# JORGE HERNANDEZ COBOS

## Datos Generales

**Nombre:** JORGE HERNANDEZ COBOS

**Máximo nivel de estudios:** DOCTORADO

**Antigüedad académica en la UNAM:** 39 años

## Nombramientos

**Vigente:** INVESTIGADOR TITULAR B TC Definitivo
Instituto de Ciencias Físicas
Desde 01-12-2012

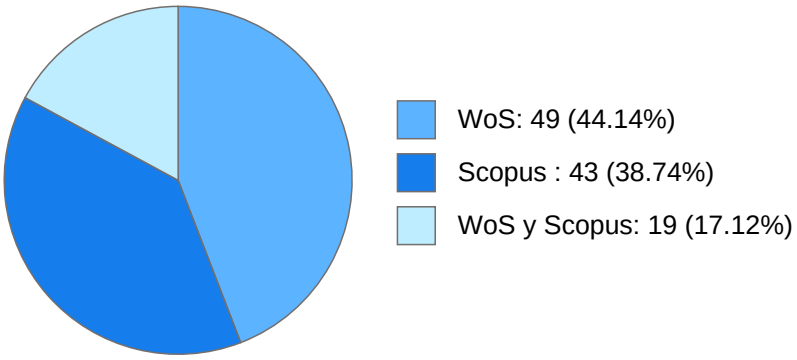
## Estímulos, programas, premios y reconocimientos

SNI II 2012 - VIGENTE
SNI I - 2011
PRIDE C - 2024

# JORGE HERNANDEZ COBOS

## DOCUMENTOS EN REVISTAS

### Histórico de Documentos




| # | Título | Autores | Revista | Año |
|---|---|---|---|---|
| 1 | Effect of ergosterol or cholesterol on the morphology and dynamics of the POPC/sphingomyelin bilayer | JORGE HERNANDEZ COBOS ARTURO GALVAN HERNANDEZ IVAN ORTEGA BLAKE et al. | BIOPHYSICAL CHEMISTRY | 2025 |
| 2 | Acetonitrile real gas phase behavior from quasi-ideal gas to nanodroplets: A microscopical view | JORGE HERNANDEZ COBOS Martínez J.M. Pappalardo R.R. et al. | JOURNAL OF CHEMICAL PHYSICS | 2024 |
| 3 | Increasing beam stability zone in synchrotron light sources using polynomial quasi-invariants | ALAIN FLORES TLALPA JORGE HERNANDEZ COBOS FERNANDO MATIAS MORENO YNTRIAGO et al. | SCIENTIFIC REPORTS | 2023 |
| 4 | Local structure of liquid oxygen up to supercritical conditions from ab initio pair potentials | JORGE HERNANDEZ COBOS Alcaraz-Torres A. Gamboa-Suárez A. et al. | PHYSICAL REVIEW B | 2023 |
| 5 | Nanoscale dynamics of membrane domains with different sterols | ARTURO GALVAN HERNANDEZ JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE et al. | BIOPHYSICAL JOURNAL | 2023 |
| 6 | A novel approach using nonlinear surfaces for dynamic aperture optimization in MBA synchrotron light sources | JORGE HERNANDEZ COBOS ARMANDO ANTILLON DIAZ Sanchez E.A. et al. | SCIENTIFIC REPORTS | 2023 |
| 7 | Onset of resonances by roots overlapping using quasi-invariants in nonlinear accelerator dynamics | EDGAR ANDRES SANCHEZ GARCIA ALAIN FLORES TLALPA JORGE HERNANDEZ COBOS et al. | NONLINEAR DYNAMICS | 2022 |

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| 8 | A general purpose acetonitrile interaction potential to describe its liquid, solid and gas phases | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE Martínez J.M. et al. | JOURNAL OF MOLECULAR LIQUIDS | 2020 |
| 9 | A molecular dynamics study proposing the existence of statistical structural heterogeneity due to chain orientation in the POPC-cholesterol bilayer | ARTURO GALVAN HERNANDEZ JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE et al. | BIOPHYSICAL CHEMISTRY | 2020 |
| 10 | Morphology and dynamics of domains in ergosterol or cholesterol containing membranes | ARTURO GALVAN HERNANDEZ JORGE HERNANDEZ COBOS ARMANDO ANTILLON DIAZ et al. | BIOCHIMICA ET BIOPHYSICA ACTA-BIOMEMBRANES | 2020 |
| 11 | Study on Ergosterol and Cholesterol Conformational Freedom and Their Different Interaction with a Popc/Sm Bilayer. An AFM and MD Study | ARTURO GALVAN HERNANDEZ JORGE HERNANDEZ COBOS ARMANDO ANTILLON DIAZ et al. | BIOPHYSICAL JOURNAL | 2020 |
| 12 | Proton hydration in gas phase clusters: Born-Oppenheimer molecular dynamics hybrid DFT study of HCl in a water nanodroplet | JORGE HERNANDEZ COBOS HUMBERTO SAINT MARTIN POSADA Cesar Ivan Leon-Pimentel et al. | Abstracts Of Papers Of The American Chemical Society | 2019 |
| 13 | Influence of Sterol in Ternary Mixtures Containing Sphingomyelin: An All-Atom Molecular Dynamics Study | ARTURO GALVAN HERNANDEZ JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE et al. | BIOPHYSICAL JOURNAL | 2019 |
| 14 | Morphology and Dynamic Effect of Ergosterol or Cholesterol on Domains Present in POPC-Esm-Sterol SLB | ARTURO GALVAN HERNANDEZ ARMANDO ANTILLON DIAZ JORGE HERNANDEZ COBOS et al. | BIOPHYSICAL JOURNAL | 2019 |
| 15 | Aqueous Solvation of SmI3: A Born-Oppenheimer Molecular Dynamics Density Functional Theory Cluster Approach | JORGE HERNANDEZ COBOS Ramirez-Solis A. Amaro-Estrada J.I. et al. | INORGANIC CHEMISTRY | 2018 |
| 16 | Aqueous solvation of Mg(ii) and Ca(ii): A Born-Oppenheimer molecular dynamics study of microhydrated gas phase clusters | JORGE HERNANDEZ COBOS Saint-Martin H. León-Pimentel C.I. et al. | JOURNAL OF CHEMICAL PHYSICS | 2018 |
| 17 | On the aqueous solvation of AsO(OH)3: Vs. As(OH)3. Born-Oppenheimer molecular dynamics density functional theory cluster studies | JORGE HERNANDEZ COBOS HUMBERTO SAINT MARTIN POSADA A. Ramirez-Solis et al. | PHYSICAL CHEMISTRY CHEMICAL PHYSICS | 2018 |
| 18 | Hydration of CH3HgOH and CH3HgCl compared to HgCl2, HgClOH, and Hg(OH)(2): A DFT microsolvation cluster approach | JORGE IVAN AMARO ESTRADA JORGE HERNANDEZ COBOS HUMBERTO SAINT MARTIN POSADA et al. | JOURNAL OF CHEMICAL PHYSICS | 2018 |

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| 19 | Experimental and Theoretical Studies on the Implications of Halide-Dependent Aqueous Solvation of Sm(II) | JORGE HERNANDEZ COBOS HUMBERTO SAINT MARTIN POSADA Ramírez-Solís A. et al. | JOURNAL OF THE AMERICAN CHEMICAL SOCIETY | 2018 |
| 20 | Aqueous Solvation of SmI2: A Born-Oppenheimer Molecular Dynamics Density Functional Theory Cluster Approach | JORGE HERNANDEZ COBOS Ramirez-Solis, A. Amaro-Estrada, J. I. et al. | JOURNAL OF PHYSICAL CHEMISTRY A | 2017 |
| 21 | Lateral Heterogeneity of Cholesterol on Binary Lipid Mixtures of POPC/Chol Imaged with AFM | ARTURO GALVAN HERNANDEZ JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE et al. | BIOPHYSICAL JOURNAL | 2017 |
| 22 | Lateral Heterogeneity of Cholesterol on Binary Lipid Mixtures of POPC/CHOL: a Molecular Dynamics Study | ARTURO GALVAN HERNANDEZ JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE et al. | BIOPHYSICAL JOURNAL | 2017 |
| 23 | Is there a lo plus ld Coexistence Phase in the POPC-chol Mixture? An Insight through Molecular Dynamics Simulations | Cesar Millan Pacheco JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE et al. | BIOPHYSICAL JOURNAL | 2016 |
| 24 | X-ray accelerated photo-oxidation of as(III) in solution | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE CancheTello, Jesus et al. | JOURNAL OF PHYSICAL CHEMISTRY A | 2015 |
| 25 | Collecting high-order interactions in an effective pairwise intermolecular potential using the hydrated ion concept: The hydration of Cf3+ | JORGE HERNANDEZ COBOS Galbis, Elsa Pappalardo, Rafael R. et al. | JOURNAL OF CHEMICAL PHYSICS | 2014 |
| 26 | Interpretation of X-ray absorption spectra of As(III) in solution using Monte Carlo simulations | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE Canche-Tello, Jesus et al. | JOURNAL OF PHYSICAL CHEMISTRY A | 2014 |
| 27 | Theoretical study of the aqueous solvation of HgCl2: Monte Carlo simulations using second-order Moller-Plesset-derived flexible polarizable interaction potentials | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE Ramirez-Solis, A. et al. | JOURNAL OF CHEMICAL PHYSICS | 2012 |
| 28 | Theoretical studies on the optimal X (OH)(3)-H2O (X = N, P, Sb) complexes: Interaction energies and topological analysis of the electronic density | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE Ramirez-Solis, A. et al. | CHEMICAL PHYSICS LETTERS | 2012 |
| 29 | Theoretical study of the optimal As(OH)(3)-H2O complex: Interaction energy and topological analysis of the electronic density | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE Ramirez-Solis, A. et al. | COMPUTATIONAL AND THEORETICAL CHEMISTRY | 2011 |
| 30 | A refined potential for hydroxylamine clusters and the liquid phase | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE Gonzalez-Espinoza, Alfredo | JOURNAL OF CHEMICAL PHYSICS | 2011 |

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| 31 | Solving the Hydration Structure of the Heaviest Actinide Aqua Ion Known: The Californium(III) Case | JORGE HERNANDEZ COBOS Galbis, Elsa den Auwer, Christophe et al. | ANGEWANDTE CHEMIE-INTERNATIONAL EDITION | 2010 |
| 32 | A theoretical study of the hydration of Rb+ by Monte Carlo simulations with refined ab initio-based model potentials | JORGE HERNANDEZ COBOS HUMBERTO SAINT MARTIN POSADA IVAN ORTEGA BLAKE et al. | THEORETICAL CHEMISTRY ACCOUNTS | 2010 |
| 33 | Aqueous solvation of As(OH)(3): A Monte Carlo study with flexible polarizable classical interaction potentials | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE Vargas, M. Cristina et al. | JOURNAL OF CHEMICAL PHYSICS | 2010 |
| 34 | Liquid methanol Monte Carlo simulations with a refined potential which includes polarizability, nonadditivity, and intramolecular relaxation | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE Vald´z-González M. et al. | JOURNAL OF CHEMICAL PHYSICS | 2007 |
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| 37 | Water liquid-vapor equilibria predicted by refined ab initio derived potentials | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE Saint-Martin H. et al. | JOURNAL OF CHEMICAL PHYSICS | 2005 |
| 38 | Water models based on a single potential energy surface and different molecular degrees of freedom | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE Saint-Martin H. | JOURNAL OF CHEMICAL PHYSICS | 2005 |
| 39 | Effect of Zn and Ni substitution on the local electronic structure of the YBa2Cu3O7 superconductor | ILYA KAPLAN SAVITSKY JACQUES ANDRE CLAUDE SOULLARD SAINTRAIS JORGE HERNANDEZ COBOS | PHYSICAL REVIEW B | 2002 |
| 40 | The influence of the density in the hydrophobic hydration of methane in supercritical water | JORGE HERNANDEZ COBOS Vega L.F. | JOURNAL OF MOLECULAR LIQUIDS | 2002 |
| 41 | The hydrophobic hydration of methane as a function of temperature from histogram reweighting Monte Carlo simulations | JORGE HERNANDEZ COBOS Mackie A.D. Vega L.F. | JOURNAL OF CHEMICAL PHYSICS | 2001 |
| 42 | Coupling a polarizable water model to the hydrated ion-water interaction potential: A test on the Cr3+ hydration | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE HUMBERTO SAINT MARTIN POSADA et al. | JOURNAL OF CHEMICAL PHYSICS | 2000 |

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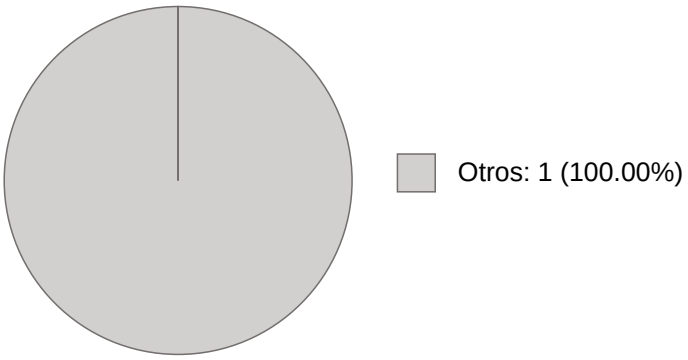
| 43 | A mobile charge densities in harmonic oscillators (MCDHO) molecular model for numerical simulations: The water-water interaction | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE Saint-Martin H. et al. | JOURNAL OF CHEMICAL PHYSICS | 2000 |
| 44 | Predicting liquid-vapour equilibria for water using an ab-initio potential from histogram reweighting Monte Carlo simulations | JORGE HERNANDEZ COBOS Mackie A.D. Vega L.F. | MOLECULAR SIMULATION | 2000 |
| 45 | Determination of the free energy of water at room temperature by parallel grand canonical Monte Carlo | JORGE HERNANDEZ COBOS Vega L.F. Mackie Allan D. | COMPUTER PHYSICS COMMUNICATIONS | 1999 |
| 46 | Liquid vapor equilibria for an ab initio model for water | JORGE HERNANDEZ COBOS Mackie A.D. Vega L.F. | JOURNAL OF CHEMICAL PHYSICS | 1999 |
| 47 | Electronic structure of YBa2Cu3O7 ceramics at the MP2 electron correlation level | ILYA KAPLAN SAVITSKY JACQUES ANDRE CLAUDE SOULLARD SAINTRAIS JORGE HERNANDEZ COBOS et al. | JOURNAL OF PHYSICS-CONDENSED MATTER | 1999 |
| 48 | An analytical representation of the model potential for beryllium trimers | JORGE HERNANDEZ COBOS ILYA KAPLAN SAVITSKY Murrell J.N. | MOLECULAR PHYSICS | 1997 |
| 49 | Many-body forces and electron correlation in small metal clusters | ILYA KAPLAN SAVITSKY JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE et al. | PHYSICAL REVIEW A | 1996 |
| 50 | Hydrophobic hydration in methanol aqueous solutions | JORGE HERNANDEZ COBOS Ortega-Blake I. | JOURNAL OF CHEMICAL PHYSICS | 1995 |
| 51 | A refined Monte Carlo study of aqueous urea solutions | JORGE HERNANDEZ COBOS IVAN ORTEGA BLAKE Bonilla-Marín M. et al. | JOURNAL OF CHEMICAL PHYSICS | 1993 |

# JORGE HERNANDEZ COBOS

## LIBROS Y CAPITULOS CON ISBN

### Obras con registro ISBN




| # | Título | Autores | Alcance | Año | ISBN |
|---|---|---|---|---|---|
| 1 | CHROMATIC INDEX TO FIND A WORKING POINT FOR A 4TH GENERATION SYNCHROTRON LIGHT SOURCE | EDGAR ANDRES SANCHEZ GARCIA ALAIN FLORES TLALPA JORGE HERNANDEZ COBOS et al. | Conferenc e Paper | 2024 | 9783954502196 |

# JORGE HERNANDEZ COBOS

## PARTICIPACIÓN EN PROYECTOS

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

**JORGE HERNANDEZ COBOS**

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## PARTICIPACIÓN EN TESIS

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

**JORGE HERNANDEZ COBOS**

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## DOCENCIA IMPARTIDA

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

**JORGE HERNANDEZ COBOS**

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## PATENTES

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

**JORGE HERNANDEZ COBOS**

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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 |