



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



RODRIGO PONCE PEREZ

Datos Generales

Nombre: RODRIGO PONCE PEREZ

Máximo nivel de estudios: DOCTORADO

Antigüedad académica en la UNAM: 2 años

Nombramientos

Vigente: INVESTIGADOR ASOCIADO C TC No Definitivo
Centro de Nanociencias y Nanotecnología en la UNAM
Desde 01-09-2023

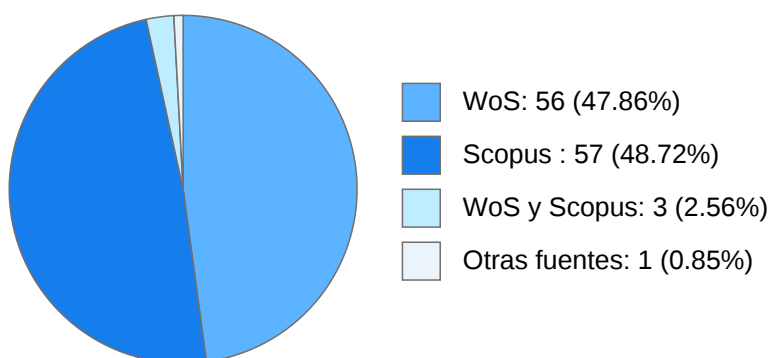
Estímulos, programas, premios y reconocimientos

SNI IIVIGENTE
SNI I 2022 - 2024
EQUIVALENCIA PRIDE B 2023 - 2024

RODRIGO PONCE PEREZ

DOCUMENTOS EN REVISTAS

Histórico de Documentos



#	Título	Autores	Revista	Año
1	Understanding the Li-Ion storage mechanism of h-Zn ₂ GeO ₄ nanoparticles: Experimental and theoretical studies	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ Cosio-Aguilar G. et al.	ELECTROCHIMICA ACTA	2025
2	Digging into the Atomistic Details of the TaN/MgO Interface: An Ab Initio Study Supported by Transmission Electron Microscopy	RODRIGO PONCE PEREZ ARMANDO REYES SERRATO OSCAR EDEL CONTRERAS LOPEZ et al.	ACS Materials Au	2025
3	Europium-Induced Ferromagnetism on Bismuth Germanium Oxide Nanoparticles toward Spintronics Applications	JONATHAN GUERRERO SANCHEZ ARMANDO REYES SERRATO MARIO HUMBERTO FARIAS SANCHEZ et al.	Acs Omega	2025
4	Two-Dimensional Bi ₂ O ₂ CO ₃ Nanosheets as a Li-Ion Battery Anode with Kinetic and Theoretical Studies	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ MARIA GUADALUPE MORENO ARMENTA et al.	Acs Applied Nano Materials	2025
5	Structural, Electronic, and Magnetic Properties of the van der Waals ScSi ₂ N ₄ /VSi ₂ N ₄ Heterostructure: A First-Principles Study	RODRIGO PONCE PEREZ Brandon Pedroza-Rojas Ariadna Sanchez-Castillo	Acs Omega	2025

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6	Insights into La ³⁺ and Nd ³⁺ doping in CeO ₂ -supported Rh catalysts: Enhancing CO ₂ hydrogenation and selectivity modulation	ALFREDO SOLIS GARCIA RODRIGO PONCE PEREZ RUBEN MENDOZA CRUZ et al.	Molecular Catalysis	2025
7	Atomic layer deposition of TiO ₂ on hydroxylated graphene via TDMAT: An experimental and theoretical study of nanohybrid nucleation	RODRIGO PONCE PEREZ MARIO HUMBERTO FARIAS SANCHEZ HUGO JESUS TIZNADO VAZQUEZ et al.	Surfaces And Interfaces	2025
8	Bimetallic Ti ₂ NbC ₂ MXene as anode material for metal ion batteries: influence of functional groups	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ MARIA GUADALUPE MORENO ARMENTA	RSC ADVANCES	2025
9	Single atom catalysts on the Cr ₂ NO ₂ MXene for CO oxidation	MARIA GUADALUPE MORENO ARMENTA RODRIGO PONCE PEREZ Francesc Vines et al.	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	2025
10	Adsorption and inactivation of pollutant molecules on the hexagonal Borophene/Al(111) superstructure	JOSE ISRAEL PAEZ ORNELAS RODRIGO PONCE PEREZ HECTOR NOE FERNANDEZ ESCAMILLA et al.	Surfaces And Interfaces	2024
11	Adsorption of Acrolein, Crotonaldehyde, and Cinnamaldehyde on Pt(111) Surfaces: A Comparative DFT Study	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ NOBORU TAKEUCHI TAN et al.	JOURNAL OF PHYSICAL CHEMISTRY C	2024
12	Spin Coupling in the Initial Stages of the Zinc-Blende MnN Growth on the CrN (111) Surface	RODRIGO PONCE PEREZ NOBORU TAKEUCHI TAN Moreno-Hernández J.C. et al.	Advanced Theory and Simulations	2024
13	The role of Ga and Y on binary Al ₂ O ₃ -Y ₂ O ₃ and Al ₂ O ₃ -Ga ₂ O ₃ mixed oxides nanoparticles towards potential Ni water-gas shift catalysts	ALFREDO SOLIS GARCIA SERGIO FUENTES MOYADO RODRIGO PONCE PEREZ et al.	Nano-Structure s and Nano-Objects	2024
14	Inducing d ⁰ magnetism in new SrCl ₂ monolayer towards spintronic applications	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ Vo Van On et al.	PHYSICA SCRIPTA	2024
15	Point Defects in Hexagonal SiP Monolayer: A Systematic Investigation on the Electronic and Magnetic Properties	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ Ha C.V. et al.	Advanced Theory and Simulations	2024
16	Atomic-Scale Description of the Magnetic TiN FeCo Multilayers	RODRIGO PONCE PEREZ ARMANDO REYES SERRATO JONATHAN GUERRERO SANCHEZ et al.	Acs Omega	2024
17	Vacancy- and doping-mediated electronic and magnetic properties of PtS ₂ monolayer towards optoelectronic and spintronic applications	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ Duy Khanh Nguyen et al.	RSC ADVANCES	2024

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18	Controlling the electronic and magnetic properties of the GeAs monolayer by generating Ge vacancies and doping with transition-metal atoms	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ D. M. Hoat et al.	Nanoscale Advances	2024
19	Nb ₂ C and Nb ₂ CO ₂ MXenes as Anodes in Li-Ion Batteries: A Comparative Study by First-Principles Calculations	JOSE ISRAEL PAEZ ORNELAS JONATHAN GUERRERO SANCHEZ RODRIGO PONCE PEREZ et al.	Acs Omega	2024
20	Layer-dependent topological surface states in BiSb	ARMANDO REYES SERRATO RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ et al.	Materials Today Communications	2024
21	Evidence of Half-Metallicity in the AlP/CrP (001) Interface: A First-Principles Study	NOBORU TAKEUCHI TAN RODRIGO PONCE PEREZ Edgar D. Sanchez-Ovalle et al.	Acs Applied Electronic Materials	2024
22	An Atomic-Scale Justification for the Weak Ferromagnetism Observed in Nanostructured Zn _{0.96-x} Co _x Mn _{0.04} O Powders	SUBHASH SHARMA RODRIGO PONCE PEREZ MARIA GUADALUPE MORENO ARMENTA et al.	JOURNAL OF PHYSICAL CHEMISTRY C	2024
23	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
24	Synergistic effects of vacancy and doping at Ge sublattices on the electronic and magnetic properties of new Janus Ge ₂ PA _s monolayer	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ Phuong Thuy H.T. et al.	MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING	2024
25	Magnetic, structural, and morphological properties behavior of Ni _{1-x} CoxFe ₂ O ₄ magnetic nanoparticles: Theoretical and experimental study	DAVID ALEJANDRO DOMINGUEZ VARGAS SERGIO ANDRES AGUILA PUENTES JONATHAN GUERRERO SANCHEZ et al.	MATERIALS CHARACTERIZATION	2024
26	Novel germanene-arsenene and germanene-antimonene lateral heterostructures: interline-dependent electronic and magnetic properties (vol 25, pg 14502, 2023)	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ Chu Viet Ha et al.	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	2024
27	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 ₂ O	RODRIGO PONCE PEREZ HUGO JESUS TIZNADO VAZQUEZ JONATHAN GUERRERO SANCHEZ et al.	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	2024
28	Atomic-scale description of 2D Janus MoSO and MoSeO formation: oxidation patterns and band-gap engineering	HECTOR NOE FERNANDEZ ESCAMILLA JOSE ISRAEL PAEZ ORNELAS RODRIGO PONCE PEREZ et al.	RSC ADVANCES	2024

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29	Removal of Pb-based compounds mediated by graphene oxide-like materials obtained from <i>Sargassum</i> : unravelling key features of their interaction using density functional theory and spectroscopic methods	RODRIGO PONCE PEREZ MARIA GUADALUPE MORENO ARMENTA JONATHAN GUERRERO SANCHEZ et al.	ENVIRONMENTAL SCIENCE-NANO	2024
30	Theoretical investigation of the MXene precursors $\text{MoxV}_4\text{-xAlC}_3$ ($0 = x = 4$)	MARIA GUADALUPE MORENO ARMENTA JONATHAN GUERRERO SANCHEZ HECTOR NOE FERNANDEZ ESCAMILLA et al.	SCIENTIFIC REPORTS	2023
31	Searching for d0 spintronic materials: bismuthene monolayer doped with IVA-group atoms	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ Nguyen D.K. et al.	RSC ADVANCES	2023
32	Half-metallic and magnetic semiconductor behavior in CdO monolayer induced by acceptor impurities	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ D. M. Hoat	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	2023
33	Novel germanene-arsenene and germanene-antimonene lateral heterostructures: interline-dependent electronic and magnetic properties	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ Chu Viet Ha et al.	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	2023
34	Boosting oxygen activation in ceria-oxide via gallium addition	TRINO ARMANDO ZEPEDA PARTIDA RODRIGO PONCE PEREZ ALFREDO SOLIS GARCIA et al.	APPLIED CATALYSIS B-ENVIRONMENTAL	2023
35	Furfural adsorption on the g-C ₃ N ₄ monolayer: A DFT analysis	RODRIGO PONCE PEREZ JOSE ISRAEL PAEZ ORNELAS ARMANDO REYES SERRATO et al.	Materials Today Communications	2023
36	Semiconductor and topological phases in lateral heterostructures constructed from germanene and AsSb monolayers	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ Chu Viet Ha et al.	RSC ADVANCES	2023
37	Electronic and magnetic properties of SnC monolayer doped with 3d transition metals: A first-principles study	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ Huy H.A. et al.	Materials Today Communications	2023
38	Tuning the electronic and thermoelectric properties of selenium monolayers through atomic impurities: A DFT study	MARIA GUADALUPE MORENO ARMENTA JONATHAN GUERRERO SANCHEZ RODRIGO PONCE PEREZ et al.	SOLID STATE COMMUNICATIONS	2023

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39	Assessing the stability of Kagome D019-Mn ₃ Ga (0001) surfaces: A first-principles study	JONATHAN GUERRERO SANCHEZ RODRIGO PONCE PEREZ NOBORU TAKEUCHI TAN et al.	Surfaces And Interfaces	2023
40	Experimental and theoretical assessment of the Eu ³⁺ doped Bi ₄ Ge ₃ O ₁₂	RODRIGO PONCE PEREZ ABDUL MAURICIO REYES USUGA GERARDO SOTO HERRERA et al.	JOURNAL OF ALLOYS AND COMPOUNDS	2023
41	Study of the structure, structural transition, interface model, and magnetic moments of CrN grown on MgO(001) by molecular beam epitaxy	RODRIGO PONCE PEREZ NOBORU TAKEUCHI TAN Alam K. et al.	JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A	2023
42	Insights about AIP (001) Surface Reconstructions: A Density Functional Theory Study	NOBORU TAKEUCHI TAN RODRIGO PONCE PEREZ Edgar Daniel Sanchez Ovalle et al.	Acs Applied Electronic Materials	2023
43	A candidate exchange-biased vdW heterostructure based on Cr ₂ NO ₂ and Cr ₂ CF ₂ MXenes	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ HECTOR NOE FERNANDEZ ESCAMILLA et al.	Materials Today Electronics	2023
44	Spin-Polarized Total-Energy Calculations on Designing Magnetic Single-Atom Catalysts on the ZnO(0001) Surface with Pt and Pd	RODRIGO PONCE PEREZ ARMANDO REYES SERRATO JONATHAN GUERRERO SANCHEZ et al.	Acs Applied Nano Materials	2023
45	Atomic-scale study of TiO ₂ -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
46	Mn induces a 1×3 reconstruction in the ferromagnetic L21 Mn ₂ FeGa (001) surface	JONATHAN GUERRERO SANCHEZ RODRIGO PONCE PEREZ NOBORU TAKEUCHI TAN et al.	Surfaces And Interfaces	2023
47	Surface functionalization of graphene-like boron arsenide monolayer: a first-principles study	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ Khanh Nguyen D. et al.	JOURNAL OF PHYSICS-CONDENSED MATTER	2023
48	Study of vacancy, voids, atom adsorption and domain substitution in hexagonal gallium nitride monolayer & nbsp;	JONATHAN GUERRERO SANCHEZ RODRIGO PONCE PEREZ Van On V. et al.	Surfaces And Interfaces	2022
49	Chlorine in NiO promotes electroreduction of CO ₂ to formate	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ NOBORU TAKEUCHI TAN et al.	Applied Materials Today	2022
50	Electronic and magnetic properties of the WSO Janus monolayer engineered by intrinsic defects	JONATHAN GUERRERO SANCHEZ RODRIGO PONCE PEREZ Nguyen D.K. et al.	Surfaces And Interfaces	2022

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51	Defective and doped MgO monolayer as promising 2D materials for optoelectronic and spintronic applications	JONATHAN GUERRERO SANCHEZ RODRIGO PONCE PEREZ Gregorio H. Cocolletzi et al.	MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING	2022
52	Reversible Lithium-Ion Storage in h-Bi ₂ Ge ₃ O ₉ -Based Anode: Experimental and Theoretical Studies	ANDREY SIMAKOV SERGIO ANDRES AGUILA PUENTES RODRIGO PONCE PEREZ et al.	JOURNAL OF ELECTROANALYTICAL CHEMISTRY	2022
53	Strain Effects on the Two-Dimensional Cr ₂ N MXene: An Ab Initio Study	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ MARIA GUADALUPE MORENO ARMENTA et al.	Acs Omega	2022
54	Selective incorporation of Fe and Co into the Ni ₂ MnGa (001) surfaces: a DFT analysis	RODRIGO PONCE PEREZ MARIA GUADALUPE MORENO ARMENTA JONATHAN GUERRERO SANCHEZ	Surfaces And Interfaces	2022
55	Adsorption, thermal conversion, and catalytic hydrogenation of acrolein on Cu surfaces	RODRIGO PONCE PEREZ NOBORU TAKEUCHI TAN Mindika Tilan Nayakasinghe et al.	JOURNAL OF CATALYSIS	2022
56	Cr ₂ Ge ₂ Te ₆ nanoribbons with perpendicular magnetic anisotropy and half metallicity: a DFT study	RODRIGO PONCE PEREZ MARIA GUADALUPE MORENO ARMENTA JONATHAN GUERRERO SANCHEZ et al.	JOURNAL OF PHYSICS D-APPLIED PHYSICS	2022
57	Tuning the half-metallicity in reconstructed CrN (111) surfaces	RODRIGO PONCE PEREZ NOBORU TAKEUCHI TAN Juan C. Moreno Hernandez et al.	Surfaces And Interfaces	2022
58	Evaluating the detection and trapping of small gas molecules on hydrogenated siligene	HECTOR NOE FERNANDEZ ESCAMILLA JOSE ISRAEL PAEZ ORNELAS RODRIGO PONCE PEREZ et al.	PHYSICA SCRIPTA	2022



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PARTICIPACIÓN EN PROYECTOS

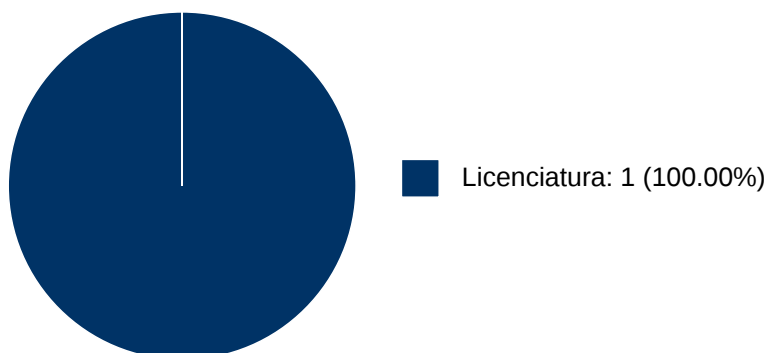
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PARTICIPACIÓN EN TESIS

Histórico de Colaboraciones en Tesis

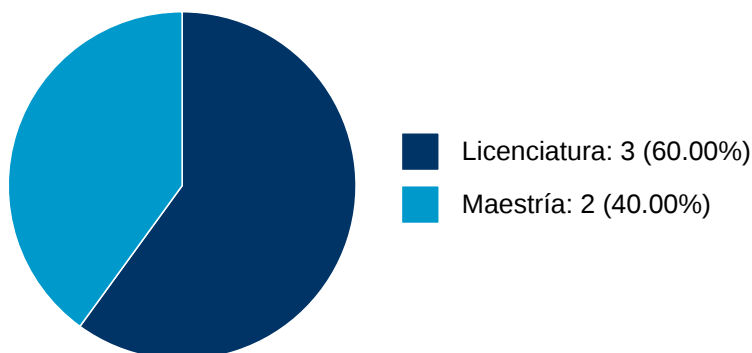


#	Título del documento	Tipo de Tesis	Sinodales	Autores	Entidad	Año
1	Inducción de características Half-metal y anisotropía magnética perpendicular por efectos de bordes en nanocintas de Cr ₂ Ge ₂ Te ₆	Tesis de Licenciatura	MARIA GUADALUPE MORENO ARMENTA,	RODRIGO PONCE PEREZ, Ríos Vargas, Valeria,	Centro de Nanociencias y Nanotecnología en la UNAM,	2022

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DOCENCIA IMPARTIDA

Histórico de docencia



#	Nivel titulación	Asignatura	Entidad	Alumnos	Semestre
1	Licenciatura	QUIMICA GENERAL	Centro de Nanociencias y Nanotecnología en la UNAM	12	2025-1
2	Licenciatura	QUIMICA GENERAL	Centro de Nanociencias y Nanotecnología en la UNAM	12	2025-1
3	Maestría	TEMAS SELECTOS DE MATERIALES ELECTRÓNICOS SIMULACIONES COMPUTACIONALES DE MATERIALES	Instituto de Investigaciones en Materiales	1	2024-2
4	Maestría	ESTRUCTURA ELECTRÓNICA DE MATERIALES	Instituto de Investigaciones en Materiales	1	2024-1
5	Licenciatura	SIMULACIONES COMPUTACIONALES	Centro de Nanociencias y Nanotecnología en la UNAM	3	2022-2



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PATENTES

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

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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	2008-2025
7	Tutorías en Posgrado	CGEP	SIIPosgrado	2008-2021

Externos

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