



**Sistema Integral de Información Académica**  
**Dirección General de Evaluación Institucional**  
**Reporte de Producción Académica**



**HECTOR NOE FERNANDEZ ESCAMILLA**

## Datos Generales

**Nombre:** HECTOR NOE FERNANDEZ ESCAMILLA

**Máximo nivel de estudios:** DOCTORADO

**Antigüedad académica en la UNAM:** 1 año, 0 meses, 15 días

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## Nombramientos

**Último:** PROFESOR ASIGNATURA A TP No Definitivo  
Centro de Nanociencias y Nanotecnología en la  
UNAM  
Desde 16-09-2020 hasta 15-02-2021

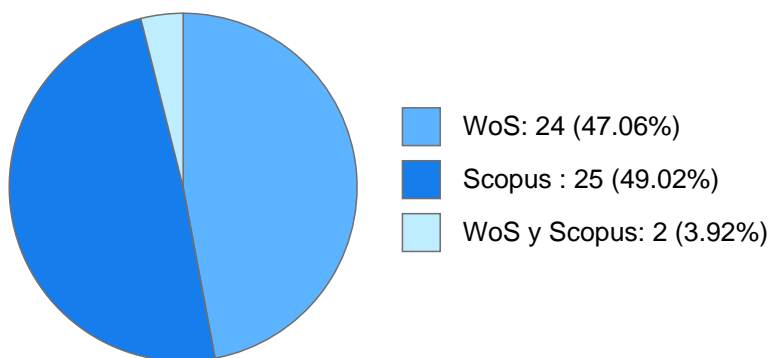
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## Estímulos, programas, premios y reconocimientos

SNI I 2020 - 2023

## DOCUMENTOS EN REVISTAS

### Histórico de Documentos



#	Título	Autores	Revista	Año
1	Density Functional Theory Study of Single-Atom Transition Metal Catalysts Supported on Pyridine-Substituted Graphene Nanosheets for Oxygen Reduction Reaction	HECTOR NOE FERNANDEZ ESCAMILLA JOSE ISRAEL PAEZ ORNELAS JONATHAN GUERRERO SANCHEZ et al.	Acs Applied Nano Materials	2024
2	Adsorption and inactivation of pollutant molecules on the hexagonal Borophene/Al(III) superstructure	JOSE ISRAEL PAEZ ORNELAS RODRIGO PONCE PEREZ HECTOR NOE FERNANDEZ ESCAMILLA et al.	Surfaces And Interfaces	2024
3	Influence of the Atomic Local Environment on the ORR Activity of Single-Atom Catalysts in N-Doped Graphene	JOSE ISRAEL PAEZ ORNELAS HECTOR NOE FERNANDEZ ESCAMILLA JONATHAN GUERRERO SANCHEZ et al.	Acs Applied Energy Materials	2024
4	Bismuth and oxygen vacancies induce (2 x 1) reconstructions in bismuth oxyhalide (BiOX, X = Cl, Br, I) (001) surfaces	HECTOR NOE FERNANDEZ ESCAMILLA JOSE ISRAEL PAEZ ORNELAS JONATHAN GUERRERO SANCHEZ et al.	APPLIED SURFACE SCIENCE	2023
5	Ab initio study of the adsorption of SO <sub>2</sub> on single-atom Cu-decorated ZnO(0001) surface	HECTOR NOE FERNANDEZ ESCAMILLA JONATHAN GUERRERO SANCHEZ Camarillo-Salazar E. et al.	JOURNAL OF MOLECULAR MODELING	2023



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6	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
7	2D $\text{MnC}_4$ : A Room-Temperature Antiferromagnetic System	HECTOR NOE FERNANDEZ ESCAMILLA JOSE ISRAEL PAEZ ORNELAS NOBORU TAKEUCHI TAN et al.	Advanced Theory and Simulations	2023
8	A candidate exchange-biased vdW heterostructure based on $\text{Cr}_2\text{NO}_2$ and $\text{Cr}_2\text{CF}_2$ MXenes	RODRIGO PONCE PEREZ JONATHAN GUERRERO SANCHEZ HECTOR NOE FERNANDEZ ESCAMILLA et al.	Materials Today Electronics	2023
9	Mn induces a $1 \times 3$ reconstruction in the ferromagnetic $\text{L}21 \text{Mn}_2\text{FeGa}$ (001) surface	JONATHAN GUERRERO SANCHEZ RODRIGO PONCE PEREZ NOBORU TAKEUCHI TAN et al.	Surfaces And Interfaces	2023
10	Transition metal (Ti, Cu, Zn, Pt) single-atom modified graphene/ $\text{AS}_2$ (A = Mo, W) van der Waals heterostructures for removing airborne pollutants	HECTOR NOE FERNANDEZ ESCAMILLA JONATHAN GUERRERO SANCHEZ Camarillo-Salazar E. et al.	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	2023
11	Self-energy corrected band-gap tuning induced by strain in the hexagonal boron phosphide monolayer	JONATHAN GUERRERO SANCHEZ HECTOR NOE FERNANDEZ ESCAMILLA NOBORU TAKEUCHI TAN et al.	COMPUTATIONAL MATERIALS SCIENCE	2022
12	Controlling the magnetic alignment at the $\text{MnGa}/\text{Co}_2\text{MnSi}$ interface: A DFT study	ADRIAN TELLEZ MORA HECTOR NOE FERNANDEZ ESCAMILLA NOBORU TAKEUCHI TAN et al.	JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS	2022
13	Adsorption and Reactivity of Chiral Modifiers in Heterogeneous Catalysis: 1-(1-Naphthyl)ethylamine on Pt Surfaces	HECTOR NOE FERNANDEZ ESCAMILLA JONATHAN GUERRERO SANCHEZ NOBORU TAKEUCHI TAN et al.	ACS CATALYSIS	2022
14	$\text{Pt}_2\text{MnGa}$ (001) surface stability and its effect on the magnetic and electronic properties: A DFT study	HECTOR NOE FERNANDEZ ESCAMILLA NOBORU TAKEUCHI TAN JONATHAN GUERRERO SANCHEZ et al.	Materials Today Communications	2022
15	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.	PHYSICAL SCRIPTA	2022
16	Electronic and optical properties of the buckled and puckered phases of phosphorene and arsenene	HECTOR NOE FERNANDEZ ESCAMILLA JONATHAN GUERRERO SANCHEZ NOBORU TAKEUCHI TAN et al.	SCIENTIFIC REPORTS	2022
17	Hexagonal boron phosphide monolayer exfoliation induced by arsenic incorporation in the BP (111) surface: A DFT study	JONATHAN GUERRERO SANCHEZ HECTOR NOE FERNANDEZ ESCAMILLA Onam Munive Hernandez et al.	APPLIED SURFACE SCIENCE	2021



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18	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
19	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 HUGO ALEJANDRO BORBON NUÑEZ HUGO JESUS TIZNADO VAZQUEZ et al.	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	2021
20	First-principles studies of the strain-induced band-gap tuning in black phosphorene	JONATHAN GUERRERO SANCHEZ HECTOR NOE FERNANDEZ ESCAMILLA NOBORU TAKEUCHI TAN et al.	JOURNAL OF PHYSICS-CONDENSED MATTER	2021
21	Understanding the Role of Oxygen Vacancies in the Stability of ZnO(0001)-(1 x 3) Surface Reconstructions	HECTOR NOE FERNANDEZ ESCAMILLA EDUARDO ANTONIO MURILLO BRACAMONTES MARIA GUADALUPE MORENO ARMENTA et al.	JOURNAL OF PHYSICAL CHEMISTRY C	2021
22	The effect of shape and size in the stability of triangular Janus MoS <sub>2</sub> quantum dots	JOSE ISRAEL PAEZ ORNELAS HECTOR NOE FERNANDEZ ESCAMILLA EDUARDO ANTONIO MURILLO BRACAMONTES et al.	SCIENTIFIC REPORTS	2021
23	Adsorption and diffusion mechanisms of silver ad-atoms on Ag and Cu (110) surfaces: A first principles study	HECTOR NOE FERNANDEZ ESCAMILLA NOBORU TAKEUCHI TAN JONATHAN GUERRERO SANCHEZ et al.	Materials Today Communications	2020
24	Aldehyde trapping by self-propagating atom-exchange reactions on a gallium nitride monolayer: role of the molecule complexity	EDUARDO MARTINEZ GUERRA HECTOR NOE FERNANDEZ ESCAMILLA JONATHAN GUERRERO SANCHEZ et al.	NEW JOURNAL OF CHEMISTRY	2020
25	Structural properties and thermal stability of multi-walled black phosphorene nanotubes and their operation as temperature driven nanorotors	HECTOR NOE FERNANDEZ ESCAMILLA JONATHAN GUERRERO SANCHEZ NOBORU TAKEUCHI TAN et al.	Nanoscale	2020
26	Mn <sub>5</sub> Ge <sub>3</sub> ultra-thin films on GaAs (111)B substrates: Influence of initial growth conditions	HECTOR NOE FERNANDEZ ESCAMILLA JONATHAN GUERRERO SANCHEZ Gutiérrez-Ojeda S.J. et al.	SUPERLATTICES AND MICROSTRUCTURES	2020



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**PARTICIPACIÓN EN TESIS**

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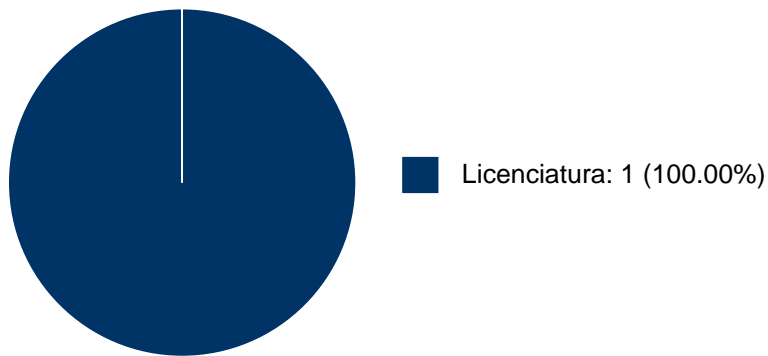
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**DOCENCIA IMPARTIDA**

**Histórico de docencia**



#	Nivel titulación	Asignatura	Entidad	Alumnos	Semestre
1	Licenciatura	SIMULACIONES COMPUTACIONALES	Centro de Nanociencias y Nanotecnología en la UNAM	8	2021-1





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**TUTORIAS EN POSGRADO**

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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	2008-2024
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	2008-2023
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