

Productos de las LGACs 2015

Comunicaciones

Publicaciones

- Mendoza-Torres, J. E., Colín-Beltrán, E., Alonso Corona-Chávez, A., Palacios-Fonseca, J. S., Rodríguez-Pedroza, B., Tlatempa-Osorio, Y. E. & Sánchez-Urrieta, S. (2015). "The Use of Planar Feeds for Solar Radio Observations", *Solar Physics*, 290(1), 295-299.
- Alonso Corona-Chavez, Jose Luis Olvera-Cervantes, and Carlos E. Saavedra. "Balanced filter with parallel resonances for very wide band common mode rejection." *Journal of Electromagnetic Waves and Applications* ahead-of-print (2015): 1-8.
- **Miriam Guadalupe Cruz Jiménez**, David Ernesto Troncoso Romero, and Gordana Jovanovic Dolecek, "Minimum Phase Property of Chebyshev-Sharpended Cosine Filters," *Mathematical Problems in Engineering*, ISSN: 1563-5147, Vol. 2015, (2015)
- David Ernesto Troncoso Romero, **Gerardo Molina Salgado**, Gordana Jovanovic Dolecek, "Simple two-adders CIC compensator", *Electronics, letters*, ISSN: 0013-5194, 25th June 2015 Vol. 51 No. 13 pp. 993-994
- Gordana Jovanovic Dolecek, M. Laddomada, "Design of two-stage nonrecursive rotated comb decimation filters with droop compensation and multiplierless architecture", *Journal of the Franklin Institute*, ISSN: 0016-0032, Vol. 352, 2015, pp. 913–929.
- Gordana Jovanovic Dolecek, "Sharpening technique to decrease comb passband deviation", 2015 *Journal of Physics: Conf. Ser.* 574 012130, (<http://iopscience.iop.org/1742-6596/574/1/012130>), pp.1-4.
- **Arbelaez Nieto**, A., José Luis Olvera Cervantes, J. L., **Escobar Pelaez, J. A.**, Alonso Corona-Chavez, (2015). "A novel via free microstrip balanced to balanced diplexer for narrow band applications". *Microwave and Optical Technology Letters*, 57(3), 567-570.
- **Johanny Escobar**, Jose Luis Olvera, Alonso Corona Chave, "Balanced-to-balanced dual-band bandpass filter with common-mode rejection spurious suppression and independent bands." *Journal of Electromagnetic Waves and Applications*.
- **Miguel A. Tlaxcalteco-Matus**, **Diego M. Cortés-Hernández**, and Reydezel Torres-Torres, "Modeling Coupled Transmission Lines Considering Current-Distribution Dependent Inductance on PCB," *IEEE Microwave and Wireless Components Letters*, Vol. 25, No. 3, p. 148–150, ISSN: 1531-1309, Mar. 2015.
- Jorge A. Seseña-Osorio, Ignacio E. Zaldívar-Huerta, Alejandro Aragón-Zavala, Gerardo A Castanón-Avila, "Analysis and experimental evaluation of the frequency response of an indoor radiating cable in the UHF band", *EURASIP Journal on Wireless Communications and Networking*, 10 February 2015, Springer open Journal, ISSN: 1687-1499, DOI: 10.1186/s13638-015-0245-1

- Ignacio E. Zaldívar-Huerta, A. García-Juárez, D. F. Pérez-Montaña, **Pablo Hernández-Nava**, A. Vera-Marquina, "Proposal and performance evaluation of a Fiber-To-The-Antenna system for video distribution operating in the S-band", Optics & Laser Technology, Volume 71 pp. 89–94, ISSN: 0030-3992, DOI: <http://dx.doi.org/10.1016/j.optlastec.2015.03.005>
- **Miriam Guadalupe Cruz Jiménez**, David Ernesto Troncoso Romero, Gordana Jovanovic Dolecek, "On simple comb decimation structure based on Chebyshev sharpening". Proc International IEEE Symp. LASCAS 2015. February 2015, Montevideo, Uruguay, pp.1-4.
- **Gerardo Molina Salgado**, Gordana Jovanovic Dolecek, José M. de la Rosa, "Novel Two-Stage Comb Decimator with Improved Frequency Characteristic", Proc International IEEE Symp. LASCAS 2015. February 2015, Montevideo, Uruguay, pp.1-4
- Gordana Jovanovic Dolecek, V. Dolecek, I. Karabegovic, "Techniques to To Improve Simultaneously Passband and Stopband of Comb Decimation Filters," Proc of 2nd International Conference NEW TECHNOLOGIES NT-2015 Development and Application. Mostar, Bosnia, 2015, pp.362-366.
- Valentin Conde Cuatzo, Gordana Jovanovic Dolecek, Vlatko Dolecek, "Decimation for Sigma Delta A/D Converters Base don Comb Filters," Proc of 2nd International Conference NEW TECHNOLOGIES NT-2015 Development and Application. Mostar, Bosnia, 2015, pp.357-361
- **Gerardo Molina Salgado**, Gordana Jovanovic Dolecek, José M. de la Rosa, "Two-Stage Comb Decimator with Improved Frequency Characteristic," Proceedings of 2015 Wireless Innovation Forum WInnComm 2015, San Diego, USA, pp.49-58.
- Sosa-Morales, Maria E., Hernández-Gómez, Edel S., Olvera-Cervantes, Jose L., Alonso Corona-Chavez, Porrás-Loaiza, Patricia, "Dielectric properties of bean weevil, grain moth and their hosts (common bean and amaranth) using the resonant cavity technique", 2015 ASABE Annual International Meeting Sponsored by ASABE New Orleans, Louisiana July 26 - 29, 2015
- Reydezel Torres-Torres, "Educating Signal Integrity Engineers for Challenges in High-Speed Electronics", In: Proceedings of the IEEE MTT International Microwave Symposium, Phoenix, USA, pp. 1-4, May. 2015.
- **Fabián Zárate-Rincón**, Roberto. S. Murphy-Arteaga, and Reydezel Torres-Torres, "Correction of DC Extracted Parameters for Microwave MOSFETs Based on S-Parameter Measurements", In: Proceedings of the IEEE MTT International Microwave Symposium, Phoenix, USA, pp. 1-3, May. 2015.
- Baylón-Fuentes, R. Martinenghi, Ignacio E. Zaldívar-Huerta, B. A. Márquez, V. S. Udaltsov, M. Jacquot, Y. K. Chembo, L. Larger, "Reservoir Computing ultra-rapide basée sur une dynamique non-linéaire électro-optique en phase", 18e Rencontre du non linéaire, Paris, France, Mars 17-19, 2015, Non linéaire publications, pp. 1-6
- Amanda D. Salas-Caridad, Jorge Rodríguez-Asomoza, Ignacio E. Zaldívar-Huerta, **Pablo Hernández-Nava**, Alejandro García-Juárez, Alicia Vera-Marquina, "Experimental transmission of digital signals in a fiber-radio scheme under external

modulation at 2.0 GHz”, 24rd International Conference on Electronics, Communications and Computing, (CONIELECOMP 2015), Cholula, Puebla, México. February 25-27, 2015

Diseño de Circuitos Integrados

Publicaciones

- Hector Villacorta, Jose Garcia, Jaume Segura, Victor Champac-Vilela, “Low VDD and Body Bias conditions for Testing Bridge Defects in Presence of Process Variations”, *Microelectronics Journal*, Elsevier, Vol. 46, Issue 5, pp. 398-404, May 2015.
- Jose L. Garcia-Gervacio, Alejandro Nocua, Victor Champac-Vilela, “Screening Small-Delay Defects using Inter-Path Correlation to Reduce Reliability Risk”, *Microelectronics Reliability*, Elsevier, Vol. 55, Issue 6, pp. 1005-1011, May 2015.
- Jesus Moreno, Michel Renovell, Victor Champac-Vilela, “Effectiveness of Low Voltage Testing to Detect Interconnect Open Defects under Process Variations” *IEEE Transactions on VLSI Systems*, 2015. <http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=7046382>
- Ricardo Francisco Martinez-Gonzalez and José Alejandro Díaz-Méndez, “Implementation Of A Stream Cipher Based On Bernoulli’s Map”, *International Journal of Computer Science & Information Technology (IJCSIT)* Vol 6, No 6, December 2014, DOI:10.5121/ijcsit.2014.6608
- Ricardo F. Martinez-Gonzalez, José Alejandro Díaz-Méndez, Ruben Vazquez-Medina, VHDL implementation for a pseudo random number generator based on tent map, *Computational and Applied Mathematics* 2015; 1(1): 12-15 Published online January 20, 2015 (<http://www.aascit.org/journal/cam>).
- **D. A. Blanco** and José Alejandro Díaz-Méndez, “Pain Assessment In Healthy And Non-Communicative Patients” A REVIEW, *Canadian International Journal of Science and Technology*, January 2015.
- Edgar López-Delgadillo, José Alejandro Díaz-Méndez, Marco A. Gurrola-Navarro, Miguel A. García-Andrade, Rubén Vázquez-Medina, “A digitally programmable active resistor in CMOS technology”, *IEICE Electronics Express*, Vol. 12 (2015) No. 8, April 25, 2015. <http://doi.org/10.1587/elex.12.20150247>,
- H. Vazquez-Leal, Y. Khan, G. Fernandez-Anaya, U. Filobello-Nino, V.M. Jimenez-Fernandez, A. HerreraMay, Alejandro Díaz-Sánchez, A. Marin-Hernandez and J. Huerta-Chua, “Perturbation method applied to a basic diode circuit,” *Revista Mexicana de Física*, 61(2015), pp. 69–73, Jan-Feb 2015.
- **Delia Torres-Muñoz**, Luis Hernández-Martínez, Héctor Vázquez-Leal, “Spherical Continuation Algorithm With Spheres Of Variable Radius To Trace Homotopy Curves”, *International Journal of Applied and Computational Mathematics Springer* DOI: 10.1007/s40819-015-0067-1. ISSN: 2349-5103.
- U. Filobello-Nino, H. Vazquez-Leal, K. Boubaker, Arturo Sarmiento-Reyes, A. Perez-Sesma, Alejandro Díaz-Sánchez, V. M. Jimenez-Fernandez, J. Cervantes-Perez, J. Sanchez-Orea, J. Huerta-Chua, L. J. Morales-Mendoza, M. Gonzalez-Lee, C. Hernandez-Mejia, and F. J. Gonzalez-Martinez, "Nonlinearities Distribution Homotopy Perturbation Method Applied to Solve Nonlinear Problems: Thomas-Fermi Equation as

- a Case Study," Journal of Applied Mathematics, vol. 2015, Article ID 405108, 9 pages, 2015. doi:10.1155/2015/405108.
- Uriel Filobello-Nino, Hector Vazquez-Leal, Brahim Benhammouda, Agustin Perez-Sesma, Victor Manuel Jimenez-Fernandez, Juan Cervantes-Perez, Arturo Sarmiento-Reyes, Jesus Huerta-Chua, Luis Javier Morales-Mendoza, Mario Gonzalez-Lee, Alejandro Díaz-Sánchez, Domitilo Pereyra-Diaz and Raquiel López-Martí, "Analytical Solutions for Systems of Singular Partial Differential-Algebraic Equations," Discrete Dynamics in Nature and Society, vol. 2015, Article ID 752523, 9 pages, 2015. doi:10.1155/2015/752523
 - D. Moro Frías, C. Ventura Arizmendi, M.T. Sanz Pascual, C.A. de la Cruz Blas, "Current-mode Winner-Take-All circuit with improved dynamic response", Circuits, Systems and Signal Processing, vol. 34, no. 2, pp. 625-639, 2015. DOI: 10.1007/s00034-014-9865-7
 - **P.M. Maya-Hernandez**, M.T. Sanz-Pascual, B. Calvo, "CMOS low-power lock-in amplifiers with signal rectification in current domain", IEEE Transactions on Instrumentation and Measurement, vol. 64, no. 7, pp. 1858-1867, 2015.
 - Héctor Vazquez-Leal and Arturo Sarmiento-Reyes, "GHM Method for obtaining rational solutions of nonlinear differential equations", Springer Plus, 4:241, doi: 10.1186/s40064-015-1011-x. ISSN: 2193-1801, June, 2015.
 - **Carlos Hernández Mejía**, Arturo Sarmiento-Reyes, Héctor Vázquez Leal, "A Family of Memristive Transfer Functions of Negative-Feedback Nullor-Based Amplifiers", SPRINGER Circuits, Systems and Signal Processing, pp. 1-17, March 2015, doi: 10.1007/s00034-015-0013-9.
 - Héctor Vazquez-Leal, Mario Sandoval-Hernandez, Roberto Castaneda-Sheissa, Uriel Filobello-Nino, Arturo Sarmiento-Reyes, "Modified Taylor solution of equation of oxygen diffusion in a spherical cell with Michaelis-Menten uptake kinetics", Journal of Applied Mathematical Research, 4(2), pp. 253-258, 2015. DOI: 10.14419/ijamr.v4i2.4273. ISSN: 2227-4324.
 - Héctor Vazquez-Leal and Arturo Sarmiento-Reyes, "Power Series Extender Method for the Solution of Nonlinear Differential Equations," Mathematical Problems in Engineering, vol. 2015, Article ID 717404, 7 pages, 2015. doi:10.1155/2015/717404.
 - Esteban Tlelo-Cuautle, José de Jesús Rangel-Magdaleno, A.D. Pano-Azucena, P.J. Obeso-Rodelo, J.C. Nuñez-Perez, "FPGA Realization of Multi-Scroll Chaotic Oscillators", Communications in Nonlinear Science and Numerical Simulation, vol. 27, pp. 66-80, 2015. DOI: 10.1016/j.cnsns.2015.03.003 ISSN : 1007-5704
 - Ch. K. Volos, I. M. Kyprianidis, I. N. Stouboulos, Esteban Tlelo-Cuautle, S. Vaidyanathan, "Memristor: A New Concept in Synchronization of Coupled Neuromorphic Circuits", Journal of Engineering Science and Technology Review, Special Issue on Synchronization and Control of Chaos: Theory, Methods and Applications, vol. 8, no. 2, pp. 157-173, ISSN: 1791-2377, 2015.
 - J.R. Cárdenas-Valdez, J.C. Núñez-Pérez, J.A. Galaviz-Aguilar, A. Calvillo-Téllez, C. Gontrand, J.A. Reynoso-Hernández, Esteban Tlelo-Cuautle, "Modeling Memory Effects in RF Power Amplifiers Applied to a Digital Pre-Distortion Algorithm and Emulated on a DSP-FPGA Board", Integration - The VLSI Journal, vol. 49, no. 1, pp. 49-64, ISSN: 0167-9260, 2015. DOI: 10.1016/j.vlsi.2014.12.005.
 - U. Filobello-Nino, H. Vazquez-Leal, Brahim Benhammouda, A. Perez-Sesma, J. Cervantes-Perez, V.M. Jimenez-Fernandez, Alejandro Díaz-Sánchez, A. Herrera-May, D. Pereyra-Diaz, A. Marin-Hernandez, J. Huerta-Chua, and J. Sanchez-Orea, "Perturbation Method and Laplace-Padé Approximation as a Novel Tool to Find

Approximate Solutions for Troesch's Problem," Nova Scientia, Vol.7, No.14 (2), pp. 75.73, 2015.

- C. Muñiz-Montero, L.A. Sánchez-Gaspariano, C. Sánchez-López, Alejandro Díaz-Sánchez, "Una metodología para el diseño de filtros pasabanda asimétricos de alta Q y orden fraccional a partir de integradores de orden entero," Memorias del XXI Iberchip Workshop, February 2015, Montevideo, Uruguay.
- G. Zamora-Mejía, J.R. Cano-Martínez, J. Martínez-Castillo, Alejandro Díaz-Sánchez, "A 2.4 GHz Differential Up-Converter Flipped Voltage Follower Harmonic Mixer," Memorias del XXI Iberchip Workshop, February 2015, Montevideo, Uruguay.
- **L. Antonio Carrillo**, Guillermo Espinosa Flores-Verdad, **Berni Manolo Pérez** and Joel Molina Reyes, "A Smart Transduction System with PVTA Compensation for Sensing Applications", Accepted for Publication in Proceedings of the IEEE, 58th International Midwest Symposium on Circuits and Systems (MWSCAS), Conference on, Vol. 1, pp. 1-5 (June 2015).
- **Gerardo Diaz-Arango**, Arturo Sarmiento-Reyes, **Delia Torres-Muñoz**, Luis Hernández-Martínez, H. Vazquez-Leal, D. D. Lopez-Hernandez, A. Marin-Hernandez, "Path optimization for terrestrial robots using Homotopy Path Planning Method", IEEE International Symposium on Circuits and Systems, ISCAS'2015, May, 2015.
- Guerra-Gomez, Esteban Tlelo-Cuautle, L.G. de la Fraga, OCBA in the Yield Optimization of Analog Integrated Circuits by Evolutionary Algorithms, IEEE Int'l Symposium on Circuits & Systems (ISCAS), Special Session: Advances in Analog CAD Tools, pp. 1933-1936, ISBN: 978-1-4799-8391-9/15, Lisbon, Portugal, May 24-27, 2015.
- L.G. de la Fraga, Esteban Tlelo-Cuautle, Optimizing an Amplifiers by a Many-Objective Algorithm Based on R2 Indicator, IEEE Int'l Symposium on Circuits & Systems (ISCAS), pp. 265-268, ISBN: 978-1-4799-8391-9/15, Lisbon, Portugal, May 24-27, 2015.
- **Jesus Lopez-Arredondo**, Esteban Tlelo-Cuautle, Rodolfo Trejo-Guerra, Optimizing an LDO Voltage Regulator by Evolutionary Algorithms Considering Tolerances of the Circuit Elements, Latin American Test Symposium (LATS), pp. 1-5, Puerto Vallarta Mexico, March 25-27, 2015. DOI: 10.1109/LATW.2015.7102506
- H. Shin, Sheldon X.-D. Tan, Guoyong Shi, Esteban Tlelo-Cuautle, Rare Event Diagnosis by Iterative Failure Region Locating and Elite Learning Sample Selection Latin American Test Symposium (LATS), pp. 1-5, Puerto Vallarta Mexico, March 25-27, 2015. DOI: 10.1109/LATW.2015.7102505
- Ivick Guerra-Gómez, Trent McConaghy, Esteban Tlelo-Cuautle, Study of Regression Methodologies on Analog Circuit Design, Latin American Test Symposium (LATS), pp. 1-6, Puerto Vallarta Mexico, March 25-27, 2015. DOI: 10.1109/LATW.2015.7102504
- L.G. de la Fraga, Esteban Tlelo-Cuautle, Optimizing Operational Amplifiers by Metaheuristics and Considering Tolerance Analysis, Latin American Test Symposium (LATS), pp. 1-4, Puerto Vallarta Mexico, March 25-27, 2015. DOI: 10.1109/LATW.2015.7102503

Proyectos apoyados CONACYT

- Proyecto SEP-237991, supported by the national council of science and technology (CONACyT/MEXICO): "New optimization methodologies of integrated circuits oriented to the design of chaotic dynamical systems with application to the biomedical area"

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Instrumentación Electrónica

Publicaciones

- **Gloria Castro-Muñoz**, Jorge Martínez-Carballido, Roberto Rosas-Romero, "A Human Action Recognition Approach With A Novel Reduced Feature Set Based On The Natural Domain Knowledge Of The Human Figure", Signal Processing: Image Communication, Volume 30, Pages 190-205, ISSN 0923-5965, January 2015.
- Daniel Rico-Aniles, Juan Manuel Ramírez-Cortés, José de Jesús Rangel-Magdaleno, Pilar Gomez-Gil, Hayde Peregrina-Barreto, Vicente Alarcon-Aquino "MATLAB and FPGA-based interactive tool for exploring concepts on Compressed Sensing", Computer Applications in Engineering Education, doi: 10.1002/cae.21664, 2015.
- **Mariana Ibarra-Bonilla**, P. Jorge Escamilla-Ambrosio, Juan Manuel Ramírez-Cortés, "Attitude estimation using a Neuro-Fuzzy tuning based adaptive Kalman filter", prepress Journal of Intelligent and Fuzzy Systems, IOS Press, vol. 29, no. 2, pp. 479-488, 2015.
- Ricardo Valles-Novo, José de Jesús Rangel-Magdaleno, Juan Manuel Ramírez-Cortés, Hayde Peregrina-Barreto, Roberto Morales-Caporal, "Empirical Mode Decomposition Analysis for Broken Bar Detection on Squirrel Cage Induction Motors", IEEE Transactions on Instrumentation and Measurement, Vol. 64, No. 5, pp. 1118-1128, 2015. DOI: 10.1109/TIM.2014.2373513 ISSN : 0018-9456
- **O. Sandre Hernández**, R. Morales-Caporal, José de Jesús Rangel-Magdaleno, H. Peregrina-Barreto, J. Hernandez-Perez, "Parameter Identification of pmsms by using experimental measurements and a pso-algorithm", IEEE Transactions on Instrumentation and Measurement, vol. 64, no. 8, pp. 2146-2154, 2015. DOI: 10.1109/TIM.2015.2390958 ISSN: 0018-9456
- **Carolina Rosas-Huerta**, Jorge Martínez-Carballido, "Real Heart Valve Model for Different Severity Level of Mitral Regurgitation", The 2015 International Conference on Biomedical Engineering and Science (BIOENG'15)
- Daniel Hernández-Contreras, H. Peregrina-Barreto, José de Jesús Rangel-Magdaleno, Juan Manuel Ramírez-Cortés, G. Avina-Cervantes, "Evaluation of Thermal Patterns and Distribution Applied to the Study of Diabetic Foot", IEEE International Instrumentation and Measurement Technology Conference I2MTC, Pisa, Italia, 12-14 mayo, 2015 DOI: 978-1-4799-6144-6/15.
- Esteban Tlelo-Cuautle, **A.D. Pano-Azucena**, José de Jesús Rangel-Magdaleno, V.H. Carbajal-Gomez, G. Rodriguez-Gomez, "Generating a 50-scroll chaotic attractor at 66 MHz by using FPGAs", Nonlinear Dynamics, DOI: 10.1007/s11071-016-2820-3 ISSN : 0924-090X

Publicaciones

- **Orlando Cortazar**, M. A. Vasquez, Mariano Aceves-Mijares “Effect of the annealing atmosphere and temperature on the photoluminescence of Si nanocrystal films covered with spin-on glass” Journal of Nanoelectronics and Optoelectronics, Volume 10, Number 1, 2015, pp. 93-98(6), DOI: <http://dx.doi.org/10.1166/jno.2015.1712>, (2015)
- Y. Matsumoto, A. Dutt, G. Santana-Rodríguez, J. Santoyo-Salazar, and Mariano Aceves-Mijares “Nanocrystalline Si/SiO₂ core-shell network with intense white light emission fabricated by hot-wire chemical vapor deposition” Applied Physics Letters 106, 171912; doi: 10.1063/1.4919527, (2015).
- S A Cabañas-Tay, L Palacios-Huerta, J A Luna-López, Mariano Aceves-Mijares , S Alcántara-Iniesta, S A Pérez-García, and A Morales-Sánchez. “Analysis of the luminescent centers in silicon rich silicon nitride light-emitting capacitors” Semicond. Sci. Technol. 30, 065009, doi:10.1088/0268-1242/30/6/065009. (2015).
- **Gabriela A. Rodríguez-R.**, Edmundo A. Gutiérrez-Domínguez, L. Arturo Sarmiento-Reyes, Z. Stanojevic, H. Kosina, F. Guarín, and P. García-R., “Experimental and Simulation Results of Magnetic Modulation of Gate Oxide Tunneling Current in Nanoscaled MOS Transistors”, IEEE Electron Device Letters, Vol. 36 , No. 4, April 2015, pp.387-389 doi: 10.1109/LED.2015.2404138.
- **Gabriela A. Rodríguez-R.**, Edmundo A. Gutiérrez-Domínguez, L. Arturo Sarmiento-Reyes, Z. Stanojevic, H. Kosina, F. Guarín, and P. García-R., “Thermo-Magnetic Effects in Nano-Scaled MOSFET: An Experimental, Modeling and Simulation Approach”, IEEE Journal of the Electron Devices Society, Vol. 3, No. 2, February 2015, pp.387-389 doi: 10.1109/JEDS.2015.2390629.
- Oleksandr Malik and Francisco Javier De la Hidalga-Wade "Comparison of tin-doped indium oxide films fabricated by spray pyrolysis and magnetron sputtering", publicado on-line 11 June 2015 en revista Crystal Research & Technology, 1–6 (2015) / DOI 10.1002/crat.201400464. p.1-6, Wiley Online Library
- Oleksandr Malik and Francisco Javier De la Hidalga-Wade "Optoelectronics properties of tin-doped indium oxide films fabricated by DC magnetron sputtering in pure argon with post-annealing in oxygen atmosphere", publicado en revista Journal of Materials Research, Vol. 30, No. 12, Jun 28, 2015, pp. 1894-1901.
- Oleksandr Malik, Francisco Javier De la Hidalga-Wade, and Raquel Ramírez Amador "Fluorine-doped tin oxide films with a high figure of merit fabricated by spray pyrolysis", publicado on-line en revista Journal of Materials Research, 26 de Mayo 2015, DOI: 10.1557/jmr.2015.138, pp.1-6.
- **D.D. Alonso**, M. Moreno, Joel Molina, C. Zuniga, W. Calleja, J.C. Cisneros, L.N. De Rivera, V. Ponomaryov, F. Gil, A. Guillen and E. Flores, “Hermetic Capacitive Pressure

Sensors for Biomedical Applications”, Microelectronics International, Vol. 33 Iss 2 pp. 79-86, 2016 IF 2015: 0.519

- **B.M. Perez**, A.D. Sanchez and Joel Molina “Chemical Analysis of Thin ALD-Al₂O₃ Films and their Applications as pH-Sensitive Layers in CMOS-Compatible Ion-Sensitive Capacitors (ISCAP)”, Proceedings of the IEEE, SENSORS 2015 IEEE Conference on. Vol. 1, pp. 1-3. (2015).
- Joel Molina and **R. Valderrama**, “Role of Oxygen Vacancies on the Resistive Switching Characteristics of MIM Structures Fabricated a Low Temperature”, Proceedings of the IEEE, Electron Devices and Solid-State Circuits, 2015 IEEE Conference on. Vol. 1, pp. 237-240. (2015)
- Joel Molina and **R. Valderrama**, “Impact of Post-Deposition Annealing on the Resistive Switching Characteristics and Forming Voltage Step of Al/HfO₂/W Structures”, Proceedings of the IEEE, Electron Devices and Solid-State Circuits, 2015 IEEE Conference on. Vol. 1, pp. 701-704. (2015).
- Mario Moreno Moreno, Ricardo Jiménez, Alfonso Torres, and Roberto Ambrosio, “Microbolometers Based on Amorphous Silicon–Germanium Films With Embedded Nanocrystals”, IEEE Transactions on Electron Devices, In press, Volume: 62, [Issue: 7](#), July 2015, pp. 2120-2127
- D. M. Hurtado-Castañeda, J.L. Herrera-Pérez, J.S. Arias-Cerón, Claudia Reyes-Betanzo, P. Rodríguez-Fragoso, J.G. Mendoza-Alvarez, “Indium Gallium Arsenide Antimonide Photodetector Grown by Liquid Phase Epitaxy: Electrical Characterization and Optical Response”, Materials Science in Semiconductor Processing 31 (2015) 52-85. ISSN: 1369-8001.
- **José Luis Herrera-Celis**, Claudia Reyes-Betanzo, Adrián Itzmoyotl-Toxqui, Abdu Orduña-Díaz and Ana Pérez-Coyotl, “a-Si_xC_{1-x}:H thin films with subnanometer surface roughness for biological applications” Journal of Vacuum Science and Technology A, Artículo No. 308505JVA, ISSN: 0734-2101, Junio 2015.
- M.A. Domínguez-Jiménez, F. Flores-García, A. Luna-Flores, J. Martínez-Juárez, J.A. Luna-López, S. Alcantara-Iniesta, Pedro Rosales-Quintero, Claudia Reyes-Betanzo, “Thin-film transistors based on zinc oxide films by ultrasonic spray pyrolysis”, Revista Mexicana de Física 61 (2015) 123-126. ISSN: 0035-001X.
- Miguel A. Domínguez, Francisco Flores, Adan Luna, Javier Martínez, José A. Luna, Salvador Alcantara, Pedro Rosales-Quintero, Claudia Reyes Betanzo, Abdú Orduña, “Impact of active layer thickness in thin-film transistors based on Oxide by ultrasonic spray pyrolysis”, Solid-State Electronics 109 (2015) 33-36. ISSN: 0038-1101.
- J. Medina Márquez, S.E. Balderas-Mata and Carlos Zuñiga-Islas “Understanding the arithmetic of color”, Revista Mexicana de Física, Vol. 61, pp. 28-30. 2015, ISSN: 1870-3542
- **Hiram E. Martinez**, Andrey Kosarev, Y.Kudriavtsev. "SIMS analysis of atomic composition of silicogermanium films deposited by RF plasma discharge", 12th Int Conference on Electrical Engineering, Computing Science and Automatic Control (CCE), 2015.

- **Hiram E. Martinez**, Andrey Kosarev. "Effect of fabrication conditions on electronic properties of frontal interface in a-Si:H p-i-n solar cells", 12th Int Conference on Electrical Engineering, Computing Science and Automatic Control (CCE), 2015.
- Joel Molina Reyes and **René Valderrama** "Role of Oxygen Vacancies on the Resistive Switching Characteristics of MIM Structures Fabricated a Low Temperature", Accepted for Publication in Proceedings of the IEEE, Electron Devices and Solid-State Circuits, 2015 IEEE Conference on. Vol. 1, pp. 1-4. (June 2015).
- Joel Molina Reyes and **René Valderrama** "Impact of Post-Deposition Annealing on the Resistive Switching Characteristics and Forming Voltage Step of Al/HfO₂/W Structures", Accepted for Publication in Proceedings of the IEEE, Electron Devices and Solid-State Circuits, 2015 IEEE Conference on. Vol. 1, pp. 5-8. (June 2015).
- Miguel A. Dominguez, Francisco Flores, Adan Luna, Salvador Alcantara, Javier Martinez, Jose A. Luna-Lopez, Pedro Rosales Quintero and Claudia Reyes "Annealing effects on metal-ZnO interface for improvement performance of Thin-film Transistors" Mater. Res. Soc. Symp. Proc. Vol. 1731 © 2015 Materials Research Society DOI: 10.1557/opl.2015.96 ISSN: 1946-4274
- Claudia Reyes Betanzo "Stress reduction of amorphous silicon deposited by PECVD". XXIV International Materials Research Congress, Cancún, Quintana Roo, 16 – 20 agosto, 2015.
- Claudia Reyes Betanzo "Characterization of residual stress in a-SiC:H deposited by RF-PECVD for manufacture of membranes for cell culture". XXIV International Materials Research Congress Cancún, Quintana Roo, 16 – 20 agosto, 2015.
- Celdas solares fotovoltaicos basadas en películas Ge(x)Si(1-x):H depositadas por plasma sobre sustratos de plástico", aceptado. 152244, SENER-CONACyT, INAOE-CINVESTAV, Responsable Dr. Andrey Kosarev

Proyectos apoyados por CONACYT

- "Microscopía electrónica para la caracterización de materiales nano-estructurados, nano-cristalinos y orgánicos para aplicaciones en nano-tecnología y en generación de energías renovables". Proyecto Infraestructura, no. 255549, Responsable Dr. Mario Moreno Moreno
- "Fortalecimiento de la Infraestructura del Laboratorio de Microelectrónica del INAOE" Proyecto Infraestructura, no. 255679, Responsable Dr. Pedro Rosales Quintero

Proyectos con apoyo externo

- “Actualización de capacidades de LIMEMS INAOE hacia la fabricación de interruptores de radio frecuencia de alto rendimiento”, Proyecto Clave 133891U0006 PEF 2015. Responsable Dr. Alfonso Torres Jacome
- “Desarrollo de nanotecnología y nanoelectrónica.”, Proyecto Clave 133891U0007; PEF 2015. Dr. Alfonso Torres Jacome