

# CURRÍCULUM VITAE



Nombre: José Alberto Andraca Adame

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## Formación

Doctorado: Física de Materiales, Instituto Politécnico Nacional, 2008

Maestría: Ciencia de Materiales, de Materiales, Instituto Politécnico Nacional, 2005

Licenciatura: Física y Matemáticas, Instituto Politécnico Nacional, 2003

Estancia(s) Pos-Doctoral(es): Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional, 2008-2010.

## Experiencia Laboral

- Instituto Politécnico Nacional (UPIIH), 2010-actual, Docente.
- Universidad Autónoma Metropolitana (UAM), 2008-2009
- Colegio de Ciencias Y Humanidades Plantel Vallejo (UNAM) 2003-2010

## Experiencia Docente

Cursos Asignados:

Licenciatura

Teoría Electromagnética  
Electricidad y Magnetismo  
Oscilaciones y óptica  
Producción más Limpia

Posgrado

Mecánica Cuántica  
Física y Química de Materiales Nanoestructurados

## Áreas de interés de investigación

Síntesis y Caracterización de Materiales, Micro y Nano

Medio Ambiente,

Energía sustentable

## Publicaciones Seleccionadas (5 años a la fecha)

n Artículos en revistas

1. D. E. Nicolás-Álvarez, J.A. Andraca-Adame, J.J. Chanona-Pérez, J.V. Méndez Méndez, S. Cárdenas-Pérez, A. Rodríguez-Pulido, **Evaluation of nanomechanical properties of tomato root by atomic force**

**microscopy.** Microscopy and Microanalysis, a Cambridge University Press journal, (2019)

2. Severiano, F; Gayou, V. L; García, G; Luna-López, J. A; Gutiérrez, H. Martínez; Adame, J. A. Andraca; Rojas-López, M Morphological and Optical Characterization of Gold Nanoparticles Decorated Porous Silicon  
**Source:** Journal of Nanoscience and Nanotechnology, Volume 19, Number 6, June 2019, pp.3604-3609(6) **Publisher:** American Scientific Publishers  
**DOI:** <https://doi.org/10.1166/jnn.2019.16094>, (2019)
3. Neri, K., Andraca, J., Peña, R., & Baca, R. (n.d.). Defects Behavior in Disordered Iron Oxide Synthesized from Grain-Oriented Iron Foils. MRS Advances, 1-9. doi:10.1557/adv.2019.35, (2019)
4. Juárez-Amador, L., Galván-Arellano, M., Hernández-Rodríguez, Y., Andraca-Adame, J., Romero-Paredes, G., & Peña-Sierra, R. (n.d.). Effects on the amorphous Ga<sub>2</sub>O<sub>3</sub> film surfaces by sub-1B-metal-nano-layers. MRS Advances, 1-8. doi:10.1557/adv.2019.54, (2019)
5. The early nucleation of a eutectic alloy during high-energy milling. H, Rojas-Chávez, OE Cigarroa-Mayorga, J L González-Domínguez, N Cayetano-Castro, M. M. Tellez-Cruz, J A Andraca-Adame and M. L. Mondragón-Sánchez. Mater. Res. Express 5, 076514, DOI: <https://doi.org/10.1088/2053-1591/aad02d>, paginas 1-17. ISSN: 20531591, SJR-1.43, Q1, (2018)
6. Characterization of the micro and nanostructure of the candelilla wax organogels crystal networks, M. Sánchez-Becerril, A.G. Marangoni, M.J. Perea-Flores, N. Cayetano-Castro, H. Martínez-Gutiérrez, J.A. Andraca-Adame, J.D. Pérez-Martínez, Food Structure 16, 1-7, <https://doi.org/10.1016/j.foostr.2018.02.001>, ISSN: 22133291, SJR-1.02 Q1(2018)
7. Electrical, optical and magnetoresistive behavior of nanostructured ZnO:Cu thin films deposited by sputtering, L. I. Juárez-Amador, M. Galván-Arellano, J. A. Andraca-Adame, G. Romero-Paredes, R. Peña-Sierra. Journal of Materials Science: Materials in Electronics, DOI: <https://doi.org/10.1007/s10854-018-8854-1>, ISSN: 1573482X, 09574522, Q-2 (2018)
8. Electrical, optical and structural characteristics of gallium oxide thin films deposited by RF-sputtering. L. I. Juárez-Amador, M. Galván-Arellano, J. A. Andraca-Adame, G. Romero-Paredes, A. Kennedy-Magos, R. Peña-Sierra, September 2018, Volume 29, Issue 18, pp 15726-15731, <https://link.springer.com/article/10.1007/s10854-018-9200-3>, ISSN: 1573482X, 09574522, Q-2. (2018)
9. CdS/CdTe Heterostructures for Applications in Ultra-Thin Solar Cells, Karla Gutierrez Z-B, Patricia G. Zayas-Bazán, Osvaldo de Melo, Francisco de Moure-Flores, José A. Andraca-Adame, Luis. A. Moreno-Ruiz, Hugo Martínez-Gutiérrez, Salvador Gallardo, Jorge Sastré-Hernández and Gerardo Contreras-Puente, Materials, 11, 1788; doi:10.3390/ma1101788, ISSN: 19961944, SJR- 0.73, Q-2. (2018)
10. ZnO thin films with Cu, Ga and Ag dopants prepared by ZnS oxidation in different ambient, Advances in Nano Research, Vol. 5 No. 3, 193-201 DOI: <https://doi.org/10.12989/anr.2017.5.3.193>, <http://techno-press.com/?journal=anr&subpage=3>, (2017)
11. Micro-abrasion wear resistance of borided 316L stainless steel and AISI 1018 steel, C.D. Reséndiz-Calderón, G.A. Rodríguez-Castro, A. Meneses-Amador, I.E.

- Campos-Silva, J. Andraca-Adame, M.E. Palomar-Pardavé, and E.A. Gallardo-Hernández, *Journal of Materials Engineering and Performance*, November 2017, Volume 26, Issue 11, pp 5599–5609 Impact Factor 1.331, ISSN-1059-9495. <https://link.springer.com/article/10.1007/s11665-017-3004-0>. (2017)
12. Effect of CePO<sub>4</sub> nanostructures in transparent PMMA/castor-oil based PU IPNs on thermal stability, optical and mechanical properties, *Journal of polymer Research*, Impact Factor 1.615, D. Palma-Ramírez & M. A. Domínguez-Crespo & A. M. Torres-Huerta & H. Dorantes-Rosales & J. A. Andraca-Adame & E. C. de la Cruz-Terrazas, *J Polym Res*, 24: 136. DOI: 10.1007/s10965-017-1294-4 JMEPEG (2017) 16:5599–5609, (2017)
  13. Mono-fractal analysis of CuXO films: Texture and phase distribution A. Avila-García, R.D. Arizabalo-Salas, J.A. Andraca-Adame, *Vacuum* Volume 141, July 2017, Pages 249–253. Impact factor 1.53. <http://dx.doi.org/10.1016/j.vacuum.2017.04.007>, (2017)
  14. Morphometric and cristallinity changes on jicama starch (*pachyrizus erosus*) during gelatinization and their relation with in-vitro glycemic index. Mónica Ramírez-Miranda, Pablo Daniel Ribotta, Ana Zury Zaradi Silva-González, Ma. de la Paz Salgado-Cruz, José Alberto Andraca-Adame, José Jorge Chanona-Pérez, Georgina Calderón-Domínguez. *Starch/Stärke* 2017, 69, 1600281, Impact Factor: 1.837. 10.1002/star.201600281, (2017)
  15. Luminescent Properties of Silicon Nanocrystals: Spin on Glass Hybrid Materials, Marco Antonio Vásquez-Agustín, Orlando Cortazar-Martínez, Alfredo Abelardo González-Fernández 1, José Alberto Andraca-Adame, Alfredo Morales-Sánchez and Mariano Aceves-Mijares, *Applied Sciences, Appl. Sci.* 2017, 7(1), 72; doi:10.3390/app7010072 - 13 January 2017. **Impact Factor: 1.726**, ISSN 2076-3417, (2017)
  16. Evolution of boride layers during a diffusion annealing process, I. Campos-Silva, M. Flores-Jiménez, D. Bravo-Bárceñas, H. Balmori-Ramírez, J. Andraca-Adame, J. Martínez-Trinidad, J.A. Meda-Campaña. *Surface & Coatings Technology* 309 155–163, Volume 309, 15 January 2017, Pages 155–163 ISSN: 0257-8972, Impact Factor: 2.139, (2017)
  17. Multi-pass scratch test behavior of AISI 316 L borided Steel, G.A. Rodriguez-Castro, R.C. Vega-Moron, A. Meneses-Amador, H.W. Jimenez-Diaz, J.A. Andraca-Adame, I.E. Campos-Silva, M.E. Palomar Pardave *Surface & Coatings Technology* 307, 491–499, Impact Factor: 2.589. (2016)
  18. Sponge cake microstructure, starch retrogradation and quality changes during frozen storage. Mayra Díaz-Ramirez, Georgina Calderon-Dominguez, Ma. de la Paz Salgado-Cruz, Jose. J. Chanona-Perez, Jose. A. Andraca-Adame, Pablo D. Ribotta. *International Journal of Food Science and Technology* Impact Factor: 1.384, ISSN: 1365-2621, (2016)
  19. Fabrication and characterization of ZnO:Zn(n+)/Porous-Silicon/Si(p) heterojunctions for white light emitting diodes M.A. Vásquez-A, G. Romero-Paredes, J.A. Andraca-Adame and R. Peña-Sierra. *Revista Mexicana de Física* 62 5–9 ISSN: 0035-001X, factor de impacto: 0.31, (2016)
  20. Polymerization of 10,16-Dihydroxyhexadecanoic Acid, Main Monomer of Tomato Cuticle, Using the Lewis Acidic Ionic Liquid Choline Chloride-2ZnCl<sub>2</sub>, Mayra Beatriz Gómez-Patiño, Diana Yaremy Gutiérrez-Salgado, Edgar García-Hernández, Juan Vicente Mendez-Mendez, J. Alberto Andraca Adame, José

21. Erosion Wear of AISI 420 Stainless Steel Caused by Walnut Shell Particles. J. R. Laguna-Camacho · I. Hernández-Romero · J. E. Escalante-Martínez, C. A. Márquez-Vera · J. L. Galván-López · J. V. Méndez-Méndez · I. Arzate-Vázquez · J. A. Andraca-Adame. Trans Indian Inst Met DOI 10.1007/s12666-014-0493-5, (2015)
22. **Structural and light emitting properties of Si-rich Si<sub>3</sub>N<sub>4</sub> films grown by PECVD method** T.V. Torchynska, J.L. Casas Espinola, L. Khomenkova, E. Vergara Hernandez, J.A. Andraca Adame and A. Slaoui. *Materials Science in Semiconductor Processing*, Elsevier (IF : 1.761).Research team : MaCEPV (2015)

#### n Capítulos de libros

- Metallurgical Study of Mechanical Milling Mechanism in Eutectic Nanopowders: The Role of Heterogeneities. H. Rojas-Chávez, M.L. Mondragón-Sánchez, J.A. Andraca-Adame and D. Jaramillo-Viguera. Characterization of Metals and Alloys, Chapter 12, editorial Springer, ISBN 978-3-319-31693-2 ISBN 978-3-319-31694-9 (eBook), DOI 10.1007/978-3-319-31694-9, Library of Congress Control Number: 2016952548. © Springer International Publishing Switzerland 2017

## **Reconocimientos**

Sistema Nacional de Investigadores Nivel 1

## **Actividades extra académicas**

### **Proyecto transdisciplinario 2019-2021**

Síntesis y caracterización de óxidos catalizadores para la degradación por ozonación de derivados fenólicos en sistemas acuosos

### **Proyecto multidisciplinario 2017-2018**

Síntesis y caracterización de películas de NiO Nanoestructuradas obtenidas por Sputtering y Spray Pirolisis