



## HUGO JESUS TIZNADO VAZQUEZ

### Datos Generales

**Nombre:** HUGO JESUS TIZNADO VAZQUEZ

**Máximo nivel de estudios:** DOCTORADO

**Antigüedad académica en la UNAM:** 16 años

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### Nombramientos

**Vigente:** INVESTIGADOR TITULAR B TC Definitivo  
Centro de Nanociencias y Nanotecnología en la UNAM  
Desde 16-08-2022

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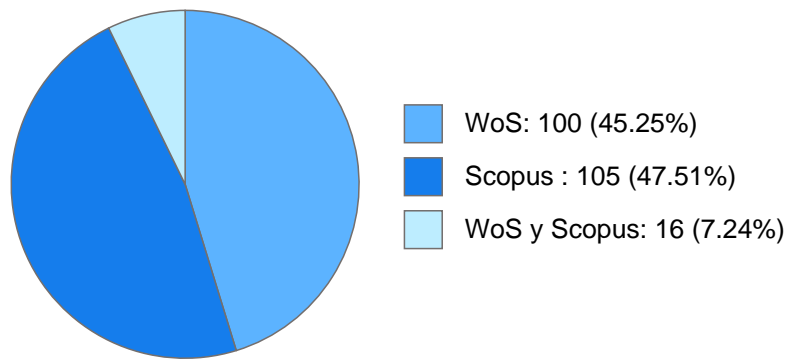
### Estímulos, programas, premios y reconocimientos

SNI II 2015 - VIGENTE  
SNI I 2009 - 2014  
PRIDE C 2012 - VIGENTE  
PRIDE B 2009 - 2012

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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 | Exploring the Bifunctionality of YSZ Thin Films in MOS Structures: Bridging the Gap between RRAM and Super-Pseudocapacitor Technologies                  | GERARDO SOTO HERRERA HUGO JESUS TIZNADO VAZQUEZ Arturo Romo                                   | Acs Applied Electronic Materials         | 2024 |
| 4 | Multilayered Ru/TiO <sub>2</sub> hyperbolic material for nonlinear optics  | HUGO JESUS TIZNADO VAZQUEZ Araiza-Sixtos F.A. Solorio-Soto F. et al.                          | Optical Materials: X                     | 2024 |
| 5 | Structural, optical, and electrical characterization of TiO <sub>2</sub> -doped yttria-stabilized zirconia electrolytes grown by atomic layer deposition | GERARDO SOTO HERRERA HUGO JESUS TIZNADO VAZQUEZ Vazquez J.L. et al.                           | APL MATERIALS                            | 2024 |

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| 6  | Silicon nanocrystal slab optical waveguide by multi-energy ion implantation: Linear and nonlinear optical properties  | EDER GERMAN LIZARRAGA MEDINA<br>BONIFACIO ALEJANDRO CAN UC<br>ALICIA MARIA OLIVER Y GUTIERREZ et al.    | OPTICS<br>COMMUNICATIO<br>NS                           | 2024 |
| 7  | XRD as an Alternative Technique for Cation Distribution Characterization of $MFe_{2-x}O_{4-x}$ Magnetic Nanoparticles   | ANA KARINA CUENTAS GALLEGOS<br>DAVID ALEJANDRO DOMINGUEZ<br>VARGAS HUGO JESUS TIZNADO<br>VAZQUEZ et al. | Journal of<br>Nanotechnolog<br>y                       | 2024 |
| 8  | Understanding the role of carboxylic acid surfactants in the growth inhibition effect during area-selective atomic layer deposition: the case of ZnO growth on Cu and $Cu_2O$ | RODRIGO PONCE PEREZ HUGO JESUS<br>TIZNADO VAZQUEZ JONATHAN<br>GUERRERO SANCHEZ et al.                   | PHYSICAL<br>CHEMISTRY<br>CHEMICAL<br>PHYSICS           | 2024 |
| 9  | Optical Properties of $TiO_2$ Grown by Atomic Layer Deposition Using Various Oxidizing Agents: The Ellipsometry Analysis of Absorption Properties                             | OSCAR EDEL CONTRERAS LOPEZ<br>HUGO JESUS TIZNADO VAZQUEZ<br>Vazquez-Arce J.L. et al.                    | ADVANCED<br>MATERIALS<br>INTERFACES                    | 2024 |
| 10 | Ultrathin nanocapacitor assembled via atomic layer deposition   | JAVIER ALONSO LOPEZ MEDINA<br>MARIO HUMBERTO FARIAS SANCHEZ<br>HUGO JESUS TIZNADO VAZQUEZ et al.        | Nanotechnolog<br>y                                     | 2024 |
| 11 | Maximizing Ru-YSZ-Au battery capacity using an interfacial Ru:YSZ intermixed layer  | DAVID ALEJANDRO DOMINGUEZ<br>VARGAS HUGO JESUS TIZNADO<br>VAZQUEZ Vazquez-Arce J.L. et al.              | Journal of<br>Energy Storage                           | 2024 |
| 12 | Effect of crystalline phase of $MnO_2$ on the degradation of Bisphenol A by catalytic ozonation   | INES FUENTES NORIEGA HUGO JESUS<br>TIZNADO VAZQUEZ ISSIS CLAUDETTE<br>ROMERO IBARRA et al.              | Journal of<br>Environmental<br>Chemical<br>Engineering | 2023 |
| 13 | Soft removal of stearic acid self-assembled monolayer for area-selective atomic layer deposition  | JONATHAN GUERRERO SANCHEZ<br>HUGO JESUS TIZNADO VAZQUEZ<br>López-González L.E.                          | Surfaces And<br>Interfaces                             | 2023 |
| 14 | Optimizing energy storage performance of ALD YSZ thin film devices via yttrium concentration variations   | GERARDO SOTO HERRERA HUGO<br>JESUS TIZNADO VAZQUEZ Romo O.<br>et al.                                    | Journal of<br>Energy Storage                           | 2023 |
| 15 | $O_3$ -Annealing Effect on the Etching Resilience of a $TiO_2/Al_2O_3$ filter Prepared by Atomic Layer Deposition   | EDER GERMAN LIZARRAGA MEDINA<br>BONIFACIO ALEJANDRO CAN UC<br>MARIO HUMBERTO FARIAS SANCHEZ<br>et al.   | ACS APPLIED<br>MATERIALS &<br>INTERFACES               | 2023 |
| 16 | Investigation of diffusivity in nanometer-thick yttria-stabilized zirconia by chronoamperometry and its formalism   | GERARDO SOTO HERRERA HUGO<br>JESUS TIZNADO VAZQUEZ<br>Vazquez-Arce J.L. et al.                          | JOURNAL OF<br>THE AMERICAN<br>CERAMIC<br>SOCIETY       | 2023 |

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| 17 | Atomic-scale study of TiO <sub>2</sub> -GR nanohybrid formation by ALD: the effect of the gas phase precursor   | RODRIGO PONCE PEREZ NOBORU TAKEUCHI TAN HUGO JESUS TIZNADO VAZQUEZ et al.                  | Nanoscale Advances  | 2023 |
| 18 | Linear and nonlinear optical properties of Al <sub>2</sub> O <sub>3</sub> /Y <sub>2</sub> O <sub>3</sub> nanolaminates fabricated by atomic layer deposition              | BONIFACIO ALEJANDRO CAN UC EDER GERMAN LIZARRAGA MEDINA HUGO JESUS TIZNADO VAZQUEZ et al.  | OPTICS AND LASER TECHNOLOGY   | 2023 |
| 19 | TiO <sub>2-x</sub> 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 |
| 20 | Onset of electronic conductivity in nanometer thick films of yttria stabilized zirconia (YSZ) at high electric fields   | HUGO JESUS TIZNADO VAZQUEZ Vazquez-Arce J.L. Kirchheim R.                                  | ACTA MATERIALIA   | 2022 |
| 21 | Adsorption of sorbitan ester surfactant on copper and Cuprous oxide surfaces: A density functional theory study   | NOBORU TAKEUCHI TAN HUGO JESUS TIZNADO VAZQUEZ JONATHAN GUERRERO SANCHEZ et al.            | APPLIED SURFACE SCIENCE   | 2022 |
| 22 | HfO <sub>2</sub> :Y <sub>2</sub> O <sub>3</sub> ultrathin nanolaminate structures grown by ALD: Bilayer thickness and annealing temperature effects on optical properties | JAVIER ALONSO LOPEZ MEDINA MARIO HUMBERTO FARIAS SANCHEZ HUGO JESUS TIZNADO VAZQUEZ et al. | CERAMICS INTERNATIONAL  | 2022 |
| 23 | Thickness effect of Yttria-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 |
| 24 | The effect of temperature and bias on the energy storage of a Ru/YSZ/Ru thin-film device  | HUGO JESUS TIZNADO VAZQUEZ Romo Jiménez O.A. Noda R.L. et al.                              | Energy  | 2022 |
| 25 | 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 |
| 26 | ALD and PEALD deposition of HfO <sub>2</sub> and its effects on the nature of oxygen vacancies  | JAVIER ALONSO LOPEZ MEDINA HUGO JESUS TIZNADO VAZQUEZ Martínez-Puente M.A. et al.          | MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS | 2022 |

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| 27 | Optical waveguides fabricated in atomic layer deposited Al <sub>2</sub> O <sub>3</sub> by ultrafast laser ablation                                     | EDER GERMAN LIZARRAGA MEDINA<br>OSCAR EDEL CONTRERAS LOPEZ<br>HUGO JESUS TIZNADO VAZQUEZ et al.    | Results In Optics                          | 2021 |
| 28 | Magnetic nanostructured based on cobalt-Zinc Ferrites designed for photocatalytic dye degradation  | DAVID ALEJANDRO DOMINGUEZ<br>VARGAS JORGE NOE DIAZ DE LEON<br>HERNANDEZ SUSANA GOMEZ GOMEZ et al.  | JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS | 2021 |
| 29 | A first-principles study of the atomic layer deposition of ZnO on carboxyl functionalized carbon nanotubes: The role of water molecules                | HECTOR NOE FERNANDEZ ESCAMILLA<br>HUGO ALEJANDRO BORBON NUÑEZ<br>HUGO JESUS TIZNADO VAZQUEZ et al. | PHYSICAL CHEMISTRY CHEMICAL PHYSICS        | 2021 |
| 30 | Nanostructured silica-supported gold: Effect of nanoparticle size distribution and electronic state on its catalytic properties in oxidation reactions | YULIA KOTOLEVICH OXANA<br>MARTYNYUK JUAN CARLOS GARCIA RAMOS et al.                                | CATALYSIS TODAY                            | 2021 |
| 31 | Effect of oxygen based functional groups on the nucleation of TiO <sub>2</sub> by atomic layer deposition: A theoretical and experimental study        | HUGO ALEJANDRO BORBON NUÑEZ<br>JESUS MUÑIZ SORIA DAVID<br>ALEJANDRO DOMINGUEZ VARGAS et al.        | MATERIALS CHEMISTRY AND PHYSICS            | 2021 |
| 32 | YSZ thin film nanostructured battery for on-chip energy storage applications   | EDER GERMAN LIZARRAGA MEDINA<br>EDUARDO ANTONIO MURILLO<br>BRACAMONTES GERARDO SOTO HERRERA et al. | Journal of Energy Storage                  | 2020 |
| 33 | Swirling fluidized bed plasma reactor for the preparation of supported nanoparticles   | GERARDO SOTO HERRERA HUGO<br>JESUS TIZNADO VAZQUEZ<br>Pahuamba E. et al.                           | REVISTA MEXICANA DE INGENIERIA QUIMICA     | 2020 |
| 34 | Non-quarter-wave dielectric mirror prepared by thermal atomic layer deposition   | HUGO ALEJANDRO BORBON NUÑEZ<br>NOEMI ABUNDIZ CISNEROS ROBERTO MACHORRO MEJIA et al.                | OPTICS AND LASER TECHNOLOGY                | 2020 |
| 35 | 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<br>OSCAR EDEL CONTRERAS LOPEZ<br>HUGO JESUS TIZNADO VAZQUEZ et al.    | OPTICAL MATERIALS                          | 2020 |
| 36 | Effect of gold electronic state on the catalytic performance of nano gold catalysts in n-octanol oxidation   | TRINO ARMANDO ZEPEDA PARTIDA<br>HUGO JESUS TIZNADO VAZQUEZ<br>MARIO HUMBERTO FARIAS SANCHEZ et al. | NANOMATERIALS                              | 2020 |
| 37 | Ni-doped ceria nanorods for the WGS reaction: Effect of Ni distribution in methane suppression   | ARACELI ROMERO NUÑEZ LUCIANO<br>ANTONIO GOMEZ CORTES HUGO<br>JESUS TIZNADO VAZQUEZ et al.          | CATALYSIS TODAY                            | 2020 |

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| 38 | Understanding the first half-ALD cycle of the ZnO growth on hydroxyl functionalized carbon nanotubes  | JONATHAN GUERRERO SANCHEZ<br>HUGO ALEJANDRO BORBON NUÑEZ<br>HUGO JESUS TIZNADO VAZQUEZ et al.           | PHYSICAL<br>CHEMISTRY<br>CHEMICAL<br>PHYSICS                     | 2020 |
| 39 | Caffeine as a source for nitrogen doped graphene, and its functionalization with silver nanowires in-situ   | HUGO JESUS TIZNADO VAZQUEZ<br>Daniel Ramirez-Gonzalez Jose de J. Cruz-Rivera et al.                     | Advances In<br>Nano Research                                     | 2020 |
| 40 | Structure and Surface Morphology Effect on the Cytotoxicity of [Al <sub>2</sub> O <sub>3</sub> /ZnO](n)/316L SS Nanolaminates Growth by Atomic Layer Deposition (ALD) | HUGO JESUS TIZNADO VAZQUEZ<br>MARIO HUMBERTO FARIAS SANCHEZ<br>D. Osorio et al.                         | Crystals   | 2020 |
| 41 | Green synthesis of silver nanoparticles using <i>Lysiloma acapulcensis</i> exhibit high-antimicrobial activity  | HUGO ALEJANDRO BORBON NUÑEZ<br>JORGE NOE DIAZ DE LEON<br>HERNANDEZ YANIS TOLEDANO<br>MAGAÑA et al.      | SCIENTIFIC<br>REPORTS  | 2020 |
| 42 | Modifying nitrogen species of nitrogen-doped carbon nanotubes by thermal annealing to explore their role in the triiodide reduction reaction                          | DAVID ALEJANDRO DOMINGUEZ<br>VARGAS HUGO ALEJANDRO BORBON<br>NUÑEZ HUGO JESUS TIZNADO<br>VAZQUEZ et al. | Carbon   | 2020 |
| 43 | 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<br>HUGO ALEJANDRO BORBON NUÑEZ<br>OSCAR EDEL CONTRERAS LOPEZ et al.        | OPTICAL<br>MATERIALS   | 2020 |
| 44 | Refractive index of ZnO ultrathin films alternated with Al <sub>2</sub> O <sub>3</sub> in multilayer heterostructures   | MARIO HUMBERTO FARIAS SANCHEZ<br>HUGO JESUS TIZNADO VAZQUEZ J.<br>Lopez-Medina et al.                   | Nanotechnolog<br>y   | 2020 |
| 45 | Tuning the nitrogen species content in N-doped CNTs for catalytic applications  | DAVID ALEJANDRO DOMINGUEZ<br>VARGAS HUGO JESUS TIZNADO<br>VAZQUEZ JOSE MANUEL ROMO<br>HERRERA et al.    | Abstracts Of<br>Papers Of The<br>American<br>Chemical<br>Society | 2019 |
| 46 | Membranes made of nitrogen-doped CNTs decorated with magnetite NPs for cleaning treated wastewater  | ENRIQUE CONTRERAS BERNABE<br>DAVID ALEJANDRO DOMINGUEZ<br>VARGAS HUGO JESUS TIZNADO<br>VAZQUEZ et al.   | Abstracts Of<br>Papers Of The<br>American<br>Chemical<br>Society | 2019 |
| 47 | Dual-photosensitizer coupled nanoscintillator capable of producing type I and type II ROS for next generation photodynamic therapy                                    | KANCHAN CHAUHAN KARLA OYUKY<br>JUAREZ MORENO HUGO ALEJANDRO<br>BORBON NUÑEZ et al.                      | JOURNAL OF<br>COLLOID AND<br>INTERFACE<br>SCIENCE                | 2019 |

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| 48 | Optoelectronic attenuation behavior of Al <sub>2</sub> O <sub>3</sub> /ZnO nanolaminates grown by Atomic Layer Deposition  | HUGO JESUS TIZNADO VAZQUEZ<br>GUSTAVO ALONSO HIRATA FLORES<br>OSCAR EDEL CONTRERAS LOPEZ et al.       | Thin Solid Films                                      | 2019 |
| 49 | Ag nanoparticles embedded in a magnetic composite for magnetic separation applications   | DAVID ALEJANDRO DOMINGUEZ<br>VARGAS HUGO JESUS TIZNADO<br>VAZQUEZ GERARDO SOTO HERRERA et al.         | JOURNAL OF ALLOYS AND COMPOUNDS                       | 2019 |
| 50 | 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<br>DAVID ALEJANDRO DOMINGUEZ<br>VARGAS HUGO JESUS TIZNADO<br>VAZQUEZ et al. | Nanoscale   | 2019 |
| 51 | Terephthalic acid decomposition by photocatalytic ozonation with V x O y /ZnO under different UV-A LEDs distributions  | HUGO JESUS TIZNADO VAZQUEZ<br>JOSE MANUEL ROMO HERRERA<br>Fuentes I. et al.                           | CHEMICAL ENGINEERING COMMUNICATIONS                   | 2019 |
| 52 | Synthesis of high purity nickel oxide by a modified sol-gel method   | HUGO JESUS TIZNADO VAZQUEZ<br>Mateos D. Valdez B. et al.  | CERAMICS INTERNATIONAL                                | 2019 |
| 53 | Inhibition effect of ethanol in naproxen degradation by catalytic ozonation with NiO   | HUGO JESUS TIZNADO VAZQUEZ<br>Aguilar C.M. Chairez I. et al.  | RSC ADVANCES  | 2019 |
| 54 | Cobalt/zinc ferrite and magnetite SiO <sub>2</sub> nanocomposite powder for magnetic extraction of DNA   | GERARDO SOTO HERRERA JAVIER<br>ALONSO LOPEZ MEDINA HUGO JESUS<br>TIZNADO VAZQUEZ et al.               | JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY             | 2019 |
| 55 | Third-order nonlinear optical properties of a multi-layer Al <sub>2</sub> O <sub>3</sub> /ZnO for nonlinear optical waveguides   | HUGO JESUS TIZNADO VAZQUEZ<br>GUSTAVO ALONSO HIRATA FLORES<br>Can-Uc B. et al.                        | OPTICS EXPRESS  | 2019 |
| 56 | The role of the interface on magnetic properties for YFeO <sub>3</sub> @Al <sub>2</sub> O <sub>3</sub> core-shell structure  | HUGO ALEJANDRO BORBON NUÑEZ<br>HUGO JESUS TIZNADO VAZQUEZ<br>JOSE MANUEL ROMO HERRERA et al.          | Sn Applied Sciences                                   | 2019 |
| 57 | Novel route of synthesis of ultra-small Au nanoparticles on SiO <sub>2</sub> supports  | HUGO JESUS TIZNADO VAZQUEZ<br>MIGUEL AVALOS BORJA NINA<br>BOGDANCHIKOVA et al.                        | Fuel  | 2019 |
| 58 | Low-temperature ozone treatment for carbon nanotube template removal: improving the template-based ALD method  | DAVID ALEJANDRO DOMINGUEZ<br>VARGAS JOSE MANUEL ROMO<br>HERRERA OSCAR EDEL CONTRERAS<br>LOPEZ et al.  | JOURNAL OF NANOPARTICLE RESEARCH                      | 2018 |
| 59 | Physical and electrical characterization of yttrium-stabilized zirconia (YSZ) thin films deposited by sputtering and atomic-layer deposition                             | HUGO JESUS TIZNADO VAZQUEZ<br>GERARDO SOTO HERRERA DAVID<br>ALEJANDRO DOMINGUEZ VARGAS et al.         | JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS | 2018 |

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|----|--|---|---|------|
| 60 | Optimal sidewall functionalization for the growth of ultrathin TiO <sub>2</sub> nanotubes via atomic layer deposition  | DAVID ALEJANDRO DOMINGUEZ<br>VARGAS JOSE MANUEL ROMO<br>HERRERA HUGO JESUS TIZNADO<br>VAZQUEZ et al.        | JOURNAL OF<br>MATERIALS<br>SCIENCE                      | 2018 |
| 61 | Naphthalene degradation by catalytic ozonation based on nickel oxide: study of the ethanol as cosolvent  | HUGO JESUS TIZNADO VAZQUEZ<br>Marissa Aguilar, C. Rodriguez, Julia L. et al.                                | ENVIRONMENTA<br>L SCIENCE AND<br>POLLUTION<br>RESEARCH  | 2017 |
| 62 | A comparative study of alumina-supported Ni catalysts prepared by photodeposition and impregnation methods on the catalytic ozonation of 2,4-dichlorophenoxyacetic acid                              | HUGO JESUS TIZNADO VAZQUEZ<br>Rodriguez, Julia L. Valenzuela,<br>Miguel A. et al.                           | JOURNAL OF<br>NANOPARTICLE<br>RESEARCH                  | 2017 |
| 63 | Structural and electrical characterization of multilayer Al <sub>2</sub> O <sub>3</sub> /ZnO nanolaminates grown by atomic layer deposition  | DAVID ALEJANDRO DOMINGUEZ<br>VARGAS EDUARDO ANTONIO<br>MURILLO BRACAMONTES ROBERTO<br>MACHORRO MEJIA et al. | MATERIALS<br>SCIENCE IN<br>SEMICONDUCT<br>OR PROCESSING | 2017 |
| 64 | Indium-doped ZnO nanorods grown on Si (111) using a hybrid ALD-solvothermal method   | HUGO JESUS TIZNADO VAZQUEZ<br>OSCAR EDEL CONTRERAS LOPEZ<br>Cervantes-Lopez, J. L. et al.                   | MATERIALS<br>RESEARCH<br>EXPRESS                        | 2017 |
| 65 | Refractive index and bandgap variation in Al <sub>2</sub> O <sub>3</sub> -ZnO ultrathin multilayers prepared by atomic layer deposition  | FELIPE FRANCISCO CASTILLON<br>BARRAZA ROBERTO MACHORRO<br>MEJIA MARIO HUMBERTO FARIAS<br>SANCHEZ et al.     | JOURNAL OF<br>ALLOYS AND<br>COMPOUNDS                   | 2017 |
| 66 | Influence of the bilayer thickness on the optical properties of Al <sub>2</sub> O <sub>3</sub> -Y <sub>2</sub> O <sub>3</sub> dielectric nanolaminate films grown by thermal atomic layer deposition | FELIPE FRANCISCO CASTILLON<br>BARRAZA ROBERTO MACHORRO<br>MEJIA MARIO HUMBERTO FARIAS<br>SANCHEZ et al.     | MATERIALS<br>RESEARCH<br>BULLETIN                       | 2017 |
| 67 | n-Octanol oxidation on Au/TiO <sub>2</sub> catalysts promoted with La and Ce oxides  | MARIO HUMBERTO FARIAS SANCHEZ<br>HUGO JESUS TIZNADO VAZQUEZ A.<br>Pestryakov et al.                         | Molecular<br>Catalysis                                  | 2017 |
| 68 | Fabrication of hollow TiO <sub>2</sub> nanotubes through atomic layer deposition and MWCNT templates   | DAVID ALEJANDRO DOMINGUEZ<br>VARGAS JOSE MANUEL ROMO<br>HERRERA GERARDO SOTO HERRERA<br>et al.              | POWDER<br>TECHNOLOGY                                    | 2017 |
| 69 | Al <sub>2</sub> O <sub>3</sub> -Y <sub>2</sub> O <sub>3</sub> ultrathin multilayer stacks grown by atomic layer deposition as perspective for optical waveguides applications                        | ROBERTO MACHORRO MEJIA MARIO<br>HUMBERTO FARIAS SANCHEZ HUGO<br>JESUS TIZNADO VAZQUEZ et al.                | OPTICAL<br>MATERIALS                                    | 2017 |
| 70 | On the high sensitivity of the electronic states of 1 nm gold particles to pretreatments and modifiers   | HUGO JESUS TIZNADO VAZQUEZ<br>TRINO ARMANDO ZEPEDA PARTIDA<br>JOSUE DAVID MOTA MORALES et al.               | Molecules   | 2016 |



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| 71 | Photocatalytic hydrogen production over titania modified by gold ? Metal (palladium, nickel and cobalt) catalysts   | HUGO JESUS TIZNADO VAZQUEZ<br>JOSE MANUEL ROMO HERRERA<br>RODOLFO ZANELLA SPECIA et al.                                 | INTERNATIONAL JOURNAL OF HYDROGEN ENERGY  | 2016 |
| 72 | Enhancing the oxidation resistance of diamond powder by the application of Al <sub>2</sub> O <sub>3</sub> conformal coat by atomic layer deposition                 | DAVID ALEJANDRO DOMINGUEZ<br>VARGAS HUGO JESUS TIZNADO<br>VAZQUEZ JOSE MANUEL ROMO<br>HERRERA et al.                    | DIAMOND AND RELATED MATERIALS             | 2016 |
| 73 | YCrO <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> Core-Shell Design: The Effect of the Nanometric Al <sub>2</sub> O <sub>3</sub> -Shell on Dielectric Properties    | HUGO JESUS TIZNADO VAZQUEZ<br>JOSE MANUEL ROMO HERRERA<br>MANUEL HERRERA ZALDIVAR et al.                                | JOURNAL OF THE AMERICAN CERAMIC SOCIETY   | 2016 |
| 74 | Au/TiO <sub>2</sub> catalysts promoted with Fe and Mg for n-octanol oxidation under mild conditions   | HUGO JESUS TIZNADO VAZQUEZ<br>MARIO HUMBERTO FARIAS SANCHEZ<br>NINA BOGDANCHIKOVA et al.                                | CATALYSIS TODAY                           | 2016 |
| 75 | Thickness effect on the optical and morphological properties in Al <sub>2</sub> O <sub>3</sub> /ZnO nanolaminate thin films prepared by atomic layer deposition     | DAVID ALEJANDRO DOMINGUEZ<br>VARGAS EDUARDO ANTONIO<br>MURILLO BRACAMONTES FELIPE<br>FRANCISCO CASTILLON BARRAZA et al. | SUPERLATTICES AND MICROSTRUCTURES         | 2016 |
| 76 | Potassium titanate as heterogeneous catalyst for methyl transesterification   | HUGO JESUS TIZNADO VAZQUEZ<br>Zuniga Gonzalez, Edgar Andres<br>GarciaGuaderrama, M. et al.                              | POWDER TECHNOLOGY                         | 2015 |
| 77 | The control of thickness on aluminum oxide nanotubes by Atomic Layer Deposition using carbon nanotubes as removable templates                                       | Franklin MunozMunoz GERARDO<br>SOTO HERRERA DAVID ALEJANDRO<br>DOMINGUEZ VARGAS et al.                                  | POWDER TECHNOLOGY                         | 2015 |
| 78 | Insulating carbon nanotubes by atomic layer deposition for electrical wiring purposes   | JOSE MANUEL ROMO HERRERA<br>OSCAR EDEL CONTRERAS LOPEZ<br>DAVID ALEJANDRO DOMINGUEZ<br>VARGAS et al.                    | JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY | 2015 |
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**HUGO JESUS TIZNADO VAZQUEZ**

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| 82 | Surface interactions and mechanistic studies of 2,4-dichlorophenoxyacetic acid degradation by catalytic ozonation in presence of Ni/TiO <sub>2</sub>                          | HUGO JESUS TIZNADO VAZQUEZ<br>Rodriguez, Julia L. Poznyak, Tatiana et al.                                    | CHEMICAL<br>ENGINEERING<br>JOURNAL  | 2013 |
| 83 | Effect of redox treatments on activation and deactivation of gold nanospecies supported on mesoporous silica in CO oxidation  | NINA BOGDANCHIKOVA TRINO<br>ARMANDO ZEPEDA PARTIDA MARIO<br>HUMBERTO FARIAS SANCHEZ et al.                   | Fuel  | 2013 |
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| 88 | TiO <sub>2</sub> and Al <sub>2</sub> O <sub>3</sub> ultra thin nanolaminates growth by ALD; instrument automation and films characterization                                  | HUGO JESUS TIZNADO VAZQUEZ<br>DAVID ALEJANDRO DOMINGUEZ<br>VARGAS WENCEL JOSE DE LA CRUZ<br>HERNANDEZ et al. | REVISTA<br>MEXICANA DE<br>FISICA  | 2012 |
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**HUGO JESUS TIZNADO VAZQUEZ**

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| 92  | Use of AES in corrosion of copper connectors of electronic devices and equipments in arid and marine environments  | HUGO JESUS TIZNADO VAZQUEZ<br>GERARDO SOTO HERRERA WENCEL<br>JOSE DE LA CRUZ HERNANDEZ et al.           | ANTI-CORROSION METHODS AND MATERIALS      | 2011 |
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**Reporte individual**

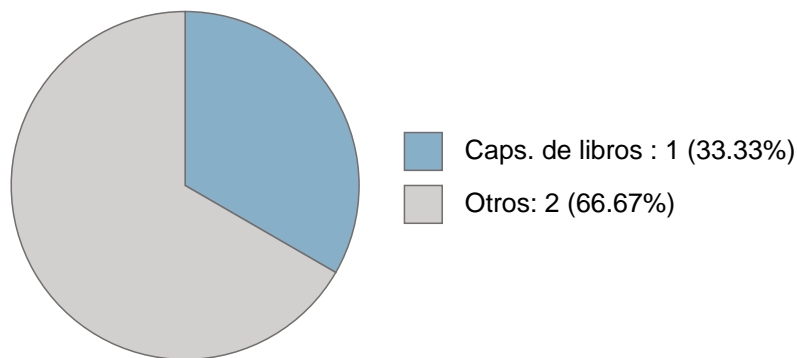
**HUGO JESUS TIZNADO VAZQUEZ**

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**HUGO JESUS TIZNADO VAZQUEZ**

**LIBROS Y CAPITULOS CON ISBN**

**Obras con registro ISBN**

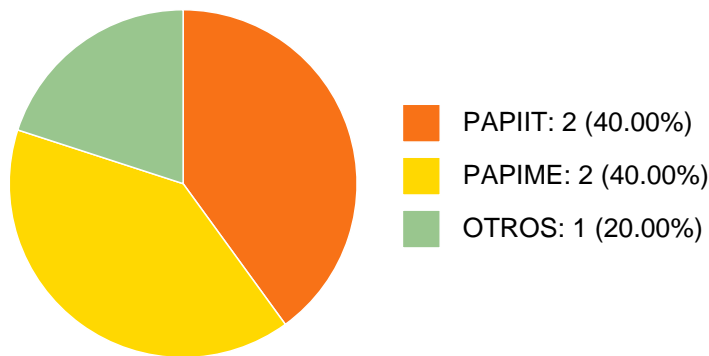


| # | Título  | Autores   | Alcance                 | Año  | ISBN          |
|---|---|---|-------------------------|------|---------------|
| 1 | Design of all-pass optical micro-ring resonators based on silicon on insulator waveguides | HUGO JESUS TIZNADO<br>VAZQUEZ EDER GERMAN<br>LIZARRAGA MEDINA<br>Castro-Toscano J.D. et al. | Conferenc<br>e Paper    | 2024 | 9781510679184 |
| 2 | Application in hyperthermia treatment   | HUGO JESUS TIZNADO<br>VAZQUEZ JAVIER ALONSO<br>LOPEZ MEDINA Camacho<br>S.A. et al.          | Capítulo<br>de un Libro | 2021 | 9780128240076 |
| 3 | Multilayered metal-dielectric Ru/TiO2 hyperbolic material for nonlinear optics            | HUGO JESUS TIZNADO<br>VAZQUEZ EDER GERMAN<br>LIZARRAGA MEDINA<br>Araiza-Sixtos F.A. et al.  | Conferenc<br>e Paper    | 2021 | 9781557528209 |

**HUGO JESUS TIZNADO VAZQUEZ**

**PARTICIPACIÓN EN PROYECTOS**

**Histórico de participación en proyectos**

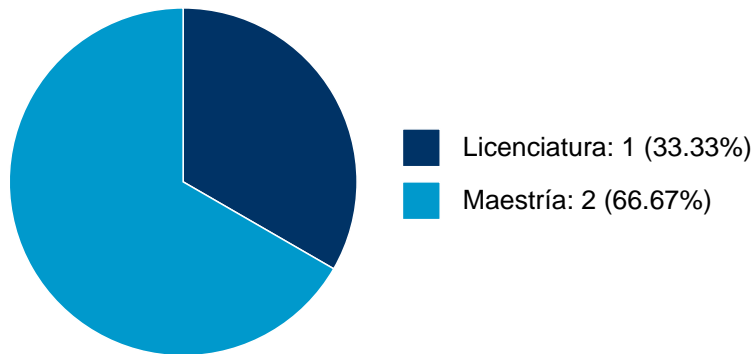


| # | Nombre   | Participantes                 | Fuente               | Fecha inicio | Fecha fin  |
|---|--|-------------------------------|----------------------|--------------|------------|
| 1 | Multicapas ultradelgadas para aplicaciones ópticas y eléctricas en nanotecnología: Introducción a los procesos de síntesis | HUGO JESUS<br>TIZNADO VAZQUEZ | Recursos PAPIIME     | 01-01-2017   | 31-12-2019 |
| 2 | Fabricación de estructuras autosoportadas 1D nanomateriales, diseño de procesos para las remoción suave de plantillas.     | HUGO JESUS<br>TIZNADO VAZQUEZ | Recursos PAPIIT      | 01-02-2018   | 31-12-2020 |
| 3 | Multicapas ultradelgadas para aplicaciones ópticas y eléctricas en nanotecnología: Introducción a los procesos de síntesis | HUGO JESUS<br>TIZNADO VAZQUEZ | Recursos PAPIIME     | 01-01-2017   | 31-12-2019 |
| 4 | Almacenamiento de energía en estructuras de estado sólido 2D nanolaminadas   | HUGO JESUS<br>TIZNADO VAZQUEZ | Recursos PAPIIT      | 01-01-2021   | 31-12-2023 |
| 5 | Develando el origen de los procesos faradaicos en sistemas rápidos de almacenamiento electroquímico de energía.            | HUGO JESUS<br>TIZNADO VAZQUEZ | Recursos<br>CONAHCyT | 06-11-2020   | 31-10-2023 |

**HUGO JESUS TIZNADO VAZQUEZ**

**PARTICIPACIÓN EN TESIS**

**Histórico de Colaboraciones en Tesis**

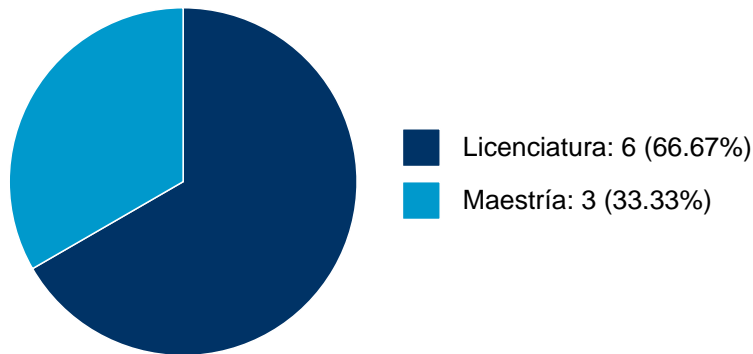


| # | Título del documento  | Tipo de Tesis         | Sinodales                   | Autores                          | Entidad   | Año  |
|---|---|-----------------------|-----------------------------|----------------------------------|---|------|
| 1 | Fabricación y caracterización de sensor de oxígeno basado en películas delgadas         | Tesis de Licenciatura | HUGO JESUS TIZNADO VAZQUEZ, | Huerta Salcedo, Juan Antonio,    | Centro de Nanociencias y Nanotecnología en la UNAM, | 2020 |
| 2 | Caracterización de propiedades eléctricas de capacitores con dieléctricos nanolaminados | Tesis de Maestría     | HUGO JESUS TIZNADO VAZQUEZ, | Ortiz Fonseca, Francisco Javier, | Centro de Nanociencias y Nanotecnología en la UNAM, | 2018 |
| 3 | Producción de nanopartículas de ag mediante plasma-lecho fluidizado                     | Tesis de Maestría     | HUGO JESUS TIZNADO VAZQUEZ, | Pahuamba Valdez, Enrique Rafael, | Centro de Nanociencias y Nanotecnología en la UNAM, | 2014 |

## HUGO JESUS TIZNADO VAZQUEZ

### DOCENCIA IMPARTIDA

#### Histórico de docencia



| # | Nivel titulación | Asignatura                                | Entidad  | Alumnos | Semestre |
|---|------------------|---|--|---------|----------|
| 1 | Licenciatura     | NANOMATERIALES II: CARACTERIZACION        | Centro de Nanociencias y Nanotecnología en la UNAM | 5       | 2019-2   |
| 2 | Licenciatura     | NANOMATERIALES II: CARACTERIZACION        | Centro de Nanociencias y Nanotecnología en la UNAM | 5       | 2018-2   |
| 3 | Licenciatura     | NANOMATERIALES II: CARACTERIZACION        | Centro de Nanociencias y Nanotecnología en la UNAM | 8       | 2017-2   |
| 4 | Maestría         | TEMAS SELECTOS DE MATERIALES ELECTRONICOS | Instituto de Investigaciones en Materiales         | 1       | 2016-2   |
| 5 | Licenciatura     | NANOMATERIALES II: CARACTERIZACION-335985 | Centro de Nanociencias y Nanotecnología en la UNAM | 10      | 2016-2   |
| 6 | Licenciatura     | NANOMATERIALES II: CARACTERIZACION        | Centro de Nanociencias y Nanotecnología en la UNAM | 4       | 2015-2   |
| 7 | Licenciatura     | NANOMATERIALES II: CARACTERIZACION        | Centro de Nanociencias y Nanotecnología en la UNAM | 10      | 2014-2   |





**Sistema Integral de Información Académica**  
**Coordinación de Planeación, Evaluación y**  
**Simplificación de la Gestión Institucional**  
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**HUGO JESUS TIZNADO VAZQUEZ**

|   |          |   |  |   |        |
|---|----------|---|--|---|--------|
| 8 | Maestría | TEMAS SELECTOS DE MATERIALES ELECTRONICOS   | Instituto de Investigaciones en Materiales | 1 | 2012-1 |
| 9 | Maestría | INTRODUCCION A LA QUIMICA DE LOS MATERIALES | Instituto de Investigaciones en Materiales | 3 | 2011-2 |



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**Coordinación de Planeación, Evaluación y**  
**Simplificación de la Gestión Institucional**  
**Reporte individual**



**HUGO JESUS TIZNADO VAZQUEZ**

**TUTORIAS EN POSGRADO**

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

**HUGO JESUS TIZNADO VAZQUEZ**



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



**HUGO JESUS TIZNADO VAZQUEZ**

**PATENTES**

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

**HUGO JESUS TIZNADO VAZQUEZ**

**HUGO JESUS TIZNADO VAZQUEZ**

**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 |