

# CURRICULUM VITAE

## Dr. José Luis Cuevas Figueroa



**Date of birth:** 23.12.1979

**Nationality:** Mexican

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### ACADEMIC FORMATION

**Ph. D:** Nanoscience and Nanotechnology **12.2013 - 01.2010**

National Polytechnic Institute (IPN) México

**Specialization:** Material Science and Nanotechnology

Thesis title: Oxygen effects on the electronic properties in SiC nanowires hydrogenated kind  $\beta$ .

**M.Sc. Nanoscience and Nanotechnology** **08.2009 - 01.2007**

National Polytechnic Institute (IPN) México

**Specialization:** Material Science and Nanotechnology

Thesis title: Electronic properties in quantic silicon carbide nanowires kind  $\beta$

**B. Sc. Communications and Electronics Engineer** **08.2006 - 08.2009**

National Polytechnic Institute (IPN) México

**Specialization:** Electronic

### WORK EXPERIENCE

**Metropolitan Autonomous University-Xochimilco (UAM-X)** **12.2016 – 06.2014**

Position: Project Manager, Postdoctoral Fellow, Focus Area Nanotechnology

- Project "Encapsulation of Copaxone and Interferon in nanoparticles to treat neurological diseases"

- Strategic planning and consulting work in the laboratory of nanomaterials, Silica, Titania and copper acetylacetone
- Interpretation of TEM, SEM micrographs.
- Investigation about the optimal percentage of Cu for doping the nanostructures
- Participation as speaker
- Supervision of Bachelor, Master and PhD students.
- Participation in international conferences, workshops and seminar

**National Polytechnic Institute (IPN) México**

**12.2013 - 01.2010**

Electronic Properties of SiC nanoparticles:

Position: Researcher, Doctoral Candidate

Basic knowledge of ab-initio method (DFT)

Analysis of the electronic band structures and density of states of SiC nanoparticles

Support for Bachelor and Master students

Participation in international conferences and seminars

**National Polytechnic Institute (IPN) México**

**08.2009 - 01.2007**

Theoretical Physics Prof. Prof. M. Cruz-Irisson

Position: Researcher, M.Sc. Candidate, Focus Area Nanoscience and Nanotechnology

Basic knowledge about theoretical calculation (Tight Binding)

Basic knowledge about nanotechnology

Theoretical framework about nanomaterials

**National Polytechnic Institute (IPN) México**

**08.2006 - 08.2009**

Position: B. Sc, candidate

Basic knowledge about science

Design of software for the control of a PLC

**PUBLICATIONS**

Peer review publications international journals 9

Additional publications 4

## **AWARDS, GRANTS & HONOURS**

Level I of National System of Researchers CONACyT (Mexico)	2015-2017
Posdoctoral Fellowship Scholarship CONACyT (Mexico)	2015-2017
Doctoral Scholarship CONACyT (Mexico)	2010-2014
M.Sc Scholarship CONACyT (Mexico)	2007-2009

## **TEACHING EXPERIENCE**

**Introduction to the Nanomedicine** (From 08.2015 to 12.2015)

UNAM, Mexico

## **SKILLS**

- LENGUAGES**

1. Spanish: Mutter tongue
2. English: advanced
3. French: Basic

- COMPUTER**

1. Data analysis: Origin, MS Excel
2. Text edition: LaTEX, MS Word
3. Graphical design: Photoshop, paint shop pro
4. Advance design software: Materials studio software

## **APITITUDES**

1. High adaptability
2. Leadership
3. Persistent
4. Teamwork

## **References**

For further information on my CV, please contact:

1. Prof. Dr. Miguel Cruz Irisson  
National Polytechnic Institute (IPN)  
e-mail: irisson.ipn@gmail.com

2. Prof. Dr. Tessy Lopez  
Metropolitan Autonomous University-Xochimilco (UAM-X)  
e-mail: tessy3@prodigy.net.mx

## List of publications

### Publications in Indexed Journals with referee

1. “*Quantum Confinement Effects on Electronic Properties of Hydrogenated 3C–SiC Nanowires*” A. Miranda, **J.L. Cuevas**, A. E. Ramos and M. Cruz-Irisson, Microelectronics Journal **40**, 796–798 (2009).
2. “*Effects of Morphology on the Electronic Properties of Hydrogenated Silicon Carbide Nanowires*”, A. Miranda, **J.L. Cuevas**, A. E. Ramos and M Cruz- Irisson Journal of Nano Research **5**, 161-167 (2009).
3. “*Phonon band structure of porous Ge from ab initio supercell calculation*”, A. Trejo, **J.L. Cuevas**, R. Vázquez-Medina, M. Cruz-Irisson Microelectronic Engineering **90**, 141, (2012).
4. “*A Density Functional Theory study of chemical surface modification of  $\beta$ -SiC nanopores*” M. Calvino, A. Trejo, **J. L. Cuevas** and M. Cruz-Irisson. Materials Science and Engineering B **177**, 1482–1486, (2012).
5. “*Ab-initio modeling of oxygen on the surface passivation of 3C SiC nanostructures*” **J.L. Cuevas**, A. Trejo, M. Calvino, E. Carvajal, M. Cruz-Irisson Applied Surface Science **258**, 8360, (2012).
6. “*Ab-initio study of anisotropic and chemical surface modifications of  $\beta$ -SiC nanowires*” Alejandro Trejo, **José Luis Cuevas**, Fernando Salazar, Eliel Carvajal, Miguel Cruz-Irisson. Journal of Molecular Modelling **19**, 2043-2048 (2013).
7. “*Electronic structure and optical vibrational modes of 3C-SiC nanowires*” Alejandro Trejo, Miguel Ojeda, José Luis Cuevas, Álvaro Miranda, Luis A. Pérez, Miguel Cruz-Irisson. International Journal of Nanotechnology, **12**, 3-4, (2015).
8. “*Release of copper complexes from a nanostructured sol–gel titania for cancer treatment*” Tessy López, Emma Ortiz-Islas, Patricia Guevara, Francisco Rodríguez-Reinoso, Esteban Gómez, José Luis Cuevas and Octavio Novaro. Journal of Materials Science **50**, 6 (2015). Doi: 10.1007/s10853-014-8796-9

9. “First principles band gap engineering of [110] oriented 3C-SiC nanowires”  
**José Luis Cuevas**, Alejandro Trejo, Álvaro Miranda, Jesús Ramírez, Luis Antonio Pérez, and Miguel Cruz-Irisson. Computational Materials Science **142**, 268, (2018)

Total of citation = 42 according to google academic data base

## Other publications

1. “Inclusion of  $FeCl_3$  in  $TiO_2$  nanoparticles by Sol-Gel method to cancer treatment”. T. López, A. Moreno, E. Ortiz-Islas, G. Pecchi, D. Bersani, P. P. Loticci, M. Montes, **J. L. Cuevas**, P. Alfaro, A. Morales and O. Novaro. Materials Science and ingeenering C., **6**:1, (2015). Doi: 10.4172/2157-7439.1000255.
2. “Histology Study of Wistar Rats Implanted With and Without C6 Cells and the Effect of NPt-Cu Nanoparticles” Tessy López, Emma Ortiz Islas, Andrea Morales, **José Luis Cuevas**, Esteban Gomez, Joaquín Manjarrez, Patricia Guevara, Martha Lilia Tena, Aurora Sánchez, Pier Paolo Lottici, Danilo Bersani, Hugo Monroy and Octavio Novaro. Nanomedicine & Biotherapeutic Discovery **5**:4 (2015), Doi:10.4172/2155-983X.1000137
3. “Preparation and Characterization of Antiepileptic Drugs Encapsulated in Sol-Gel Titania Nanoparticles as Controlled Release System” López T, **Cuevas J L**, Jardón G, Gómez E, Ramírez P, Novaro O and Zavala-Tecuapetla C. Medicinal chemistry. **S**:**2** (2015) DOI: 10.4172/2161-0444.1000003.
4. “Ag/ $TiO_2$ - $SiO_2$  Sol Gel Nanoparticles to use in Hospital-Acquired Infections (HAI)” López T, Jardón G, Gomez E, Gracia A, Hamdan A, **Luis Cuevas J**, Quintana P and Novaro O. Material Science & Engineering, **4**:6 (2015) DOI:10.4172/2169-0022.1000196