



## **SANDRA ELIZABETH RODIL POSADA**

### **Datos Generales**

**Nombre:** SANDRA ELIZABETH RODIL POSADA

**Máximo nivel de estudios:** DOCTORADO

**Antigüedad académica en la UNAM:** 23 años

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### **Nombramientos**

**Vigente:** INVESTIGADOR TITULAR C TC Definitivo  
Instituto de Investigaciones en Materiales  
Desde 01-08-2012

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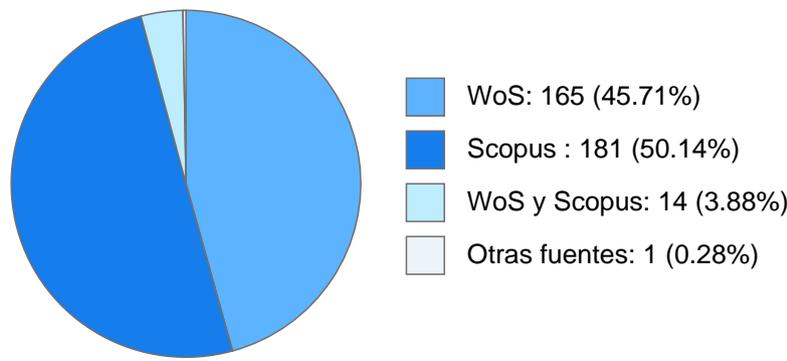
### **Estímulos, programas, premios y reconocimientos**

SNI III 2015 - 2024  
SNI II - 2014  
PRIDE D - 2024  
PRIDE C 2008  
PASPA Estancias de Investigación en el extranjero 2017 - 2018

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**DOCUMENTOS EN REVISTAS**

**Histórico de Documentos**



#	Título	Autores	Revista	Año
1	Editorial for the Special Issue ?Nanomaterials for a Better World?	SANDRA ELIZABETH RODIL POSADA AGILEO HERNANDEZ GORDILLO Rodríguez-Gonzalez V. et al.	MATERIALS LETTERS	2025
2	Exploring the electronic structure of BiVO4 thin films using energy-resolved electrochemical impedance spectroscopy	VICTOR MANUEL UGALDE SALDIVAR KAREN VALENCIA GARCIA AGILEO HERNANDEZ GORDILLO et al.	MATERIALS LETTERS	2024
3	Evaluation of mechanical properties and tribological behavior of DLC/WC/WCN/W multilayer coatings deposited by HiPIMS	SANDRA ELIZABETH RODIL POSADA Ramírez-Reyna O. Pérez-Alvarez J. et al.	MATERIALS LETTERS	2024
4	Exploring the relationship between sputter-deposition conditions and electrochemical response of ZrO2 films on biodegradable MgZnCa alloy	BENJAMIN MILLAN RAMOS SANDRA ELIZABETH RODIL POSADA Victoria-Hernández J. et al.	JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A	2024
5	Stacked ZnS multilayers of ZnS(en)0.5 hybrids with enhancing photocatalytic performance for H2 production	AGILEO HERNANDEZ GORDILLO LORENA CEREZO DURAN SANDRA ELIZABETH RODIL POSADA et al.	INTERNATIONAL JOURNAL OF HYDROGEN ENERGY	2024
6	International conference on metallurgical coatings and thin films?ICMCTF 2022?Preface	SANDRA ELIZABETH RODIL POSADA Broitman E. Figueroa C.A. et al.	Thin Solid Films	2024

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7	International conference on metallurgical coatings and thin films - ICMCTF 2022 ? Preface	SANDRA ELIZABETH RODIL POSADA Broitman E. Figueroa C.A. et al.	SURFACE & COATINGS TECHNOLOGY	2024
8	Strong thickness dependence in thin film photocatalytic heterojunctions: the ZnO-Bi <sub>2</sub> O <sub>3</sub> case study	ALBERTO BERNAL DIAZ AGILEO HERNANDEZ GORDILLO JUAN CARLOS ALONSO HUITRON et al.	DALTON TRANSACTIONS	2024
9	Characterization of αTiO <sub>2</sub> surfaces functionalized with CAP-p15 peptide	SANDRA ELIZABETH RODIL POSADA MARICELA SANTANA VAZQUEZ LIA ALIOTH HOZ RODRIGUEZ et al.	JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART A	2024
10	Amorphous titanium oxide (αTiO <sub>2</sub> ) thin films biofunctionalized with CAP-p15 induce mineralized-like differentiation of human oral mucosal stem cells (hOMSCs)	SANDRA ELIZABETH RODIL POSADA PHAEDRA SURIEL SILVA BERMUDEZ MARICELA SANTANA VAZQUEZ et al.	BIOMEDICAL MATERIALS	2024
11	Amorphous TiO <sub>2</sub> nano-coating on stainless steel to improve its biological response	VICTOR IRAHUEN GARCIA PEREZ PHAEDRA SURIEL SILVA BERMUDEZ MIRYAM MARTINEZ HERNANDEZ et al.	BIOMEDICAL MATERIALS	2024
12	ICMCTF 2023 - International conference on metallurgical coatings and thin films - Preface	SANDRA ELIZABETH RODIL POSADA Broitman E. Zapien J.A. et al.	Thin Solid Films	2024
13	Effect of ordered N vacancies driven by increasing Mo content in multi-principal-element Ti-Al-Zr-Mo-N coatings	SANDRA ELIZABETH RODIL POSADA U. Jiron-Lazos A. M. Garay-Tapia et al.	SURFACE & COATINGS TECHNOLOGY	2024
14	Synergistic Assembly of 1DZnO and Anti-CYFRA 21-1: A Physicochemical Approach to Optical Biosensing	SANDRA ELIZABETH RODIL POSADA ANDRES NAVARRETE CASTRO GUILLERMO SANTANA RODRIGUEZ et al.	Bme Frontiers	2024
15	ZnO nanolayer on polypropylene fabrics: a highly effective antimicrobial coating against pathogenic bioaerosols	SANDRA ELIZABETH RODIL POSADA OMAR ALEJANDRO SEPULVEDA ROBLES PHAEDRA SURIEL SILVA BERMUDEZ et al.	MATERIALS RESEARCH EXPRESS	2024
16	Antimicrobial activity of silver-copper coating against aerosols containing surrogate respiratory viruses and bacteria	ARGELIA ALMAGUER FLORES CARLOS DAVID RAMOS VILCHIS SANDRA ELIZABETH RODIL POSADA et al.	PLOS ONE	2023
17	Antimicrobial evaluation of bismuth subsalicylate nanoparticles synthesized by laser ablation against clinical oral microorganisms	GABRIELA ELISA MERCADO CELIS SANDRA ELIZABETH RODIL POSADA ARGELIA ALMAGUER FLORES et al.	OPTICS AND LASER TECHNOLOGY	2023

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18	ZnO nanoparticles–modified polycaprolactone–gelatin membranes for guided/bone tissue regeneration, antibacterial and osteogenic differentiation properties	GINA PRADO PRONE SANDRA ELIZABETH RODIL POSADA JORGE ALFONSO GARCIA MACEDO et al.	BIOMEDICAL PHYSICS & ENGINEERING EXPRESS	2023
19	Tribological Response of d–Bi2O3 Coatings Deposited by RF Magnetron Sputtering	SANDRA ELIZABETH RODIL POSADA OSMARY LISSETTE DEPABLOS RIVERA Sánchez–López J.C.	Lubricants	2023
20	Microstructural behavior of the Ti?Al?Mo?N system controlled by Mo content: impact on the performance as hard coatings	SANDRA ELIZABETH RODIL POSADA ZEUZ MONTIEL GONZALEZ Jirón–Lazos U. et al.	JOURNAL OF MATERIALS SCIENCE	2023
21	Dihydrolevoglucosenone (Cyrene?), a new possibility of an environmentally compatible solvent in synthetic organic electrochemistry	SANDRA ELIZABETH RODIL POSADA BERNARDO ANTONIO FRONTANA URIBE Jose Manuel Ramos–Villasenor et al.	FARADAY DISCUSSIONS	2023
22	Biocide effect against SARS–CoV–2 and ESKAPE pathogens of a noncytotoxic silver–copper nanofilm	ANA MARIA MARTINEZ VAZQUEZ MONICA ALETHIA CUREÑO DIAZ LETICIA ROCHA ZAVALA et al.	BIOMEDICAL MATERIALS	2022
23	Ozone as an alternative decontamination process for N95 facemask and biosafety gowns	GUSTAVO ESTEBAN LUGO ZAMUDIO MONICA ALETHIA CUREÑO DIAZ SANDRA ELIZABETH RODIL POSADA et al.	MATERIALS LETTERS	2022
24	Synergistic photocatalytic effect of BiOBr–BiOI heterojunctions due to appropriate layer stacking	JOSE AMAURI SERRANO LAZARO SANDRA ELIZABETH RODIL POSADA MONSERRAT BIZARRO SORDO et al.	DALTON TRANSACTIONS	2022
25	Development and characterization of sealed anodizing as a corrosion protection for AA2024–T3 in saline media	ALBA COVELO VILLAR SANDRA ELIZABETH RODIL POSADA Nóvoa X.R. et al.	Materials Today Communications	2022
26	Cathodic Arc Evaporation of Self–Lubricating TiSiVN Coatings	OSCAR GARCIA ZARCO SANDRA ELIZABETH RODIL POSADA Restrepo J. et al.	JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE	2022
27	Degradation Behavior and Mechanical Integrity of a Mg–0.7Zn–0.6Ca (wt.%) Alloy: Effect of Grain Sizes and Crystallographic Texture	BENJAMIN MILLAN RAMOS PHAEDRA SURIEL SILVA BERMUDEZ OSMARY LISSETTE DEPABLOS RIVERA et al.	Materials	2022
28	Increasing the H–2 production rate of ZnS(en)(x) hybrid and ZnS film by photoexfoliation process	MONSERRAT BIZARRO SORDO SANDRA ELIZABETH RODIL POSADA AGILEO HERNANDEZ GORDILLO et al.	INTERNATIONAL JOURNAL OF HYDROGEN ENERGY	2022

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29	Hydrazine modified g-C <sub>3</sub> N <sub>4</sub> with enhanced photocatalytic activity for degradation of indigo carmine	MELISSA MENDEZ GALVAN SANDRA ELIZABETH RODIL POSADA G. Karen Valencia et al.	MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING	2022
30	AlCrVN coatings deposited by cathodic arc: Friction and wear properties evaluated using reciprocating sliding test	OSCAR GARCIA ZARCO SANDRA ELIZABETH RODIL POSADA A. Delgado et al.	SURFACE & COATINGS TECHNOLOGY	2022
31	Surface Functionalization of Mesoporous Co <sub>3</sub> O <sub>4</sub> and MnO <sub>x</sub> with Sodium for the Soot Oxidation Reaction	JUAN CARLOS MEDINA ALVAREZ SANDRA ELIZABETH RODIL POSADA RODOLFO ZANELLA SPECIA et al.	TOPICS IN CATALYSIS	2022
32	Evaluation of the Biocompatibility and Osteogenic Properties of Metal Oxide Coatings Applied by Magnetron Sputtering as Potential Biofunctional Surface Modifications for Orthopedic Implants	SANDRA JULIETA GARCIA LOPEZ SANDRA ELIZABETH RODIL POSADA PHAEDRA SURIEL SILVA BERMUDEZ et al.	Materials	2022
33	Biocompatibility and electrochemical evaluation of ZrO <sub>2</sub> thin films deposited by reactive magnetron sputtering on MgZnCa alloy	BENJAMIN MILLAN RAMOS PHAEDRA SURIEL SILVA BERMUDEZ OSMARY LISSETTE DEPABLOS RIVERA et al.	Journal of Magnesium and Alloys	2021
34	Microparticles of α-Bi <sub>2</sub> O <sub>3</sub> Obtained from Bismuth Basic Nitrate [Bi <sub>6</sub> O <sub>6</sub> (OH) <sub>2</sub> (NO <sub>3</sub> ) <sub>4</sub> ·2H <sub>2</sub> O] with Photocatalytic Properties	AGILEO HERNANDEZ GORDILLO SOCORRO OROS RUIZ SANDRA ELIZABETH RODIL POSADA et al.	TOPICS IN CATALYSIS	2021
35	Interpretation of the Raman spectra of bismuth oxide thin films presenting different crystallographic phases	OSMARY LISSETTE DEPABLOS RIVERA SANDRA ELIZABETH RODIL POSADA Ana Martinez	JOURNAL OF ALLOYS AND COMPOUNDS	2021
36	Characterization of Ti electrodes electrophoretically coated with IrO <sub>2</sub> -Ta <sub>2</sub> O <sub>5</sub> films with different Ir:Ta molar ratios	SANDRA ELIZABETH RODIL POSADA Herrada R.A. Sepúlveda-Guzmán S. et al.	JOURNAL OF ALLOYS AND COMPOUNDS	2021
37	Effects of atomic ordering of Zirconium oxide nanomodification on stem cell differentiation	ARGELIA ALMAGUER FLORES SANDRA ELIZABETH RODIL POSADA Olivares-Navarrete R. et al.	MATERIALS LETTERS-X	2021
38	Bismuth subsalicylate incorporated in polycaprolactone-gelatin membranes by electrospinning to prevent bacterial colonization	GINA PRADO PRONE SANDRA ELIZABETH RODIL POSADA MARIA CRISTINA VELASQUILLO MARTINEZ et al.	BIOMEDICAL MATERIALS	2021

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39	Structural and electrochemical characterization of sulfonated styrene-divinyl benzene/Bismuth-Tin electrodes	SANDRA ELIZABETH RODIL POSADA Suarez O. Olaya J.J.	COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS	2021
40	ICMCTF 2021-Preface	SANDRA ELIZABETH RODIL POSADA Esteban Broitman Carlos A. Figuroa et al.	SURFACE & COATINGS TECHNOLOGY	2021
41	ICMCTF 2021 Preface	SANDRA ELIZABETH RODIL POSADA Esteban Broitman Carlos A. Figuroa et al.	Thin Solid Films	2021
42	Dependence of the photoactivity of CdS prepared in butanol-ethylenediamine mixture in function of different sacrificial electron donors	AGILEO HERNANDEZ GORDILLO PROSPERO ACEVEDO PEÑA SANDRA ELIZABETH RODIL POSADA et al.	CATALYSIS TODAY	2020
43	Evaluation of the Photocatalytic Activity of Copper Doped TiO <sub>2</sub> nanoparticles for the Purification and/or Disinfection of Industrial Effluents	SANDRA ELIZABETH RODIL POSADA Pedroza-Herrera G. Medina-Ramírez I.E. et al.	CATALYSIS TODAY	2020
44	Synthesis of a CeO <sub>2</sub> /Co <sub>3</sub> O <sub>4</sub> catalyst with a remarkable performance for the soot oxidation reaction	JUAN CARLOS MEDINA ALVAREZ SANDRA ELIZABETH RODIL POSADA RODOLFO ZANELLA SPECIA	CATALYSIS SCIENCE & TECHNOLOGY	2020
45	Structural stabilization and ionic conductivity of bismuth niobium oxide films with fluorite-like structure	OSMARY LISSETTE DEPABLOS RIVERA SANDRA ELIZABETH RODIL POSADA	MATERIALS LETTERS	2020
46	Antibacterial composite membranes of polycaprolactone/gelatin loaded with zinc oxide nanoparticles for guided tissue regeneration	GINA PRADO PRONE PHAEDRA SURIEL SILVA BERMUDEZ SANDRA ELIZABETH RODIL POSADA et al.	BIOMEDICAL MATERIALS	2020
47	ICMCTF 2019 ? Preface	SANDRA ELIZABETH RODIL POSADA Broitman E. Figuroa C.A. et al.	SURFACE & COATINGS TECHNOLOGY	2020
48	ICMCTF 2019 ? Preface	SANDRA ELIZABETH RODIL POSADA Broitman E. Figuroa C.A. et al.	Thin Solid Films	2020
49	Unexpected cytotoxicity of TiO <sub>2</sub> -coated magnesium alloys	PHAEDRA SURIEL SILVA BERMUDEZ BENJAMIN MILLAN RAMOS OSMARY LISSETTE DEPABLOS RIVERA et al.	MATERIALS LETTERS	2020
50	Improving the corrosion resistance of aluminum alloy (AA7075) using amorphous chromium oxide coatings	SANDRA ELIZABETH RODIL POSADA Cruz M.	MATERIALS LETTERS	2020

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51	Evaluation and correlation of electrochemical and mechanical properties of PVA/SA nanofibres	ALBA COVELO VILLAR SANDRA ELIZABETH RODIL POSADA López-Villegas E.O. et al.	SURFACE AND INTERFACE ANALYSIS	2020
52	Enhancing the photocatalytic activity of Cd <sup>2+</sup> ZnS(EN) <sub>0.5</sub> hybrid sheets for the H <sub>2</sub> production	AGILEO HERNANDEZ GORDILLO RODOLFO ZANELLA SPECIA SANDRA ELIZABETH RODIL POSADA et al.	INTERNATIONAL JOURNAL OF HYDROGEN ENERGY	2020
53	Structure, mechanical properties and corrosion resistance of amorphous Ti-Cr-O coatings	AMIN BAHRAMI STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA et al.	SURFACE & COATINGS TECHNOLOGY	2019
54	Mechanical properties and microstructural stability of CuTa/Cu composite coatings	AMIN BAHRAMI SANDRA ELIZABETH RODIL POSADA Onofre Carrasco C.F. et al.	SURFACE & COATINGS TECHNOLOGY	2019
55	Good practices for reporting the photocatalytic evaluation of a visible-light active semiconductor: Bi <sub>2</sub> O <sub>3</sub> , a case study	AGILEO HERNANDEZ GORDILLO MONSERRAT BIZARRO SORDO ANA MARIA MARTINEZ VAZQUEZ et al.	CATALYSIS SCIENCE & TECHNOLOGY	2019
56	Synthesis of Bi <sub>2</sub> SiO <sub>5</sub> thin films by confocal dual magnetron sputtering-annealing route	OSMARY LISSETTE DEPABLOS RIVERA SANDRA ELIZABETH RODIL POSADA Bouyanfif H. et al.	Thin Solid Films	2019
57	Photoreduction of 4-Nitrophenol in the presence of carboxylic acid using CdS nanofibers	PROSPERO ACEVEDO PEÑA MONSERRAT BIZARRO SORDO SANDRA ELIZABETH RODIL POSADA et al.	JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS	2018
58	Synergistic effect of supported ZnO/Bi <sub>2</sub> O <sub>3</sub> heterojunctions for photocatalysis under visible light	JUAN CARLOS MEDINA VAZQUEZ MONSERRAT BIZARRO SORDO SANDRA ELIZABETH RODIL POSADA et al.	DYES AND PIGMENTS	2018
59	Compositional and Tribo-Mechanical Characterization of Ti-Ta Coatings Prepared by Confocal Dual Magnetron Co-Sputtering	STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA Bahrami A. et al.	ADVANCED ENGINEERING MATERIALS	2018
60	Bismuth oxide thin films	SANDRA ELIZABETH RODIL POSADA Celia Gomez Osmary Depablos-Rivera et al.	Abstracts Of Papers Of The American Chemical Society	2018
61	The role of the molar ratio of (HNO <sub>3</sub> /Bi <sup>3+</sup> ) on the formation and morphology of α-Bi <sub>2</sub> O <sub>3</sub> microrods with photocatalytic properties	MONSERRAT BIZARRO SORDO SANDRA ELIZABETH RODIL POSADA Hernández-Gordillo A. et al.	MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING	2018

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62	Effect of the addition of Si into V <sub>2</sub> O <sub>5</sub> coatings: Structure and tribo-mechanical properties	SANDRA ELIZABETH RODIL POSADA Mirabal-Rojas R. Ramirez G. et al.	SURFACE & COATINGS TECHNOLOGY	2018
63	Enhanced antibacterial nanocomposite mats by coaxial electrospinning of polycaprolactone fibers loaded with Zn-based nanoparticles	PHAEDRA SURIEL SILVA BERMUDEZ ARGELIA ALMAGUER FLORES JORGE ALFONSO GARCIA MACEDO et al.	NANOMEDICINE -NANOTECHNOLOGY BIOLOGY AND MEDICINE	2018
64	Fabrication of Sputtered Ce/La, La/Ce Oxide Bilayers on AA6061 and AA7075 Aluminum Alloys for the Development of Corrosion Protective Coatings	SANDRA ELIZABETH RODIL POSADA EDGAR ONOFRE BUSTAMANTE Brachetti-Sibaja S.B. et al.	Materials	2018
65	Stabilized beta-Bi <sub>2</sub> O <sub>3</sub> nanoparticles from (BiO) <sub>4</sub> CO <sub>3</sub> (OH) <sub>2</sub> precursor and their photocatalytic properties under blue light	RODOLFO ZANELLA SPECIA SANDRA ELIZABETH RODIL POSADA Valencia G. K. et al.	CERAMICS INTERNATIONAL	2018
66	The bismuth oxyhalide family: thin film synthesis and periodic properties	LAURA STHEFANIA GOMEZ VELAZQUEZ SANDRA ELIZABETH RODIL POSADA MONSERRAT BIZARRO SORDO et al.	DALTON TRANSACTIONS	2018
67	Photocharging and Band Gap Narrowing Effects on the Performance of Plasmonic Photoelectrodes in Dye-Sensitized Solar Cells	SANDRA ELIZABETH RODIL POSADA Julio Villanueva-Cab Paul Olalde-Velasco et al.	ACS APPLIED MATERIALS & INTERFACES	2018
68	Synthesis and Optical Properties of Different Bismuth Niobate Films Grown by Dual Magnetron Co-Sputtering	OSMARY LISSETTE DEPABLOS RIVERA SANDRA ELIZABETH RODIL POSADA Andreas Zeinert	ADVANCED ENGINEERING MATERIALS	2018
69	Development and characterization of hydrophobic anodized aluminum layer to act as a long-lasting protective film in corrosion	ALBA COVELO VILLAR SANDRA ELIZABETH RODIL POSADA MARIA DEL PILAR CORONA LIRA et al.	SURFACE AND INTERFACE ANALYSIS	2018
70	beta-Bi <sub>2</sub> O <sub>3</sub> thin films on different substrates for photodegradation of organic dyes	MONSERRAT BIZARRO SORDO SANDRA ELIZABETH RODIL POSADA Tanveer Ahmed Gadhi et al.	Abstracts Of Papers Of The American Chemical Society	2017
71	Photocatalytic activity enhancement of ZnO thin films under visible light using Bi <sub>2</sub> O <sub>3</sub> dots	MONSERRAT BIZARRO SORDO SANDRA ELIZABETH RODIL POSADA Juan Medina et al.	Abstracts Of Papers Of The American Chemical Society	2017
72	Optical properties of nanocrystalline La <sub>2</sub> O <sub>3</sub> dielectric films deposited by radio frequency magnetron sputtering	SANDRA ELIZABETH RODIL POSADA Brachetti-Sibaja, S.B. Domínguez-Crespo, M.A. et al.	Thin Solid Films	2017

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73	Preferential orientation in bismuth thin films as a function of growth conditions	SANDRA ELIZABETH RODIL POSADA OSCAR GARCIA ZARCO Camps, E. et al.	Thin Solid Films	2017
74	Evaluation of the photodiscoloration efficiency of beta-Bi <sub>2</sub> O <sub>3</sub> films deposited on different substrates by pneumatic spray pyrolysis	LAURA STHEFANIA GOMEZ VELAZQUEZ SANDRA ELIZABETH RODIL POSADA Gadhi, T.A. et al.	Thin Solid Films	2017
75	High stability and ac-conductivity of cubic fluorite-Bi <sub>2</sub> O <sub>3</sub> films synthesized by magnetron sputtering	SANDRA ELIZABETH RODIL POSADA Gomez, C.L.	Solid State Ionics	2017
76	Comparison of the osteogenic, adipogenic, chondrogenic and cementogenic differentiation potential of periodontal ligament cells cultured on different biomaterials	CECILIA CARLOTA BARRERA ORTEGA LIA ALIOTH HOZ RODRIGUEZ HIGINIO ARZATE et al.	MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS	2017
77	Synthesis and properties of Bi <sub>5</sub> Nb <sub>3</sub> O <sub>15</sub> thin films prepared by dual co-sputtering	MONSERRAT BIZARRO SORDO ANA MARIA MARTINEZ VAZQUEZ SANDRA ELIZABETH RODIL POSADA et al.	JOURNAL OF ALLOYS AND COMPOUNDS	2017
78	Enhancing the osteoblastic differentiation through nanoscale surface modifications	PHAEDRA SURIEL SILVA BERMUDEZ ARGELIA ALMAGUER FLORES SANDRA ELIZABETH RODIL POSADA et al.	JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART A	2017
79	Photocatalytic discoloration of methyl orange dye by d-Bi <sub>2</sub> O <sub>3</sub> thin films	MONSERRAT BIZARRO SORDO PHAEDRA SURIEL SILVA BERMUDEZ SANDRA ELIZABETH RODIL POSADA et al.	Thin Solid Films	2016
80	Effect of the addition of Si into Nb <sub>2</sub> O <sub>5</sub> coatings on their structural, optical, and mechanical properties	STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA Mirabal-Rojas, Roberto et al.	JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A	2016
81	Effect of Si addition on the structure and corrosion behavior of NbN thin films deposited by unbalanced magnetron sputtering	SANDRA ELIZABETH RODIL POSADA Velasco L. Olaya J.J.	APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING	2016
82	Reduction of the coefficient of friction of niobium nitride coatings by the addition of bismuth	STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA Mirabal-Rojas, Roberto et al.	Vacuum	2016
83	Sputtered bismuth oxide thin films as a potential photocatalytic material	JUAN CARLOS MEDINA VAZQUEZ MONSERRAT BIZARRO SORDO Osmar Depablos Rivera et al.	CATALYSIS TODAY	2016

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84	Efficient $\alpha/\beta$ -Bi <sub>2</sub> O <sub>3</sub> composite for the sequential photodegradation of two-dyes mixture	Agileo HernandezGordillo MONSERRAT BIZARRO SORDO SANDRA ELIZABETH RODIL POSADA et al.	CERAMICS INTERNATIONAL	2016
85	Polymer-based composite with outstanding mechanically tunable refractive index	SANDRA ELIZABETH RODIL POSADA Mohamed-Noriega, Nasser Hinojosa, Moises et al.	OPTICAL MATERIALS	2016
86	The effect of simulated inflammatory conditions on the surface properties of titanium and stainless steel and their importance as biomaterials	CECILIA CARLOTA BARRERA ORTEGA JUAN CARLOS MEDINA VAZQUEZ ARGELIA ALMAGUER FLORES et al.	MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS	2016
87	Photocatalytic activity of enlarged microrods of $\alpha$ -Bi <sub>2</sub> O <sub>3</sub> produced using ethylenediamine-solvent	Agileo HernandezGordillo MONSERRAT BIZARRO SORDO RODOLFO ZANELLA SPECIA et al.	CERAMICS INTERNATIONAL	2016
88	Opto-electronic properties of bismuth oxide films presenting different crystallographic phases	Celia L. Gomez Osmary DepablosRivera PHAEDRA SURIEL SILVA BERMUDEZ et al.	Thin Solid Films	2015
89	Role of integrin subunits in mesenchymal stem cell differentiation and osteoblast maturation on graphitic carbon-coated microstructured surfaces	SANDRA ELIZABETH RODIL POSADA ARGELIA ALMAGUER FLORES OlivaresNavarrete, Rene et al.	Biomaterials	2015
90	Spray deposited $\beta$ -Bi <sub>2</sub> O <sub>3</sub> nanostructured films with visible photocatalytic activity for solar water treatment	Karen BarreraMota MONSERRAT BIZARRO SORDO SANDRA ELIZABETH RODIL POSADA et al.	PHOTOCHEMICAL & PHOTOBIOLOGICAL SCIENCES	2015
91	Chemically induced porosity on BiVO <sub>4</sub> films produced by double magnetron sputtering to enhance the photo-electrochemical response	Roberto Mirabal Rojas Osmary Depablos Rivera SANDRA ELIZABETH RODIL POSADA et al.	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	2015
92	Photomechanical response of composites based on PDMS and carbon soot nanoparticles under IR laser irradiation	FRANCISCO MANUEL SANCHEZ AREVALO I. M. GarnicaPalafox JUAN ARNALDO HERNANDEZ CORDERO et al.	OPTICAL MATERIALS EXPRESS	2015
93	Bacterial adhesion on amorphous and crystalline metal oxide coatings	ARGELIA ALMAGUER FLORES PHAEDRA SURIEL SILVA BERMUDEZ Rey Galicia et al.	MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS	2015

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94	Antibacterial effect of bismuth subsalicylate nanoparticles synthesized by laser ablation	ALEJANDRO LUIS VEGA JIMENEZ ARGELIA ALMAGUER FLORES PHAEDRA SURIEL SILVA BERMUDEZ et al.	JOURNAL OF NANOPARTICLE RESEARCH	2015
95	Stabilization of the delta-phase in Bi <sub>2</sub> O <sub>3</sub> thin films	Celia L. Gomez Osmary Depablos Rivera JUAN CARLOS MEDINA VAZQUEZ et al.	Solid State Ionics	2014
96	Nano Sized bismuth oxy chloride by metal organic chemical vapour deposition	SANDRA ELIZABETH RODIL POSADA Jagdale, Pravin Castellino, Micaela et al.	APPLIED SURFACE SCIENCE	2014
97	TaSiN nanocomposite thin films: Correlation between structure, chemical composition, and physical properties	G. Ramirez MARGARITA RIVERA HERNANDEZ SANDRA ELIZABETH RODIL POSADA et al.	Thin Solid Films	2014
98	TiO <sub>2</sub> sensitization with Bi <sub>2</sub> S <sub>3</sub> quantum dots: The inconvenience of sodium ions in the deposition procedure	Inti Zumeta Dube VICTOR FABIAN RUIZ RUIZ DAVID DIAZ et al.	JOURNAL OF PHYSICAL CHEMISTRY C	2014
99	Preliminary Tribological Study and Tool Life of Four Commercial Drills	Marco Figueroa ERNESTO RIVERA GARCIA STEPHEN MUHL SAUNDERS et al.	TRIBOLOGY TRANSACTIONS	2014
100	Structural, chemical, optical and mechanical properties of Au doped AlN sputtered coatings	SANDRA ELIZABETH RODIL POSADA Figueiredo, N. M. Vaz, F. et al.	SURFACE & COATINGS TECHNOLOGY	2014
101	Optimal conditions for the deposition of novel anticorrosive coatings by RF magnetron sputtering for aluminum alloy AA6082	SANDRA ELIZABETH RODIL POSADA Brachetti-Sibaja, S. B. Dominguez-Crespo, M. A. et al.	JOURNAL OF ALLOYS AND COMPOUNDS	2014
102	Influence of the ion energy on the structure of Bi and Fe <sub>2</sub> O <sub>3</sub> thin films	Dagoberto Cardona SANDRA ELIZABETH RODIL POSADA Camps, Enrique et al.	APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING	2013
103	A comparative study of fibrinogen adsorption onto metal oxide thin films	STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA PHAEDRA SURIEL SILVA BERMUDEZ	APPLIED SURFACE SCIENCE	2013
104	An overview of protein adsorption on metal oxide coatings for biomedical implants	SANDRA ELIZABETH RODIL POSADA PHAEDRA SURIEL SILVA BERMUDEZ	SURFACE & COATINGS TECHNOLOGY	2013
105	Influence of surface pre-treatment on electrochemical properties of CeO <sub>2</sub> thin films deposited by R.F. Sputtering on AA7075 aluminum alloy	SANDRA ELIZABETH RODIL POSADA Brachetti-Sibaja S.B. Dominguez-Crespo M.A. et al.	ECS Transactions	2013

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106	A detailed study of the synthesis of Bismuth thin films by PVD-methods and their structural characterization	SANDRA ELIZABETH RODIL POSADA Camps E. Salas J.A. et al.	Materials Research Society Symposium Proceedings	2012
107	Corrosion Behaviour of Amorphous Niobium Oxide Coatings	P. N. Rojas SANDRA ELIZABETH RODIL POSADA	INTERNATIONAL JOURNAL OF ELECTROCHEMICAL SCIENCE	2012
108	CORROSION RESISTANCE OF DECORATIVE CHROMIUM FILMS OBTAINED FROM TRIVALENT CHROMIUM SOLUTIONS	SANDRA ELIZABETH RODIL POSADA Suarez, O. J. Olaya, J. J. et al.	JOURNAL OF THE CHILEAN CHEMICAL SOCIETY	2012
109	Effect of 8 MeV Si ions irradiation and thermal annealing in ZnO thin films	D. R. Hernandez Socorro ZEUZ MONTIEL GONZALEZ SANDRA ELIZABETH RODIL POSADA et al.	JOURNAL OF CRYSTAL GROWTH	2012
110	Pulsed laser deposition and characterization of La <sub>1-x</sub> Sr <sub>x</sub> MnO <sub>3</sub>	SANDRA ELIZABETH RODIL POSADA JOSE ISRAEL BETANCOURT REYES Calderon, S. et al.	MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING	2012
111	Electrical and optical properties of Ta-Si-N thin films deposited by reactive magnetron sputtering	G. Ramirez SANDRA ELIZABETH RODIL POSADA Oezer, D. et al.	JOURNAL OF APPLIED PHYSICS	2012
112	Niobium based coatings for dental implants	G. Ramirez SANDRA ELIZABETH RODIL POSADA HIGINIO ARZATE et al.	APPLIED SURFACE SCIENCE	2011
113	Amorphous Carbon Gold Nanocomposite Thin Films: Structural and Spectro-ellipsometric Analysis	Z. Montiel Gonzalez SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS et al.	Thin Solid Films	2011
114	Albumin adsorption on oxide thin films studied by spectroscopic ellipsometry	SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS PHAEDRA SURIEL SILVA BERMUDEZ	APPLIED SURFACE SCIENCE	2011
115	A look into the interaction of metal oxide thin films with biological media: Albumin and Fibrinogen adsorption	STEPHEN MUHL SAUNDERS MARGARITA RIVERA HERNANDEZ SANDRA ELIZABETH RODIL POSADA et al.	Materials Research Society Symposium Proceedings	2011
116	Biocompatibility of niobium coatings	SANDRA ELIZABETH RODIL POSADA Olivares-Navarrete R. Olaya J.J. et al.	Coatings	2011

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117	Corrosion resistance of CrN coatings deposited by physical vapor deposition (PVD) with Unbalanced Magnetron Sputtering (UBM): Efficient and environmentally clean technology [Resistencia a la corrosión de recubrimientos de CrN depositados po	SANDRA ELIZABETH RODIL POSADA Olaya J.J. Piratoba U.	Revista Latinoamericana de Metalurgia y Materiales	2011
118	Protein adsorption on amorphous metal oxide thin films: An FTIR/ATR and ellipsometry study	SANDRA ELIZABETH RODIL POSADA PHAEDRA SURIEL SILVA BERMUDEZ	Materials Research Society Symposium Proceedings	2010
119	Antibacterial effect of biodegradable magnesium alloys modified by biocompatible transitions metals	ARGELIA ALMAGUER FLORES SANDRA ELIZABETH RODIL POSADA García-Pérez V.I. et al.	Materials Research Society Symposium Proceedings	2010
120	Metal nitride coatings deposited by UBM: Efficient and environmentally clean technology [Recubrimientos de nitruros metálicos depositados con UBM: Tecnología eficiente y ambientalmente limpia]	SANDRA ELIZABETH RODIL POSADA Olaya J. Marulanda D.	DYNA-COLOMBIA	2010
121	Preferential orientation in metal nitride deposited by the UBM system	SANDRA ELIZABETH RODIL POSADA Jairo Olaya, Jhon Maritza Marulanda, Diana	Ingeniería e Investigación	2010
122	Oral Bacterial Adhesion on Amorphous Carbon and Titanium Films: Effect of Surface Roughness and Culture Media	ARGELIA ALMAGUER FLORES LAURIE ANN XIMENEZ FYVIE SANDRA ELIZABETH RODIL POSADA	JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART B-APPLIED BIOMATERIALS	2010
123	XPS and EIS studies of sputtered Al-Ce films formed on AA6061 aluminum alloy in 3.5% NaCl solution	SANDRA ELIZABETH RODIL POSADA WENCEL JOSE DE LA CRUZ HERNANDEZ Dominguez-Crespo, M. A. et al.	JOURNAL OF APPLIED ELECTROCHEMISTRY	2010
124	Amorphous niobium oxide thin films	G. Ramirez SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS et al.	JOURNAL OF NON-CRYSTALLINE SOLIDS	2010
125	Mechanical properties of metallic nitrate deposits with UBM: efficient technology and environmentally clean	SANDRA ELIZABETH RODIL POSADA Olaya, J. J. Marulanda, D. M. et al.	REVISTA MEXICANA DE FISICA	2009

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126	The preparation of permalloy 80/20 thin films using a pulsed DC discharge in a hollow cathode	WILBERT DE JESUS LOPEZ STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA	Vacuum	2009
127	Synthesis and Characterization of Chromate Conversion Coatings on GALVALUME and Galvanized Steel Substrates	M. A. Dominguez Crespo EDGAR ONOFRE BUSTAMANTE FRANCISCO JAVIER RODRIGUEZ GOMEZ et al.	METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE	2009
128	Oral bacterial adhesion on amorphous carbon films	ARGELIA ALMAGUER FLORES A. Lechuga Bernal LAURIE ANN XIMENEZ FYVIE et al.	DIAMOND AND RELATED MATERIALS	2009
129	Corrosion behavior of amorphous carbon deposit in 0.89% NaCl by electrochemical impedance spectroscopy	DAVID TURCIO ORTEGA SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS	DIAMOND AND RELATED MATERIALS	2009
130	Structural and electrochemical performance of sputtered Al-Ce films on AA6061 aluminum alloy substrates	SANDRA ELIZABETH RODIL POSADA Dominguez-Crespo, M. A. Torres-Huerta, A. M. et al.	SURFACE & COATINGS TECHNOLOGY	2009
131	Effective corrosion protection of AA6061 aluminum alloy by sputtered Al-Ce coatings	SANDRA ELIZABETH RODIL POSADA Dominguez-Crespo, M. A. Torres-Huerta, A. M. et al.	ELECTROCHIMICA ACTA	2009
132	Deposition of amorphous carbon-silver composites	OSCAR GARCIA ZARCO SANDRA ELIZABETH RODIL POSADA Camacho-Lopez, M. A.	Thin Solid Films	2009
133	Biocompatibility and anti-microbial properties of silver modified amorphous carbon films	ARGELIA ALMAGUER FLORES LAURIE ANN XIMENEZ FYVIE OSCAR GARCIA ZARCO et al.	Materials Research Society Symposium Proceedings	2009
134	Biocompatibility and bio-corrosion resistance of amorphous oxide thin films	SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS HIGINIO ARZATE et al.	Materials Research Society Symposium Proceedings	2009
135	Superficial modification of metallic biomaterials [Modificación superficial de biomateriales metálicos]	SANDRA ELIZABETH RODIL POSADA	Revista Latinoamericana de Metalurgia y Materiales	2009
136	Evolution of the opto-electronic properties of amorphous carbon films as a function of nitrogen incorporation	SANDRA ELIZABETH RODIL POSADA Alibart, F. Drouhin, O. Durand et al.	DIAMOND AND RELATED MATERIALS	2008

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137	Electrochemical behavior of titanium thin films obtained by magnetron sputtering	DAVID TURCIO ORTEGA SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS	MATER SCI-MEDZG	2008
138	Comparative study of niobium nitride coatings deposited by unbalanced and balanced magnetron sputtering	SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS Olaya, J. J.	Thin Solid Films	2008
139	Superconducting niobium nitride films deposited by unbalanced magnetron sputtering	L. Huerta SANDRA ELIZABETH RODIL POSADA RAUL ESCAMILLA GUERRERO et al.	Thin Solid Films	2008
140	The influence of the magnetic field configuration on plasma parameters and microstructure of niobium nitride films	SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS Olaya J.J. et al.	SURFACE & COATINGS TECHNOLOGY	2007
141	Influence of the ion-atom flux ratio on the mechanical properties of chromium nitride thin films	SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS Olaya J.J. et al.	Vacuum	2007
142	An alternative procedure for the determination of the optical band gap and thickness of amorphous carbon nitride thin films	STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA Escobar-Alarcón L. et al.	APPLIED SURFACE SCIENCE	2007
143	Osteoinduction properties of graphite-like amorphous carbon films evaluated in-vitro	SANDRA ELIZABETH RODIL POSADA HIGINIO ARZATE Olivares R.	DIAMOND AND RELATED MATERIALS	2007
144	Corrosion behaviour of TaN thin PVD films on steels	SANDRA ELIZABETH RODIL POSADA Flores J.F. Olaya J.J. et al.	CORROSION ENGINEERING SCIENCE AND TECHNOLOGY	2006
145	Biocompatibility, cytotoxicity and bioactivity of amorphous carbon films	SANDRA ELIZABETH RODIL POSADA HIGINIO ARZATE STEPHEN MUHL SAUNDERS et al.	Topics in Applied Physics	2006
146	Status of technology of carbon nitride films: Challenges and oportunities	SANDRA ELIZABETH RODIL POSADA	SURFACE ENGINEERING	2006
147	Influence of the energy parameter on the microstructure of chromium nitride coatings	SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS Olaya J.J. et al.	SURFACE & COATINGS TECHNOLOGY	2006
148	Osteoblasts attachment on amorphous carbon films	SANDRA ELIZABETH RODIL POSADA HIGINIO ARZATE JOSE REYES GASGA et al.	DIAMOND AND RELATED MATERIALS	2006
149	Unbalanced magnetic field configuration: Plasma and film properties	SANDRA ELIZABETH RODIL POSADA Olaya J.J.	JOURNAL OF PHYSICS-CONDENSED MATTER	2006

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150	Comparative study of chromium nitride coatings deposited by unbalanced and balanced magnetron sputtering	SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS Olaya J.J. et al.	Thin Solid Films	2005
151	High-current pulsed arc preparation of carbon and metal-carbon nanoparticles	STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA Maya F. et al.	J OPTOELECTRON ADV M	2005
152	Growth and characterisation of polymeric amorphous carbon and carbon nitride films from propane	SANDRA ELIZABETH RODIL POSADA Fanchini G. Mandracci P. et al.	DIAMOND AND RELATED MATERIALS	2005
153	In vitro cytotoxicity of amorphous carbon films	SANDRA ELIZABETH RODIL POSADA HIGINIO ARZATE Olivares R.	BIO-MEDICAL MATERIALS AND ENGINEERING	2005
154	Infrared spectra of amorphous carbon based materials	SANDRA ELIZABETH RODIL POSADA	DIAMOND AND RELATED MATERIALS	2005
155	Bonding in amorphous carbon nitride	SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS	DIAMOND AND RELATED MATERIALS	2004
156	Bonding characteristics of DC magnetron sputtered B-C-N thin films investigated by Fourier-transformed infrared spectroscopy and X-ray photoelectron spectroscopy	SANDRA ELIZABETH RODIL POSADA Linss V. Reinke P. et al.	Thin Solid Films	2004
157	Optical properties of TiO <sub>2-x</sub> thin films studied by spectroscopic ellipsometry: Substrate temperature effect	CELIA ANGELINA SANCHEZ PEREZ ALEJANDRO ESPARZA GARCIA SANDRA ELIZABETH RODIL POSADA et al.	Proceedings of SPIE	2004
158	Deposition of ta-C:N:H as function of experimental parameters	SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS	SURFACE ENGINEERING	2004
159	In vitro studies of the biomineralization in amorphous carbon films	SANDRA ELIZABETH RODIL POSADA HIGINIO ARZATE Olivares R.	SURFACE & COATINGS TECHNOLOGY	2004
160	Studies of pulsed high-current arcs used to prepare carbon films	STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA MAYO VILLAGRAN MUNIZ et al.	Thin Solid Films	2003
161	Gas evolution studies for structural characterization of hydrogenated carbon nitride samples	SANDRA ELIZABETH RODIL POSADA Beyer W. Robertson J. et al.	DIAMOND AND RELATED MATERIALS	2003
162	a-C thin film deposition by laser ablation	STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA Olea-Cardoso O. et al.	Thin Solid Films	2003

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163	Properties of carbon films and their biocompatibility using in-vitro tests	SANDRA ELIZABETH RODIL POSADA HIGINIO ARZATE STEPHEN MUHL SAUNDERS et al.	DIAMOND AND RELATED MATERIALS	2003
164	Resonant Raman spectra of amorphous carbon nitrides: The G peak dispersion	SANDRA ELIZABETH RODIL POSADA Ferrari A.C. Robertson J.	DIAMOND AND RELATED MATERIALS	2003
165	Optical gap in carbon nitride films	SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS Maca S. et al.	Thin Solid Films	2003
166	Paramagnetic defects in hydrogenated amorphous carbon powders	SANDRA ELIZABETH RODIL POSADA Keeble D.J. Robb K.M. et al.	JOURNAL OF PHYSICS-COND ENSED MATTER	2003
167	Interpretation of infrared and Raman spectra of amorphous carbon nitrides	SANDRA ELIZABETH RODIL POSADA Ferrari A.C. Robertson J.	PHYSICAL REVIEW B	2003
168	Highest optical gap tetrahedral amorphous carbon	SANDRA ELIZABETH RODIL POSADA Teo K.B.K. Ferrari A.C. et al.	DIAMOND AND RELATED MATERIALS	2002
169	Is stress necessary to stabilise sp <sup>3</sup> bonding in diamond-like carbon?	SANDRA ELIZABETH RODIL POSADA Ferrari A.C. Robertson J. et al.	DIAMOND AND RELATED MATERIALS	2002
170	Infrared spectra of carbon nitride films	SANDRA ELIZABETH RODIL POSADA STEPHEN MUHL SAUNDERS Ferrari A.C. et al.	Thin Solid Films	2002
171	Raman and infrared modes of hydrogenated amorphous carbon nitride	SANDRA ELIZABETH RODIL POSADA Ferrari A.C. Robertson J. et al.	JOURNAL OF APPLIED PHYSICS	2001
172	Chemical sputtering of ta-C: Implications for the deposition of carbon nitride	SANDRA ELIZABETH RODIL POSADA Morrison N.A. Robertson J. et al.	JOURNAL OF APPLIED PHYSICS	2001
173	Role of sp <sup>2</sup> phase in field emission from nanostructured carbons	SANDRA ELIZABETH RODIL POSADA Ilie A. Ferrari A.C. et al.	JOURNAL OF APPLIED PHYSICS	2001
174	Dual ion plasma-beam sources used to maximise sp <sup>3</sup> C-C bonds in carbon nitride	SANDRA ELIZABETH RODIL POSADA Milne W.I. Robertson J. et al.	DIAMOND AND RELATED MATERIALS	2001
175	Hydrogen and disorder in diamond-like carbon	SANDRA ELIZABETH RODIL POSADA Kleinsorge B. Adamopoulos G. et al.	DIAMOND AND RELATED MATERIALS	2001
176	Effect of graphitic inclusions on the optical gap of tetrahedral amorphous carbon films	SANDRA ELIZABETH RODIL POSADA Teo K.B.K. Tsai J.T.H. et al.	JOURNAL OF APPLIED PHYSICS	2001

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177	Density, sp <sup>3</sup> fraction, and cross-sectional structure of amorphous carbon films determined by x-ray reflectivity and electron energy-loss spectroscopy	SANDRA ELIZABETH RODIL POSADA Ferrari A.C. Libassi A. et al.	PHYSICAL REVIEW B	2000
178	Deposition of carbon nitride films using an electron cyclotron wave resonance plasma source	SANDRA ELIZABETH RODIL POSADA Morrison N.A. Milne W.I. et al.	DIAMOND AND RELATED MATERIALS	2000
179	Maximized sp <sup>3</sup> bonding in carbon nitride phases	SANDRA ELIZABETH RODIL POSADA Milne W.I. Robertson J. et al.	APPLIED PHYSICS LETTERS	2000
180	High rate deposition of ta-C:H using an electron cyclotron wave resonance plasma source	SANDRA ELIZABETH RODIL POSADA Morrison N.A. Ferrari A.C. et al.	Thin Solid Films	1999
181	The preparation, characterization and tribological properties of TA-C : H deposited using an electron cyclotron wave resonance plasma beam source	STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA Morrison N.A. et al.	PHYS STATUS SOLIDI A	1999
182	Nitrogen incorporation into tetrahedral hydrogenated amorphous carbon	SANDRA ELIZABETH RODIL POSADA Morrison N.A. Robertson J. et al.	PHYS STATUS SOLIDI A	1999
183	Preparation and characterization of carbon nitride films	STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA JOSE GONZALO GONZALEZ REYES et al.	Tms Annual Meeting	1998
184	Production and characterisation of carbon nitride thin films produced by a graphite hollow cathode system	STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA JOSE GONZALO GONZALEZ REYES et al.	Thin Solid Films	1997
185	High rate deposition of Ta-C:H using an electron cyclotron wave resonance plasma source	STEPHEN MUHL SAUNDERS SANDRA ELIZABETH RODIL POSADA Morrison N.A. et al.	Materials Research Society Symposium Proceedings	1997

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**LIBROS Y CAPITULOS CON ISBN**

**Obras con registro ISBN**



#	Título	Autores	Alcance	Año	ISBN
1	Temas selectos en ciencia de materiales y nanotecnología	AGILEO HERNANDEZ GORDILLO SANDRA ELIZABETH RODIL POSADA SAYRA LISSETTE OROZCO CERROS et al.	Libro Completo	2022	9786073062169
2	Corrosion Protective Coatings: Fabrication of Sputtered CeO <sub>2</sub> -La <sub>2</sub> O <sub>3</sub> and La <sub>2</sub> O <sub>3</sub> CeO <sub>2</sub> Bilayers	SANDRA ELIZABETH RODIL POSADA Miguel Antonio Dominguez-Crespo Silvia Brachetti-Sibaja et al.	Article	2019	9781466510814
3	Physicochemical characterization of photocatalytic materials	MONSERRAT BIZARRO SORDO SANDRA ELIZABETH RODIL POSADA	Capítulo de un Libro	2015	9783319109992
4	Corrosion resistant coatings for dental implants	SANDRA ELIZABETH RODIL POSADA PHAEDRA SURIEL SILVA BERMUDEZ Ramirez G.	Capítulo de un Libro	2013	9780857095404
5	Oral Bacterial Adhesion and Biocompatibility of Silver-Amorphous Carbon Films: A Surface Modification for Dental Implants	SANDRA ELIZABETH RODIL POSADA	Capítulo de un Libro	2011	9789533074818



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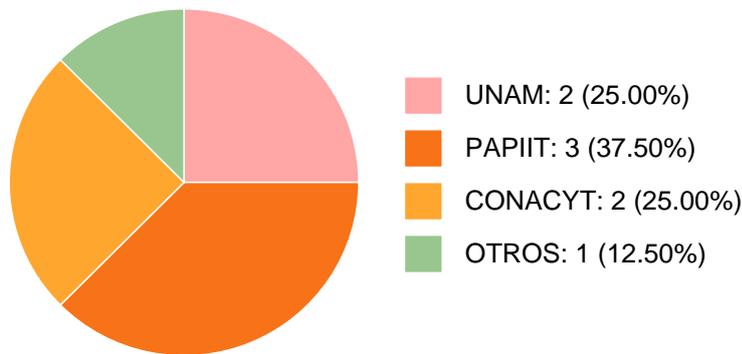
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6	Osteoblast behavior on amorphous carbon films	SANDRA ELIZABETH RODIL POSADA HIGINIO ARZATE Olivares R. et al.	Conferenc e Paper	2004	1877040193
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**PARTICIPACIÓN EN PROYECTOS**

**Histórico de participación en proyectos**



#	Nombre	Participantes	Fuente	Fecha inicio	Fecha fin
1	Procesos fotocatalíticos en películas delgadas de óxido de bismuto bi-metálicos de bismuto.	SANDRA ELIZABETH RODIL POSADA	Recursos CONACYT	30-06-2016	04-08-2019
2	Semiconductores brecha grande iv (producción de películas de aleaciones de carbono).	SANDRA ELIZABETH RODIL POSADA	Presupuesto de la UNAM asignado a la Dependencia	01-01-2018	31-12-2021
3	Recubrimientos de bajo coeficiente de fricción basados en óxidos metálicos	SANDRA ELIZABETH RODIL POSADA	Recursos PAPIIT	01-01-2016	31-12-2018
4	Magnesio biofuncionalizado para implantes metálicos degradables.	SANDRA ELIZABETH RODIL POSADA	Recursos CONACYT	27-11-2018	31-03-2021
5	Optimización de la velocidad de degradación de aleaciones de magnesio biodegradables.	SANDRA ELIZABETH RODIL POSADA	Recursos PAPIIT	01-01-2019	31-12-2021
6	Fotoexfoliación del material ZnS(en)0.5 híbrido, funcionalizados con nanopartículas metálicas para la generación de H2	SANDRA ELIZABETH RODIL POSADA	Recursos PAPIIT	01-01-2022	31-12-2024
7	Semiconductores brecha grande iv (producción de películas de aleaciones de carbono).	SANDRA ELIZABETH RODIL POSADA	Presupuesto de la UNAM asignado a la Dependencia	01-01-2022	31-12-2024



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**Simplificación de la Gestión Institucional**  
**Reporte individual**



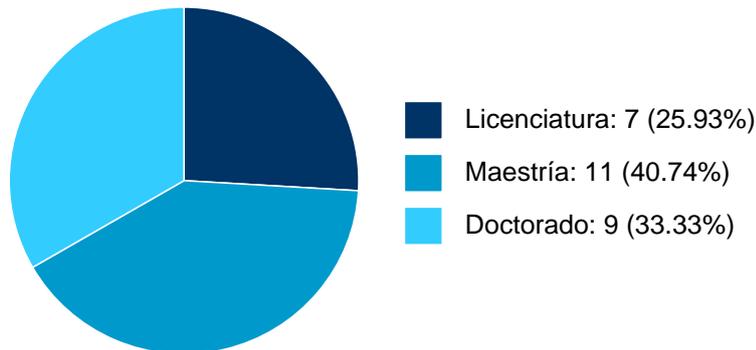
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8	Saliva-based Biosensor Using Proteomic Biomarkers: Early Prediction of Periodontitis and Oral Cancer Risks	SANDRA ELIZABETH RODIL POSADA	Universidades, Centros, Institutos u Organismos Internacionales	01-01-2023	31-12-2023
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### PARTICIPACIÓN EN TESIS

#### Histórico de Colaboraciones en Tesis



#	Título del documento	Tipo de Tesis	Sinodales	Autores	Entidad	Año
1	Preparación de la heterounión CdS/g-C3N4 in situ y evaluación de sus propiedades fotocatalíticas en el visible	Tesis de Doctorado	SANDRA ELIZABETH RODIL POSADA,	Valencia García, Karen,	Instituto de Investigaciones en Materiales,	2022
2	Evaluación de la estructura y propiedades mecánicas de recubrimientos de CU-NB	Tesis de Licenciatura	SANDRA ELIZABETH RODIL POSADA,	Espinosa López, Nicole Aleli,	Instituto de Investigaciones en Materiales,	2021
3	Efecto de la incorporación de vanadio en las propiedades mecánicas y tribológicas de los recubrimientos TiAlN	Tesis de Licenciatura	SANDRA ELIZABETH RODIL POSADA,	Hernández Larios, Omar Ulises,	Instituto de Investigaciones en Materiales,	2021
4	Evaluación electroquímica de películas de TiO2 depositadas sobre aleaciones de magnesio	Tesis de Maestría	SANDRA ELIZABETH RODIL POSADA,	Millán Ramos, Benjamín,	Instituto de Investigaciones en Materiales,	2019
5	Síntesis, caracterización, y optimización de películas delgadas de TiO2 con actividad fotocatalítica para la degradación de Indigo Carmín	Tesis de Licenciatura	SANDRA ELIZABETH RODIL POSADA,	Cerezo Durán, Lorena,	Instituto de Investigaciones en Materiales,	2019

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6	Evaluación de la foto-disociación de agua utilizando semiconductores basados en óxido de bismuto	Tesis de Maestría	SANDRA ELIZABETH RODIL POSADA,	Franco Peláez, Daynahi,	Instituto de Investigaciones en Materiales,	2018
7	Influencia de las propiedades físicas y químicas superficiales de 3 tipos de biomateriales en el potencial de diferenciación celular in vitro	Tesis de Doctorado	HIGINIO ARZATE,	SANDRA ELIZABETH RODIL POSADA, Barrera Ortega, Cecilia Carlota,	Facultad de Odontología, Instituto de Investigaciones en Materiales,	2017
8	Actividad fotocatalítica de películas delgadas basadas en óxido de bismuto	Tesis de Doctorado	MONSERRAT BIZARRO SORDO,	SANDRA ELIZABETH RODIL POSADA, Medina Álvarez, Juan Carlos,	Instituto de Investigaciones en Materiales,	2017
9	Modificaciones inducidas en titanio y óxido de titanio por la inmersión en soluciones ricas en peróxido de hidrógeno	Tesis de Doctorado	SANDRA ELIZABETH RODIL POSADA,	Fonseca García, Abril,	Instituto de Investigaciones en Materiales,	2017
10	Propiedades ópticas y eléctricas de películas delgadas de óxidos ternarios de bismuto y niobio	Tesis de Doctorado	SANDRA ELIZABETH RODIL POSADA,	Depablos Rivera, Osmary Lisette,	Instituto de Investigaciones en Materiales,	2017
11	Reducción de la microestructura de alfa-Bi <sub>2</sub> O <sub>3</sub> para la degradación de contaminantes	Tesis de Maestría	SANDRA ELIZABETH RODIL POSADA,	Valencia García, Karen,	Instituto de Investigaciones en Materiales,	2017
12	Propiedades tribomecánicas en películas de Nb <sub>2</sub> O <sub>5</sub> -Si y V <sub>2</sub> O <sub>5</sub> -Si	Tesis de Doctorado	SANDRA ELIZABETH RODIL POSADA,	Mirabal Rojas, Roberto José,	Instituto de Investigaciones en Materiales,	2017
13	Efecto de la adición de tantalio en recubrimientos de titanio depositados vía magnetron sputtering	Tesis de Licenciatura	SANDRA ELIZABETH RODIL POSADA,	Ruiz Ramírez, Agustín,	Instituto de Investigaciones en Materiales,	2017

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14	Estudio electro-óptico del óxido de bismuto en fase delta en película delgada	Tesis de Doctorado	SANDRA ELIZABETH RODIL POSADA,	Gómez Muñoz, Celia Lizeth,	Instituto de Investigaciones en Materiales,	2016
15	Películas nano-compuestas de tan con bismuto y zrn con bismuto por magnetron sputtering	Tesis de Maestría	SANDRA ELIZABETH RODIL POSADA,	Sánchez Espinosa, Saúl Hidar,	Instituto de Investigaciones en Materiales,	2014
16	Caracterización de nitruros metálicos de transición mediante elipsometría espectroscópica	Tesis de Maestría	SANDRA ELIZABETH RODIL POSADA,	Miranda Pérez, Héctor Roberto,	Instituto de Investigaciones en Materiales,	2014
17	Depósito de películas de bismuto por evaporación térmica	Tesis de Licenciatura	SANDRA ELIZABETH RODIL POSADA,	Sanchez Espinosa, Saul Hidar,	Instituto de Investigaciones en Materiales,	2013
18	Estabilidad estructural de películas delgadas de óxido de bismuto (&#948;-bi2o3)	Tesis de Maestría	SANDRA ELIZABETH RODIL POSADA,	Depablos Rivera, Osmary Lisette,	Instituto de Investigaciones en Materiales,	2013
19	Síntesis y estudio de nanopartículas esféricas y mesoporosas de SiO2 : su aplicación en la liberación de Rh6G	Tesis de Maestría	JORGE ALFONSO GARCIA MACEDO,	SANDRA ELIZABETH RODIL POSADA, Francisco Santiago, Pedro,	Instituto de Física, Instituto de Investigaciones en Materiales,	2013
20	Electrodos de bismuto para detectar metales pesados	Tesis de Maestría	SANDRA ELIZABETH RODIL POSADA,	Barón Jaimez, Jairo Alberto,	Instituto de Investigaciones en Materiales,	2012
21	Elipsometría aplicada al estudio de nanopartículas metálicas embebidas en una matriz semiconductor	Tesis de Doctorado	SANDRA ELIZABETH RODIL POSADA,	Montiel González, Zeuz,	Instituto de Investigaciones en Materiales,	2012
22	Películas delgadas nanoestructuradas de carbono amorfo con plata	Tesis de Maestría	SANDRA ELIZABETH RODIL POSADA,	García Zarco, Oscar,	Instituto de Investigaciones en Materiales,	2010
23	Mejoramiento de las propiedades mecánicas del nitruro de aluminio por medio de incorporación de níquel	Tesis de Maestría	SANDRA ELIZABETH RODIL POSADA,	Cardona Ramírez, Dagoberto,	Instituto de Investigaciones en Materiales,	2009

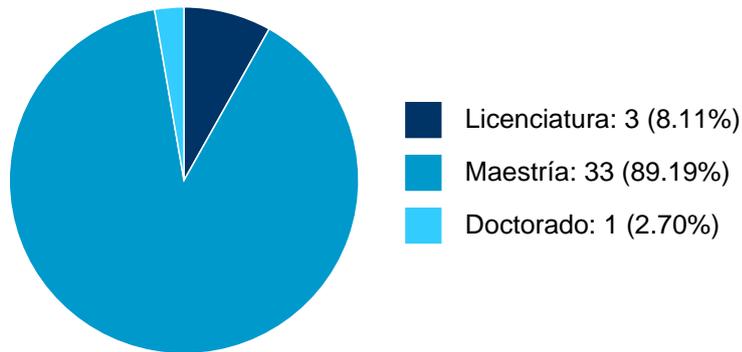
**SANDRA ELIZABETH RODIL POSADA**

24	Depósito de películas de carbono usando una fuente pulsada : efecto de la frecuencia y ancho de pulso	Tesis de Maestría	SANDRA ELIZABETH RODIL POSADA,	Mendoza Ibañez, Víctor Antonio,	Instituto de Investigaciones en Materiales,	2008
25	Influencia de la rugosidad de películas de carbono amorfo en la adhesión de osteoblastos	Tesis de Licenciatura	SANDRA ELIZABETH RODIL POSADA,	Ramirez Brizuela, Claudia,		2005
26	Recubrimientos de nitruros metálicos depositados con la técnica de espurreo asistido con campos magnéticos variables	Tesis de Doctorado	SANDRA ELIZABETH RODIL POSADA,	Olaya Flores, Jhon Jairo,		2005
27	Brecha óptica de películas de nitruro de carbono amorfo	Tesis de Licenciatura	SANDRA ELIZABETH RODIL POSADA,	Maca García, Samuel,		2004

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**DOCENCIA IMPARTIDA**

**Histórico de docencia**



#	Nivel titulación	Asignatura	Entidad	Alumnos	Semestre
1	Licenciatura	BIOMATERIALES	Facultad de Química	10	2024-2
2	Maestría	SEMINARIO DE INVESTIGACIÓN	Instituto de Investigaciones en Materiales	9	2024-2
3	Maestría	COLOQUIO DE INVESTIGACIÓN III	Facultad de Odontología	1	2024-1
4	Licenciatura	BIOMATERIALES	Facultad de Química	19	2023-2
5	Maestría	MATERIALES ELECTRÓNICOS: PROPIEDADES ELECTRÓNICAS DE MATERIALES	Instituto de Investigaciones en Materiales	2	2023-2
6	Licenciatura	BIOMATERIALES	Facultad de Química	6	2023-1
7	Maestría	MATERIALES ELECTRÓNICOS: SEMICONDUCTORES	Instituto de Investigaciones en Materiales	2	2022-1
8	Maestría	MATERIALES ELECTRÓNICOS: PROPIEDADES ELECTRÓNICAS DE MATERIALES	Instituto de Investigaciones en Materiales	2	2021-1
9	Maestría	OPTATIVA TECNICAS MODERNAS DE CARACTERIZACION DE MATERIALES	Facultad de Odontología	2	2020-1
10	Maestría	TEMAS SELECTOS DE MATERIALES ELECTRÓNICOS CARACTERIZACIÓN DE MATERIALES POR NUEVAS TÉCNICAS	Instituto de Investigaciones en Materiales	3	2019-2

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11	Maestría	ÓPTICA DE SEMICONDUCTORES	Instituto de Investigaciones en Materiales	4	2019-1
12	Maestría	TEMAS SELECTOS DE MATERIALES ELECTRONICOS,CARACTERIZACION DE MATERIALES POR NUEVAS TECNICAS	Instituto de Investigaciones en Materiales	3	2018-1
13	Maestría	TEMAS SELECTOS DE MATERIALES ELECTRÓNICOS CARACTERIZACION DE MATERIALES POR NUEVAS TECNICAS	Instituto de Investigaciones en Materiales	2	2017-2
14	Maestría	OPTICA DE SEMICONDUCTORES	Instituto de Investigaciones en Materiales	5	2016-2
15	Maestría	OPTICA DE SEMICONDUCTORES	Instituto de Investigaciones en Materiales	1	2016-1
16	Maestría	OPTICA DE SEMICONDUCTORES	Instituto de Investigaciones en Materiales	2	2015-2
17	Maestría	PROPIEDADES ELECTRONICAS DE MATERIALES	Instituto de Investigaciones en Materiales	3	2015-1
18	Maestría	TEMAS SELECTOS DE MATERIALES ELECTRONICOS	Instituto de Investigaciones en Materiales	1	2014-2
19	Maestría	BIOMATERIALES	Facultad de Odontología	3	2013-1
20	Maestría	PROPIEDADES ELECTRONICAS DE MATERIALES	Instituto de Investigaciones en Materiales	8	2012-2
21	Maestría	OPTATIVA	Facultad de Odontología	1	2012-2
22	Maestría	PROPIEDADES ELECTRONICAS DE MATERIALES	Instituto de Investigaciones en Materiales	3	2011-2
23	Maestría	OPTATIVA	Facultad de Odontología	1	2011-1
24	Maestría	TEMAS SELECTOS DE MATERIALES ELECTRONICOS	Instituto de Investigaciones en Materiales	2	2011-1
25	Maestría	OPTATIVA	Facultad de Odontología	1	2010-2
26	Doctorado	TRABAJO DE INVESTIGACION	Facultad de Odontología	1	2010-2
27	Maestría	PROPIEDADES ELECTRONICAS DE MATERIALES	Instituto de Investigaciones en Materiales	1	2010-2
28	Maestría	TRABAJO DE INVESTIGACION	Facultad de Odontología	1	2010-1

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29	Maestría	PROPIEDADES ELECTRONICAS DE MATERIALES	Instituto de Investigaciones en Materiales	10	2009-2
30	Maestría	TEMAS SELECTOS DE MATERIALES ELECTRONICOS (OPTATIVA)	Instituto de Investigaciones en Materiales	2	2009-2
31	Maestría	PROPIEDADES ELECTRONICAS DE MATERIALES	Instituto de Investigaciones en Materiales	10	2009-1
32	Maestría	TRABAJO DE INVESTIGACION	Facultad de Odontología	1	2009-1
33	Maestría	TRABAJO DE INVESTIGACION	Facultad de Odontología	1	2008-2
34	Maestría	TEMAS SELECTOS DE MATERIALES ELECTRONICOS (OPTATIVA)	Instituto de Investigaciones en Materiales	3	2008-2
35	Maestría	TEMAS SELECTOS DE MATERIALES ELECTRONICOS (OPTATIVA)	Instituto de Investigaciones en Materiales	3	2008-1
36	Maestría	TEMAS SELECTOS DE MATERIALES ELECTRONICOS (OPTATIVA)	Instituto de Investigaciones en Materiales	2	2008-1
37	Maestría	TRABAJO DE INVESTIGACION	Facultad de Odontología	1	2008-1



**SANDRA ELIZABETH RODIL POSADA**

**PATENTES**

#	Título	Inventores	Sección	Año
1	DISEÑO Y USO DE UN NANORECUBRIMIENTO DE OXIDO DE TITANIO CON ESTRUCTURA ATOMICA AMORFA EN SUPERFICIES DE DISPOSITIVOS BIOMEDICOS MICROESTRUCTURADOS CON POTENCIAL EFECTO EN LA RESPUESTA BIOLOGICA DE CELULAS MESENQUIMALES HUMANAS.	VICTOR IRAHUEN GARCIA PEREZ, SANDRA ELIZABETH RODIL POSADA, ARGELIA ALMAGUER FLORES,	CHEMISTRY; METALLURGYHUMAN NECESSITIES	2021

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**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	2008-2024
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