



ISMELI ALFONSO LOPEZ

Datos Generales

Nombre: ISMELI ALFONSO LOPEZ

Máximo nivel de estudios: DOCTORADO

Antigüedad académica en la UNAM: 12 años

Nombramientos

Vigente: INVESTIGADOR TITULAR B TC Definitivo
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Desde 16-01-2020

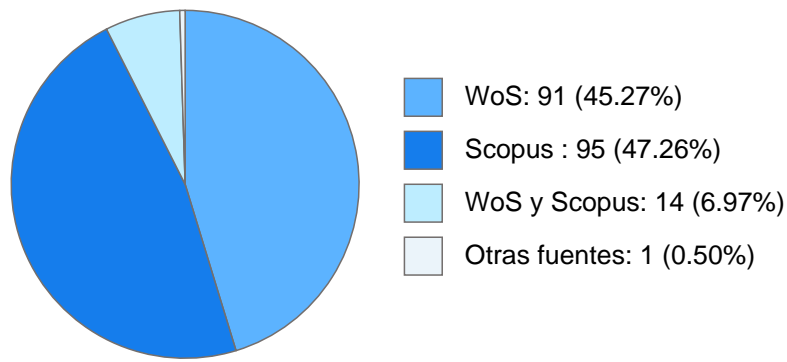
Estímulos, programas, premios y reconocimientos

SNI II 2023 - 2025
SNI I 2012 - 2022
SNI C 2010 - 2011
PRIDE C 2020 - 2024
PRIDE B 2020
PRIDE C 2018 - 2019
EQUIVALENCIA PRIDE B 2014 - 2018

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DOCUMENTOS EN REVISTAS

Histórico de Documentos



| # | Título | Autores | Revista | Año |
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| 1 | The role of interphase on the mechanical behavior of Al ₂ O ₃ /Al(OH) ₃ reinforced Al foams | JUAN CARLOS CARRANZA GARCIA IGNACIO ALEJANDRO FIGUEROA VARGAS ISMELI ALFONSO LOPEZ et al. | MATERIALS LETTERS | 2025 |
| 2 | Computational analysis as a tool for the study of the porosity system and the mechanical properties of fractal metal foams | MICHEL ALEJANDRO RIVERO CORONA ISMELI ALFONSO LOPEZ L. Perez et al. | REVISTA MEXICANA DE FISICA | 2025 |
| 3 | Lead-free high-entropy alloys with low melting point for soldering applications | RODOLFO EZEQUIEL LOPEZ ROMERO JESUS URIEL BALDERAS AGUILAR OMAR NOVELO PERALTA et al. | JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS | 2025 |
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| 5 | Effect of the heat treatment on the compression of Cu ₂₀ Sn matrix syntactic foams reinforced with Fe-hollow spheres | GABRIEL ANGEL LARA RODRIGUEZ IGNACIO ALEJANDRO FIGUEROA VARGAS JUAN CARLOS CARRANZA GARCIA et al. | MATERIALS LETTERS | 2024 |

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| 6 | Synthesis and Gas Permeation Properties of Functionalized Norbornene-based Polymers | JOSE ALEJANDRO ONCHI RESENDIZ CARLOS DANIEL CORONA GARCIA ARLETTE ARIZBE SANTIAGO DE LA CRUZ et al. | CURRENT ORGANIC CHEMISTRY | 2024 |
| 7 | Development and Mechanical Characterization of a CoCr-Based Multiple-Principal-Element Alloy | JOSE GONZALO GONZALEZ REYES ISMELI ALFONSO LOPEZ IGNACIO ALEJANDRO FIGUEROA VARGAS et al. | METALLOGRAPH Y MICROSTRUCTURE AND ANALYSIS | 2024 |
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| 10 | Low-cost seaweed biomass treatment with formaldehyde for cationic dyes removal from aqueous solutions | JOEL VARGAS ORTEGA ISMELI ALFONSO LOPEZ D. M. Polanco-Gamboa et al. | ADSORPTION SCIENCE & TECHNOLOGY | 2024 |
| 11 | An Overview on the Identification and Characterization of Cu-Rich Second Phases in Casting Al Alloys | TANIA ELIZABETH SOTO GUZMAN ISMELI ALFONSO LOPEZ FEDERICO GONZALEZ GARCIA et al. | INTERNATIONAL JOURNAL OF METALCASTING | 2023 |
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| 23 | An Overview of the Interactions Between Reinforcements and Al Matrices with Si, Cu And Mg as Alloying Elements in Aluminum Matrix Composites: Case of Oxide Reinforcements | IGNACIO ALEJANDRO FIGUEROA VARGAS JOSE GONZALO GONZALEZ REYES JOEL VARGAS ORTEGA et al. | MATERIALS RESEARCH-IBERO-AMERICAN JOURNAL OF MATERIALS | 2022 |
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| 38 | Mathematical and finite element analysis estimations of the reinforcement effect on Young's modulus of polymer membrane/montmorillonite clay nanocomposites | ARLETTE ARIZBE SANTIAGO DE LA CRUZ JOEL VARGAS ORTEGA CARLOS DANIEL CORONA GARCIA et al. | POLYMER COMPOSITES | 2021 |
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| 41 | Effect of Sn on synthesis of nanocrystalline Ti-based alloy with fcc structure | ISMELI ALFONSO LOPEZ C. Aguilar E. Pio et al. | TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA | 2020 |
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| 44 | QUANTIFICATION OF THE MICROPOROSITY EFFECT ON PERMEABILITY OF POROUS ROCKS | ISMELI ALFONSO LOPEZ ALBERTO BELTRAN MORALES Mohamed Abatal et al. | JOURNAL OF POROUS MEDIA | 2020 |
| 45 | Formability of the 5754-Aluminum alloy deformed by a modified repetitive corrugation and straightening process | MARCO ALEJANDRO EZEQUIEL ALVARADO IGNACIO ALEJANDRO FIGUEROA VARGAS ISMELI ALFONSO LOPEZ et al. | Materials | 2020 |
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| 50 | Study of X-ray diffraction profiles of a Ti-13Ta-3Sn alloy obtained by mechanical alloying | ISMELI ALFONSO LOPEZ Edgar Ivan Pio Lopez Pablo Ignacio Martin Saint-Laurence et al. | MATERIA-RIO DE JANEIRO | 2020 |
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| 52 | Elastic Modulus Estimation for Copper Syntactic Foams Reinforced with Iron Hollow Spheres of Different Wall Thicknesses | CRISEIDA RUIZ AGUILAR ISMELI ALFONSO LOPEZ Pérez L. et al. | JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE | 2019 |
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| 76 | High Resolution Transmission Electron Microscopy (HRTEM) and molecular simulation techniques were applied to analyze phase formation in the post-discharge microwave nitriding process of a 4140 steel | Ariosto MedinaFlores ISMELI ALFONSO LOPEZ Bejar, Luis et al. | REVISTA DE METALURGIA | 2015 |
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| 92 | Hardness-Lattice Parameter Correlation for Aged Al-Zn-Mg Alloys | P. Fernandez JOSE GONZALO GONZALEZ REYES ISMELI ALFONSO LOPEZ et al. | JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY | 2010 |
| 93 | Nanostructure and grain size characterization in Al ₈₄ Si ₆ Cu ₃ Mg ₇ ribbons and ingots | ISMELI ALFONSO LOPEZ JOSE GONZALO GONZALEZ REYES Maldonado, C. et al. | REVISTA MEXICANA DE FISICA | 2009 |
| 94 | Production and characterization of niobium and titanium microalloyed steels | ISMELI ALFONSO LOPEZ JORGE ANTONIO ASCENCIO GUTIERREZ Bejar-Gomez, L. et al. | REVISTA MEXICANA DE FISICA | 2009 |
| 95 | Intermetallic formation in dissimilar friction welds with a silver interlayer | ISMELI ALFONSO LOPEZ JORGE ANTONIO ASCENCIO GUTIERREZ Maldonado, C. et al. | REVISTA MEXICANA DE FISICA | 2009 |
| 96 | Effect of the experimental variables on the Al-6Si-3Cu-xMg T6 microhardness alloy | ISMELI ALFONSO LOPEZ J. G. Gonzalez Maldonado, C. et al. | MATERIA-RIO DE JANEIRO | 2008 |
| 97 | TEM nanostructural study of Al-6Si-3Cu-xMg melt-spun ribbons | ISMELI ALFONSO LOPEZ Zepeda C.M. Flores A. et al. | Advances in Materials Science and Engineering | 2008 |
| 98 | TEM microstructural characterization of melt-spun aged Al-6Si-3Cu-xMg alloys | ISMELI ALFONSO LOPEZ JOSE GONZALO GONZALEZ REYES Zepeda C.M. et al. | MATERIALS CHARACTERIZATION | 2007 |
| 99 | Effect of Mg content and solution treatment on the microstructure of Al-Si-Cu-Mg alloys | ISMELI ALFONSO LOPEZ JOSE GONZALO GONZALEZ REYES Maldonado C. et al. | JOURNAL OF MATERIALS SCIENCE | 2006 |



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Coordinación de Planeación, Evaluación y
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Reporte individual



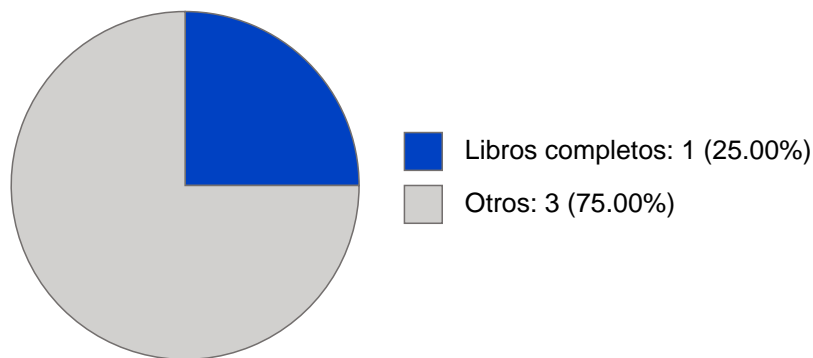
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| | | | |
|-----|---|--|------------------------------------|
| 100 | Electrochemical Study of Metallic Foams Ti-Ta-Sn through SEM | ISMELI ALFONSO LOPEZ Mejia A. Bejar L. et al. | MICROSCOPY AND MICROANALYSIS |
|-----|---|--|------------------------------------|

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LIBROS Y CAPITULOS CON ISBN

Obras con registro ISBN

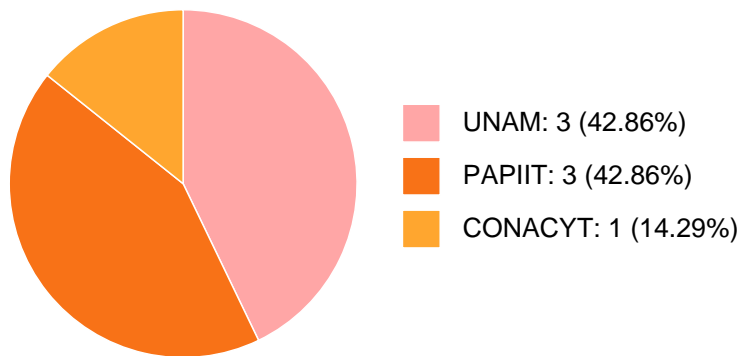


| # | Título | Autores | Alcance | Año | ISBN |
|---|---|--|----------------------|------|---------------|
| 1 | In Vivo Human Vertebra Image Reconstruction and Mechanical Simulation | ARMANDO ORTIZ PRADO ISMELI ALFONSO LOPEZ Gonzalez-Ruiz A. et al. | Conferenc e Paper | 2023 | 9798350325232 |
| 2 | Caracterización De Discontinuidades Microestructurales Presentes En Los Materiales | ISMELI ALFONSO LOPEZ IGNACIO ALEJANDRO FIGUEROA VARGAS JOSE GONZALO GONZALEZ REYES | Libro Completo | 2021 | 9786074247510 |
| 3 | Mechanical properties of copper foams reinforced with alumina particles | ISMELI ALFONSO LOPEZ Aguilar C. Guzman D. et al. | Conferenc e Paper | 2014 | 9781899072446 |
| 4 | Study on the structural and magnetic properties of Ru 1-x Mo x Sr 2 GdCu 2 O 8±z system | ISMELI ALFONSO LOPEZ JOSE GONZALO GONZALEZ REYES Abatal M. et al. | Conferenc e Paper | 2014 | 9781479938247 |

ISMELI ALFONSO LOPEZ

PARTICIPACIÓN EN PROYECTOS

Histórico de participación en proyectos



| # | Nombre | Participantes | Fuente | Fecha inicio | Fecha fin |
|---|---|----------------------|--|--------------|------------|
| 1 | Aleaciones metálicas sustentables. | ISMELI ALFONSO LOPEZ | Presupuesto de la UNAM asignado a la Dependencia | 01-01-2018 | 31-12-2021 |
| 2 | Estudio Convencional e in-situ de las modificaciones estructurales de las segundas fases en aleaciones de aluminio sometidas a solubilización. | ISMELI ALFONSO LOPEZ | Recursos PAPIIT | 01-01-2016 | 31-12-2021 |
| 3 | Análisis In-Situ de las transformaciones de las segundas fases en aleaciones de Al sometidas a sobre-solubilizado para la obtención de espumas metálicas. | ISMELI ALFONSO LOPEZ | Recursos CONACYT | 23-03-2018 | 05-05-2021 |
| 4 | Efecto de la combinación porosidad-reforzante sobre las propiedades mecánicas de espumas metálicas compuestas | ISMELI ALFONSO LOPEZ | Recursos PAPIIT | 01-01-2022 | 31-12-2024 |
| 5 | Aleaciones metálicas sustentables, 2023. | ISMELI ALFONSO LOPEZ | Presupuesto de la UNAM asignado a la Dependencia | 01-01-2022 | 31-12-2023 |



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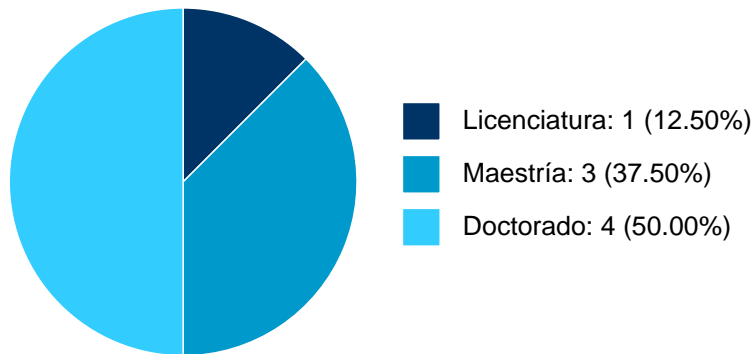
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|---|--|----------------------|--|------------|------------|
| 6 | Aleaciones metálicas sustentables, 2023. | ISMELI ALFONSO LOPEZ | Presupuesto de la UNAM asignado a la Dependencia | 01-01-2024 | 31-12-2026 |
| 7 | Fabricación de espumas híbridas de aluminio mediante el uso de espaciadores recubiertos con partículas cerámicas | ISMELI ALFONSO LOPEZ | Recursos PAPIIT | 01-01-2025 | 31-12-2027 |

ISMELI ALFONSO LOPEZ

PARTICIPACIÓN EN TESIS

Histórico de Colaboraciones en Tesis



| # | Título del documento | Tipo de Tesis | Sinodales | Autores | Entidad | Año |
|---|---|-----------------------|------------------------------------|---|---|------|
| 1 | "Caracterización hidráulica, mecánica y microestructural de espumas base aluminio de celda abierta" | Tesis de Doctorado | IGNACIO ALEJANDRO FIGUEROA VARGAS, | ISMELI ALFONSO LOPEZ, MIGUEL ANGEL HERNANDEZ GALLEGOS, et al. | Facultad de Ingeniería, Instituto de Investigaciones en Materiales, | 2024 |
| 2 | "Análisis de las transformaciones de fases en aleaciones Al-Cu-Mg-Si sometidas a tratamientos térmicos" | Tesis de Doctorado | ISMELI ALFONSO LOPEZ, | Casas Herrera, Bertha Yunuen, | Instituto de Investigaciones en Materiales, | 2023 |
| 3 | Síntesis y caracterización de preformas porosas para la elaboración de espumas sólidas | Tesis de Licenciatura | ISMELI ALFONSO LOPEZ, | Calihua Panzo, Ana Brenda, | Instituto de Investigaciones en Materiales, | 2023 |
| 4 | "Obtención, caracterización y modelado de espumas de aluminio reforzadas, fabricadas mediante infiltración" | Tesis de Doctorado | ISMELI ALFONSO LOPEZ, | JOSE REYES GASGA, IGNACIO ALEJANDRO FIGUEROA VARGAS, et al. | Instituto de Física, Instituto de Investigaciones en Materiales, | 2023 |

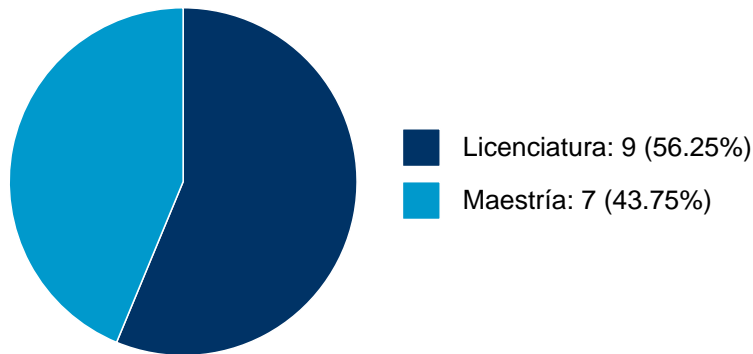
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|---|--|--------------------|------------------------------------|--|---|------|
| 5 | Efecto de las esferas reforzantes sobre las propiedades mecánicas de espumas metálicas sintácticas | Tesis de Doctorado | IGNACIO ALEJANDRO FIGUEROA VARGAS, | ISMELI ALFONSO LOPEZ, Guerrero Caro, Centli Tzetzangari | Instituto de Investigaciones en Materiales, | 2023 |
| 6 | Efecto de la geometría fractal del sistema poroso sobre el comportamiento a la compresión de espumas metálicas | Tesis de Maestría | ISMELI ALFONSO LOPEZ, | IGNACIO ALEJANDRO FIGUEROA VARGAS, Carranza García, Juan Carlos, | Instituto de Investigaciones en Materiales, | 2018 |
| 7 | Determinación fractal de la porosidad en rocas extraídas de pozos exploratorios de yacimientos petroleros | Tesis de Maestría | ISMELI ALFONSO LOPEZ, | Guerrero Caro, Centli Tzetzangari | Instituto de Investigaciones en Materiales, | 2018 |
| 8 | Efecto del contenido de Cu sobre la fabricación de espumas de Al mediante infiltración y fusión localizada de segundas fases | Tesis de Maestría | ISMELI ALFONSO LOPEZ, | Casas Herrera, Bertha Yunuen, | Instituto de Investigaciones en Materiales, | 2018 |

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DOCENCIA IMPARTIDA

Histórico de docencia



| # | Nivel titulación | Asignatura | Entidad | Alumnos | Semestre |
|---|------------------|-------------------------------------|--|---------|----------|
| 1 | Licenciatura | CIENCIA DE MATERIALES II | Escuela Nacional de Estudios Superiores, Unidad Morelia, Michoacán | 1 | 2025-2 |
| 2 | Licenciatura | CIENCIA DE MATERIALES II | Escuela Nacional de Estudios Superiores, Unidad Morelia, Michoacán | 10 | 2024-2 |
| 3 | Maestría | PROPIEDADES MECÁNICAS DE MATERIALES | Instituto de Investigaciones en Materiales | 1 | 2024-1 |
| 4 | Licenciatura | CIENCIA DE MATERIALES II | Escuela Nacional de Estudios Superiores, Unidad Morelia, Michoacán | 5 | 2023-2 |
| 5 | Licenciatura | CIENCIA DE MATERIALES II | Escuela Nacional de Estudios Superiores, Unidad Morelia, Michoacán | 10 | 2022-2 |
| 6 | Maestría | PROPIEDADES MECÁNICAS DE MATERIALES | Instituto de Investigaciones en Materiales | 3 | 2022-1 |
| 7 | Maestría | PROPIEDADES MECÁNICAS DE MATERIALES | Instituto de Investigaciones en Materiales | 2 | 2019-1 |

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|----|--------------|--|--|----|--------|
| 8 | Licenciatura | CIENCIA DE MATERIALES II | Escuela Nacional de Estudios Superiores, Unidad Morelia, Michoacán | 15 | 2018-2 |
| 9 | Maestría | PROPIEDADES MECANICAS DE MATERIALES | Instituto de Investigaciones en Materiales | 4 | 2018-1 |
| 10 | Licenciatura | CIENCIA DE MATERIALES I | Escuela Nacional de Estudios Superiores, Unidad Morelia, Michoacán | 20 | 2018-1 |
| 11 | Maestría | PROPIEDADES MECANICAS DE MATERIALES-304410 | Instituto de Investigaciones en Materiales | 2 | 2017-1 |
| 12 | Maestría | MATERIALES COMPUESTOS-393674 | Instituto de Investigaciones en Materiales | 3 | 2017-1 |
| 13 | Licenciatura | CIENCIA DE MATERIALES I | Escuela Nacional de Estudios Superiores, Unidad Morelia, Michoacán | 16 | 2017-1 |
| 14 | Maestría | PROPIEDADES MECANICAS DE MATERIALES | Instituto de Investigaciones en Materiales | 4 | 2016-2 |
| 15 | Licenciatura | CIENCIA DE MATERIALES I-334028 | Escuela Nacional de Estudios Superiores, Unidad Morelia, Michoacán | 16 | 2016-1 |
| 16 | Licenciatura | FUNDAMENTOS DE GEOLOGIA | Escuela Nacional de Estudios Superiores, Unidad Morelia, Michoacán | 16 | 2015-1 |

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PATENTES

| # | Título | Inventores | Sección | Año |
|---|--|---|--|------|
| 1 | DISPOSITIVO PARA LA SINTERIZACION DE ESPUMAS Y MATERIALES METALICOS COMPACTOS USANDO EL PROCESO DE METALURGIA DE POLVOS. | HERIBERTO PFEIFFER PEREA, IGNACIO ALEJANDRO FIGUEROA VARGAS, ISMELI ALFONSO LOPEZ, et al. | PERFORMING OPERATIONS; TRANSPORTING | 2017 |
| 2 | PROCESO PARA LA OBTENCION DE SUPERIMANES NANOCOMPOSITOS CON DOS FASES MAGNETICAS Y GEOMETRIAS COMPLEJAS. | JOSE ISRAEL BETANCOURT REYES, ISMELI ALFONSO LOPEZ, IGNACIO ALEJANDRO FIGUEROA VARGAS, | ELECTRICITYPERFORMING OPERATIONS; TRANSPORTING | 2019 |
| 3 | DISPOSITIVO PARA LA OBTENCION DE ESPUMAS METALICAS MEDIANTE INFILTRACION. | GABRIEL ANGEL LARA RODRIGUEZ, ISMELI ALFONSO LOPEZ, OMAR NOVELO PERALTA, et al. | PERFORMING OPERATIONS; TRANSPORTING | 2019 |
| 4 | PROCEDIMIENTO DE FABRICACION INTRINSECO DE ESPUMAS METALICAS DE AL-CU-FE Y PRODUCTOS OBTENIDOS. | IGNACIO ALEJANDRO FIGUEROA VARGAS, MIGUEL ANGEL SUAREZ ROSALES, ISMELI ALFONSO LOPEZ, et al. | CHEMISTRY; METALLURGYPERFORMING OPERATIONS; TRANSPORTING | 2020 |
| 5 | DISPOSITIVO PARA LA OBTENCION DE PIEZAS METALICAS DE ALTA RESISTENCIA. | IGNACIO ALEJANDRO FIGUEROA VARGAS, ISMELI ALFONSO LOPEZ, JOSE GONZALO GONZALEZ REYES, | CHEMISTRY; METALLURGY | 2021 |
| 6 | ESPUMAS METALICAS DE AL-SI-CU-MG Y SU PROCEDIMIENTO DE OBTENCION. | IGNACIO ALEJANDRO FIGUEROA VARGAS, ISMELI ALFONSO LOPEZ, GABRIEL ANGEL LARA RODRIGUEZ, et al. | CHEMISTRY; METALLURGY | 2021 |
| 7 | SISTEMA DE SINTERIZADO DE MATERIALES METALICOS DENSOS Y POROSOS. | IGNACIO ALEJANDRO FIGUEROA VARGAS, MIGUEL ANGEL SUAREZ ROSALES, ISMELI ALFONSO LOPEZ, et al. | CHEMISTRY; METALLURGYPERFORMING OPERATIONS; TRANSPORTING | 2021 |

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FUENTES DE INFORMACIÓN

Internos

| # | Información | Fuente | Sistema | Periodo |
|---|--|--------|-------------|-----------|
| 1 | Grupos ordinarios y resumen de historias académicas | DGAE | SIAE | 2008-2026 |
| 2 | Nombramientos, datos generales, estímulos, premios y reconocimientos | DGAPA | RUPA | 2008-2026 |
| 3 | Producción Académica | CH | Humanindex | 2008-2021 |
| 4 | Producción Académica | CIC | SCIC | 2000-2017 |
| 5 | Proyectos | DGPO | SISEPRO | 2018-2022 |
| 6 | Tesis | DGB | TESIUNAM | 2008-2025 |
| 7 | Tutorías en Posgrado | CGEP | SIIPosgrado | 2008-2021 |

Externos

| # | Información | Fuente | Sistema | Periodo |
|----|-------------------------|-----------------|--------------|-----------|
| 8 | Documentos Indexados | Elsevier | Scopus | 2008-2026 |
| 9 | Documentos Indexados | Thomson Reuters | WoS | 2008-2026 |
| 10 | Obras con registro ISBN | INDAUTOR | Agencia ISBN | 2008-2026 |
| 11 | Patentes | IMPI | SIGA | 2008-2024 |