Safonova, Maria et al.	PROCEEDINGS OF THE ESTONIAN ACADEMY OF SCIENCES	2015
27	Photoconductive thin films of AgSbS <sub>2</sub> with cubic crystalline structure in solar cells	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY JESUS CAPISTRAN MARTINEZ	PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE	2015
28	Evolution of crystalline structure in SnS thin films prepared by chemical deposition	ANA ROSA GARCIA ANGELMO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	SOLID STATE SCIENCES	2014
29	Chemical bath deposition of SnS thin films on ZnS and CdS substrates	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY A. R. Garcia Safonova, M. et al.	JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS	2014
30	Chemically deposited SnSe thin films: Thermal stability and solar cell application	Enue Barrios Salgado SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY	2014
31	Heterojunction CdS/Sb <sub>2</sub> S <sub>3</sub> solar cells using antimony sulfide thin films prepared by thermal evaporation	J. Escorcia Garcia D. Becerra SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR et al.	Thin Solid Films	2014
32	Sb <sub>2</sub> S <sub>3</sub> /SnSe thin film solar cells by thermal evaporation	ENUE BARRIOS SALGADO KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Escorcia-García J. et al.	Materials Research Society Symposium Proceedings	2014

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**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

33	Silver antimony sulfide-selenide for thin film solar cells	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Nair M.T.S. JESUS CAPISTRAN MARTINEZ	Materials Research Society Symposium Proceedings	2014
34	Antimony chalcogenide/lead selenide thin film solar cell with 2.5% conversion efficiency prepared by chemical deposition	M. Calixto Rodriguez Harumi Moreno Garcia SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR et al.	ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY	2013
35	Iron pyrite thin films via thermal treatment of chemically deposited precursor films	D. A. Mazon Montijo SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY	2013
36	Conductive carbon paint as an anode buffer layer in inverted CdS/Poly(3-hexylthiophene) solar cells	Hugo J. Cortina Marrero KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY HAILIN ZHAO HU	SOLAR ENERGY	2013
37	Optoelectronic properties of chemically deposited Bi <sub>2</sub> S <sub>3</sub> thin films and the photovoltaic performance of Bi <sub>2</sub> S <sub>3</sub> /P3OT solar cells	Edwin Pineda KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY HAILIN ZHAO HU et al.	SOLAR ENERGY	2012
38	Antimony sulfide and Silver antimony sulfide absorbers for thin film solar cells	JESUS CAPISTRAN MARTINEZ SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	Mrs Advances	2012
39	Chemically deposited lead sulfide and bismuth sulfide thin films and Bi <sub>2</sub> S <sub>3</sub> /PbS solar cells	Harumi Moreno Garcia SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	Thin Solid Films	2011
40	Analysis of a Bismuth Sulfide/Silicon Junction for Building Thin Film Solar Cells	D. Becerra SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	JOURNAL OF THE ELECTROCHEMICAL SOCIETY	2011
41	All-chemically deposited Bi <sub>2</sub> S <sub>3</sub> /PbS solar cells	Harumi Moreno Garcia SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	Thin Solid Films	2011
42	Chemically deposited thin films of PbSe as an absorber component in solar cell structures	ENUE BARRIOS SALGADO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY et al.	Thin Solid Films	2011

**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

43	Chemically deposited tin chalcogenides as absorbers in thin film solar cells	ENUE BARRIOS SALGADO KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Nair M.T.S. et al.	ECS Transactions	2011
44	Antimony sulfide absorbers in solar cells	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY JESUS CAPISTRAN MARTINEZ González Lua R. et al.	ECS Transactions	2011
45	Cu <sub>2</sub> SnS <sub>3</sub> and Cu <sub>4</sub> SnS <sub>4</sub> Thin Films via Chemical Deposition for Photovoltaic Application	David Avellaneda SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	JOURNAL OF THE ELECTROCHEMI CAL SOCIETY	2010
46	PbSe Thin Films in All-Chemically Deposited Solar Cells	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Enue Barrios Salgado MA. LUISA RAMON GARCIA et al.	JOURNAL OF THE ELECTROCHEMI CAL SOCIETY	2010
47	Chemically and electrochemically deposited thin films of tin sulfide for photovoltaic structures	NINI ROSE MATHEWS JOSE CAMPOS ALVAREZ SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR et al.	Materials Research Society Symposium Proceedings	2010
48	Photovoltaic structures using chemically deposited tin sulfide thin films	David Avellaneda SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	Thin Solid Films	2009
49	Solar cells with Sb <sub>2</sub> S <sub>3</sub> absorber films	Sarah Messina SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	Thin Solid Films	2009
50	Antimony Selenide Absorber Thin Films in All-Chemically Deposited Solar Cells	Sarah Messina SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	JOURNAL OF THE ELECTROCHEMI CAL SOCIETY	2009
51	Antimony sulphide thin film as an absorber in chemically deposited solar cells	Sarah Messina SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	JOURNAL OF PHYSICS D-APPLIED PHYSICS	2008
52	Polymorphic tin sulfide thin films of zinc blende and orthorhombic structures by chemical deposition	David Avellaneda SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	JOURNAL OF THE ELECTROCHEMI CAL SOCIETY	2008



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**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

53	Revisiting CdS-PbS solar cell structure	OSCAR GUSTAVO GOMEZ DAZA ALMENDARO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY et al.	Materials Research Society Symposium Proceedings	2007
54	SnS thin films in chemically deposited solar cell structures	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Avellaneda D.	Materials Research Society Symposium Proceedings	2007
55	All-chemically deposited solar cells with antimony sulfide-selenide/lead sulfide thin film absorbers	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Messina S.	Materials Research Society Symposium Proceedings	2007
56	Structural and chemical transformations in SnS thin films used in chemically deposited photovoltaic cells	MARIA GUADALUPE DELGADO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY et al.	Thin Solid Films	2007
57	Antimony sulfide thin films in chemically deposited thin film photovoltaic cells	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Messina S.	Thin Solid Films	2007
58	Thin films of arsenic sulfide by chemical deposition and formation of InAs	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY P?α-Méndez Y.	SEMICONDUCT OR SCIENCE AND TECHNOLOGY	2006
59	Chemically deposited photovoltaic structure using antimony sulfide and silver antimony selenide absorber films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Bindu K. et al.	ELECTROCHEM SOLID ST	2006
60	Chemically deposited se thin films and their use as a planar source of selenium for the formation of metal selenide layers	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Bindu K.	JOURNAL OF THE ELECTROCHEMI CAL SOCIETY	2006
61	Chemically deposited CuS and Cu <sub>2</sub> -xSe coatings in the production of spectrally selective laminated solar control glazings	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY OSCAR GUSTAVO GOMEZ DAZA ALMENDARO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR et al.	Proceedings - Electrochemica l Society	2006



**Reporte individual**

**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

62	Characteristics of chemically deposited thin film solar cells using SnS and Sb <sub>2</sub> S <sub>3</sub> absorbers	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Avellaneda D. et al.	Materials Research Society Symposium Proceedings	2006
63	Photoconductive antimony sulfide-selenide thin films produced by heating a chemically deposited Se- Sb <sub>2</sub> S <sub>3</sub> layer	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Suárez-Sandoval D.Y.	JOURNAL OF THE ELECTROCHEMI CAL SOCIETY	2006
64	Spectrally selective laminated glazing consisting of solar control and heat mirror coated glass: Preparation, characterization and modelling of heat transfer	OSCAR GUSTAVO GOMEZ DAZA ALMENDARO CLAUDIO ALEJANDRO ESTRADA GASCA SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR et al.	SOLAR ENERGY	2005
65	Structural, optical and electrical properties of chemically deposited silver sulfide thin films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rodríguez A.N.	SEMICONDUCT OR SCIENCE AND TECHNOLOGY	2005
66	Semiconducting AgSbSe <sub>2</sub> thin film and its application in a photovoltaic structure	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Bindu K. et al.	SEMICONDUCT OR SCIENCE AND TECHNOLOGY	2005
67	Absorber films of antimony chalcogenides via chemical deposition for photovoltaic application	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rodríguez-Lazcano Y. et al.	Materials Research Society Symposium Proceedings	2005
68	AgSbSe <sub>2</sub> thin films for photovoltaic structures produced through reaction of chemically deposited selenium thin films with Ag and Sb <sub>2</sub> S <sub>3</sub>	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Bindu K.	Materials Research Society Symposium Proceedings	2005
69	Optical and mechanical characteristics of clear and solar control laminated glass using zinc sulphide and copper sulphide thin films	OSCAR GUSTAVO GOMEZ DAZA ALMENDARO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY et al.	SURFACE & COATINGS TECHNOLOGY	2005
70	Photovoltaic p-i-n structure of Sb <sub>2</sub> S <sub>3</sub> and CuSbS <sub>2</sub> absorber films obtained via chemical bath deposition	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rodríguez-Lazcano Y.	JOURNAL OF THE ELECTROCHEMI CAL SOCIETY	2005

## KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

71	Polycrystalline thin films of antimony selenide via chemical bath deposition and post deposition treatments	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rodríguez-Lazcano Y. et al.	Thin Solid Films	2005
72	Semiconducting tin selenide thin films prepared by heating Se-Sn layers	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Bindu K.	SEMICONDUCT OR SCIENCE AND TECHNOLOGY	2004
73	Copper tin sulfide semiconductor thin films produced by heating SnS-CuS layers deposited from chemical bath	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY López-Mata C. et al.	SEMICONDUCT OR SCIENCE AND TECHNOLOGY	2003
74	Semiconducting Cu <sub>3</sub> BiS <sub>3</sub> thin films formed by the solid-state reaction of CuS and bismuth thin films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Estrella V.	SEMICONDUCT OR SCIENCE AND TECHNOLOGY	2003
75	Crystalline structure of chemically deposited thallium sulfide thin films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Estrella V.	Thin Solid Films	2002
76	Formation of thallium antimony sulfide and thallium bismuth sulfide thin films by heating chemically deposited multi-layer thin films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Estrella V.	Materials Research Society Symposium Proceedings	2002
77	Thallium antimony sulfide and thallium bismuth sulfide thin films produced by heating chemically deposited multi-layers	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Estrella V.	SEMICONDUCT OR SCIENCE AND TECHNOLOGY	2002
78	Absorber films of Ag <sub>2</sub> S and AgBiS <sub>2</sub> prepared by chemical bath deposition	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rodríguez A.N.	Materials Research Society Symposium Proceedings	2002
79	Chemically deposited antimony selenide thin films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rodríguez-Lazcano Y. et al.	Materials Research Society Symposium Proceedings	2002

## KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

80	Formation of conductive CdO layer on CdS thin films during air heating	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY OSCAR GUSTAVO GOMEZ DAZA ALMENDARO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR et al.	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	2001
81	High thin-film yield achieved at small substrate separation in chemical bath deposition of semiconductor thin films	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY OSCAR GUSTAVO GOMEZ DAZA ALMENDARO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR et al.	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	2001
82	Influence of thermal emittance on the performance of laminated solar control glazing	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Alvarez G. Flores J.J.	APPLIED THERMAL ENGINEERING	2001
83	Chemical bath deposition: A promising technology to build low cost solar cells	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR Nuñez A.	MODERN PHYSICS LETTERS B	2001
84	Formation of conductive CdO thin films on photoconductive CdS thin films for window layer applications in solar cells	OSCAR GUSTAVO GOMEZ DAZA ALMENDARO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY et al.	MODERN PHYSICS LETTERS B	2001
85	Conductive copper sulfide thin films on polyimide foils for optical and optoelectronic applications	OSCAR GUSTAVO GOMEZ DAZA ALMENDARO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY et al.	MODERN PHYSICS LETTERS B	2001
86	Optical and electrical properties of thallium sulphide and $Tl_xMySz$ (M=Cu, Bi, Sb) thin films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Estrella V. et al.	MODERN PHYSICS LETTERS B	2001
87	$Cu_xSb_ySz$ thin films produced by annealing chemically deposited $Sb_2S_3-CuS$ thin films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rodríguez-Lazcano Y.	MODERN PHYSICS LETTERS B	2001
88	$CuSbS_2$ thin film formed through annealing chemically deposited $Sb_2S_3-CuS$ thin films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rodríguez-Lazcano Y.	JOURNAL OF CRYSTAL GROWTH	2001
89	Conductive copper sulfide thin films on polyimide foils	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Cardoso J. et al.	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	2001

**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

90	Mechanism of Formation of Highly Photosensitive CdSe/ZnO Composite Coatings Obtained by Sintering CdSe/ZnCl <sub>2</sub> Screen Printed Layers	OSCAR GUSTAVO GOMEZ DAZA ALMENDARO AARON SANCHEZ JUAREZ AURELIA MARIA LETICIA BAÑOS LOPEZ et al.	JOURNAL OF THE ELECTROCHEMI CAL SOCIETY	2001
91	Substrate spacing and thin-film yield in chemical bath deposition of semiconductor thin films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Arias-Carbajal Reádigos A. et al.	SEMICONDUCT OR SCIENCE AND TECHNOLOGY	2000
92	Growth mechanism of thin film wide-gap semiconductors by chemical bath deposition technique	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR Parmananda P.	Materials Research Society Symposium Proceedings	2000
93	Formation of InSb by annealing Sb <sub>2</sub> S <sub>3</sub> -In thin films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rodríguez-Lazcano Y.	JOURNAL OF CRYSTAL GROWTH	2000
94	Ion beam analysis of copper selenide thin films prepared by chemical bath deposition	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR LAZARO HUERTA ARCOS et al.	NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS	2000
95	Optical and electrical properties of Pbs + in thin films subjected to thermal processing	RAUL SUAREZ PARRA MARCO ANTONIO GONZALEZ JIMENEZ AURELIA MARIA LETICIA BAÑOS LOPEZ et al.	JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS	2000
96	Production of InSb thin films through annealing Sb <sub>2</sub> S <sub>3</sub> -In thin films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rodríguez-Lazcano Y.	Materials Research Society Symposium Proceedings	1999
97	Copper selenide thin films by chemical bath deposition	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR García V.M.	JOURNAL OF CRYSTAL GROWTH	1999

**Reporte individual**

**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

98	Formation of a ZnSe:In <sub>2</sub> O <sub>3</sub> heterostructure by air annealing ZnSe-In thin film	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY García V.M.	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	1999
99	Production of InSb thin films through annealing Sb <sub>2</sub> S <sub>3</sub> -In thin films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rodríguez-Lazcano Y.	Materials Research Society Symposium Proceedings	1999
100	Mathematical model simulating the growth of compound semiconductor thin films via chemical bath deposition	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR Parmananda P.	JOURNAL OF CRYSTAL GROWTH	1999
101	Chemically deposited copper oxide thin films: structural, optical and electrical characteristics	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Guerrero L. et al.	APPLIED SURFACE SCIENCE	1999
102	Comparison of the Properties of Bismuth Sulfide Thin Films Prepared by Thermal Evaporation and Chemical Bath Deposition	MARINA ELIZABETH RINCON GONZALEZ AARON SANCHEZ JUAREZ KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY et al.	JOURNAL OF SOLID STATE CHEMISTRY	1998
103	Structural and Electrical Properties of Annealed In-Bi <sub>2</sub> S <sub>3</sub> Thin Films	RAUL SUAREZ PARRA ANTONIO ESTEBAN JIMENEZ GONZALEZ AURELIA MARIA LETICIA BAÑOS LOPEZ et al.	JOURNAL OF SOLID STATE CHEMISTRY	1998
104	Electrically conducting polyaniline-poly(acrylic acid) blends	HAILIN ZHAO HU JOSE MANUEL SANIGER BLESIA KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY et al.	POLYMER INTERNATIONAL	1998
105	Photoelectrochemical behavior of chemically deposited CdSe and coupled CdS/CdSe semiconductor films	MARINA ELIZABETH RINCON GONZALEZ KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Sánchez M. et al.	SOLAR ENERGY MATERIALS AND SOLAR CELLS	1998
106	Semiconductor thin films by chemical bath deposition for solar energy related applications	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR AARON SANCHEZ JUAREZ et al.	SOLAR ENERGY MATERIALS AND SOLAR CELLS	1998
107	Chemically deposited Sb <sub>2</sub> S <sub>3</sub> and Sb <sub>2</sub> S <sub>3</sub> -CuS thin films	SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Peña Y. et al.	JOURNAL OF THE ELECTROCHEMICAL SOCIETY	1998
108	Screen-printed Cu <sub>3</sub> BiS <sub>3</sub> -polyacrylic acid composite coatings	HAILIN ZHAO HU OSCAR GUSTAVO GOMEZ DAZA ALMENDARO KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	JOURNAL OF MATERIALS RESEARCH	1998



## KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

109	Conversion of chemically deposited CuS thin films to Cu <sub>1.8</sub> S and Cu <sub>1.96</sub> S by annealing	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Nair M.T.S. Guerrero L.	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	1998
110	Photoelectrochemical behavior of Bi <sub>2</sub> S <sub>3</sub> nanoclusters and nanostructured thin films	RAUL SUAREZ PARRA KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Kamat P.V.	Langmuir	1998
111	Formation of p-type Cu <sub>3</sub> Bi <sub>2</sub> S <sub>3</sub> absorber thin films by annealing chemically deposited Bi <sub>2</sub> S <sub>3</sub> -CuS thin films	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR HAILIN ZHAO HU et al.	JOURNAL OF MATERIALS RESEARCH	1997
112	Low-temperature vapour phase deposition of bismuth sulphide films	MARINA ELIZABETH RINCON GONZALEZ KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	1997
113	Chemical deposition of bismuth selenide thin films using N,N-dimethylselenourea	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY García V.M. Nair M.T.S. et al.	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	1997
114	Laminated solar control safety glass incorporating chemically deposited metal chalcogenide thin films	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR OSCAR GUSTAVO GOMEZ DAZA ALMENDARO et al.	Proceedings of SPIE	1997
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## KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

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121	Preparation of highly photosensitive CdSe thin films by a chemical bath deposition technique	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY García V.M. Nair M.T.S. et al.	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	1996
122	Highly photosensitive CdSe coatings by screen printing and sintering technique	OSCAR GUSTAVO GOMEZ DAZA ALMENDARO SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY et al.	APPLIED PHYSICS LETTERS	1996
123	Electrical and optical properties of poly(methyl methacrylate) sheets coated with chemically deposited CuS thin films	HAILIN ZHAO HU KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	SURFACE & COATINGS TECHNOLOGY	1996
124	Modification of electrical, optical and crystalline properties of chemically deposited CdS films by thermal diffusion of indium and tin	AARON SANCHEZ JUAREZ KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY George P.J.	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	1996
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127	Kinetics of electrical conductivity enhancement in bismuth sulphide thin films. Part I: Argon and hydrogen annealing	MARINA ELIZABETH RINCON GONZALEZ KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS	1996
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**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

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135	Structural and opto-electronic properties of chemically deposited CuxS thin film and the precipitate	AGUSTIN FERNANDEZ Y EGUIARTE JOSEPH SEBASTIAN PATHIYAMATTOM OSCAR GUSTAVO GOMEZ DAZA ALMENDARO et al.	Thin Solid Films	1994
136	XRD, XPS, optical and electrical studies on the conversion of SnS thin films to SnO <sub>2</sub>	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Nair M.T.S. Zingaro R.A. et al.	Thin Solid Films	1994
137	The structural, transport and optical properties of screen printed CuxS thick films	JOSEPH SEBASTIAN PATHIYAMATTOM OSCAR GUSTAVO GOMEZ DAZA ALMENDARO AURELIA MARIA LETICIA BAÑOS LOPEZ et al.	SOLAR ENERGY MATERIALS AND SOLAR CELLS	1994
138	Chemical bath deposition of ZnSe and CuSe thin films using n, n-dimethylselenourea	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Estrada Cesar A. Nair M.T.S. et al.	JOURNAL OF THE ELECTROCHEMICAL SOCIETY	1994
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## KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

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## KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

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156	Theoretical analysis of the thermal performance of all-glass evacuated tube solar collectors with absorber coating on the outside or inside of the inner tube	CLAUDIO ALEJANDRO ESTRADA GASCA KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Alvarez-Garcia G. et al.	RENEWABLE ENERGY	1992
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163	Amorphous-crystalline transformation and conductivity enhancement in annealed bismuth sulphide thin films	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY AARON SANCHEZ JUAREZ AURELIA MARIA LETICIA BAÑOS LOPEZ et al.	SEMICONDUCT OR SCIENCE AND TECHNOLOGY	1991

## KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

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165	Characteristics of metal chalcogenide solar control films with a protective polymer coating	AGUSTIN FERNANDEZ Y EGUIARTE KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	Thin Solid Films	1991
166	Optical properties of PbSCu <sub>x</sub> S and Bi <sub>2</sub> S <sub>3</sub> Cu <sub>x</sub> S thin films with reference to solar control and solar absorber applications	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY García V.M. Nair M.T.S.	Solar Energy Materials	1991
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168	Solar control characteristics of chemically deposited lead sulfide coatings	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY AGUSTIN FERNANDEZ Y EGUIARTE Ocampo M. et al.	Solar Energy Materials	1990
169	Photoconductive bismuth sulphide thin films by chemical deposition	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Nair M.T.S.	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	1990
170	Versatile solar control characteristics of chemically deposited PbS-Cu <sub>x</sub> S thin film combinations	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Nair M.T.S.	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	1989
171	Critical analysis of the solar control performance of chemically deposited metal chalcogenide thin films	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Fernández A. Nair M.T.S.	Proceedings of SPIE	1989
172	Chemical bath deposition of Cu <sub>x</sub> S thin films and their prospective large area applications	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Nair M.T.S.	SEMICONDUCTOR SCIENCE AND TECHNOLOGY	1989
173	Prospects of chemically deposited metal chalcogenide thin films for solar control applications	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY AGUSTIN FERNANDEZ Y EGUIARTE Nair M.T.S. et al.	JOURNAL OF PHYSICS D-APPLIED PHYSICS	1989
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## KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

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177	Photocurrent response in chemically deposited CdS thin films	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Nair M.T.S. Campos J.	Solar Energy Materials	1987
178	Solar-assisted chemical deposition of highly photosensitive CdS thin films	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Nair M.T.S.	Solar Energy Materials	1987
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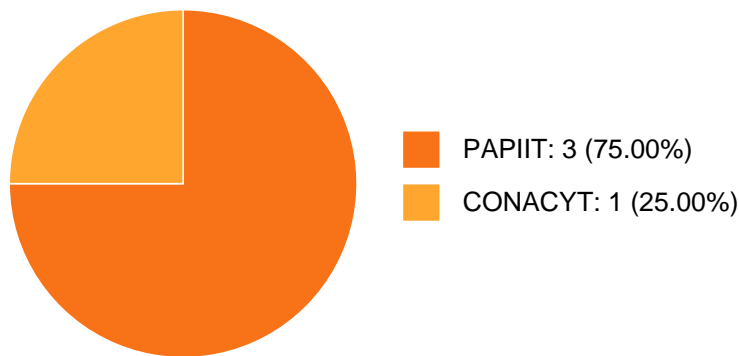
**No se encuentran registros en la base de datos de Humanindex asociados a:**

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### PARTICIPACIÓN EN PROYECTOS

#### Histórico de participación en proyectos

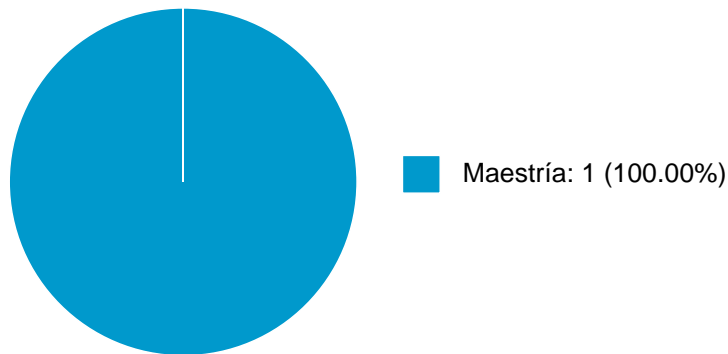


#	Nombre	Participantes	Fuente	Fecha inicio	Fecha fin
1	Investigación y desarrollo de celdas solares con materiales novedosos (CONACYT / CeMIE-Sol)	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	Recursos CONACYT	01-03-2014	28-02-2018
2	Celdas solares y módulos fotovoltaicos de sulfuro-selenuro de antimonio	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	Recursos PAPIIT	01-01-2017	31-12-2019
3	Prototipos de módulos fotovoltaicos funcionales de sulfuro selenuro de antimonio.	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	Recursos PAPIIT	01-01-2020	31-12-2022
4	Investigación en el aumento de conductividad eléctrica de sulfuro selenuro de antimonio y en capas interfaciales para celdas solares	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY	Recursos PAPIIT	01-01-2023	31-12-2025

**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

**PARTICIPACIÓN EN TESIS**

**Histórico de Colaboraciones en Tesis**

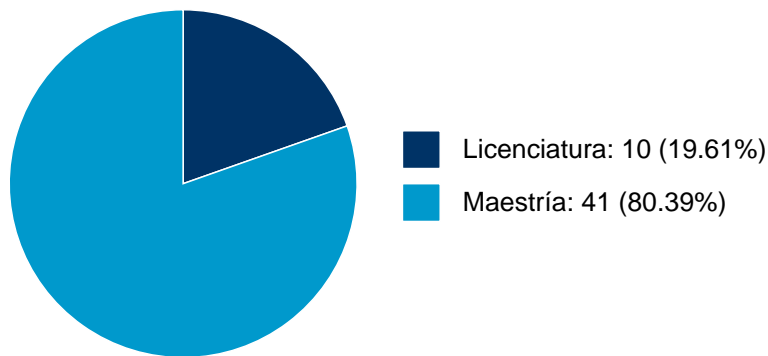


#	Título del documento	Tipo de Tesis	Sinodales	Autores	Entidad	Año
1	Películas delgadas de $\text{CuIn(S/Se)}_2$ obtenidas por la combinación de las técnicas de depósito químico y evaporación térmica al vacío para materiales absorbedores en las celdas solares	Tesis de Maestría	KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY,	Ixtlilco Cortés, Luis,		2003

## KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

### DOCENCIA IMPARTIDA

#### Histórico de docencia



#	Nivel titulación	Asignatura	Entidad	Alumnos	Semestre
1	Licenciatura	SOLAR FOTOVOLTAICA	Centro de Investigación en Energía	7	2024-1
2	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES SOLAR SEMICONDUCTORS	Centro de Investigación en Energía	1	2023-2
3	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES INTRODUCCIÓN A MATERIALES Y DISPOSITIVOS FOTOVOLTAICOS	Centro de Investigación en Energía	1	2023-2
4	Licenciatura	SOLAR FOTOVOLTAICA	Centro de Investigación en Energía	1	2023-1
5	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES	Centro de Investigación en Energía	0	2022-2
6	Licenciatura	SOLAR FOTOVOLTAICA	Centro de Investigación en Energía	12	2022-1
7	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES SOLAR SEMICONDUCTORS	Centro de Investigación en Energía	1	2021-2
8	Licenciatura	SOLAR FOTOVOLTAICA	Centro de Investigación en Energía	21	2021-1
9	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES INTRODUCCION A MATERIALES Y DISPOSITIVOS FOTOVOLTAICOS	Centro de Investigación en Energía	1	2021-1
10	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES INTRODUCCIÓN A LOS MATERIALES Y DISPOSITIVOS FOTOVOLTAICOS	Instituto de Energías Renovables	1	2020-1

## KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

11	Licenciatura	SOLAR FOTOVOLTAICA	Centro de Investigación en Energía	18	2020-1
12	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES SEMICONDUCTORES II	Instituto de Energías Renovables	2	2019-2
13	Maestría	ACTIVIDADES ACADÉMICAS ORIENTADAS A LA GRADUACIÓN	Instituto de Energías Renovables	1	2019-2
14	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES SEMICONDUCTORES	Instituto de Energías Renovables	3	2019-1
15	Licenciatura	SOLAR FOTOVOLTAICA	Centro de Investigación en Energía	12	2019-1
16	Licenciatura	SEMINARIO DE TITULACION	Centro de Investigación en Energía	1	2019-1
17	Maestría	PROYECTO DE INVESTIGACIÓN II	Instituto de Energías Renovables	1	2019-1
18	Maestría	PROYECTO DE INVESTIGACIÓN III	Instituto de Energías Renovables	1	2019-1
19	Maestría	PROYECTO DE INVESTIGACION I	Instituto de Energías Renovables	1	2018-2
20	Maestría	ACTIVIDADES ACADEMICAS ORIENTADAS A LA GRADUACION	Instituto de Energías Renovables	1	2018-2
21	Maestría	PROYECTO DE INVESTIGACION II	Instituto de Energías Renovables	1	2018-1
22	Maestría	PROYECTO DE INVESTIGACION III	Instituto de Energías Renovables	1	2018-1
23	Licenciatura	SOLAR FOTOVOLTAICA	Centro de Investigación en Energía	5	2018-1
24	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES SEMICONDUCTORES	Instituto de Energías Renovables	2	2017-2
25	Maestría	ACTIVIDADES ACADÉMICAS ORIENTADAS A LA GRADUACIÓN	Instituto de Energías Renovables	1	2017-2
26	Maestría	PROYECTO DE INVESTIGACION II-321004	Instituto de Energías Renovables	1	2017-1
27	Maestría	PROYECTO DE INVESTIGACION III-321044	Instituto de Energías Renovables	1	2017-1
28	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES-321101	Instituto de Energías Renovables	8	2017-1
29	Maestría	ACTIVIDADES ACADEMICAS ORIENTADAS A LA GRADUACION-395024	Instituto de Energías Renovables	1	2017-1
30	Licenciatura	SOLAR FOTOVOLTAICA	Centro de Investigación en Energía	11	2017-1
31	Maestría	PROYECTO DE INVESTIGACION I	Instituto de Energías Renovables	1	2016-2

**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

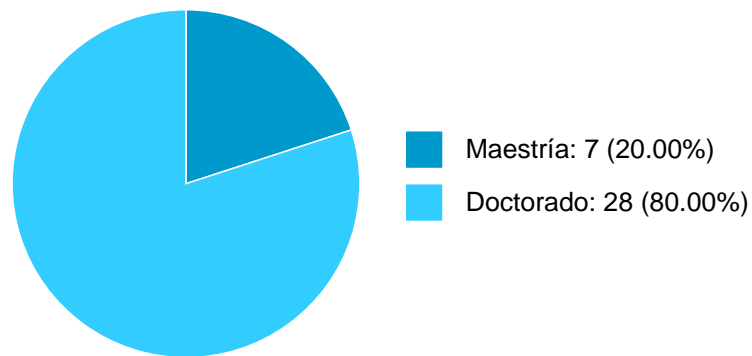
32	Maestría	PROYECTO DE INVESTIGACION II	Instituto de Energías Renovables	1	2016-2
33	Maestría	PROYECTO DE INVESTIGACION III	Instituto de Energías Renovables	1	2016-2
34	Maestría	PROYECTO DE INVESTIGACION I	Instituto de Energías Renovables	1	2016-1
35	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES	Instituto de Energías Renovables	4	2016-1
36	Licenciatura	SOLAR FOTOVOLTAICA-335353	Instituto de Energías Renovables	18	2016-1
37	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES	Instituto de Energías Renovables	1	2015-2
38	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES	Instituto de Energías Renovables	11	2015-1
39	Maestría	TEMAS SELECTOS DE MATERIALES ELECTRONICOS	Instituto de Investigaciones en Materiales	2	2014-2
40	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES	Instituto de Energías Renovables	1	2014-2
41	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES	Instituto de Energías Renovables	1	2014-1
42	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES	Instituto de Energías Renovables	3	2013-2
43	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES	Centro de Investigación en Energía	3	2013-1
44	Maestría	TEMAS SELECTOS DE FUENTES RENOVABLES	Centro de Investigación en Energía	2	2012-1
45	Maestría	PROYECTO DE INVESTIGACION II	Centro de Investigación en Energía	1	2012-1
46	Maestría	PROYECTO DE INVESTIGACION I	Centro de Investigación en Energía	1	2011-2
47	Maestría	TEMAS SELECTOS DE SISTEMAS ENERGETICOS	Centro de Investigación en Energía	4	2011-2
48	Maestría	TEMAS SELECTOS DE SISTEMAS ENERGETICOS	Centro de Investigación en Energía	2	2010-2
49	Maestría	TEMAS SELECTOS DE SISTEMAS ENERGETICOS	Centro de Investigación en Energía	1	2009-2
50	Maestría	TEMAS SELECTOS DE SISTEMAS ENERGETICOS	Centro de Investigación en Energía	1	2008-2
51	Maestría	TEMAS SELECTOS DE SISTEMAS ENERGETICOS	Centro de Investigación en Energía	2	2008-2



## KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY

### TUTORIAS EN POSGRADO

#### Histórico de tutorías en posgrado



#	Entidad	Nivel	Plan de estudios	Año	Semestre
1	Instituto de Energías Renovables	Doctorado	Doctorado en Ingeniería en Energía	2021	2021-2
2	Instituto de Energías Renovables	Doctorado	Doctorado en Ingeniería en Energía	2021	2021-2
3	Instituto de Energías Renovables	Doctorado	Doctorado en Ingeniería en Energía	2020	2020-2
4	Instituto de Energías Renovables	Doctorado	Doctorado en Ingeniería en Energía	2019	2019-2
5	Instituto de Energías Renovables	Doctorado	Doctorado en Ingeniería en Energía	2019	2020-1
6	Instituto de Energías Renovables	Doctorado	Doctorado en Ingeniería en Energía	2019	2019-2
7	Instituto de Energías Renovables	Doctorado	Doctorado en Ingeniería en Energía	2018	2018-2
8	Instituto de Energías Renovables	Doctorado	Doctorado en Ingeniería en Energía	2018	2019-1
9	Instituto de Energías Renovables	Doctorado	Doctorado en Ingeniería en Energía	2017	2017-2
10	Instituto de Energías Renovables	Doctorado	Doctorado en Ingeniería en Energía	2017	2018-1
11		Doctorado	Doctorado en Ingeniería en Energía	2017	2017-2
12		Doctorado	Doctorado en Ingeniería en Energía	2017	2018-1
13		Doctorado	Doctorado en Ingeniería en Energía	2016	2016-2

**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

14		Doctorado	Doctorado en Ingeniería en Energía	2016	2017-1
15		Doctorado	Doctorado en Ingeniería en Energía	2016	2016-2
16		Doctorado	Doctorado en Ingeniería en Energía	2016	2017-1
17	Instituto de Energías Renovables	Doctorado	Doctorado en Ingeniería en Energía	2016	2016-2
18	Instituto de Energías Renovables	Doctorado	Doctorado en Ingeniería en Energía	2016	2017-1
19		Doctorado	Doctorado en Ingeniería en Energía	2015	2015-2
20		Doctorado	Doctorado en Ingeniería en Energía	2015	2016-1
21		Doctorado	Doctorado en Ingeniería en Energía	2015	2015-2
22		Doctorado	Doctorado en Ingeniería en Energía	2015	2016-1
23		Doctorado	Doctorado en Ingeniería en Energía	2014	2014-2
24		Doctorado	Doctorado en Ingeniería en Energía	2014	2015-1
25		Doctorado	Doctorado en Ingeniería en Energía	2014	2014-2
26		Doctorado	Doctorado en Ingeniería en Energía	2014	2015-1
27		Doctorado	Doctorado en Ingeniería en Energía	2013	2013-2
28		Doctorado	Doctorado en Ingeniería en Energía	2013	2014-1
29	Centro de Investigación en Energía	Maestría	Maestría en Ingeniería Energía	2013	2013-2
30	Centro de Investigación en Energía	Maestría	Maestría en Ingeniería Energía	2012	2012-2
31	Centro de Investigación en Energía	Maestría	Maestría en Ingeniería Energía	2012	2013-1
32	Centro de Investigación en Energía	Maestría	Maestría en Ingeniería Energía	2011	2012-1
33	Centro de Investigación en Energía	Maestría	Maestría en Ingeniería (Energía)	2011	2011-2
34	Centro de Investigación en Energía	Maestría	Maestría en Ingeniería (Energía)	2011	2012-1
35	Centro de Investigación en Energía	Maestría	Maestría en Ingeniería (Energía)	2010	2011-1



**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

**PATENTES**

**No se encuentran registros en la base de datos de patentes asociados a:**

**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

**KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY**

**FUENTES DE INFORMACIÓN**

**Internos**

#	Información	Fuente	Sistema	Periodo
1	Grupos ordinarios y resumen de historias académicas	DGAE	SIAE	2008-2024
2	Nombramientos, datos generales, estímulos, premios y reconocimientos	DGAPA	RUPA	2008-2024
3	Producción Académica	CH	Humanindex	2008-2021
4	Producción Académica	CIC	SCIC	2000-2017
5	Proyectos	DGPO	SISEPRO	2018-2022
6	Tesis	DGB	TESIUNAM	2008-2024
7	Tutorías en Posgrado	CGEP	SIIPosgrado	2008-2021

**Externos**

#	Información	Fuente	Sistema	Periodo
8	Documentos Indexados	Elsevier	Scopus	2008-2024
9	Documentos Indexados	Thomson Reuters	WoS	2008-2024
10	Obras con registro ISBN	INDAUTOR	Agencia ISBN	2008-2024
11	Patentes	IMPI	SIGA	2008-2024