



## **OSCAR EDEL CONTRERAS LOPEZ**

### **Datos Generales**

**Nombre:** OSCAR EDEL CONTRERAS LOPEZ

**Máximo nivel de estudios:** DOCTORADO

**Antigüedad académica en la UNAM:** 24 años

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### **Nombramientos**

**Vigente:** INVESTIGADOR TITULAR B TC Definitivo  
Centro de Nanociencias y Nanotecnología en la UNAM  
Desde 01-03-2009

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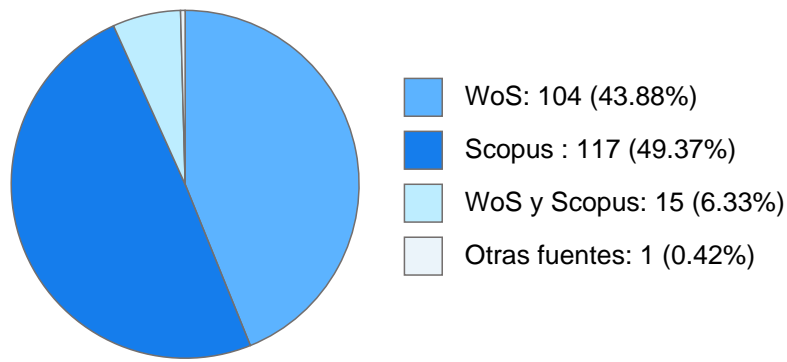
### **Estímulos, programas, premios y reconocimientos**

SNI II 2009 - VIGENTE  
SNI I 2008  
PRIDE C - VIGENTE

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### DOCUMENTOS EN REVISTAS

#### Histórico de Documentos



#	Título	Autores	Revista	Año
1	Exploring Al <sub>2</sub> O <sub>3</sub> blister evolution through cathodoluminescence and attenuated total reflectance infrared analyses	DAVID ALEJANDRO DOMINGUEZ VARGAS OSCAR EDEL CONTRERAS LOPEZ HUGO JESUS TIZNADO VAZQUEZ et al.	JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A	2024
2	A Voltage-Driven Transport Model to Identify Ion Migration as the Rate-Limiting Step in Memristive Switching	OSCAR EDEL CONTRERAS LOPEZ HUGO JESUS TIZNADO VAZQUEZ Vazquez-Arce J.L. et al.	ADVANCED ELECTRONIC MATERIALS	2024
3	Use of Gold Nanoparticles in Indium Gallium Nitride Growth for Improving the Photoactive Electrical Performance of p-n Junctions	OSCAR EDEL CONTRERAS LOPEZ Gerardo Valenzuela-Hernandez Ricardo Rangel et al.	Acs Applied Electronic Materials	2024
4	Stable Oxygen Incorporation in Superconducting TaN: An Experimental and Theoretical Assessment	OSCAR EDEL CONTRERAS LOPEZ ARMANDO REYES SERRATO RODRIGO PONCE PEREZ et al.	Acs Omega	2024
5	Optical Properties of TiO <sub>2</sub> Grown by Atomic Layer Deposition Using Various Oxidizing Agents: The Ellipsometry Analysis of Absorption Properties	OSCAR EDEL CONTRERAS LOPEZ HUGO JESUS TIZNADO VAZQUEZ Vazquez-Arce J.L. et al.	ADVANCED MATERIALS INTERFACES	2024

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6	TiO <sub>2</sub> -x films as a prospective material for slab waveguides prepared by atomic layer deposition	OSCAR EDEL CONTRERAS LOPEZ HUGO JESUS TIZNADO VAZQUEZ Jurado-González J.A. et al.	OPTICS AND LASER TECHNOLOGY	2023
7	Ammonia thermally treated gallium nitride deposited on gold-nucleation sites	OSCAR EDEL CONTRERAS LOPEZ Valenzuela-Hernandez G. Berman-Mendoza D. et al.	CHEMICAL PAPERS	2023
8	Role of Gold Nanoparticles in Gallium Nitride Growth for Potential Plasmonic Device Applications	OSCAR EDEL CONTRERAS LOPEZ Valenzuela-Hernandez G. Rangel R. et al.	Acs Applied Electronic Materials	2023
9	Viability and proliferation of A549 cell line on the surface of micro-, nano- and ultrananocrystalline diamond films grown by HFCVD with tailored gases	OSCAR EDEL CONTRERAS LOPEZ Jorge A. Montes-Gutierrez Armida. A. Gil-Salido et al.	Functional Diamond	2022
10	Thickness effect of Ytria-Stabilized Zirconia as the electrolyte in all-solid-state thin-film supercapacitor with a wide operating temperature range	DAVID ALEJANDRO DOMINGUEZ VARGAS OSCAR EDEL CONTRERAS LOPEZ GERARDO SOTO HERRERA et al.	JOURNAL OF POWER SOURCES	2022
11	Insight into alcohol transformation over binary Al <sub>2</sub> O <sub>3</sub> -Y <sub>2</sub> O <sub>3</sub> mixed oxide nanoparticles	DAVID ALEJANDRO DOMINGUEZ VARGAS OSCAR EDEL CONTRERAS LOPEZ SERGIO FUENTES MOYADO et al.	APPLIED CATALYSIS B-ENVIRONMEN TAL	2022
12	Synthesis of Superconductive TaN Thin Films by Reactive DC Sputtering	OSCAR EDEL CONTRERAS LOPEZ Nieto A. Guzmán M. et al.	JOURNAL OF ELECTRONIC MATERIALS	2022
13	Effect of inert ambient annealing on structural and defect characteristics of coaxial N-CNTs@ZnO nanotubes coated by atomic layer deposition	DAVID ALEJANDRO DOMINGUEZ VARGAS MANUEL HERRERA ZALDIVAR JOSE MANUEL ROMO HERRERA et al.	CERAMICS INTERNATIONAL	2022
14	Understanding the Selectivity of the Oxygen Reduction Reaction at the Atomistic Level on Nitrogen-Doped Graphitic Carbon Materials	HECTOR NOE FERNANDEZ ESCAMILLA JONATHAN GUERRERO SANCHEZ ENRIQUE CONTRERAS BERNABE et al.	ADVANCED ENERGY MATERIALS	2021
15	Optical waveguides fabricated in atomic layer deposited Al <sub>2</sub> O <sub>3</sub> by ultrafast laser ablation	EDER GERMAN LIZARRAGA MEDINA OSCAR EDEL CONTRERAS LOPEZ HUGO JESUS TIZNADO VAZQUEZ et al.	Results In Optics	2021
16	Non-quarter-wave dielectric mirror prepared by thermal atomic layer deposition	HUGO ALEJANDRO BORBON NUÑEZ NOEMI ABUNDIZ CISNEROS ROBERTO MACHORRO MEJIA et al.	OPTICS AND LASER TECHNOLOGY	2020

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17	Al <sub>2</sub> O <sub>3</sub> -Y <sub>2</sub> O <sub>3</sub> nanolaminated slab optical waveguides by atomic layer deposition	EDER GERMAN LIZARRAGA MEDINA OSCAR EDEL CONTRERAS LOPEZ HUGO JESUS TIZNADO VAZQUEZ et al.	OPTICAL MATERIALS	2020
18	Synthesis and characterization of Ni <sub>2</sub> P and MoS <sub>2</sub> on MWCNT as an innovative catalytic material for hydrogen generation	ELIZABETH RAMIREZ MONDRAGON OSCAR EDEL CONTRERAS LOPEZ ULISES JESUS TAMAYO PEREZ et al.	APPLIED SURFACE SCIENCE	2020
19	Highly Efficient Photocatalytic and Antimicrobial AgGaCl Tri-Doped ZnO Nanorods for Water Treatment under Visible Light Irradiation	OSCAR EDEL CONTRERAS LOPEZ Marlene N. Cardoza-Contreras Samuel Sanchez-Serrano	CATALYSTS	2020
20	Modifying nitrogen species of nitrogen-doped carbon nanotubes by thermal annealing to explore their role in the triiodide reduction reaction	DAVID ALEJANDRO DOMINGUEZ VARGAS HUGO ALEJANDRO BORBON NUÑEZ HUGO JESUS TIZNADO VAZQUEZ et al.	Carbon	2020
21	Visible/Near-Infrared Emitting, Garnet-Based Paramagnetic-Persistent Luminescent Nanocrystals for Two-Photon Bioimaging	KARLA OYUKY JUAREZ MORENO OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES et al.	CRYSTAL GROWTH & DESIGN	2020
22	Study of Al <sub>2</sub> O <sub>3</sub> thin films by ALD using H <sub>2</sub> O and O <sub>3</sub> as oxygen source for waveguide applications	EDER GERMAN LIZARRAGA MEDINA HUGO ALEJANDRO BORBON NUÑEZ OSCAR EDEL CONTRERAS LOPEZ et al.	OPTICAL MATERIALS	2020
23	Anodes for Direct Alcohol Fuel Cells Assisted by Plasmon-Accelerated Electrochemical Oxidation Using Gold Nanoparticle-Decorated Bucky papers	RUBEN DARIO CADENA NAVA GABRIEL ALONSO NUÑEZ OSCAR EDEL CONTRERAS LOPEZ et al.	Acs Applied Energy Materials	2020
24	Efficiency enhancement of silicon solar cells by silicon quantum dots embedded in ZnO films as down-shifting coating	OSCAR EDEL CONTRERAS LOPEZ H. J. Higuera-Valenzuela A. Ramos-Carrazco et al.	JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS	2020
25	Gallium nitride thin films by microwave plasma-assisted ALD	OSCAR EDEL CONTRERAS LOPEZ F. Romo-Garcia H. J. Higuera-Valenzuela et al.	OPTICAL MATERIALS EXPRESS	2019
26	Experimental determination of the pyrolysis temperatures of an organometallic complex to obtain Al <sub>x</sub> Ga <sub>1-x</sub> N powders	GUSTAVO ALONSO HIRATA FLORES OSCAR EDEL CONTRERAS LOPEZ Herrera A.M. et al.	JOURNAL OF ALLOYS AND COMPOUNDS	2019

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27	Dual-photosensitizer coupled nanoscintillator capable of producing type I and type II ROS for next generation photodynamic therapy	KANCHAN CHAUHAN KARLA OYUKY JUAREZ MORENO HUGO ALEJANDRO BORBON NUÑEZ et al.	JOURNAL OF COLLOID AND INTERFACE SCIENCE	2019
28	Optoelectronic attenuation behavior of Al <sub>2</sub> O <sub>3</sub> /ZnO nanolaminates grown by Atomic Layer Deposition	HUGO JESUS TIZNADO VAZQUEZ GUSTAVO ALONSO HIRATA FLORES OSCAR EDEL CONTRERAS LOPEZ et al.	Thin Solid Films	2019
29	Synthesis of novel Pd NP-PTH-CNTs hybrid material as catalyst for H <sub>2</sub> O <sub>2</sub> generation	JOSE MANUEL ROMO HERRERA OSCAR EDEL CONTRERAS LOPEZ Reyes-Cruzaley A.P. et al.	ELECTROCHIMICA ACTA	2019
30	Controlling the aspect ratio of Zn(1-x)Eu(x)O nanostructures obtained by a statistical experimental design involving atomic layer deposition and microwave-assisted hydrothermal methods	OSCAR EDEL CONTRERAS LOPEZ J. L. Cervantes-Lopez R. Rangel et al.	APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING	2019
31	N-Doped carbon nanotubes enriched with graphitic nitrogen in a buckypaper configuration as efficient 3D electrodes for oxygen reduction to H <sub>2</sub> O <sub>2</sub>	ENRIQUE CONTRERAS BERNABE DAVID ALEJANDRO DOMINGUEZ VARGAS HUGO JESUS TIZNADO VAZQUEZ et al.	Nanoscale	2019
32	Photocatalytic and Antimicrobial Properties of Ga Doped and Ag Doped ZnO Nanorods for Water Treatment	ABRAHAM MARCELINO VIDAL LIMÓN JOSE MANUEL ROMO HERRERA SERGIO ANDRES AGUILA PUENTES et al.	CATALYSTS	2019
33	Simultaneous paramagnetic and persistence-luminescence in GAGG:Ce,Pr nanoparticles synthesized by sol-gel for biomedical applications	KARLA OYUKY JUAREZ MORENO OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES et al.	JOURNAL OF APPLIED PHYSICS	2019
34	Membranes made of nitrogen-doped CNTs decorated with magnetite NPs for cleaning treated wastewater	ENRIQUE CONTRERAS BERNABE DAVID ALEJANDRO DOMINGUEZ VARGAS HUGO JESUS TIZNADO VAZQUEZ et al.	Abstracts Of Papers Of The American Chemical Society	2019
35	Multiferroic YCrO <sub>3</sub> thin films: Structural, ferroelectric and magnetic properties	JOSE JUAN GERVACIO ARCINIEGA EDUARDO ANTONIO MURILLO BRACAMONTES OSCAR EDEL CONTRERAS LOPEZ et al.	APPLIED SURFACE SCIENCE	2018
36	Covering the optical spectrum through different rare-earth ion-doping of YAG nanospheres produced by rapid microwave synthesis	ALEJANDRO CESAR DURAN HERNANDEZ OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES et al.	CERAMICS INTERNATIONAL	2018

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37	Enhanced Degradation of Pesticide Dichlorophen by Laccase Immobilized on Nanoporous Materials: A Cytotoxic and Molecular Simulation Investigation	OSCAR EDEL CONTRERAS LOPEZ SERGIO ANDRES AGUILA PUENTES ABRAHAM MARCELINO VIDAL LIMÓN et al.	BIOCONJUGATE CHEMISTRY	2018
38	Magnetic-luminescent cerium-doped gadolinium aluminum garnet nanoparticles for simultaneous imaging and photodynamic therapy of cancer cells	OSCAR EDEL CONTRERAS LOPEZ PATRICIA JUAREZ CAMACHO GUSTAVO ALONSO HIRATA FLORES et al.	JOURNAL OF COLLOID AND INTERFACE SCIENCE	2018
39	Novel two-stage method for the synthesis of silicon quantum dots embedded on ZnO matrix	OSCAR EDEL CONTRERAS LOPEZ Higuera-Valenzuela H.J. Romo-García F. et al.	MATERIALS LETTERS	2018
40	Gold nanoparticles synthesis assisted by marine algae extract: Biomolecules shells from a green chemistry approach	JOSE MANUEL ROMO HERRERA OSCAR EDEL CONTRERAS LOPEZ Colin J.A. et al.	CHEMICAL PHYSICS LETTERS	2018
41	Novel bifunctional Nd:YAG/Fe <sub>3</sub> O <sub>4</sub> nanocomposite as nanothermometer/nanoheater for potential biomedical applications	OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES E. M. Tejeda et al.	JOURNAL OF PHYSICS D-APPLIED PHYSICS	2018
42	Blue light triggered generation of reactive oxygen species from silica coated Gd <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> :Ce <sup>3+</sup> nanoparticles loaded with rose Bengal	OSCAR EDEL CONTRERAS LOPEZ PATRICIA JUAREZ CAMACHO GUSTAVO ALONSO HIRATA FLORES et al.	Data in Brief	2018
43	Low-temperature ozone treatment for carbon nanotube template removal: improving the template-based ALD method	DAVID ALEJANDRO DOMINGUEZ VARGAS JOSE MANUEL ROMO HERRERA OSCAR EDEL CONTRERAS LOPEZ et al.	JOURNAL OF NANOPARTICLE RESEARCH	2018
44	Synthesis and characterization of BGO with different chelating compounds by the polymeric precursor method, and their effect on luminescence properties	OSCAR EDEL CONTRERAS LOPEZ SERGIO ANDRES AGUILA PUENTES ABRAHAM MARCELINO VIDAL LIMÓN et al.	CERAMICS INTERNATIONAL	2018
45	A study of the depth and size of concave cube Au nanoparticles as highly sensitive SERS probes (vol 8, pg 7326, 2016)	JOSE MANUEL ROMO HERRERA GABRIEL ALONSO NUÑEZ OSCAR EDEL CONTRERAS LOPEZ et al.	Nanoscale	2017
46	Electron transfer pathways analysis of oxygen tolerant [NiFe]-hydrogenases for hydrogen production: A quantum mechanics/molecular mechanics - statistical coupled analysis	OSCAR EDEL CONTRERAS LOPEZ SERGIO ANDRES AGUILA PUENTES ABRAHAM MARCELINO VIDAL LIMÓN et al.	INTERNATIONAL JOURNAL OF HYDROGEN ENERGY	2017
47	Indium-doped ZnO nanorods grown on Si (111) using a hybrid ALD-solvothermal method	HUGO JESUS TIZNADO VAZQUEZ OSCAR EDEL CONTRERAS LOPEZ Cervantes-Lopez, J. L. et al.	MATERIALS RESEARCH EXPRESS	2017



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48	Photoluminescence on cerium-doped ZnO nanorods produced under sequential atomic layer deposition-hydrothermal processes	OSCAR EDEL CONTRERAS LOPEZ Cervantes-Lopez, J. L. Rangel, R. et al.	APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING	2017
49	Micro-Structures of Nanodiamonds Grown on Silicon by Hot Filament Chemical Vapor Deposition	OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES J. A. Montes-Gutierrez et al.	INTERNATIONAL JOURNAL OF CHEMICAL REACTOR ENGINEERING	2017
50	Termination of hollow core nanopipes in GaN by an AlN interlayer	OSCAR EDEL CONTRERAS LOPEZ MIGUEL AVALOS BORJA Ruiz-Zepeda, F. et al.	JOURNAL OF CRYSTAL GROWTH	2016
51	Cu <sub>3</sub> TaSe <sub>4</sub> and Cu <sub>3</sub> NbSe <sub>4</sub> : X-ray diffraction, differential thermal analysis, optical absorption and Raman scattering	OSCAR EDEL CONTRERAS LOPEZ Grima-Gallardo P. Salas M. et al.	JOURNAL OF ALLOYS AND COMPOUNDS	2016
52	A study of the depth and size of concave cube Au nanoparticles as highly sensitive SERS probes	JOSE MANUEL ROMO HERRERA GABRIEL ALONSO NUÑEZ OSCAR EDEL CONTRERAS LOPEZ et al.	Nanoscale	2016
53	Magnetite Nanoparticles Functionalized with Vitamin E analogues: Anticancer Effects	OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES Angulo-Molina, A. et al.	INTERNATIONAL CONFERENCES & EXHIBITION ON NANOTECHNOLOGIES, ORGANIC ELECTRONICS & NANOMEDICINE, NANOTECHNOLOGY 2020, PT 1	2016
54	New Bismuth Germanate Oxide Nanoparticle Material for Biolabel Applications in Medicine	OSCAR EDEL CONTRERAS LOPEZ YVONNE JANE ROSENSTEIN AZOULAY RAFAEL VAZQUEZ DUHALT et al.	JOURNAL OF NANOMATERIALS	2016
55	Synthesis and Upconversion Luminescence of Nanoparticles Y <sub>2</sub> O <sub>3</sub> and Gd <sub>2</sub> O <sub>3</sub> Co-doped with Yb <sup>3+</sup> and Er <sup>3+</sup>	OSCAR EDEL CONTRERAS LOPEZ Chavez, Dalía H. Hirata, Gustavo A.	Ferromagnetic Resonance, Theory And Applications	2016
56	Photoluminescence enhancement from GaN by beryllium doping	GUSTAVO ALONSO HIRATA FLORES OSCAR EDEL CONTRERAS LOPEZ García-Gutierrez, R. et al.	OPTICAL MATERIALS	2016
57	UV dosimeters based on Metal-Oxide-Semiconductor structures containing Si nanocrystals	OSCAR EDEL CONTRERAS LOPEZ OSCAR RAYMOND HERRERA JESUS MARIA SIQUEIROS BELTRONES et al.	SENSOR LETTERS	2015

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58	Advantages of hydrothermal synthesis to produce tunable TiO <sub>2</sub> nanomicro sized photocatalysts and their effect in lignin degradation	PATRICIA QUINTANA OWEN OSCAR EDEL CONTRERAS LOPEZ Rangel, R. et al.	Nano	2015
59	Structural, compositional and electrical characterization of Si-rich SiO <sub>x</sub> layers suitable for application in light sensors	WENCEL JOSE DE LA CRUZ HERNANDEZ OSCAR EDEL CONTRERAS LOPEZ Herrera, R. et al.	MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING	2015
60	The control of thickness on aluminum oxide nanotubes by Atomic Layer Deposition using carbon nanotubes as removable templates	Franklin MunozMunoz GERARDO SOTO HERRERA DAVID ALEJANDRO DOMINGUEZ VARGAS et al.	POWDER TECHNOLOGY	2015
61	A biosensor based on Corioloipsis gallica laccase immobilized on nitrogen-doped multiwalled carbon nanotubes and graphene oxide for polyphenol detection	SERGIO ANDRES AGUILA PUENTES David Shimomoto Francsisco Ipinza et al.	SCIENCE AND TECHNOLOGY OF ADVANCED MATERIALS	2015
62	Insulating carbon nanotubes by atomic layer deposition for electrical wiring purposes	JOSE MANUEL ROMO HERRERA OSCAR EDEL CONTRERAS LOPEZ DAVID ALEJANDRO DOMINGUEZ VARGAS et al.	JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY	2015
63	Single ZnO Nanowire-Based gas sensors to detect low concentrations of hydrogen	Marlene N. CardozaContreras JOSE MANUEL ROMO HERRERA TRINO ARMANDO ZEPEDA PARTIDA et al.	SENSORS	2015
64	Magnetite nanoparticles functionalized with $\alpha$ -tocopheryl succinate ( $\alpha$ -TOS) promote selective cervical cancer cell death	OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES Angulo-Molina, Aracely et al.	JOURNAL OF NANOPARTICLE RESEARCH	2014
65	Synthesis and characterization of highly luminescent beryllium nitride	OSCAR EDEL CONTRERAS LOPEZ Garcia-Gutierrez, R. Barboza-Flores, M. et al.	MATERIALS LETTERS	2014
66	Synthesis and characterization of LiNbO <sub>3</sub> nanocrystals prepared by the aerosol assisted chemical vapor deposition method	M. N. Cardoza OSCAR EDEL CONTRERAS LOPEZ Ocon, J. A. et al.	JOURNAL OF CRYSTAL GROWTH	2014
67	Effect of Au/SiO <sub>2</sub> substrate on the structural and optical properties of gallium nitride grown by CVD	OSCAR EDEL CONTRERAS LOPEZ Ramos-Carrazco, A. Garci-Gutierrez, R. et al.	BULLETIN OF MATERIALS SCIENCE	2014
68	Pulsed-bed atomic layer deposition setup for powder coating	HUGO JESUS TIZNADO VAZQUEZ DAVID ALEJANDRO DOMINGUEZ VARGAS F. Munoz Munoz et al.	POWDER TECHNOLOGY	2014



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69	MOS structures containing Si nanocrystals for applications in UV dosimeters	OSCAR EDEL CONTRERAS LOPEZ JESUS MARIA SIQUEIROS BELTRONES Arias A. et al.	Key Engineering Materials	2014
70	Electrical characterization of interface defects in MOS structures containing silicon nanoclusters	OSCAR EDEL CONTRERAS LOPEZ OSCAR RAYMOND HERRERA JESUS MARIA SIQUEIROS BELTRONES et al.	Advanced Materials Research	2014
71	Electrical characterization of MOS structures with silicon nanocrystals suitable for X-ray detection	OSCAR EDEL CONTRERAS LOPEZ JESUS MARIA SIQUEIROS BELTRONES Mateos D. et al.	Key Engineering Materials	2013
72	TEM and spectroscopic ellipsometry studies of multilayer gate dielectrics containing crystalline and amorphous Si nanoclusters	D. Mateos M. A. Curiel ROBERTO MACHORRO MEJIA et al.	PHYSICA E-LOW-DIMENSI ONAL SYSTEMS & NANOSTRUCTUR ES	2013
73	Quantum efficiency of silica-coated rare-earth doped yttrium silicate	OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES Cervantes-Vasquez, D.	JOURNAL OF LUMINESCENCE	2013
74	Effect of Sn precursor on the synthesis of SnO <sub>2</sub> and Sb-doped SnO <sub>2</sub> particles via polymeric precursor method	OSCAR EDEL CONTRERAS LOPEZ Lopez Morales, Francisco Zayas, Teresa et al.	FRONTIERS OF MATERIALS SCIENCE	2013
75	N-methylpyrrolidine-based precursors for chemical vapor deposition of GaN <sub>x</sub> particles	OSCAR EDEL CONTRERAS LOPEZ Arízaga G.G.C. Reynoso-Soto E.A.	JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS	2012
76	Photo- and radioluminescence characteristics of bismuth germanate nanoparticles by sol-gel and pressure-assisted combustion synthesis	OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES Oviedo, M. J. et al.	OPTICAL MATERIALS	2012
77	Photoluminescence of Europium-Activated Hydroxyapatite Nanoparticles in Body Fluids	OSCAR EDEL CONTRERAS LOPEZ RAFAEL VAZQUEZ DUHALT GUSTAVO ALONSO HIRATA FLORES et al.	SCIENCE OF ADVANCED MATERIALS	2012
78	Electrical properties of polycrystalline GaN films functionalized with cysteine and stabilization of GaN nanoparticles in aqueous media	OSCAR EDEL CONTRERAS LOPEZ Carbajal Arizaga, Gregorio Guadalupe Oviedo, Mariana J.	COLLOIDS AND SURFACES B-BIOINTERFACE S	2012
79	Synthesis of Cu and Co metal oxide nanoparticles from thermal decomposition of tartrate complexes	GUSTAVO ALONSO HIRATA FLORES OSCAR EDEL CONTRERAS LOPEZ Palacios-Hernandez, Teresa et al.	INORGANICA CHIMICA ACTA	2012
80	Luminescence and Structure of ZnO Grown by Physical Vapor Deposition	OSCAR EDEL CONTRERAS LOPEZ García-Gutierrez, R. Barboza-Flores, M. et al.	ADVANCES IN MATERIALS SCIENCE AND ENGINEERING	2012

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81	Photoluminescence of bismuth germanate phosphors with a silica-shell structure	MARIANA OVIEDO PACHECO OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES et al.	Physics Procedia	2012
82	Influence of reaction conditions on the growth of GaN rods in an ammono-CVD reactor	Gregorio Guadalupe Carbajal Arizaga GERARDO SOTO HERRERA OSCAR EDEL CONTRERAS LOPEZ et al.	JOURNAL OF CRYSTAL GROWTH	2011
83	Structural and optical characterization of InxGal-xN nano-structured grown by chemical vapor deposition	OSCAR EDEL CONTRERAS LOPEZ Ramos-Carrazco, A. Chaikina, E. et al.	REVISTA MEXICANA DE FISICA	2011
84	Preparation of a Ag/SiO <sub>2</sub> nanocomposite using a fluidized bed microwave plasma reactor, and its hydrodesulphurization and Escherichia coli bactericidal activities	GERARDO SOTO HERRERA HUGO JESUS TIZNADO VAZQUEZ OSCAR EDEL CONTRERAS LOPEZ et al.	POWDER TECHNOLOGY	2011
85	Microstructure of gallium nitride films grown on silicon (110)	F. Ruiz Zepeda OSCAR EDEL CONTRERAS LOPEZ Dadgar, A. et al.	APPLIED PHYSICS LETTERS	2010
86	Reversible intercalation of ammonia molecules into a layered double hydroxide structure without exchanging nitrate counter-ions	Gregorio Guadalupe Carbajal Arizaga FELIPE FRANCISCO CASTILLON BARRAZA OSCAR EDEL CONTRERAS LOPEZ et al.	JOURNAL OF SOLID STATE CHEMISTRY	2010
87	GaN growth on silane exposed AlN seed layers	OSCAR EDEL CONTRERAS LOPEZ Ruiz-Zepeda F. Dadgar A. et al.	Physica Status Solidi C-Current Topics in Solid State Physics	2008
88	Atomic arrangement at the AlN/Si(110) interface	OSCAR EDEL CONTRERAS LOPEZ Ruiz-Zepeda, Francisco Dadgar, Armin et al.	APPL PHYS EXPRESS	2008
89	Estudio estructural del AgIn(Se,Te) <sub>2</sub> a alta presión	OSCAR EDEL CONTRERAS LOPEZ De Sihues M.D. Parra Z. et al.	REVISTA MEXICANA DE FISICA	2007
90	A computational model for the hot-filament chemical vapour deposition process to produce diamond films	OSCAR EDEL CONTRERAS LOPEZ FELIPE FRANCISCO CASTILLON BARRAZA Olivas-Martínez M. et al.	MODELLING AND SIMULATION IN MATERIALS SCIENCE AND ENGINEERING	2007
91	Al <sub>x</sub> Ga <sub>1-x</sub> N (0=x=1) nanocrystalline powder by pyrolysis route	OSCAR EDEL CONTRERAS LOPEZ Garcia R. Srinivasan S. et al.	JOURNAL OF CRYSTAL GROWTH	2007

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92	Multi-wavelength images detector for micro-cathodoluminescence analysis	ISRAEL GRADILLA MARTINEZ ROBERTO MACHORRO MEJIA MIGUEL AVALOS BORJA et al.	REVISTA MEXICANA DE FISICA	2006
93	A study on the flexibility of the hot-filament configuration and its implementation for diamond, boron carbide and ternary alloys deposition	GERARDO SOTO HERRERA OSCAR EDEL CONTRERAS LOPEZ Silva G.	SURFACE & COATINGS TECHNOLOGY	2006
94	Cobalt nitride films produced by reactive pulsed laser deposition	WENCEL JOSE DE LA CRUZ HERNANDEZ OSCAR EDEL CONTRERAS LOPEZ GERARDO SOTO HERRERA et al.	REVISTA MEXICANA DE FISICA	2006
95	Quantum dots of Cd <sub>0.5</sub> Mn <sub>0.5</sub> Te semimagnetic semiconductor formed by the cold isostatic pressure method	OSCAR EDEL CONTRERAS LOPEZ Power Ch. Quintero M. et al.	JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS	2005
96	Effect of fluoride on mechanical properties of teeth demineralized by use of orthodontic appliances	OSCAR EDEL CONTRERAS LOPEZ ENRIQUE CUAUHEMOC SAMANO TIRADO Centeno C. et al.	Materials Research Society Symposium Proceedings	2005
97	II-VI and III-xMnxVI semiconductor nanocrystals formed by the pressure cycle method	OSCAR EDEL CONTRERAS LOPEZ González J. Power Ch. et al.	HIGH PRESSURE RESEARCH	2005
98	Effect of fluoride on mechanical properties of teeth demineralized by use of orthodontic appliances	OSCAR EDEL CONTRERAS LOPEZ ENRIQUE CUAUHEMOC SAMANO TIRADO Centeno C. et al.	Materials Research Society Symposium Proceedings	2005
99	Metalorganic chemical vapor phase epitaxy of gallium-nitride on silicon	OSCAR EDEL CONTRERAS LOPEZ Dadgar A. Strittmatter A. et al.	Physica Status Solidi C: Conferences	2003
100	Índice de refracción del semiconductor TIGaS <sub>2</sub> y su dependencia con la presión	OSCAR EDEL CONTRERAS LOPEZ Power Ch. González J. et al.	REVISTA MEXICANA DE FISICA	2003
101	Gallium-nitride-based devices on silicon	OSCAR EDEL CONTRERAS LOPEZ Dadgar A. Poschenrieder M. et al.	Physica Status Solidi C: Conferences	2003
102	MOVPE growth of GaN on Si(111) substrates	OSCAR EDEL CONTRERAS LOPEZ Dadgar A. Poschenrieder M. et al.	JOURNAL OF CRYSTAL GROWTH	2003
103	Dislocation annihilation by silicon delta-doping in GaN epitaxy on Si	OSCAR EDEL CONTRERAS LOPEZ Ponce F.A. Christen J. et al.	APPLIED PHYSICS LETTERS	2002

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104	Epitaxial $\alpha$ -Be <sub>3</sub> N <sub>2</sub> thin films grown on Si substrates by reactive laser ablation	GERARDO SOTO HERRERA JESUS ANTONIO DIAZ HERNANDEZ WENCEL JOSE DE LA CRUZ HERNANDEZ et al.	MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS	2002
105	Bright, crack-free InGaN/GaN light emitters on Si(111)	OSCAR EDEL CONTRERAS LOPEZ Dadgar A. Poschenrieder M. et al.	PHYS STATUS SOLIDI A	2002
106	Luminescence properties of charged dislocations in semi-insulating GaN:Zn	OSCAR EDEL CONTRERAS LOPEZ Srinivasan S. Cai J. et al.	Physica Status Solidi C: Conferences	2002
107	Microstructural properties of Eu-doped GaN luminescent powders	OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES Srinivasan S. et al.	APPLIED PHYSICS LETTERS	2002
108	A New Combustion Synthesis Method for GaN:Eu <sup>3+</sup> and Ga <sub>2</sub> O <sub>3</sub> :Eu <sup>3+</sup> Luminescent Powders	GUSTAVO ALONSO HIRATA FLORES OSCAR EDEL CONTRERAS LOPEZ Ramos F. et al.	PHYS STATUS SOLIDI A	2001
109	Pb(Mg <sub>1/3</sub> Nb <sub>2/3</sub> ) <sub>0.97</sub> Ti <sub>0.03</sub> O <sub>3</sub> ferroelectric thin films, deposited by laser ablation on TiN bottom electrodes	OSCAR EDEL CONTRERAS LOPEZ JESUS MARIA SIQUEIROS BELTRONES Fundora A. et al.	J ELECTROCERAM	2001
110	Interface analysis of CVD diamond on TiN surfaces	OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES MIGUEL AVALOS BORJA	APPLIED SURFACE SCIENCE	2000
111	Formation of two layers in Pr(1-x)Ca(x)Ba <sub>2</sub> Cu <sub>3</sub> O(7-y) (0 = x = 0.5) thin films deposited at different temperatures	JESUS ANTONIO DIAZ HERNANDEZ OSCAR EDEL CONTRERAS LOPEZ JESUS MARIA SIQUEIROS BELTRONES	INTERNATIONAL JOURNAL OF MODERN PHYSICS B	2000
112	Influence of the substrate temperature on the structure of SrBi <sub>2</sub> Ta <sub>2</sub> O <sub>9</sub> thin films obtained by laser ablation	JESUS ANTONIO DIAZ HERNANDEZ OSCAR EDEL CONTRERAS LOPEZ JESUS MARIA SIQUEIROS BELTRONES et al.	Materials Research Society Symposium Proceedings	1999
113	EELS characterization of TiN grown by the DC sputtering technique	OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES MIGUEL AVALOS BORJA et al.	JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA	1999
114	PEELS and EXELFS characterization of diamond films grown by the HF-CVD technique on non-scratched Si substrates	OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES MIGUEL AVALOS BORJA et al.	Thin Solid Films	1997

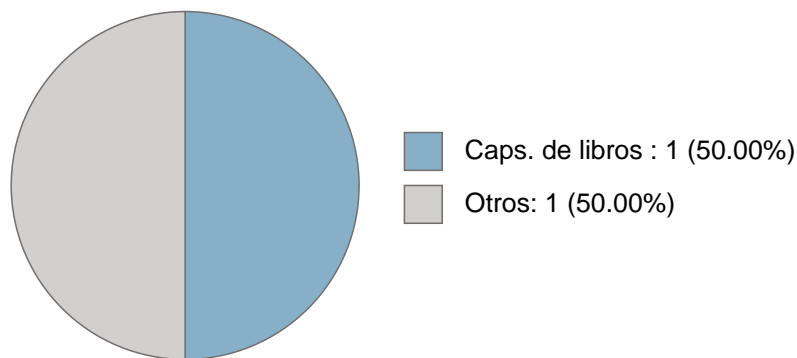
**OSCAR EDEL CONTRERAS LOPEZ**

115	TEM and PEELS characterization of diamond films grown on Si substrates	MIGUEL AVALOS BORJA GUSTAVO ALONSO HIRATA FLORES OSCAR EDEL CONTRERAS LOPEZ et al.	DIAMOND AND RELATED MATERIALS	1996
116	High transmittance-low resistivity ZnO:Ga films by laser ablation	GUSTAVO ALONSO HIRATA FLORES JESUS MARIA SIQUEIROS BELTRONES OSCAR EDEL CONTRERAS LOPEZ et al.	JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A	1996
117	Low resistivity-highly transparent ZnO:Ga TCO's grown by laser ablation	JESUS MARIA SIQUEIROS BELTRONES JESUS ANTONIO DIAZ HERNANDEZ OSCAR EDEL CONTRERAS LOPEZ et al.	Materials Research Society Symposium Proceedings	1996
118	Synthesis and optoelectronic characterization of gallium doped zinc oxide transparent electrodes	GUSTAVO ALONSO HIRATA FLORES JESUS MARIA SIQUEIROS BELTRONES JESUS ANTONIO DIAZ HERNANDEZ et al.	Thin Solid Films	1996
119	Diamond films grown on p-type microcrystalline-SiC:H/crystalline-Si substrates	GUSTAVO ALONSO HIRATA FLORES LEONEL SUSANO COTA ARAIZA MARIO HUMBERTO FARIAS SANCHEZ et al.	DIAMOND AND RELATED MATERIALS	1994
120	Nucleation and growth of diamond films on mu c-SiC/x-Si by hot-filament CVD	GUSTAVO ALONSO HIRATA FLORES LEONEL SUSANO COTA ARAIZA OSCAR EDEL CONTRERAS LOPEZ et al.	JOURNAL OF PHYSICS-CONDENSED MATTER	1993

**OSCAR EDEL CONTRERAS LOPEZ**

**LIBROS Y CAPITULOS CON ISBN**

**Obras con registro ISBN**



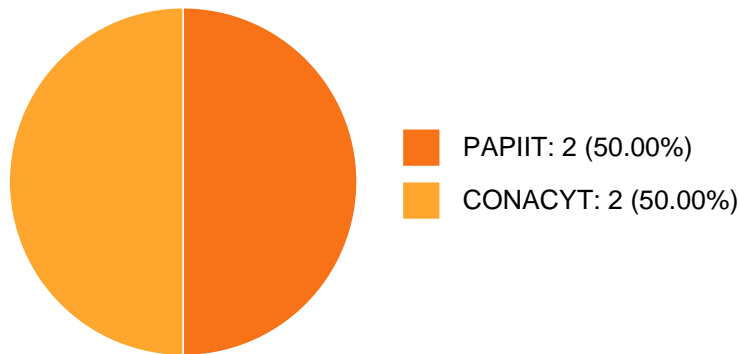
#	Título	Autores	Alcance	Año	ISBN
1	¿Que es un biomarcador ?	OSCAR EDEL CONTRERAS LOPEZ GUSTAVO ALONSO HIRATA FLORES	Capítulo de un Libro	2016	9786070281440
2	Metal-oxide-semiconductor structures with two and three-region gate dielectric containing silicon nanocrystals: Structural, infrared and electrical properties	OSCAR EDEL CONTRERAS LOPEZ OSCAR RAYMOND HERRERA JESUS MARIA SIQUEIROS BELTRONES et al.	Conferencia y Paper	2013	9781482205817



**OSCAR EDEL CONTRERAS LOPEZ**

**PARTICIPACIÓN EN PROYECTOS**

**Histórico de participación en proyectos**

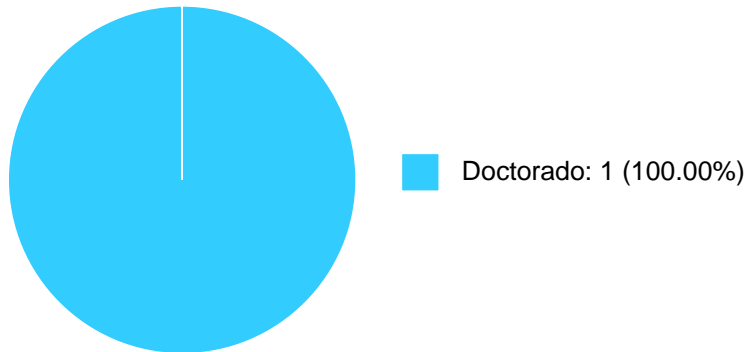


#	Nombre	Participantes	Fuente	Fecha inicio	Fecha fin
1	Capacitación, desarrollo e innovación tecnológica en nanomateriales y fabricación de microdispositivos.	OSCAR EDEL CONTRERAS LOPEZ	Recursos CONACYT, Otras Universidades, Centros o Institutos Nacionales	10-07-2017	10-03-2021
2	Guías de onda ópticas de nanolaminados por depósito de capa atómica.	OSCAR EDEL CONTRERAS LOPEZ	Recursos PAPIIT	01-01-2019	31-12-2021
3	Capacitación, desarrollo e innovación tecnológica en nanomateriales y fabricación de micro y nanodispositivos (NANOFAB).	OSCAR EDEL CONTRERAS LOPEZ	Recursos CONACYT	11-08-2017	13-12-2022
4	Filtros ópticos basados en nanolaminados por depósito de capa atómica	OSCAR EDEL CONTRERAS LOPEZ	Recursos PAPIIT	01-01-2023	31-12-2025

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**PARTICIPACIÓN EN TESIS**

**Histórico de Colaboraciones en Tesis**

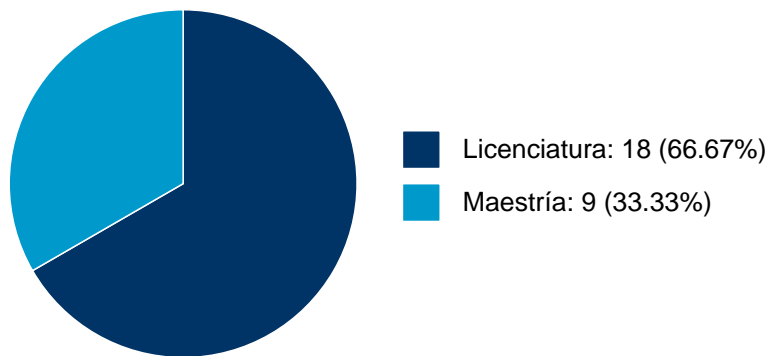


#	Título del documento	Tipo de Tesis	Sinodales	Autores	Entidad	Año
1	Sensores de gas con microvarillas semiconductoras	Tesis de Doctorado	OSCAR EDEL CONTRERAS LOPEZ,	Cardoza Contreras, Marlene Nohemí,	Centro de Nanociencias y Nanotecnología en la UNAM,	2016

## OSCAR EDEL CONTRERAS LOPEZ

### DOCENCIA IMPARTIDA

#### Histórico de docencia



#	Nivel titulación	Asignatura	Entidad	Alumnos	Semestre
1	Licenciatura	TEM.SEL.ING.NANOTEC.Y SOCIEDAD II	Centro de Nanociencias y Nanotecnología en la UNAM	23	2024-2
2	Licenciatura	TEM.SEL.ING.NANOTEC.Y SOCIEDAD I	Centro de Nanociencias y Nanotecnología en la UNAM	23	2024-1
3	Maestría	FUNDAMENTOS DE MATEMÁTICAS PARA MATERIALES	Instituto de Investigaciones en Materiales	1	2020-1
4	Maestría	FUNDAMENTOS DE MATEMÁTICAS PARA MATERIALES	Instituto de Investigaciones en Materiales	1	2019-2
5	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS II	Centro de Nanociencias y Nanotecnología en la UNAM	5	2019-1
6	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS II	Centro de Nanociencias y Nanotecnología en la UNAM	4	2019-1
7	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS II	Centro de Nanociencias y Nanotecnología en la UNAM	4	2019-1

**OSCAR EDEL CONTRERAS LOPEZ**

8	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS II	Centro de Nanociencias y Nanotecnología en la UNAM	5	2019-1
9	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS I	Centro de Nanociencias y Nanotecnología en la UNAM	5	2018-2
10	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS II	Centro de Nanociencias y Nanotecnología en la UNAM	7	2018-1
11	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS I	Centro de Nanociencias y Nanotecnología en la UNAM	7	2017-2
12	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS II	Centro de Nanociencias y Nanotecnología en la UNAM	9	2017-1
13	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS II	Centro de Nanociencias y Nanotecnología en la UNAM	4	2017-1
14	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS II	Centro de Nanociencias y Nanotecnología en la UNAM	7	2017-1
15	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS II	Centro de Nanociencias y Nanotecnología en la UNAM	8	2017-1
16	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS I-335968	Centro de Nanociencias y Nanotecnología en la UNAM	9	2016-2
17	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS I-335969	Centro de Nanociencias y Nanotecnología en la UNAM	7	2016-2
18	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS I	Centro de Nanociencias y Nanotecnología en la UNAM	5	2015-2
19	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS II	Centro de Nanociencias y Nanotecnología en la UNAM	9	2015-1
20	Licenciatura	MICROSCOPIAS Y ESPECTROSCOPIAS I	Centro de Nanociencias y Nanotecnología en la UNAM	10	2014-2
21	Maestría	DIFRACCION	Instituto de Investigaciones en Materiales	1	2014-1

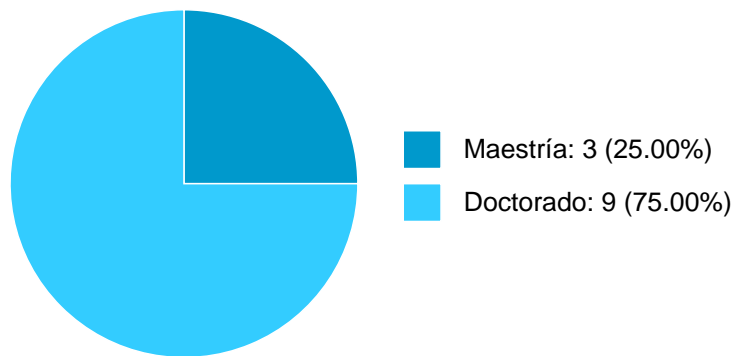
**OSCAR EDEL CONTRERAS LOPEZ**

22	Maestría	MATEMATICAS APLICADAS A MATERIALES	Instituto de Investigaciones en Materiales	1	2012-2
23	Maestría	MATEMATICAS APLICADAS A MATERIALES	Instituto de Investigaciones en Materiales	2	2012-1
24	Maestría	FUNDAMENTOS DE MATEMATICAS PARA MATERIALES	Instituto de Investigaciones en Materiales	1	2011-2
25	Maestría	DISPOSITIVOS ELECTRONICOS	Instituto de Investigaciones en Materiales	2	2011-1
26	Maestría	FUNDAMENTOS DE MATEMATICAS PARA MATERIALES	Instituto de Investigaciones en Materiales	2	2009-2
27	Maestría	FUNDAMENTOS DE MATEMATICAS PARA MATERIALES	Instituto de Investigaciones en Materiales	9	2008-2

**OSCAR EDEL CONTRERAS LOPEZ**

**TUTORIAS EN POSGRADO**

**Histórico de tutorías en posgrado**



#	Entidad	Nivel	Plan de estudios	Año	Semestre
1	Instituto de Investigaciones en Materiales	Doctorado	Doctorado en Ciencias e Ingeniería de Materiales	2014	2014-2
2	Instituto de Investigaciones en Materiales	Doctorado	Doctorado en Ciencias e Ingeniería de Materiales	2013	2013-2
3	Instituto de Investigaciones en Materiales	Doctorado	Doctorado en Ciencias e Ingeniería de Materiales	2013	2014-1
4	Instituto de Investigaciones en Materiales	Doctorado	Doctorado en Ciencias e Ingeniería de Materiales	2012	2012-2
5	Instituto de Investigaciones en Materiales	Doctorado	Doctorado en Ciencias e Ingeniería de Materiales	2012	2013-1
6	Instituto de Investigaciones en Materiales	Doctorado	Doctorado en Ciencias e Ingeniería de Materiales	2011	2011-2
7	Instituto de Investigaciones en Materiales	Doctorado	Doctorado en Ciencias e Ingeniería de Materiales	2011	2012-1



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8	Instituto de Investigaciones en Materiales	Doctorado	Doctorado en Ciencias e Ingeniería de Materiales	2010	2010-2
9	Instituto de Investigaciones en Materiales	Doctorado	Doctorado en Ciencias e Ingeniería de Materiales	2010	2011-1
10	Instituto de Investigaciones en Materiales	Maestría	Maestría en Ciencias e Ingeniería de Materiales	2009	2009-2
11	Instituto de Investigaciones en Materiales	Maestría	Maestría en Ciencias e Ingeniería de Materiales	2008	2008-2
12	Instituto de Investigaciones en Materiales	Maestría	Maestría en Ciencias e Ingeniería de Materiales	2008	2009-1



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



**OSCAR EDEL CONTRERAS LOPEZ**

**PATENTES**

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

**OSCAR EDEL CONTRERAS LOPEZ**

**OSCAR EDEL CONTRERAS LOPEZ**

**FUENTES DE INFORMACIÓN**

**Internos**

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

**Externos**

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