



**Sistema Integral de Información Académica**  
**Coordinación de Planeación, Evaluación y**  
**Simplificación de la Gestión Institucional**  
**Reporte individual**



**SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR**

## Datos Generales

**Nombre:** SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR

**Máximo nivel de estudios:** DOCTORADO

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

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## Nombramientos

**Vigente:** INVESTIGADOR TITULAR C TC Definitivo  
Instituto de Energías Renovables  
Desde 01-03-2013

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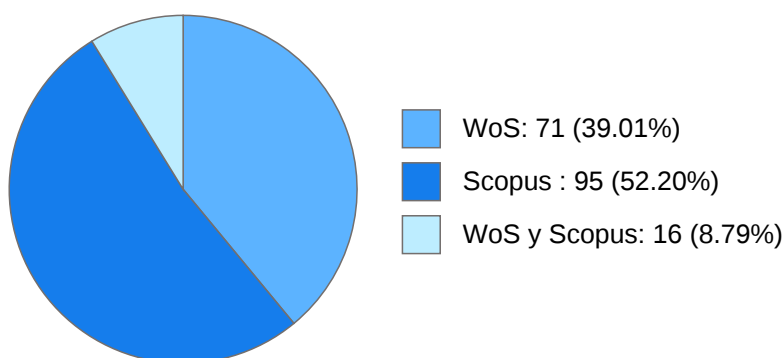
## Estímulos, programas, premios y reconocimientos

SNI III 2022 - VIGENTE  
SNI III - 2020  
PRIDE D - 2024

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### DOCUMENTOS EN REVISTAS

#### Histórico de Documentos



| # | Título                                                                                                                                                     | Autores                                                                                                                   | Revista                                                 | Año  |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------|
| 1 | Solar cells and prototype modules of variable bandgap antimony sulfide selenide thin films made by chemical deposition                                     | JOSE DIEGO GONZAGA SANCHEZ<br>ENUE BARRIOS SALGADO<br>SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR et al.                  | SOLAR ENERGY                                            | 2025 |
| 2 | Antimony sulfide selenide thin film solar cells with comparable characteristics prepared via a choice of chemical deposition or vacuum thermal evaporation | FABIOLA DE BRAY SANCHEZ<br>SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY et al. | MATERIALS<br>SCIENCE IN<br>SEMICONDUCT<br>OR PROCESSING | 2025 |
| 3 | Insights to the production of SnS-cubic thin films by vacuum thermal evaporation for photovoltaics                                                         | FABIOLA DE BRAY SANCHEZ<br>SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY        | SEMICONDUCT<br>OR SCIENCE<br>AND<br>TECHNOLOGY          | 2024 |
| 4 | 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<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Mohan R.N.                     | APPLIED<br>SURFACE<br>SCIENCE                           | 2020 |
| 5 | Thin film thermoelectric elements of p-n tin chalcogenides from chemically deposited SnS-SnSe stacks of cubic crystalline structure                        | ENUE BARRIOS SALGADO DIANA<br>ERENDIRA LARA LLANDERAL<br>SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR et al.               | SEMICONDUCT<br>OR SCIENCE<br>AND<br>TECHNOLOGY          | 2020 |

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| 6  | 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 |
| 7  | 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 |
| 8  | 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 |
| 9  | 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 |
| 10 | Optimum chemical composition of antimony sulfide selenide for thin film solar cells                                                                             | FABIOLA DE BRAY SANCHEZ SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR P. K. Nair                                             | APPLIED SURFACE SCIENCE                                    | 2018 |
| 11 | 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 |
| 12 | 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 |
| 13 | 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 |
| 14 | 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 |

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|----|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------|
| 15 | 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 |
| 16 | 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 |
| 17 | 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 |
| 18 | Stable Performance of Chemically Deposited Antimony Sulfide-Lead Sulfide Thin Film Solar Cells under Concentrated Sunlight      | Rogelio GonzalezLua Jose EscorciaGarcia DIEGO PEREZ MARTINEZ et al.                                              | ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY          | 2015 |
| 19 | 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 |
| 20 | 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 |
| 21 | 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 |
| 22 | 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 |
| 23 | 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 |

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| 24 | 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 |
| 25 | 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 |
| 26 | 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 |
| 27 | 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 |
| 28 | 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 |
| 29 | 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 |
| 30 | 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 ELECTROCHEMICAL SOCIETY            | 2010 |
| 31 | 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 ELECTROCHEMICAL SOCIETY            | 2010 |
| 32 | 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 |
| 33 | Photovoltaic structures using chemically deposited tin sulfide thin films                                                             | David Avellaneda SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY            | Thin Solid Films                                  | 2009 |

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| 34 | Solar cells with Sb <sub>2</sub> S <sub>3</sub> absorber films                                            | Sarah Messina SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY                                | Thin Solid Films                                             | 2009 |
| 35 | Antimony Selenide Absorber Thin Films in All-Chemically Deposited Solar Cells                             | Sarah Messina SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY                                | JOURNAL OF<br>THE<br>ELECTROCHEMI<br>CAL SOCIETY             | 2009 |
| 36 | Antimony sulphide thin film as an absorber in chemically deposited solar cells                            | Sarah Messina SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY                                | JOURNAL OF<br>PHYSICS<br>D-APPLIED<br>PHYSICS                | 2008 |
| 37 | Polymorphic tin sulfide thin films of zinc blende and orthorhombic structures by chemical deposition      | David Avellaneda SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY                             | JOURNAL OF<br>THE<br>ELECTROCHEMI<br>CAL SOCIETY             | 2008 |
| 38 | Structural and chemical transformations in SnS thin films used in chemically deposited photovoltaic cells | MARIA GUADALUPE DELGADO<br>SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>et al.            | Thin Solid Films                                             | 2007 |
| 39 | Antimony sulfide thin films in chemically deposited thin film photovoltaic cells                          | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Messina S.                                   | Thin Solid Films                                             | 2007 |
| 40 | Revisiting CdS-PbS solar cell structure                                                                   | OSCAR GUSTAVO GOMEZ DAZA<br>ALMENDARO SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY et al. | Materials<br>Research<br>Society<br>Symposium<br>Proceedings | 2007 |
| 41 | SnS thin films in chemically deposited solar cell structures                                              | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Avellaneda D.                                | Materials<br>Research<br>Society<br>Symposium<br>Proceedings | 2007 |
| 42 | All-chemically deposited solar cells with antimony sulfide-selenide/lead sulfide thin film absorbers      | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Messina S.                                   | Materials<br>Research<br>Society<br>Symposium<br>Proceedings | 2007 |

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| 43 | Characteristics of chemically deposited thin film solar cells using SnS and Sb <sub>2</sub> S <sub>3</sub> absorbers                                                        | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Avellaneda D. et al.                         | Materials<br>Research<br>Society<br>Symposium<br>Proceedings | 2006 |
| 44 | Thin films of arsenic sulfide by chemical deposition and formation of InAs                                                                                                  | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Pérez-Méndez Y.                              | SEMICONDUCTOR SCIENCE<br>AND<br>TECHNOLOGY                   | 2006 |
| 45 | Chemically deposited photovoltaic structure using antimony sulfide and silver antimony selenide absorber films                                                              | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Bindu K. et al.                              | ELECTROCHEMICAL<br>SOLID STATE                               | 2006 |
| 46 | Chemically deposited selenium thin films and their use as a planar source of selenium for the formation of metal selenide layers                                            | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Bindu K.                                     | JOURNAL OF THE<br>ELECTROCHEMICAL SOCIETY                    | 2006 |
| 47 | Chemically deposited CuS and Cu <sub>2</sub> -xSe coatings in the production of spectrally selective laminated solar control glazings                                       | KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY OSCAR GUSTAVO<br>GOMEZ DAZA ALMENDARO<br>SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR et al. | Proceedings -<br>Electrochemical Society                     | 2006 |
| 48 | Photoconductive antimony sulfide-selenide thin films produced by heating a chemically deposited Se-Sb <sub>2</sub> S <sub>3</sub> layer                                     | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Suárez-Sandoval D.Y.                         | JOURNAL OF THE<br>ELECTROCHEMICAL SOCIETY                    | 2006 |
| 49 | Absorber films of antimony chalcogenides via chemical deposition for photovoltaic application                                                                               | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Rodríguez-Lazcano Y. et al.                  | Materials<br>Research<br>Society<br>Symposium<br>Proceedings | 2005 |
| 50 | 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<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Bindu K.                                     | Materials<br>Research<br>Society<br>Symposium<br>Proceedings | 2005 |
| 51 | Optical and mechanical characteristics of clear and solar control laminated glass using zinc sulphide and copper sulphide thin films                                        | OSCAR GUSTAVO GOMEZ DAZA<br>ALMENDARO SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY et al. | SURFACE &<br>COATINGS<br>TECHNOLOGY                          | 2005 |

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| 52 | Spectrally selective laminated glazing consisting of solar control and heat mirror coated glass: Preparation, characterization and modelling of heat transfer | OSCAR GUSTAVO GOMEZ DAZA<br>ALMENDARO CLAUDIO ALEJANDRO<br>ESTRADA GASCA SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>et al. | SOLAR ENERGY                                                 | 2005 |
| 53 | Structural, optical and electrical properties of chemically deposited silver sulfide thin films                                                               | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Rodríguez A.N.                      | SEMICONDUCT<br>OR SCIENCE<br>AND<br>TECHNOLOGY               | 2005 |
| 54 | Semiconducting AgSbSe <sub>2</sub> thin film and its application in a photovoltaic structure                                                                  | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Bindu K. et al.                     | SEMICONDUCT<br>OR SCIENCE<br>AND<br>TECHNOLOGY               | 2005 |
| 55 | 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<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Rodríguez-Lazcano Y.                | JOURNAL OF<br>THE<br>ELECTROCHEMI<br>CAL SOCIETY             | 2005 |
| 56 | Polycrystalline thin films of antimony selenide via chemical bath deposition and post deposition treatments                                                   | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Rodríguez-Lazcano Y. et al.         | Thin Solid Films                                             | 2005 |
| 57 | 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<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Estrella V.                         | SEMICONDUCT<br>OR SCIENCE<br>AND<br>TECHNOLOGY               | 2003 |
| 58 | Copper tin sulfide semiconductor thin films produced by heating SnS-CuS layers deposited from chemical bath                                                   | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>López-Mata C. et al.                | SEMICONDUCT<br>OR SCIENCE<br>AND<br>TECHNOLOGY               | 2003 |
| 59 | Crystalline structure of chemically deposited thallium sulfide thin films                                                                                     | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Estrella V.                         | Thin Solid Films                                             | 2002 |
| 60 | Formation of thallium antimony sulfide and thallium bismuth sulfide thin films by heating chemically deposited multi-layer thin films                         | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Estrella V.                         | Materials<br>Research<br>Society<br>Symposium<br>Proceedings | 2002 |
| 61 | Thallium antimony sulfide and thallium bismuth sulfide thin films produced by heating chemically deposited multi-layers                                       | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Estrella V.                         | SEMICONDUCT<br>OR SCIENCE<br>AND<br>TECHNOLOGY               | 2002 |

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| 62 | Absorber films of Ag <sub>2</sub> S and AgBiS <sub>2</sub> prepared by chemical bath deposition                       | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Rodríguez A.N.                               | Materials<br>Research<br>Society<br>Symposium<br>Proceedings | 2002 |
| 63 | Chemically deposited antimony selenide thin films                                                                     | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Rodríguez-Lazcano Y. et al.                  | Materials<br>Research<br>Society<br>Symposium<br>Proceedings | 2002 |
| 64 | Formation of conductive CdO layer on CdS thin films during air heating                                                | KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY OSCAR GUSTAVO<br>GOMEZ DAZA ALMENDARO<br>SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR et al. | SEMICONDUCT<br>OR SCIENCE<br>AND<br>TECHNOLOGY               | 2001 |
| 65 | High thin-film yield achieved at small substrate separation in chemical bath deposition of semiconductor thin films   | KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY OSCAR GUSTAVO<br>GOMEZ DAZA ALMENDARO<br>SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR et al. | SEMICONDUCT<br>OR SCIENCE<br>AND<br>TECHNOLOGY               | 2001 |
| 66 | Polyethersulfone foils as stable transparent substrates for conductive copper sulfide thin film coatings              | OSCAR GUSTAVO GOMEZ DAZA<br>ALMENDARO SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>Nair P.K et al.                                    | Thin Solid Films                                             | 2001 |
| 67 | Chemical bath deposition: A promising technology to build low cost solar cells                                        | KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>Nuñez A.                                     | MODERN<br>PHYSICS<br>LETTERS B                               | 2001 |
| 68 | Formation of conductive CdO thin films on photoconductive CdS thin films for window layer applications in solar cells | OSCAR GUSTAVO GOMEZ DAZA<br>ALMENDARO SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY et al. | MODERN<br>PHYSICS<br>LETTERS B                               | 2001 |
| 69 | Conductive copper sulfide thin films on polyimide foils for optical and optoelectronic applications                   | OSCAR GUSTAVO GOMEZ DAZA<br>ALMENDARO SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY et al. | MODERN<br>PHYSICS<br>LETTERS B                               | 2001 |
| 70 | Optical and electrical properties of thallium sulphide and Tl <sub>x</sub> MyS <sub>z</sub> (M=Cu, Bi, Sb) thin films | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Estrella V. et al.                           | MODERN<br>PHYSICS<br>LETTERS B                               | 2001 |

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|    |                                                                                                                                                |                                                                                                                              |                                                                                                                                   |      |
|----|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------|
| 71 | CuxSbySz thin films produced by annealing chemically deposited Sb <sub>2</sub> S <sub>3</sub> -CuS thin films                                  | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Rodríguez-Lazcano Y.              | MODERN<br>PHYSICS<br>LETTERS B                                                                                                    | 2001 |
| 72 | CuSbS <sub>2</sub> thin film formed through annealing chemically deposited Sb <sub>2</sub> S <sub>3</sub> -CuS thin films                      | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Rodríguez-Lazcano Y.              | JOURNAL OF<br>CRYSTAL<br>GROWTH                                                                                                   | 2001 |
| 73 | Conductive copper sulfide thin films on polyimide foils                                                                                        | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Cardoso J. et al.                 | SEMICONDUCT<br>OR SCIENCE<br>AND<br>TECHNOLOGY                                                                                    | 2001 |
| 74 | 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<br>ALMENDARO AARON SANCHEZ<br>JUAREZ AURELIA MARIA LETICIA<br>BAÑOS LOPEZ et al.                    | JOURNAL OF<br>THE<br>ELECTROCHEMI<br>CAL SOCIETY                                                                                  | 2001 |
| 75 | Substrate spacing and thin-film yield in chemical bath deposition of semiconductor thin films                                                  | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Arias-Carbajal Reádigos A. et al. | SEMICONDUCT<br>OR SCIENCE<br>AND<br>TECHNOLOGY                                                                                    | 2000 |
| 76 | Growth mechanism of thin film wide-gap semiconductors by chemical bath deposition technique                                                    | KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>Parmananda P.                     | Materials<br>Research<br>Society<br>Symposium<br>Proceedings                                                                      | 2000 |
| 77 | Formation of InSb by annealing Sb <sub>2</sub> S <sub>3</sub> -In thin films                                                                   | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Rodríguez-Lazcano Y.              | JOURNAL OF<br>CRYSTAL<br>GROWTH                                                                                                   | 2000 |
| 78 | Ion beam analysis of copper selenide thin films prepared by chemical bath deposition                                                           | KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>LAZARO HUERTA ARCOS et al.        | NUCLEAR<br>INSTRUMENTS &<br>METHODS IN<br>PHYSICS<br>RESEARCH<br>SECTION<br>B-BEAM<br>INTERACTIONS<br>WITH MATERIALS<br>AND ATOMS | 2000 |

**SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR**

|    |                                                                                                                                                           |                                                                                                                        |                                                              |      |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|------|
| 79 | Production of InSb thin films through annealing Sb <sub>2</sub> S <sub>3</sub> -In thin films                                                             | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Rodríguez-Lazcano Y.        | Materials<br>Research<br>Society<br>Symposium<br>Proceedings | 1999 |
| 80 | Production of InSb thin films through annealing Sb <sub>2</sub> S <sub>3</sub> -In thin films                                                             | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Rodríguez-Lazcano Y.        | Materials<br>Research<br>Society<br>Symposium<br>Proceedings | 1999 |
| 81 | Copper selenide thin films by chemical bath deposition                                                                                                    | KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>García V.M.                 | JOURNAL OF<br>CRYSTAL<br>GROWTH                              | 1999 |
| 82 | Formation of a ZnSe:In <sub>2</sub> O <sub>3</sub> heterostructure by air annealing ZnSe-In thin film                                                     | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>García V.M.                 | SEMICONDUCT<br>OR SCIENCE<br>AND<br>TECHNOLOGY               | 1999 |
| 83 | Mathematical model simulating the growth of compound semiconductor thin films via chemical bath deposition                                                | KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>Parmananda P.               | JOURNAL OF<br>CRYSTAL<br>GROWTH                              | 1999 |
| 84 | Chemically deposited copper oxide thin films: structural, optical and electrical characteristics                                                          | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Guerrero L. et al.          | APPLIED<br>SURFACE<br>SCIENCE                                | 1999 |
| 85 | Semiconductor thin films by chemical bath deposition for solar energy related applications                                                                | KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>AARON SANCHEZ JUAREZ et al. | SOLAR ENERGY<br>MATERIALS AND<br>SOLAR CELLS                 | 1998 |
| 86 | Chemically deposited Sb <sub>2</sub> S <sub>3</sub> and Sb <sub>2</sub> S <sub>3</sub> -CuS thin films                                                    | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR KARUNAKARAN<br>NAIR PADMANABHAN PANKAJAKSHY<br>Peña Y. et al.              | JOURNAL OF<br>THE<br>ELECTROCHEMI<br>CAL SOCIETY             | 1998 |
| 87 | Formation of p-type Cu <sub>3</sub> BiS <sub>3</sub> absorber thin films by annealing chemically deposited Bi <sub>2</sub> S <sub>3</sub> -CuS thin films | KARUNAKARAN NAIR PADMANABHAN<br>PANKAJAKSHY SANTHAMMA<br>MAILEPPALLIL THANKAMMA DE NAIR<br>HAILIN ZHAO HU et al.       | JOURNAL OF<br>MATERIALS<br>RESEARCH                          | 1997 |

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|    |                                                                                                                                            |                                                                                                                             |                                                                           |      |
|----|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------|
| 88 | 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. | OPTICS, PHOTONICS, AND DIGITAL TECHNOLOGIES FOR IMAGING APPLICATIONS VIII | 1997 |
| 89 | Chemically deposited thin films of sulfides and selenides of antimony and bismuth as solar energy materials                                | SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY García V.M. et al.                        | OPTICS, PHOTONICS, AND DIGITAL TECHNOLOGIES FOR IMAGING APPLICATIONS VIII | 1997 |
| 90 | Simultaneous observation of strong and weak quantum confinement effect in chemically deposited CdSe thin films: A spectro-structural study | SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Rai B.K. et al.                           | JOURNAL OF APPLIED PHYSICS                                                | 1997 |
| 91 | 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 |
| 92 | CdSe:In-In <sub>2</sub> O <sub>3</sub> coatings with n-type conductivity produced by air annealing of CdSe-In thin films                   | SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY García V.M. et al.                        | JOURNAL OF THE ELECTROCHEMICAL SOCIETY                                    | 1996 |
| 93 | Chemical bath deposition of photosensitive CdS and CdSe thin films and their conversion to n-type for solar cell applications              | SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY Zingaro R.A. et al.                       | OPTICS, PHOTONICS, AND DIGITAL TECHNOLOGIES FOR IMAGING APPLICATIONS VIII | 1995 |
| 94 | Modification of chemically deposited ZnSe thin films by ion exchange reaction with copper ions in solution                                 | KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR Estrada C.A. et al.                       | Thin Solid Films                                                          | 1994 |
| 95 | Chemically Deposited Bi <sub>2</sub> S <sub>3</sub> -Cuxs Solar Control Coatings                                                           | SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR CLAUDIO ALEJANDRO ESTRADA GASCA KARUNAKARAN NAIR PADMANABHAN PANKAJAKSHY           | JOURNAL OF THE ELECTROCHEMICAL SOCIETY                                    | 1993 |



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**SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR**

**LIBROS Y CAPITULOS CON ISBN**

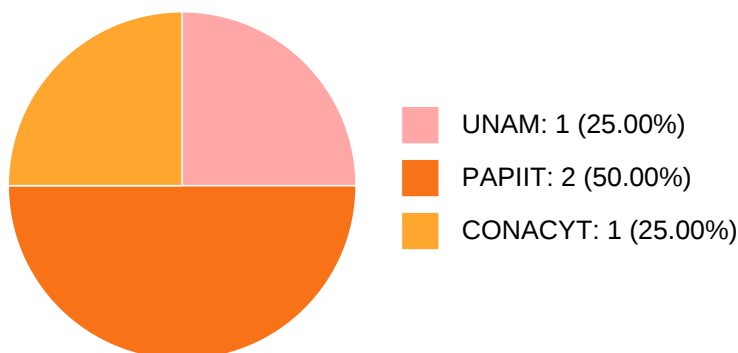
**No se encuentran registros en la base de datos de Humanindex asociados a:**

**SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR**

**SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR**

**PARTICIPACIÓN EN PROYECTOS**

**Histórico de participación en proyectos**

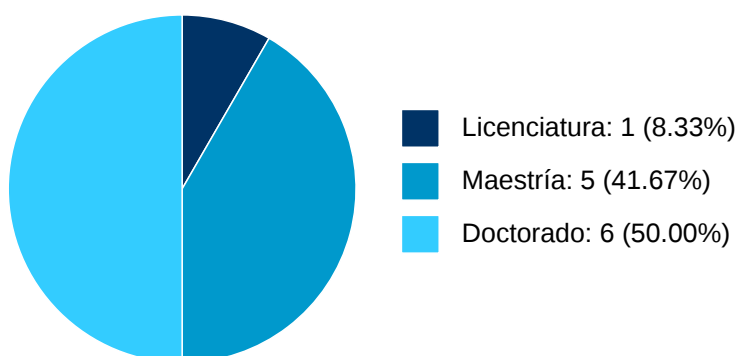


| # | Nombre                                                                                                                                                 | Participantes                                     | Fuente                                           | Fecha inicio | Fecha fin  |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------------|--------------|------------|
| 1 | Recubrimientos Ópticos y Optoelectrónicos.                                                                                                             | SANTHAMMA<br>MAILEPPALLIL<br>THANKAMMA DE<br>NAIR | Presupuesto de la UNAM asignado a la Dependencia | 01-01-2016   | 31-12-2021 |
| 2 | Rutas de manufactura de bajo-capex acopladas a tratamientos térmicos para el alto desempeño de materiales novedosos en película delgada. CEMIE-Sol P50 | SANTHAMMA<br>MAILEPPALLIL<br>THANKAMMA DE<br>NAIR | Recursos CONACYT                                 | 01-01-2017   | 31-12-2019 |
| 3 | Celdas solares de sulfuro de estaño.                                                                                                                   | SANTHAMMA<br>MAILEPPALLIL<br>THANKAMMA DE<br>NAIR | Recursos PAPIIT                                  | 01-01-2019   | 31-12-2021 |
| 4 | Desarrollo de Capas ventanas/buffer semiconductoras con mejor desempeño en heterouniones de celdas solares de calcogenuros de estaño                   | SANTHAMMA<br>MAILEPPALLIL<br>THANKAMMA DE<br>NAIR | Recursos PAPIIT                                  | 01-01-2022   | 31-12-2024 |

## SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR

### PARTICIPACIÓN EN TESIS

#### Histórico de Colaboraciones en Tesis



| # | Título del documento                                                                                                                                                                           | Tipo de Tesis         | Sinodales                                       | Autores                                  | Entidad                           | Año  |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------|------------------------------------------|-----------------------------------|------|
| 1 | Métodos para mejorar el desempeño fotovoltaico en celdas solares de películas de calcogenuros de estaño y antimonio enfocados en los componentes de brecha de energía amplia de la heterounión | Tesis de Doctorado    | SANTHAMMA<br>MAILEPPALLIL<br>THANKAMMA DE NAIR, | Bray<br>Sánchez,<br>Fabiola de,          | Instituto de Energías Renovables, | 2022 |
| 2 | Películas delgadas y celdas solares de SnSxSe1x                                                                                                                                                | Tesis de Maestría     | SANTHAMMA<br>MAILEPPALLIL<br>THANKAMMA DE NAIR, | Lara<br>Llanderal,<br>Diana<br>Eréndira, | Instituto de Energías Renovables, | 2021 |
| 3 | Desarrollo de películas de óxidos y sulfuros de zinc e investigación en su efecto como capa ventana/buffer en el desempeño de celdas solares de calcogenuros de estaño                         | Tesis de Maestría     | SANTHAMMA<br>MAILEPPALLIL<br>THANKAMMA DE NAIR, | López Cruz,<br>Luis Arturo,              | Instituto de Energías Renovables, | 2020 |
| 4 | Investigaciones en películas delgadas y celdas solares SnS-Se                                                                                                                                  | Tesis de Licenciatura | SANTHAMMA<br>MAILEPPALLIL<br>THANKAMMA DE NAIR, | Lara<br>Llanderal,<br>Diana<br>Eréndira, | Instituto de Energías Renovables, | 2018 |

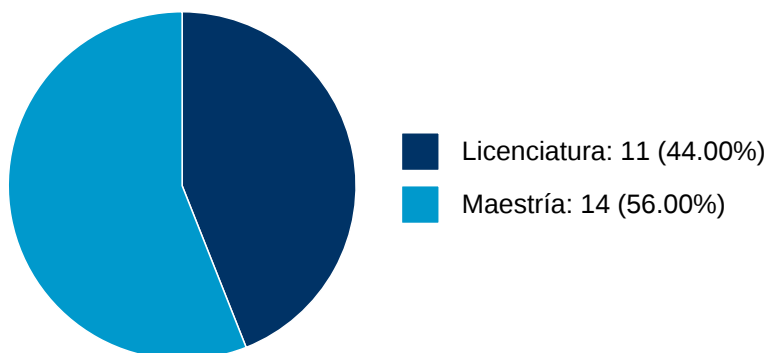
**SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR**

|    |                                                                                                                                                                                    |                    |                                              |                                 |                                     |      |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------|---------------------------------|-------------------------------------|------|
| 5  | Celdas solares de heterouniones de películas delgadas sulfuros de estaño                                                                                                           | Tesis de Doctorado | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR, | García Angelmo, Ana Rosa,       | Instituto de Energías Renovables,   | 2016 |
| 6  | Celdas solares de películas delgadas de selenuros de metales por depósito químico                                                                                                  | Tesis de Doctorado | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR, | Barrios Salgado, Enue,          | Instituto de Energías Renovables,   | 2014 |
| 7  | Evaluación de parámetros de celdas solares por depósito químico                                                                                                                    | Tesis de Maestría  | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR, | Sayago Hoyos, Jonathan Javier,  | Centro de Investigación en Energía, | 2011 |
| 8  | Investigaciones de las características fotovoltaicas de heterouniones de películas delgadas de sulfuros de estaño con capas ventana de diferentes calcogenuros                     | Tesis de Maestría  | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR, | García Angelmo, Ana Rosa,       | Centro de Investigación en Energía, | 2011 |
| 9  | Celdas solares por depósito químico utilizando calcogenuros de estaño como capa absorbidora                                                                                        | Tesis de Doctorado | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR, | Avellaneda Avellaneda, David,   | Centro de Investigación en Energía, | 2009 |
| 10 | Estructuras fotovoltaicas de películas delgadas de selenuros de metales por depósito químico                                                                                       | Tesis de Maestría  | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR, | Barrios Salgado, Enue,          | Centro de Investigación en Energía, | 2009 |
| 11 | Películas delgadas semiconductoras basadas en Sb <sub>2</sub> S <sub>3</sub> y Sb <sub>2</sub> Se <sub>3</sub> por depósito químico para aplicaciones en estructuras fotovoltaicas | Tesis de Doctorado | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR, | Rodríguez Lazcano, Yamilet,     |                                     | 2004 |
| 12 | Películas delgadas de selenuros de metales (Bi, Cd, Cu, Zn) por depósito químico y tratamientos postdeposición para aplicaciones fotovoltaicas                                     | Tesis de Doctorado | SANTHAMMA MAILEPPALLIL<br>THANKAMMA DE NAIR, | García Saldivar, Víctor Manuel, |                                     | 1998 |

**SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR**

**DOCENCIA IMPARTIDA**

**Histórico de docencia**



| #  | Nivel titulación | Asignatura                                                  | Entidad                            | Alumnos | Semestre |
|----|------------------|-------------------------------------------------------------|------------------------------------|---------|----------|
| 1  | Licenciatura     | QUIMICA                                                     | Centro de Investigación en Energía | 4       | 2024-1   |
| 2  | Licenciatura     | QUIMICA                                                     | Centro de Investigación en Energía | 11      | 2023-1   |
| 3  | Licenciatura     | QUIMICA                                                     | Centro de Investigación en Energía | 3       | 2022-1   |
| 4  | Licenciatura     | QUIMICA                                                     | Centro de Investigación en Energía | 8       | 2021-1   |
| 5  | Licenciatura     | QUIMICA                                                     | Centro de Investigación en Energía | 15      | 2020-1   |
| 6  | Licenciatura     | QUIMICA                                                     | Centro de Investigación en Energía | 18      | 2019-1   |
| 7  | Maestría         | TEMAS SELECTOS DE FUENTES RENOVABLES, PRINCIPIOS DE QUIMICA | Instituto de Energías Renovables   | 4       | 2018-1   |
| 8  | Licenciatura     | SEMINARIO DE TITULACION                                     | Centro de Investigación en Energía | 1       | 2017-2   |
| 9  | Maestría         | TEMAS SELECTOS DE FUENTES RENOVABLES-321096                 | Instituto de Energías Renovables   | 6       | 2017-1   |
| 10 | Licenciatura     | QUIMICA                                                     | Centro de Investigación en Energía | 20      | 2017-1   |
| 11 | Maestría         | TEMAS SELECTOS DE FUENTES RENOVABLES                        | Instituto de Energías Renovables   | 5       | 2016-1   |

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|    |              |                                        |                                    |    |        |
|----|--------------|----------------------------------------|------------------------------------|----|--------|
| 12 | Licenciatura | QUIMICA-331559                         | Instituto de Energías Renovables   | 6  | 2016-1 |
| 13 | Licenciatura | QUIMICA                                | Instituto de Energías Renovables   | 24 | 2015-1 |
| 14 | Licenciatura | QUIMICA                                | Instituto de Energías Renovables   | 10 | 2014-2 |
| 15 | Maestría     | TEMAS SELECTOS DE FUENTES RENOVABLES   | Instituto de Energías Renovables   | 1  | 2013-2 |
| 16 | Maestría     | TEMAS SELECTOS DE FUENTES RENOVABLES   | Centro de Investigación en Energía | 1  | 2012-2 |
| 17 | Maestría     | TEMAS SELECTOS DE SISTEMAS ENERGETICOS | Centro de Investigación en Energía | 2  | 2011-1 |
| 18 | Maestría     | PROYECTO DE INVESTIGACION II           | Centro de Investigación en Energía | 1  | 2011-1 |
| 19 | Maestría     | PROYECTO DE INVESTIGACION I            | Centro de Investigación en Energía | 1  | 2010-2 |
| 20 | Maestría     | PROYECTO DE INVESTIGACION II           | Centro de Investigación en Energía | 1  | 2010-1 |
| 21 | Maestría     | TEMAS SELECTOS DE SISTEMAS ENERGETICOS | Centro de Investigación en Energía | 1  | 2009-2 |
| 22 | Maestría     | PROYECTO DE INVESTIGACION I            | Centro de Investigación en Energía | 1  | 2009-2 |
| 23 | Maestría     | PROYECTO DE INVESTIGACION II           | Centro de Investigación en Energía | 1  | 2009-1 |
| 24 | Maestría     | PROYECTO DE INVESTIGACION I            | Centro de Investigación en Energía | 1  | 2008-2 |
| 25 | Maestría     | TEMAS SELECTOS DE SISTEMAS ENERGETICOS | Centro de Investigación en Energía | 3  | 2008-2 |



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**SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR**

**PATENTES**

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

**SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR**

**SANTHAMMA MAILEPPALLIL THANKAMMA DE NAIR**

**FUENTES DE INFORMACIÓN**

**Internos**

| # | Información                                                          | Fuente | Sistema     | Periodo   |
|---|----------------------------------------------------------------------|--------|-------------|-----------|
| 1 | Grupos ordinarios y resumen de historias académicas                  | DGAE   | SIAE        | 2008-2025 |
| 2 | Nombramientos, datos generales, estímulos, premios y reconocimientos | DGAPA  | RUPA        | 2008-2025 |
| 3 | Producción Académica                                                 | CH     | Humanindex  | 2008-2021 |
| 4 | Producción Académica                                                 | CIC    | SCIC        | 2000-2017 |
| 5 | Proyectos                                                            | DGPO   | SISEPRO     | 2018-2022 |
| 6 | Tesis                                                                | DGB    | TESIUNAM    | 2008-2025 |
| 7 | Tutorías en Posgrado                                                 | CGEP   | SIIPosgrado | 2008-2021 |

**Externos**

| #  | Información             | Fuente          | Sistema      | Periodo   |
|----|-------------------------|-----------------|--------------|-----------|
| 8  | Documentos Indexados    | Elsevier        | Scopus       | 2008-2025 |
| 9  | Documentos Indexados    | Thomson Reuters | WoS          | 2008-2025 |
| 10 | Obras con registro ISBN | INDAUTOR        | Agencia ISBN | 2008-2025 |
| 11 | Patentes                | IMPI            | SIGA         | 2008-2024 |