

# CURRÍCULUM VITAE

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## Formación

*Doctorado:* ESIQIE-IPN, 2000.

*Maestría:* ESIQIE-IPN, 1997.

*Licenciatura:* ESIQIE-IPN, 1994

## Experiencia Docente

Cursos Asignados Nivel Superior: Microscopía Electrónica de Barrido, Técnicas de Caracterización Microestructural.

Curso Asignado Nivel Posgrado: Microscopía Electrónica de Transmisión.

## Áreas de interés de investigación

Metalurgia Física. Transformaciones de Fase en el Estado Sólido

Engrosamiento de precipitados, endurecimiento por precipitación

Sistemas de aleación Fe-Ni-Al, Zn-Al-Cu, Al-Cu, Al-Ni<sub>3</sub>Al, Nanomateriales

Microscopía Electrónica de Barrido y Microscopía Electrónica de Transmisión

## Publicaciones Seleccionadas

Artículos en revistas:

- De León-Murguía N.V., López-Hirata V.M., Ferreira-Palma C.; Rivas-López D.I., Hernández-Santiago F., Dorantes-Rosales, H.J. (2019). "Estudio de la descomposición de fases durante el sinterizado por plasma de compósitos Al-5%Ni3Al". *Rev. Metal.* Vol. 55(2), 2019, e145.<https://doi.org/10.3989/revmetalm.145>, 2019.
- V. M. López-Hirata, F. Hernández-Santiago, M. L Saucedo-Muñoz, H. J. Dorantes-Rosales, A. M. Paniagua-Mercado, Analysis of  $\beta'$ (Cu<sub>4</sub>Ti) Precipitation during Isothermal Aging of a Cu-4wt.%Ti Alloy. *Mat. Res.*, vol. 21(5), e20180121, pp. 1-7, 2018, <http://dx.doi.org/10.1590/1980-5373-mr-2018-0121>
- H.J. Dorantes-Rosales, V.M. López-Hirata, Felipe Hernández-Santiago, M.L. Saucedo-Muñoz and A. M. Paniagua-Mercado, Effect of Ag Addition to Zn22 mass%Al-2mass%Cu Alloy on the Four-Phase Reaction, *Materials Transactions*, Vol. 59 (5), pp. 717-723, 2018, <http://dx.doi.org/10.2320/matertrans.M2017353>
- Beltran-Zuñiga M.A., González-Velázquez J.L., Rivas-López D.I., Dorantes-Rosales H.J., Hernández-Santiago F., Effect of microstructure and crystallographic texture on the toughness anisotropy of API 5L X46 Steel, *Fatigue and Fracture of Eng. Mats.*, vol. 41(4), pp. 749-761, 2018, <http://dx.doi.org/10.1111/ffe.12782>

- Domínguez-Crespo M.A., Torres-Huerta A.M., Rodríguez E., González-Hernández A., Brachetti-Sibaja S.B., Dorantes-Rosales H.J., López-Oyama A.B., Effect of deposition parameters on structural, mechanical and electrochemical properties in Ti/TiN thin films on AISI 316L substrates produced by r. f. magnetron sputtering, *J. of Alloys and Comp.*, vol. 746, pp. 688-698, 2018, <http://dx.doi.org/10.1016/j.jallcom.2018.02.319>. Q1.
- C. Ferreira-Palma, E. Contreras-Piedras, N. Cayetano-Castro, M.L. Saucedo-Muñoz, V.M. Lopez-Hirata, J.L. Gonzalez-Velazquez, H.J. Dorantes-Rosales, Effect of Temperature and Composition on NiAl Precipitation and Morphology in Fe-Ni-Al Alloys, *Met. and Mat. Trans. A*, vol. 48(11), pp. 5285-5293, 2017. <https://doi.org/10.1007/s11661-017-4309-1>
- Garay-Reyes C.G., Hernández-Martínez S.E., Hernández-Rivera J.L., Cruz-Rivera J.J., Gutiérrez-Castañeda E.J., Dorantes-Rosales H.J., Aguilar-Santillan J., Martínez-Sánchez R., Comparative study of Oswald ripening and trans-interface diffusion-controlled theory models: Coarsening of  $\gamma'$  precipitates affected by elastic strain along a concentration gradient, *Met. and Mats. International*, Vol. 23(2), pp. 298-307, 2017. <https://doi.org/10.1007/s12540-017-6388-3>
- D. Palma-Ramírez, M.A. Domínguez-Crespo, A.M. Torres-Huerta, H. Dorantes-Rosales, J. A. Andraca-Adame, E. C. de la Cruz-Terrazas, Effect of CePO<sub>4</sub> nanostructures in transparent PMMA/castor-oil based PU IPNs on thermal stability, optical and mechanical properties, *J. of Polymer Research*, Vol. 24 (136), pp. 1-14, 2017, <https://doi.org/10.1007/s10965-017-1294-4>
- C.G. Garay-Reyes, S. E. Hernández-Martínez, J.L. Hernández-Rivera, J. J Cruz-Rivera, M. C. Maldonado-Orozco, I. Estrada-Guel, H. J. Dorantes-Rosales and R. Martínez-Sánchez, Morphological Evolution and Coalescence of  $\gamma'$  Precipitates, *Micros. and Microanal.*, vol. 23 (S1), pp. 2242-2243, 2017, <https://doi.org/10.1017/S1431927617011874>
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- Domínguez R.D: Alarcón-Flores G., Aguilar-Frutiis, M., Sánchez-Alarcón R.I., Falcony C., Dorantes-Rosales H.J., González-Velázquez, J.L., Rivas-López D.I., Effect on the stabilization of the anatase phase and luminescent properties of samarium-doped TiO<sub>2</sub> nanocrystals prepared by microwave irradiation, *Journal of Alloys and Compounds*, vol. 687, pp. 121-129, 2016, <http://dx.doi.org/10.1016/j.jallcom.2016.06.083>.
- Luis A. Puentes-Vara, Karla M. Gregorio-Jauregui, Ana M. Bolarín, Ma. E. Navarro-Clemente, H. J. Dorantes, M. Corea, Effects of surfactant and polymerization method on the synthesis of magnetic colloidal polymeric nanoparticles, *Journal of Nanoparticle Research*, vol. 18(7), pp. 212, 2016, <http://dx.doi.org/10.1007/s11051-016-3524-9>. Springer Netherlands.
- N. Cayetano-Castro, M.L. Saucedo-Muñoz, H. J. Dorantes-Rosales, J. L. Gonzalez-Velazquez, J. D. Villegas-Cardenas and V. M. Lopez-Hirata, Oswald Ripening

Process of Coherent B $\prime$  precipitates during Aging in Fe<sub>0.75</sub>Ni<sub>0.10</sub>Al<sub>0.15</sub> and Fe<sub>0.74</sub>Ni<sub>0.10</sub>Al<sub>0.15</sub>Cr<sub>0.01</sub> alloys, *Adv. in Mats. Sci. and Eng.*, vol. 2015, ID 485626, pp. 1-7, 2015, <http://dx.doi.org/10.1155/2015/485626>

- R. Sanchez, B. M. Martínez-Santibañez, J. Pérez-González, F. Rodriguez-Gonzalez, H. J. Dorantes-Rosales, *Revista Mexicana de Física, Rod-Like Fluorescent Halloysite Nanotubes-silica composites: a novel colloidal system*, Vol. 61(2), pp. 117-122, 2015, [http://rmf.smf.mx/pdf/rmf/61/2/61\\_2\\_117.pdf](http://rmf.smf.mx/pdf/rmf/61/2/61_2_117.pdf).
- Reyes-Acosta, M.A., Torres-Huerta, A.M., Domínguez-Crespo, M.A., Flores-Vela, A.I., Dorantes-Rosales H. J., Andraca-Adame, J.A., Thermal, mechanical and UV-shielding properties of polymethyl methacrylate)/cerium dioxide hybrid systems obtained by melt compounding, *Polymers*, Vol. 7 (9), pp. 1638-1659, 2015, <http://dx.doi.org/10.3390/polym7091474>
- P. Hernández, H. Dorantes, F. Hernández, R. Esquivel, D. Rivas, V. López, *Adv. Powder Tech.*, Synthesis and Microstructural Characterization of Al- Ni<sub>3</sub>Al Composites Fabricated by Press-Sintering and Schock-Compaction, vol. 25 (1), pp. 255-260, 2014, <http://dx.doi.org/10.1016/j.appt.2013.04.011>
- Z.E. Sánchez-Hernández, M.A. Domínguez-Crespo, A.M. Torres-Huerta, E. Onofre-Bustamante, J. Andraca Adame, H. Dorantes-Rosales, *Mater. Charact.*, Improvement of Adhesion and Barrier Properties of Biomedical Stainless Steel by Deposition of YSZ Coatings using RF Magnetron Sputtering, Vol. 91, pp. 50-57, May 2014. ISSN: 1044-5803, [Elsevier](http://www.elsevier.com), USA. Citado 8 veces. JCR. DOI: <http://dx.doi.org/10.1016/j.matchar.2014.02.007>
- Garay-Reyes C.G., Hernández-Santiago F., Cayetano-Castro N., Martínez-Sánchez R., Hernández-Rivera, R., Dorantes-Rosales H.J., Cruz-Rivera J.J., ANALYSIS OF OSTWALD RIPENING IN NI-RICH NI-TI ALLOYS BY DIFFUSION COUPLES, *Bulletin of Mats. Sci.*, vol. 37(4), pp. 823-829, 2014, <http://dx.doi.org/10.1007/s12034-014-0012-7>
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- Ángel J. Morales-Ramírez, Fernando Sarabia-Dominguez, Dulce Y. Medina-Velazquez, David Jaramillo-Vigueras, Margarita García-Hernández and Héctor J. Dorantes Rosales, Synthesis and Photoluminescent Properties of Y<sub>2</sub>O<sub>3</sub>:Eu<sup>3+</sup> Thin Films Prepared from F127-containing Solution, vol. 122(8), pp. 701-707, 2014, <http://dx.doi.org/10.2109/jcersj2.122.701>

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- H. J. Rosales-Dorantes, N. Cayetano-Castro, V. M. Lopez-Hirata, M. L. Saucedo Muñoz and F. Hernández-Santiago, Coarsening Process Of Coherent  $\beta'$  Precipitates IN Fe-10wt.%Ni-15wt.%Al and Fe-10wt.%Ni-15wt.%Al-1wt.%Cu Alloys, *Mat. Sci. and Tech.*, Vol. 29 (12), pp. 1492-1498, 2013, <http://dx.doi.org/10.1179/1743284713Y.0000000315>
- C.G. Garay-Reyes, F. Hernández-Santiago, N. Cayetano-Castro, V.M. López-Hirata, J. García-Rocha, J.L. Hernández-Rivera, H.J. Dorantes-Rosales, J.J. Cruz-Rivera, Study of Phase Decomposition and Coarsening of  $\gamma'$  Precipitates in Ni-12 at.% Ti Alloy, *Materials Characterization*, vol. 83, pp. 35-42, 2013, <http://dx.doi.org/10.1016/j.matchar.2013.05.017>

### **Reconocimientos**

Diploma a la Investigación 2019, Otorga el IPN.