



OSCAR MARCELO SUÁREZ

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Education

Ph.D. Degree, Metallurgical Engineering, University of Wisconsin-Madison, June 2000

M.S. Degree, Metallurgical Engineering, University of Wisconsin-Madison, June 1993

B.S. Degree, Aeronautical & Mechanical Engineering, Universidad Nacional de Córdoba, Argentina August 1984

Honors

Fellow of ASM International (FASM), Class of Fellows 2012

Highest GPA in Aeronautical & Mechanical Engineering – Class of 1984 at the Universidad Nacional de Córdoba, Argentina

Teaching Experience

Professor at the Dept. of Engineering Science and Materials, Univ. of Puerto Rico – Mayagüez [January 2012] (*promotion to full professor position had been postponed for 2.5 years due to institutional financial reasons*)

Associate Professor at the Dept. of General Engineering, Univ. of Puerto Rico – Mayagüez [July 2004 to 2011]

Assistant Professor at the Department of General Engineering, Univ. of Puerto Rico – Mayagüez [Aug. 2000 - June 2004]

Lecturer (Course MS&E 361 “*Materials Laboratory II*”) at the Dept. of Materials Science and Engineering, Univ. of Wisconsin – Madison [Jan. 2000 -May 2000]

Teaching Assistant (Course MS&E 362 “*Materials Laboratory III*”) at the Dept. of Materials Science and Engineering, Univ. of Wisconsin – Madison [Sept. 1995 - Dec. 1995, Sept. 1996 - Dec. 1996, Sept. 1997 - Dec. 1997, Sept. 1998 - Dec. 1998, Sept. 1999 - Dec. 1999]

Teaching Assistant (Course MS&E 361 “*Materials Laboratory II*”) at the Dept. of Materials Science and Engineering, Univ. of Wisconsin - Madison [Jan. 1996 to May 1996, Jan. 1997 - May 1997, Jan. 1998 - May 1998, Jan. 1999 - May 1999]

Lecturer at the Dept. of Materials and Technology, at the Universidad Nacional de Córdoba, Argentina, [Sept. 1986-Aug. 1990]

Professional Experience

Part-Time Plant Engineer, BurMor Engines Co., Córdoba, Argentina [Jan. 1987 – June 1987]

Ensign Reserve Officer, Assistant Officer to the Director of the Air Naval Maintenance Center, Comandante Espora Air Naval Base, Argentina [Oct. 1985 - Aug. 1986]

Academic Activities

Coordinator of the Materials Science and Engineering Graduate Program of the College of Engineering, [Dec. 2015 – to date].

Member of the Engineering Dean Search Committee of the College of Engineering, Univ. of Puerto Rico – Mayagüez [Oct. 2010 – Jan. 2011]

Member of the Personnel Committee of the Dept. of General Engineering, Univ. of Puerto Rico – Mayagüez [Aug. 2005 - Sept. 2011]

Member of the Graduate Studies Committee of the College of Engineering, Univ. of Puerto Rico – Mayagüez [Nov. 2004 to Jan. 2011]

Visiting Professor (honorary), at the Dept. of Materials Science and Engineering, Univ. of Wisconsin – Madison [Jan. 2001 – Jan. 2003, July 2004 – Aug. 2009]

Member of the Faculty Affairs Committee of the College of Engineering, Univ. of Puerto Rico – Mayagüez [Nov. 2002 to Sept. 2004]

Member of the ad hoc Materials Science Committee dedicated to create an interdisciplinary graduate program at the Univ. of Puerto Rico – Mayagüez [Dec. 2000 – to Dec. 2015].

Coordinator of the Engineering Materials Committee at the Dept. of General Engineering, Univ. of Puerto Rico – Mayagüez [Sept. 2000 – March 2003]

Member of the Committee for ABET 2002 of the College of Engineering, Univ. of Puerto Rico – Mayagüez [Sept. 2000 - March 2003]

Other Synergistic Activities

Reviewer of the following peer-reviewed publications:

- Materials, MDPI, since 2018.
- Advances in Materials Science and Engineering, Hindawi, since 2018.
- Journal of Materials Engineering and Performance, Springer-Verlag Publ., since 2013.
- Science & Engineering of Composite Materials, De Gruyter Publ., since 2011.
- Kovove Materialy, Institute of Materials & Machine Mechanics, Slovak Republic, since 2011
- Journal of Composite Materials, Sage Publ., since 2010.
- Composites Part A: Applied Science & Manufacturing, Elsevier Publ., since 2010.
- Metallurgical & Materials Transactions A, Springer-Verlag Publ., since 2010.
- Journal of Materials Processing Technology, Elsevier Publ., since 2006.
- Journal of Materials Science, Springer-Verlag Publ., since 2004.

Technical Committee Co-Chair of the 2006 International Conference on Engineering Education, San Juan, Puerto Rico, July 23-28, 2006.

Organizing Committee Member of the XXIII Southeastern Conference on Applied and Theoretical Mechanics, Mayagüez, Puerto Rico, May 22-23, 2006.

NSF Panelist, Division of Materials Research, 2006, 2007, 2016, 2017.

Founding Faculty Mentor of the Material Advantage Student Chapter of the University of Puerto Rico – Mayagüez [Summer 2004 to date]

Co-Founder and Officer of the Univ. of Wisconsin-Madison Graduate Student Chapter of the American Society for Engineering Education [Feb. 1996 –May 1997]

Grants Awarded and Pending Research Proposals

Key and Major Grants Awarded

Research Initiation Grant, Society of Manufacturing Engineers. Project: “Development of Heat Treatable Aluminum Matrix Composites,” O.M. Suárez (P.I.). Amount: \$36,200 [May 2001 - May 2002].

Minority Science and Engineering Improvement Program (MSEIP), US Dept. of Education, Project: “Materials Science and Engineering Education Improvement for a Hispanic-Serving Institution,” O. M. Suarez (P. I.), O. Uwakweh, B. Shafiq, M.A. Arocha, E. Bonifaz, and M. Tomar. Amount: \$466,686 [Oct. 2002 – Oct. 2005].

US Navy HBCU/MI Research and Education Program. Project: “Lifetime Assessment of Landing Gears and Arresting Shanks: An Innovative Methodology,” B. Shafiq (P.I.), O.M. Suárez, O. Uwakweh. Amount: \$593,935 [April 2003 – Sept. 2006]

Research Grant, EPSCoR. Project: “Manufacturing of a Low Density Heat-Treatable Aluminum Matrix Composite Containing Boron for Aerospace and Automotive Applications,” O.M. Suárez (P.I.) Amount: \$162,200 [Jan. 2004 - December 2005].

Puerto Rico Legislative Fund. Project: "Identificación de Áreas Críticas en el Desarrollo Sustentable del Reciclado de Neumáticos en Puerto Rico– Phase I." O.M. Suárez (P.I.), A. Cáceres, J. Santos, M. Pando. Amount: \$16,000 [Feb. 2004 – Dec. 2004].

NSF Partnership for Education and Research in Materials Program. Project: "Synergistic Partnership for Research and Education on Functional and Nanostructured Materials," O.M. Suárez (P.I.), O. Uwakweh, O. Perales, J. Santos, E. Hellstrom. Amount: \$2,801,000 [April 2004 - Feb. 2010].

Puerto Rico EPSCoR Post-Doctoral Competition. Project: "Investigation of Oxide Based Multifunctional Nanostructures," S. P. Singh (Post-Doctoral Candidate), M. Tomar (PI), O.M. Suárez, O. Perales Pérez, O. Uwakweh, E. E. Hellstrom. Amount: \$52,821 [Aug. 2004 – Aug. 2005].

NSF-REU Program: "REU: Research Experiences for Undergraduates and Teachers in Functional and Nanostructured Materials at the University of Puerto Rico, Mayaguez," C. Rinaldi (PI), A. Hernandez, O.M. Suárez. Amount: \$249,000. [Aug. 2006-July 2009]

Puerto Rico Space Grant Consortium IDEAS Program. Project: "Synthesis and Characterization of Functionally-Graded Aluminum Matrix Composite for High Wear Resistance in Aerospace Applications," O.M. Suárez (PI), G. Gutiérrez, K. Sridharan. Amount: \$60,000 [May 2006-April 2007].

NSF-MRI Program. Project: "MRI: Acquisition of an X-ray Diffraction Unit with in Situ DSC and Reaction Capabilities for Nanotechnology and Materials Science Research at the University of Puerto Rico-Mayagüez," A.J. Hernández (PI), M.M. Martínez, O.M. Suárez. Amount: \$340,000 [Aug. 2006-July 2009].

DoD HBCU/MI ISP. Project: "A Research and Education Thermomechanometry Hub at the University of Puerto Rico-Mayagüez," O.M. Suárez (PI), O. Perales, M.A. Pando, Y. Li, F. J. Acosta. Amount: \$190,431 [Sep. 2007- Aug. 2008].

NSF-CREST. Project: "Nanotechnology Center for Biomedical and Energy Driven Systems and Applications," O.M. Suárez (PI), C. Rinaldi, A. Hernández, O. Perales, J. Santos. Amount: \$4,199,999 [Sept. 2008 – Aug. 2015].

NSF-MRI. Project: "MRI: Acquisition of a Nanoindentation System for the Enhancement of Interdisciplinary Research in Materials Science and Engineering at the University of Puerto Rico at Mayagüez," A. Padovani (PI), O.M. Suárez, N. Sepúlveda, P. Quintero, F. Acosta. Amount: \$184,871 [Oct. 2009 – Sept. 2012].

Puerto Rico Space Grant Consortium (IDEAS). Project: "Tortuosity Index Based on Dynamic Mechanical Properties of Polyimide Foam for Aerospace Application," O.M. Suárez (PI), W. Silva. Amount: \$30,000 [Oct. 2011-Aug. 2013].

US Dept. of Agriculture. Project: "UPR-Mayaguez Center for Education and Training in Agricultural and Related Sciences (CETARS): Consolidating the Pipeline in Agriculture and Natural Resources from K-12 to the Field," F. Román (PI), O. Perales, M. de Jesús, O.M. Suárez. Amount: \$3,200,000 [Sept. 2011-Aug. 2015].

US Army Corps of Engineers, ER&DC. Project: "Fabrication of Polymer/Ceramic Biomimetic Materials," O.M. Suárez (PI), O. Perales, P. Allison. Amount: \$85,000 [Oct. 2011-May 2012].

US Dept. of Education, MSEIP. Project: "Fostering Experiential Learning to Establish a Pipeline from K-12 to Graduate Programs into a Synergistic Collaboration Between STEM Disciplines: Agricultural, Environmental and Nanoscale Science and Engineering," F. Román (PI), O. Perales, M. de Jesús, O.M. Suárez, W. de la Torre. Amount: \$750,000 [Oct. 2012-Oct. 2015].

US Army Corps of Engineers, ER&DC. Project: "Chitin/Ceramic Bio-inspired Materials," O.M. Suárez (PI). Amount: \$10,000 [Oct. 2012-May 2013].

NSF-CREST Project: "CREST Phase II: Nanotechnology Center for Biomedical, Environmental and Sustainability Applications", O.M. Suárez (PI), A. Padovani, A.J. Hernandez-Maldonado, O. Perales-Perez, M. Torres-Lugo. Amount: \$5,000,000 [April 2014-March 2019]

Puerto Rico Water Resource Environmental Research Institute. Project: "Feasibility of Sintered Recycled Glass Functionalized with Micro- and Nanosized TiO₂ Particles for the Degradation of Trihalomethane Precursors from Surface Waters," P. Tarafa (PI), O.M. Suárez. Amount: \$18,000 [March 2014-Feb. 2015].

US Dept. of Education, PPOHA. Project: "Transformational Initiative for Graduate Research and Education," D. Valdés (PI), E. Juan, J.E. Alvarez, O.M. Suárez, et al. Amount: \$2,447,257 [Oct. 2014-Sept. 2019].

Puerto Rico Science, Technology and Research Trust. “Novel Ionic Polymer Nanocomposite Membranes for Advanced Water Purification,” D. Suleiman (PI), M. de Jesús, P. Tarafa, O.M. Suárez. Amount: \$150,000 [June 2015-May 2017]

NSF-MRI. Project: “MRI: Acquisition of an Ultra Rapid Quenching Apparatus for Research and Education,” Y. Li (PI), J. Lu, O.M. Suárez. Amount: \$192,500 [Sept. 1, 2015-Aug. 31, 2019].

Puerto Rico Science, Technology and Research Trust. Project: “Recycled Glass as Beach Nourishment Material to Mitigate Puerto Rico Erosion Problems: An integrated Effort Between Scientists, Engineers and Citizens,” S. Rodríguez Abudo (PI), O.M. Suárez, S. Tamar. Amount: \$149,449 [July 1, 2016-June 30, 2017].

DoD Research and Education Program for HBCU/MI Equipment/Instrumentation: Project: “Collaborative Hub on Additive Metals Manufacturing and Processing (CHAMMP),” O.M. Suárez (PI), P. Sundaram, P. Quintero, L. Medina. Amount: \$508,438 [Sept. 2017 – Sept. 2019].

NSF-DUE: Project: “Building Capacity: Collaborative Research: Resilient Infrastructure and Sustainability Education: Undergraduate Program (RISE-UP),” C. López del Puerto (PI), J. Muñoz-Barreto, J. Perdomo, O.M. Suárez. Amount: \$1,003,840 [Oct. 2018 – Sept. 2023].

NSF-S-STEM: Project: “Strategies to Recruit, Retain, and Engage Academically Talented Students from Economically Disadvantaged Groups into a Pathway to Successful Engineering Careers,” M. Jiménez (PI), S. Bartolomei, A. Santiago, L. Guillemard, O.M. Suárez. Amount: \$999,721 [Oct. 2018 – Sept. 2023].

Other Smaller Grants Awarded

Seed Funds for incoming faculty, College of Engineering and Research & Development Center, Univ. of Puerto Rico – Mayagüez. Project: “Al-Ti-based Aluminum Matrix Composites,” O.M. Suárez (PI). Amount: \$10,000 [Feb. 2001- Feb. 2002].

Partial Supporting Funds, College of Engineering, Univ. of Puerto Rico – Mayagüez. Project: “Creation of a Research Center for Materials Recycling at the University of Puerto Rico-Mayagüez,” O.M. Suárez (PI). Amount: \$3,000, as part of the Undergraduate Research Course INGE 4998, taught at the Dept. of General Engineering, Univ. of Puerto Rico – Mayagüez [Aug. 2001 – May 2002].

Sigma Xi Honor Research Society Grants-in-Aid Program. Project: “Stabilization of Aluminum Dodecaboride in Liquid Aluminum,” Ronald Carrasquillo (Scholarship Holder), O.M. Suárez (Project Director) Amount: \$500 [Sept. 2008-June 2009].

Puerto Rico Louis Stokes Alliance for Minority Program (Undergraduate Research). Amount: \$1,000 (\$800 for student + \$200 for project)

“Microstructure Characterization of Al-B-Cu Composites”	Student: Oscar A. Ruiz	Jan. - May 2002
“Production of Aluminum Matrix Composite Based on Recycled Can Alloys”	Student: Ely X. Colón Jiménez	Sept. - Dec 2002
“Study of Plastic Deformation and Heat Treatment of Al-Cu-Mg-B Alloys”	Student: Cristina Beras Aulet	Sept. - Dec 2002
“Directional Solidification of Al-B-Cu and Al-B-Cu-Mg Metal Matrix Composites”	Student: Susana Borrero	Jan. - May 2003
“Use of Recycled Crumb Rubber in Shock-Absorbing Sandwich Structures”	Student: Ingrid Arocho Rosa	Sept. - Dec. 2003
“Feasibility Study to Manufacture Electrical Wires with Al-Mg-B Composites”	Student: Alfredo Pagán Feliciano	Jan. - May 2004
“Characterization of Al-B-X Composites via Atomic Force Microscopy”	Student: Ruth G.I. Hidalgo Hernández	June - Aug. 2004
“Atomic Force Microscopy of Functionally-Graded Al-B-X Composites”	Student: Ruth G.I. Hidalgo Hernández	Oct. - Dec. 2004
Characterization of Fatigue Crack Growth Rate in AF1410 Steel through Optical and Atomic Force Microscopy”	Student: Cinthia Rodríguez	Feb. - May 2005
“Lifetime Assessment of Structural Materials Under High Loading Rates”	Student: Irene Soria Cordero	June – Aug. 2005

“Stereological Analysis of Functionally-Graded Aluminum Matrix Composites Reinforced with Aluminum Diboride Particles”	Student: Manuel Morales	Sept – Dec. 2005
“Influence of Varying Cooling Rates on the Directional Solidification of an Aluminum-Copper-Boron Composite” Part I	Student: Carlos Báez	Sept.– Dec. 2006
“Influence of Varying Cooling Rates on the Directional Solidification of an Aluminum-Copper-Boron Composite” Part II	Student: Carlos Báez	Jan. - May 2007
“Effect of V and Zr on the Functionalization of Al-B Composites via Centrifugal Casting”	Student: Riquelmi Mendoza	June – Aug. 2007
“Role of Cu and Mg in the Transformation of AlB ₁₂ Reinforcing Particles of Al Matrix Functional Composites”	Student: Alexis Torres	Sept. – Dec. 2007
“Tribological Properties of Aluminum-Boron Composites” Part I	Student: Nayomi Z. Plaza	June.– Aug. 2008
“Tribological Properties of Aluminum-Boron Composites” Part II	Student: Nayomi Z. Plaza	Sept.– Dec. 2008
“Tribological Properties of Aluminum-Boron Composites” Part III	Student: Nayomi Z. Plaza	Jan. - May 2009
“Effect of Chemical Composition in Al-V and Al-Zr Composites Under Directional Solidification”	Student: Víctor Martínez	Jan. - May 2009
“Al-B-Mg-Zn Composite for Aerospace Applications” Part I	Student: Lauren Muñoz	June – Aug. 2009
“Al-B-Mg-Zn Composite for Aerospace Applications” Part II	Student: Lauren Muñoz	Jan. - May 2010
“Al-Si Coating of Al-B Composites” Part I	Student: Roberto Rivera	Sept – Dec. 2008
“Al-Si Coating of Al-B Composites” Part II	Student: Roberto Rivera	Jan.– May. 2009
“Al-Si Coating of Al-B Composites” Part III	Student: Roberto Rivera	Aug.– Dec. 2009
“Al-Si Coating of Al-B Composites” Part IV	Student: Roberto Rivera	Jan. - May 2010
“Study of Recrystallization in Al-Si-B and Al-Cu-B using Themomechanometry Analysis” Part I	Student: Elis A. Rivera	Sept.– Dec. 2010
“Study of Recrystallization in Al-Si-B and Al-Cu-B using Themomechanometry Analysis” Part II	Student: Elis A. Rivera	Jan. - May 2011
“Study of Recrystallization in Al-Si-B and Al-Cu-B using Themomechanometry Analysis” Part III	Student: Elis A. Rivera	June - Aug 2011
“Feasibility Study of the Synthesis of Chitosan/CaCO ₃ Composites”	Student: Amarilis Declat	June - Aug 2011
“Tribological Characterization of Al Matrix Composites: Pin-on-Disk Wear Test”	Student: Luis M. Sánchez	Aug. – Dec. 2011
“Chitin/Bamboo Fibers Composites” Part I	Student: Manny de Jesús	Aug. – May 2014
“Chitin/Bamboo Fibers Composites” Part II	Student: Manny de Jesús	Jan. – May 2015
“Concrete Containing Nanoparticles and Recycled Plastic”	Student: Miguel González	Aug. – Dec. 2016

NASA Puerto Rico Space Grant Consortium (PRSGC) Fellowship Program (Undergraduate Research).

Amount: \$6,000

“Heat-Treatable Aluminum Matrix Composite from Recycled Aluminum Cans Alloys Containing Boron Reinforcements for Aerospace Applications”	Student: E. X. Colón Jiménez	Aug. 2003 - July 2004
“Aluminum Matrix Nanocomposites for Aerospace Applications”	Student: Alfredo Pagán Feliciano	Aug. 2004 - July 2005
“Fabrication and Characterization of Al/AlB ₂ Composites for Machinery Subject to Lunar Regolith Abrasion”	Student: Ruth G. I. Hidalgo Hernández	Aug. 2006 - July 2007
“Directional Solidification of Al-based Composites for Aerospace Applications”	Student: Carlos Báez	Aug. 2007 - June 2008

“Study of Rapidly Solidified Aluminum-Boron Composites for Aerospace Applications”

Student: Maxuel Cruz

Aug. 2008-June 2009

VentureWell E-Team Stage I Program. Project: “Eco-Brick (proposal #15634-17),” O.M. Suárez (PI), H. Soto, U. Barajas, A. Cotto. Amount: \$5,000 [April 1, 2017 - December 31, 2017].

Ceramics & Glass Industry Foundation. Project: “Engaging Hispanic High School Students in Ceramics and Glass Science and Engineering,” O.M. Suárez (PI). Amount: \$2,600 [January 2018 – April 2018].

Ceramics & Glass Industry Foundation. Project: “Using Ceramics as a Recruiting Strategy to Engage Geographically-Challenged Female Students and their Communities,” O.M. Suárez (PI). Amount: \$9,974 [January 2019 – May 2019].

Research Proposals under Review

US Dept. of Education, PPOHA. Project: “Integrative Models for The Advancement of Graduate Interdisciplinary Education (IMAGInE),” J.E. Alvarez (PI), B. Delgado, M. Cafaro, O.M. Suárez. Amount: \$3,000,000.

Patent / Invention Disclosure

US Patent 8,820,390 B2: “Methods and Composition for Boride Distribution in Metal Matrix Composite”, Inventors: A. Cintrón-Aponte, J.R. Vázquez Gómez, O.M. Suárez, S.R. Pedraza-Torres. Sept. 2014.

Publications

Book Chapter

1. J. López Calero, Z. Oquendo, O.M. Suárez, “Biodegradable Chitosan Matrix Composite Reinforced with Titanium Dioxide for Biocidal Applications,” in *Composites from Renewable and Sustainable Materials*, A. Pereira, Ed., (2019), IntechOpen, London, UK, ISBN: 978-1-78984-216-6. DOI: 10.5772/intechopen.84397 [in print].
2. A. Declet-Vega, N. Sepúlveda-Ramos, O.M. Suárez, “On the Mechanical and Dielectric Properties of Biocomposites Containing Strontium Titanate Particles,” Chapter 5 in *Ferroelectrics and Their Applications*, H. Irzaman, Ed., (2018): pp. 73-88. IntechOpen, London, UK, ISBN: 978-953-51-6277-3. DOI: 10.5772/intechopen.76858.

Peer-Reviewed Publications

1. U. Barajas-Valdes, O.M. Suárez, “Study of Nano-Mechanical Properties of Aluminum-Based Thin Films Manufactured via Magnetron Sputtering,” *Solid Thin Films*, (2019) [under review].
2. L.E. Zapata-Orduz, G. Portela, O.M. Suárez, B.H. Green, “Mechanical Behavior of Quaternary Concrete with Micro/Nano SiO₂ Analyzed by Artificial Neural Networks and Surface Response Method,” *Revista Latinoamericana de Metalurgia y Materiales*, 39 (1), (2019) [published online: <https://www.rlmm.org/ojs/index.php/rlmm/article/view/919>].
3. A. Declet-Vega, N. Sepúlveda-Ramos, S. Crespo-Montoya, O.M. Suárez, “Bio-Composites Reinforced with Strontium Titanate Nanoparticles: Mechanical Behavior and Degradability,” *Journal of Composites Science* (Special Issue “Current Research and Development in Composite Materials”), 3 [1], (2019): pp. 7. DOI: 10.3390/jcs301000.
4. C. Pomales-García, Z.A. Reyes-Rivera, J. Mercado-Colón, A.M. Padovani-Blanco, J.E. Álvarez, O.M. Suárez, “Impact of Materials Science and Engineering Clubs on Student’s Perceptions and Aspirations Towards STEM,” *MRS Advances*, 4 [19], (2019), pp: 1087–1100. DOI: 10.1557/adv.2018.584.
5. D. Florian-Algarin, A Ramos-Morales, M. Marrero-García, O.M. Suárez, “Study of Aluminum Wires Treated with MoB₂ Nanoparticles”, *J. Composites Sciences*, 2, [50], (2018). [published online, open access]. DOI:10.3390/jcs2030050. [This is the feature article of the Special Issue *Advances in Synthesis, Structure and Properties of Metal Matrix Composites*].
6. J.C. Vargas-Martínez, J.E. Estela-García, O.M. Suárez, C.A. Vega, “Fabrication of a Porous Metal Via Selective Dissolution of an Intermetallic Phase in Al-Cu Alloys,” *Metals*, 8 [6], Article ID 378, (2018). [published online, open access]. DOI:10.3390/met8060378.

7. D. Florián-Algarín, R. Marrero, X. Li, H. Choi, O.M. Suárez, "Strengthening of Aluminum Wires Treated with A206 / Alumina Nanocomposites," *Materials*, 11 [3], Article ID 413. (2018) [published online, open access]. DOI:10.3390/ma11030413.
8. W. Cuadrado, L. Hernández, G. Nazario, O.M. Suárez, "Sintered TiO₂ / Recycled Glass Composites Designed for the Degradation of Environmental Pollutants," *Science and Engineering of Composite Materials*, 25 [2], (2018): pp. 403–415, DOI: 10.1515/secm-2016-0016.
9. N.M. García, H.L. Soto Toro, M. Cabrera-Ríos, O.M. Suárez, "Optimal Cement Mixtures Containing Mineral Admixtures Under Multiple and Conflicting Criteria," *Advances in Civil Engineering*, 2018, Article ID 3780810, (2018) [published online, open access]. DOI: 10.1155/2018/3780810.
10. J.L. Colón Quintana, S. Soto Medina, M. Hernández, O.M. Suárez, "Study of Thermomechanical Properties of an Al-Zn-Based Composite Reinforced with Dodecaboride Particles," *Advances in Materials Science and Engineering*, 2018, Article ID 3780810, (2018) [published online, open access]. DOI: 10.1155/2018/3780810.
11. M. de Hoyos, C. Pomales-García, A. Padovani, O.M. Suárez, "An Entrepreneurship Education Co-Curricular Program to Stimulate Entrepreneurial Mindset in Engineering Students," *MRS Advances*, 2 [31-32], (2017): pp. 1673-1679. DOI: 10.1557/adv.2017.109.
12. A. Avilés, C. Hernandez, J. Ambrose, O.M. Suárez, P.J. Tarafa, "Degradation of Atrazine with Titanium Dioxide Immobilised in Compact Recycled Glass," *Journal of Environmental Engineering and Science*, 12 [4], (2017): pp. 79-85, DOI: 10.1680/jenes.17.00015.
13. A. Declat, N. Sepúlveda-Ramos, J. Martínez-Santos, O.M. Suárez, "Study of Electrical Properties of Biocomposites Containing Ferroelectric Nanoparticles," *J. of Composite Materials*, 51 [14], (2017): pp. 1979-1985. DOI: 10.1177/0021998316665454.
14. L.E. Zapata, G. Portela, O.M. Suárez, A. Cáceres, "Compatibility Analysis Between Portland Cement Type I and Micro/Nano-SiO₂ in Presence of Polycarboxylate-Type Superplasticizers", *Cogent Engineering*, 3 [1], (2016) 1260952 [published online, open access]. DOI: 10.1080/23311916.2016.1260952.
15. S. Dika, J.E. Alvarez, J. Santos, O.M. Suárez, "A Social Cognitive Approach to Understanding Engineering Career Interest and Expectations among Underrepresented Students in School-Based Clubs," *Journal of STEM Education*, 17 [1], (2016): pp. 31-36 [published online, open access].
16. A. Declat, E. Reyes, O.M. Suárez, "Calcium Carbonate Precipitation: A Review of the Carbonate Crystallization Process and Applications in Bioinspired Composites," *Reviews on Advanced Materials Science*, 44 [1], (2016): pp. 87-107 [published online, open access].
17. D. Florián-Algarín, R. Marrero, A. Padilla, O.M. Suárez, "Strengthening of Al and Al-Mg Alloy Wires by Melt Inoculation with Al/MgB₂ Nanocomposite," *Journal of the Mechanical Behavior of Materials*, 24 [5-6], (2015): pp. 207–212, DOI: 10.1515/jmbm-2015-0018.
18. N.M. García, L.E. Zapata, O.M. Suárez, M. Cabrera-Ríos, "Effect of Fly Ash and Nanosilica on the Compressive Strength of Concrete at Early Age," *Advances in Applied Ceramics*, 114 [2], (2015): pp. 99-106. DOI: 10.1179/1743676114Y.0000000200.
19. Y. Lara-Rodríguez, M. Sánchez-Peña, Y. Cedeño Mattei, O. Perales, H.E. Calderón, O.M. Suárez, O. Chacón, M. Cabrera-Ríos, "Cases of Statistical Analysis in Materials Science: Difficulties and Solutions," *Revista Mexicana de Ingeniería Química*, 14 [1], (2015): pp. 489-496.
20. D. Florián, A. Padilla, N. López, O.M. Suárez, "Fabrication of Aluminum Wires Fabrication Treated with Nanocomposite Pellets," *Science and Engineering of Composite Materials*, 22 [5], (2015): pp. 485–490. DOI: 10.1515/secm-2013-0193.
21. O.M. Suárez, E.G. Estremera, R.A. Soler, A. Declat, A.J. Hernández-Maldonado, "Fabrication of Porous and Nanoporous Aluminum Via Selective Dissolution of Al-Zn Alloys," *Advances in Materials Science and Engineering*, 2014, Article ID 963042, (2014) [published online, open access]. DOI:10.1155/2014/963042 [online].
22. M. Corchado, F. Reyes, O.M. Suárez, "Effects of AlB₂ Particles and Zinc on the Absorbed Impact Energy of Gravity Cast Aluminum Matrix Composites," *JOM*, 66 [6], (2014): pp. 926-934.
23. R.G.I. Hidalgo, N. Plaza, O.M. Suárez, "Tribological Characterization of Aluminum Matrix Composites Subject to Mechanical Wear," *Science and Engineering of Composite Materials*, 21 [3], (2014): pp. 333–339.

24. L.E. Zapata, G. Portela, O.M. Suárez, B.H. Green, "Weibull Statistical Analysis of Splitting Tensile Strength of concretes Containing Class Fly Ash and Micro/nano-SiO₂," *Ceramics International*, **40** [5] (2014): pp. 7373–7388.
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3. L.E. Zapata-Orduz, G. Portela, O.M. Suárez, "Tensile Behavior by Weibull Analysis in Binary, Ternary, and Quaternary Concretes Designed with Micro and Nano-Silica Additions," *Maintenance, Monitoring, Safety, Risk and Resilience of Bridges and Bridge Networks*. N. Bittencourt, D.M. Frangopol, and A. Beck (Eds.), Taylor & Francis Group, (2016): pp. 1254-1261. ISBN 9781138028517.
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Presentations and Posters

Oral Presentations

1. Á. Torres González, E. Hernandez, S. Marquez, M. de Jesús, O.M. Suárez, "Microstructure and Mechanical Properties Analysis of Different Al-Ce-Cu Ternary Systems," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
2. R. Padín Monroig, M. de Jesús, O.M. Suárez, "Heat Treatment Optimization of Al-Ce Based Alloys Via Differential Scanning Calorimetry," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
3. J. Colón Martínez, C. Ramos, E. Marrero, M. de Jesús, O.M. Suárez, "Aluminum-Cerium Alloys Treated with Niobium Diboride Nanoparticles for Aerospace Applications," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
4. Y. Juan Morales, R. Montalvo, O.M. Suárez, "Assessing the Viability of Using *Spathodea campanulata* Wood with Recycled Polymers and the Enhancement of its Properties," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
5. J. Rodríguez Camacho, N.A. Burgos, O.M. Suárez, "Fabrication of Aluminum Welding Fillers Reinforced with Niobium Diboride Nanoparticles for Aerospace Applications," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
6. K. Choy Hernández, J.C. Vargas, O.M. Suárez, "Fabrication of Porous Metal via Free Corrosion of Hypoeutectic Aluminum-Copper Alloys," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
7. K. Silva Reyes, J.C. Vargas, O.M. Suárez, "Fabrication of Porous Metals Via Dealloying of Al-Zn Alloys in Acidic Aqueous Solutions," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
8. K. Ramos, W. Crespo, M. de Jesús, O.M. Suárez, "Mechanical Properties of a Novel Al-Ce Alloy Produced via Centrifugal Casting," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
9. C. Lorenzo Velázquez, A. Castro, O.M. Suárez, "Multi-Variable Regression Models for Compression Resistance Estimates for Mortars," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
10. K. Rodríguez Soto, A. Castro, O.M. Suárez, "Nanoparticle-Bearing Mortars for Structural Patchment," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
11. A. Echevarría García, K. Silva, J.C. Vargas, O.M. Suárez, "Study of the Microstructure of an Al-Ce Alloy After Free Corrosion in Alkaline Aqueous Solutions," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
12. E. Ramos Mercado, J. López, O.M. Suárez, "Synthesis and Characterization of chitosan/TiO₂ as a Biocide Composite," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
13. Y. Franqui Bernard, A. Cotto, O.M. Suárez, "Experimental Design and Characterization of Concrete Mixtures Using Recycled Plastic, Fly Ash, and Silica Nanoparticles," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
14. R. Padín López, M. de Jesús López, O.M. Suárez, B.O. Calcagno, "Study of Silicon Effect on Novel Aluminum Cerium Alloys for Aerospace Applications," 37th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Turabo, Gurabo, PR, April 2018.
15. W. Crespo Martínez, M. de Jesús López, O.M. Suárez, "Effect of an Insoluble Phase on Novel Aluminum Cerium Alloys for Aerospace Applications," 37th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Turabo, Gurabo, PR, April 2018.
16. M. Díaz Parés, D. Florián-Algarín, O.M. Suárez, "Effect of Alumina Nanoparticles on the Portevin-Le Chatelier Phenomenon in Al-Mg Alloys," 37th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Turabo, Gurabo, PR, April 2018.
17. B. Aponte Ramos, C. Lorenzo Velázquez, A.I. Castro Cortés, O.M. Suárez, "Mortar Designs with Fly Ash and Nano-silica for Structural Patchments," 37th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Turabo, Gurabo, PR, April 2018.
18. K.M. Torres Mora, J.L. Soto-Vargas, J.E. López, O.M. Suárez, "Synthesis and Characterization of Chitosan and Titanium Dioxide Films as a Biocide," 37th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Turabo, Gurabo, PR, April 2018.
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21. Z. Oquendo Berríos, J.E. López, A.M. Quintero, Y. López, C. McRoberts, J.L. Soto, K.M. Torres, L.E. Orta, K. Amador, K.M. Serrano, O.M. Suárez, "Synthesis and Characterization of Chitosan/TiO₂ Composite as a Biocide Material", ERN Conference, Washington, DC, Feb. 2018.
22. A.F. Calle Hoyos, O.M. Suárez, "Novel Fillers Reinforced with Nanoparticles for Aluminum TIG Welding", Defense Innovation Challenges, Tampa, FL, October 2017. **2017 TechConnect Defense Innovation Award.**
23. H.L. Soto Toro, R. Marrero, O.M. Suárez, "Bamboo-Reinforced Concrete for Fast Infrastructure Deployment", Asia Pacific Resilience Innovation Summit & Expo (APRISE) 2017, Honolulu, HI, July 2017.
24. S.T. Esteves, C. Medina, H. Soto, O. M. Suárez, "High Strength Air Entrained Concrete Containing Nanoparticles and Aluminum", 36th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), Pontifical Catholic University, Ponce, PR, March 2016.
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26. P.J. Tarafa, S. Arias, L. Goñez, O.M. Suárez. "Micro- and Nanosized TiO₂ Particles Immobilized in Sintered Recycled Glass for the Degradation of THM Precursors in Surface Waters," Second Conference on Water Resource Sustainability Issues on Tropical Islands, Honolulu, HI, December 2015.
27. A. Declet-Vega, O.M. Suárez, "Fabrication and Characterization of Biocomposites Containing Ferroelectric Nanoparticles," 2015 SAMPE University Research Symposium, Dallas, TX, October 2015. **Fourth Place in the MS Category.**
28. R. Martínez, M. Marrero, D. Florián, O.M. Suárez, "Effect of NbB₂ Nanoparticles on the Portevin-LeChatelier Phenomenon in Al-Mg Alloys," 35th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Cayey, PR, March 2015.
29. M. Rullán, N.M. García, O.M. Suárez, "Development of Low-Environmental Impact, High Strength Concrete with Fly Ash and Nanosilica," 35th PRISM, University of Puerto Rico-Río Piedras, PR, March 2015.
30. J. de Jesús, A. Aviles, W. Cuadrado, S. Arias, L. Hernández, G. Nazario, L.A. Laracuenta, O.M. Suárez, P. Tarafa, "Degradation of Atrazine with TiO₂ Deposited in Recycled Glass," 35th PRISM, University of Puerto Rico-Río Piedras, PR, March 2015.
31. V. Iravedra, U. Barajas, O.M. Suárez, "Modeling of Deformations of Layered Composites Using Abaqus," 35th PRISM, University of Puerto Rico-Río Piedras, PR, March 2015.
32. M.X. de Jesús, M.E. Ramos-Sepúlveda, K. Figueroa-Marrero, S. Soto, M. Rodríguez-Ocasio, O.M. Suárez, "Fabrication and Characterization of Chitin-Bamboo Composites," 35th PRISM, University of Puerto Rico-Río Piedras, PR, March 2015.
33. A. Tirado, H. Soto, O.M. Suárez, "Mechanical Properties of Concrete with Fly Ash and Nanosilica," 35th PRISM, University of Puerto Rico-Río Piedras, PR, March 2015.
34. A. Declet, J. Martínez, N. Sepulveda, O.M. Suárez, "Synthesis and Characterization of Bio-composites and Ferroelectric Nanoparticles," 144 Annual Meeting & Exhibition 2015 TMS, Orlando, FL, March 2015.
35. K. Rivera-Rodríguez, S. Soto-Medina, O.M. Suárez, "Thermomechanical Behavior of Biodegradable Chitin-Carbon Nanotubes Composites," Agri-Science Education for the 21st Century Conference, Miami, FL, November 2014. **First Prize, Undergraduate Oral Presentations.**
36. H. Colón, D. Florián, S. Soto, O.M. Suárez "Strengthening of Aluminum with Multiwalled Carbon Nanotubes by Mechanical Alloying and Sintering," Materials Science & Technology 2014, Pittsburgh, PA, October 2014.
37. R.E. Marrero, D. Florián, X. Li, H. Choi, O.M. Suárez, "Study of Wire Fabrication of Aluminum Treated with Alpha-Al₂O₃ Nanoparticles," Materials Science & Technology 2014, Pittsburgh, PA, October 2014.
38. C.M. Medina, N.M. García, H. Soto, O.M. Suárez, "Effect of Fly Ash and Nano-silica on Concrete Compressive Strength at Early Age," Materials Science & Technology 2014, Pittsburgh, PA, October 2014.
39. G. del Orbe, E.J. de la Cruz, C.M. Medina, N.M. García, L.E. Zapata, O.M. Suárez, "Effect of Fly Ash and Nano-Silica on Concrete's Compressive Strength," CoHemis-UPRM SACNAS, Mayagüez, PR, April 2014.

40. C. Rivera, S. Soto Medina, K. Rivera Rodríguez, O.M. Suárez, "Creep Behavior of Chitin-Carbon Nanotubes Composites," 34th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Cayey, PR, March 2014.
41. N. Sepúlveda, C. Rodríguez, O.M. Suárez, "Effect of Nitride Coating on the Properties of Aluminum-Silicon Composites Containing Borides," 34th PRISM, University of Puerto Rico-Cayey, PR, March 2014.
42. E.J. de la Cruz, C.M. Medina, N.M. García, L.E. Zapata, O.M. Suárez, "Effect of Fly Ash and Nano-Silica on Concrete's Compressive Strength," 34th PRISM, University of Puerto Rico-Cayey, PR, March 2014.
43. M. Hernández, M. Corchado, F. Reyes, O.M. Suárez, "Study of Thermo-Mechanical Properties of Composite Materials: Al-Zn-AlB₂" 34th PRISM, University of Puerto Rico-Cayey, PR, March 2014.
44. M. Marrero, D. Florián, O.M. Suárez, "Study of Properties of Aluminum Wires Treated with Nanoparticles of MoB₂" 34th PRISM, University of Puerto Rico-Cayey, PR, March 2014.
45. R. Marrero, D. Florián, O.M. Suárez, "Study of Wire Fabrication of Aluminum Treated with Diboride Particles," 34th PRISM, University of Puerto Rico-Cayey, PR, March 2014.
46. G. Nazario, W. Cuadrado, J. de Jesus, L. Hernández, O.M. Suárez, "Fabrication of Recycled Glass Filters for the Remediation of Polluted Soils," 34th PRISM, University of Puerto Rico-Cayey, PR, March 2014.
47. R. Rivera, A. Deplet, J. Lopez, E. Reyes, N. Ramirez, C. Ortiz, O.M. Suárez, "Effects of Ferroelectric Nanoparticles in a Polymer-based Composite," 34th PRISM, University of Puerto Rico-Cayey, PR, March 2014.
48. M. Corchado, F. Reyes, M. Hernández, O.M. Suárez, "Effects of AlB₂ Particles and Zinc on the Mechanical Properties of a Series of Aluminum Matrix Composites", 143 Annual Meeting & Exhibition TMS, San Diego, CA, February 2014.
49. A. Padilla, R. Marrero, D. Florián, O.M. Suárez, "Study of Wire Fabrication of Aluminum Treated with Diboride Particles", The Minerals, Metals, and Materials Society, TMS Conference 2014, San Diego, CA, February, 2014.
50. N. López, J. Moreno, O.M. Suárez, "Processing and Characterization of a Ceramic NbB₂/Al Nanocrystalline Composite," Materials Science & Technology 2013, Montreal, Canada, October 2013.
51. S. Flores-Bonano, S. Pérez-Avilés, F. Rodríguez-Ruiz, O.M. Suárez; W. Silva-Araya, "Empirical Analysis of Tortuosity Index of Polyimide Foam for Aerospace Applications," Materials Science & Technology 2013, Montreal, Canada, October 2013.
52. N. García; L.E. Zapata; O.M. Suárez, M. Cabrera, "Effect of Fly Ash and Nano-silica on Concrete Compressive Strength at Early Age," Materials Science & Technology 2013, Montreal, Canada, October 2013.
53. U. Barajas, S. Flores-Bonano, V. Santiago-Torres, O.M. Suárez, "Parametric Study of a Centrifugally Cast Functionally Graded Aluminum Composite Used in the Deposition of Thin Films via Sputtering," Materials Science & Technology 2013, Montreal, Canada, October 2013.
54. F. Reyes, M. Corchado, O.M. Suárez, "On the Effects of Zinc and AlB₂ Particles on Absorbed Impact Energy of Aluminum Matrix Composites," Materials Science & Technology 2013, Montreal, Canada, October 2013.
55. A. Deplet Vega, J. Ortiz Rivera, E. Reyes Brondo, O.M. Suárez, "Effects of Ferroelectric Nanoparticles in a Polymer-based Composite," Materials Science & Technology 2013, Montreal, Canada, October 2013.
56. S. Soto, K. Esquilin, J. Salcedo, O.M. Suárez, "Creep Behavior of Chitin-Carbon Nanotube Composites," Materials Science & Technology 2013, Montreal, Canada, October 2013.
57. L.E. Zapata, G. Portela, O.M. Suárez, A. Cáceres, "Relationship between Fresh and Hardened States of Polycarboxylate Superplasticized Concretes with Nano-SiO₂ Additions," 2013 Engineering Mechanics Institute Conference, Evanston, IL, August 2013.
58. N. García, L.E. Zapata, G. Torres, O.M. Suárez, M. Cabrera-Ríos, "Effect of Fly Ash and Nano-Silica on Concrete Compressive Strength," Institute of Industrial Engineers Annual Conference, San Juan, PR, May 2013.
59. A. Rodríguez-Camacho, O.M. Suárez, "Effect of Nitride Coating on the Properties of Aluminum-Silicon Composites Containing Borides", 33rd Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Turabo, Gurabo, PR, March 2013.

60. V. Santiago, O.M. Suárez, U. Barajas-Valdes, "Topography of Thin Films Deposited Using Sputtering Magnetron and Targets of Pure Aluminum and Aluminum/ AlB_2 Composites," 33rd Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Turabo, Gurabo, PR, March 2013.
61. M. Hernández, M. Corchado, F. Reyes, O.M. Suárez, "Study of Mechanical Properties of Al-Zn/ AlB_2 Composites," 33rd Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Turabo, Gurabo, PR, March 2013.
62. A. Arroyo, W. Cuadrado, L.M. Hernández, J.I. Figueroa, A. López, G. Nazario, O.M. Suárez, "Porosity in Sintered Recycled Glass Designed For Polluted Soil Filtering," 33rd Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Turabo, Gurabo, PR, March 2013.
63. A. Padilla, D. Florián-Algarín, O.M. Suárez, "A Study on the Processing of Aluminum Wires Treated with Diboride Nanoparticles and their Electrical and Mechanical Properties," 33rd Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Turabo, Gurabo, PR, March 2013.
64. D. Florián-Algarín, O.M. Suárez, "Study of Wire Fabrication of Aluminum Treated with Diboride Particles," 142 Annual Meeting & Exhibition 2013 TMS, San Antonio, TX, March 2013
65. S. Soto-Medina; K. Esquilín-García, J. Salcedo-Pérez, D. Marty-Flores, O.M. Suárez, "On the Fabrication of Chitin/Carbon Nanotube Composites," 142 Annual Meeting & Exhibition 2013 TMS, San Antonio, TX, March 2013
66. L.M. Hernández, W. Cuadrado, A. Arroyo, J.I. Figueroa, A. López, G. Nazario, O.M. Suárez, "Porosity in Sintered Recycled Glass Designed for Polluted Soil Filtering," Emerging Researchers National (ERN) Conference, Washington, DC, February 2013.
67. J.M. Moreno Quiles, N.N. López Meléndez, O.M. Suárez, "Processing, Characterization and Optimization of Mechanical Properties of an Al/ NbB_2 Composite", Material Science & Technology 2012, Pittsburgh, Pennsylvania, October 2012.
68. L. M. Sánchez-Sosa, O.M. Suárez, "Effect of Boron and Vibrations in the Wear Coefficient of Aluminum Matrix Composites", 141 Annual Meeting & Exhibition 2012 TMS, Orlando, FL, March 2012.
69. E.G. Estremera, R.A. Soler, A. Declet, U. Barajas-Valdes, O.M. Suárez, "Fabrication and Characterization of Porous Zinc via Selective Dealloying of Al-Zn Alloys", 141 Annual Meeting & Exhibition 2012 TMS, Orlando, FL, March 2012.
70. C. Arroyo-Torres, E.A. Rivera, O.M. Suárez, "Effect of Mechanical Deformation and Heat Treatment on the Mechanical Properties of Al-Si-B Composites", 32nd Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico–Carolina, PR, March 2012.
71. S. Bonano, U. Barajas-Valdes, O.M. Suárez, "Effects of AlB_2 Reinforcement Particles Embedded on Al Matrix", 32nd PRISM, University of Puerto Rico–Carolina, PR, March 2012.
72. R. Valle , E.G. Estremera, R. A. Soler-Crespo, A. Declet, O.M. Suárez, "Corrosive Media Effects in the Selective Dissolution of Al-Zn Alloys", 32nd PRISM, University of Puerto Rico–Carolina, PR, March 2012.
73. M. Carrasquillo-Flores, F. Díaz Vázquez, O.M. Suárez, "Centrifugal Casting of Al-Si-Zn Matrix Reinforced with Different Levels of Boride Particles", 32nd PRISM, University of Puerto Rico–Carolina, PR, March 2012.
74. N.N. López, J.M. Moreno, O.M. Suárez, "Feasibility Study of the Fabrication of a Niobium Diboride / Aluminum Composite", 32nd PRISM, University of Puerto Rico–Carolina, PR, March 2012.
75. L.M. Sánchez-Sosa, F. Pérez, N. Plaza, W. Cuadrado, A. López, O.M. Suárez, "Effect of Boron Levels and Vibrations in the Wear Coefficient of Aluminum Matrix Composites", 32nd PRISM, University of Puerto Rico–Carolina, PR, March 2012.
76. A. López, W. Cuadrado, J.I. Figueroa, L.M. Hernández, G. Nazario, O.M. Suárez, "Porosity in Sintered Recycled Glass and its Applications in Agriculture", 32nd PRISM, University of Puerto Rico–Carolina, PR, March 2012.
77. A. Declet, L.D. Ruiz, F. Ortiz, B. Maldonado, O. Rodríguez, O.M. Suárez, "Biomimetic Materials: Chitin-Calcium Carbonate Composite", 32nd PRISM, University of Puerto Rico–Carolina, PR, March 2012.
78. E.G. Estremera, R.A. Soler-Crespo, A. Declet, R. Valle, U. Barajas, A.J. Hernandez, O.M. Suárez, "Fabrication and Characterization of Porous Zinc via Selective Dissolution of Al-Zn Alloys", Emerging Researchers National (ERN) Conference, Atlanta, GA, February 2012.

79. E. Estremera, O.M. Suárez, A. Hernandez-Maldonado, "Fabrication and Characterization of Porous Aluminum Alloys by Chemical Dealloying: Effect of Concentration and Cooling Rate," Materials Science & Technology, Columbus, OH, October 2011.
80. R.J. Manzano, G. Ramos, O.M. Suárez, "A Comparative Study of Centrifuged Al-Si/AlB₂ and AlB₁₂ Composites," 31st Puerto Rico Interdisciplinary Scientific Meeting (PRISM), Interamerican University – Bayamón, PR, March 2011.
81. E. Rivera, C.N. Mercado, N. Cortés, O.M. Suárez, "Recrystallization of Al-Si Alloys Reinforced with Boride Particles," 31st PRISM, Interamerican University – Bayamón, PR, March 2011.
82. G. Ramos, O.M. Suárez, "Study of Sputtering Deposition of Aluminum Boride-Based Composite," 140 Annual Meeting & Exhibition 2011 TMS, San Diego, CA, February 2011.
83. C. Cabañas, N. Plaza Rodríguez, O.M. Suárez, "Characterization of Al-Mg-Zn-B and Al-Zn-B Composites," 30th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), Univ. of Puerto Rico-Mayagüez, March 2010.
84. R. Carrasco, A. Fairbrother, S. Pedraza, O.M. Suárez, "Nitride Formation by Plasma-Alloy Reaction of Al-B Base Alloy," 30th PRISM, Univ. of Puerto Rico-Mayagüez, March 2010.
85. X. De Jesús, M. Collet, N. Cortés, O.M. Suárez, "On the Thermomechanical Response of Al-Cu Mg Composite Reinforced with Diboride Particles," 30th PRISM, Univ. of Puerto Rico-Mayagüez, March 2010.
86. J. Martín, G. Ramos, O.M. Suárez, "Fabrication of Functionally Graded Al-Si-B for Hybrid Composites," 30th PRISM, Univ. of Puerto Rico-Mayagüez, March 2010.
87. Y. Martínez, N. Schmitt, R. Rivera, O.M. Suárez, "Study of Al-Sn Alloys Covered by Arc-Melted Al-Si for Bearing Applications," 30th PRISM, Univ. of Puerto Rico-Mayagüez, March 2010.
88. N. Plaza Rodríguez, C. Cabañas, O.M. Suárez, "Vibration Effects on the Fabrication of Structural Al-Mg-Zn-B Composites," 30th PRISM, Univ. of Puerto Rico-Mayagüez, March 2010.
89. A. Miranda, G. Ramos, O.M. Suárez "Manufacturing of Al-Based Targets for Deposition of Nanocomposites," 30th PRISM, Univ. of Puerto Rico-Mayagüez, March 2010.
90. L. Muñoz, Y. Sánchez, C. Príncipe, N. Artilles-León, O.M. Suárez, "Processing of AlB₂-Reinforced Al-Zn Alloys," 30th PRISM, Univ. of Puerto Rico-Mayagüez, March 2010.
91. R. Hidalgo, N. Plaza, O.M. Suárez, "Characterization of Al/AlB₂ Composites Subject to Mechanical Wear and Abrasion," Materials Science & Technology (MS&T) 2009 Conference & Exhibition, Pittsburgh, PA, November 2009.
92. N. Alicea, L. Olaya-Luengas, O.M. Suárez, "Characterization of Al-Cu alloys Reinforced with Dodecaborides," 29th PRISM, Univ. of Puerto Rico-Río Piedras, March 2009.
93. P. Barrado, S. De Hoyos, H. E. Calderón, O.M. Suárez, "Effect of AlB₂ Reinforcements on the High Temperature Thermomechanical Response of Al-Based Composites," 29th PRISM, Univ. of Puerto Rico-Río Piedras, March 2009.
94. N. Plaza, R. Hidalgo, O.M. Suárez, "Effects of Magnesium Levels in Al-B Composites Subject to Mechanical Wear and Abrasion," 29th PRISM, Univ. of Puerto Rico-Río Piedras, March 2009.
95. R. Rivera, O.M. Suárez, "Comparative Tribological Study of Aluminum-Tin Bearing Alloy Containing Silicon or Boron," 29th PRISM, Univ. of Puerto Rico-Río Piedras, March 2009.
96. Z. Melgarejo, P. Resto, D. Stone, O.M. Suárez, "Study of Particle- Matrix Interaction in Al/AlB₂ Composite Material via Nanoindentation," 138 Annual Meeting & Exhibition 2009 TMS, San Francisco, CA, February 2009.
97. L. Olaya-Luengas, R. Mendoza, C. S. Príncipe, O.M. Suárez, "Chemical Composition Effects on the Microstructure of Functionally-Graded Aluminum Matrix Composites," MS&T 2008 Conference & Exhibition, Pittsburgh, PA, October 2008
98. N. Cantrés, J. Vázquez, O.M. Suárez, "New Applications for Recycled Metallic Matrix Composites," Materials Science & Technology 2008 Conference & Exhibition, Pittsburgh, PA, October 2008
99. R. Mendoza-Villalobos, O.M. Suárez, "Zirconium and Vanadium Particles in Al-B Composites by Centrifugal Casting," 28th PRISM, Univ. of Puerto Rico-Arecibo, March 2008
100. N. Plaza, R. G. I. Hidalgo, C. Osorio, O.M. Suárez, "Pin-on-Disk Construction for Tribological Characterization of Al Matrix Composites," 28th PRISM, Univ. of Puerto Rico-Arecibo, March 2008

101. D. Bindl, O.M. Suárez, "Investigation into Phase Relations in the Aluminum-Boron System," 137 Annual Meeting & Exhibition 2008 TMS. Aluminum Alloys: Fabrication, Characterization and Applications: Alloy Characterization, New Orleans LO, March 2008
102. S. Pedraza, C. Báez, O.M. Suárez, "Studies on Directional and Rapid Solidification of Al-B-Cu Composites," 2007 MS&T Annual Meeting, Detroit, MI, September 2007
103. J. Vázquez, L. Reyes-Russi, O.M. Suárez, "Processing and Characterization of Mechanically Alloyed Al/AlB₂ Composites," 2007 MS&T Annual Meeting, Detroit, MI, September 2007
104. R. Hidalgo-Hernández, O.M. Suárez, K. Sridharan, "Fabrication and Characterization of Al/AlB₂ Composites for Machinery Subject to Lunar Regolith Abrasion," 2007 MS&T Annual Meeting, Detroit, MI, September 2007
105. J. Vázquez, L. Reyes-Russi, O.M. Suárez, "Comparative Analysis of Processing Routes for the Synthesis of (AlMg)B₂ Composites Under Vacuum," 27th PRISM, Inter American University, Bayamón, March 2007
106. S. Pedraza, R. Hidalgo and O.M. Suárez, "Studies on Rapid Solidification of Al-B-X Composites," Advances in Chemical Sciences & Engineering in Puerto Rico, Dorado, Puerto Rico, November 2006
107. N. Plaza, S. Pedraza, O.M. Suárez, "Study of Low-Cycle Fatigue of Al-Mg Alloys," Fourth LACCEI International Latin American and Caribbean Conference for Engineering and Technology, Mayagüez, Puerto Rico, June 2006.
108. J. Santos, W. Crone, G. M. Zenner, O.M. Suárez, "Educational Modules for High School Teachers on Materials," Fourth LACCEI International Latin American and Caribbean Conference for Engineering and Technology, Mayagüez, Puerto Rico, June 2006.
109. Z. H. Melgarejo, O.M. Suárez, K. Sridharan, "Functionally Graded Aluminum Matrix for High Wear Aerospace Applications," III Congreso Internacional de Materiales- Simposio Materia 2005, Cartagena, Colombia, September 2005.
110. H. Calderón, O.M. Suárez, E. Barrios Zamudio, "Mechanical Deformation Effects on Heat-Treated Aluminum Matrix Composites," III Congreso Internacional de Materiales- Simposio Materia 2005, Cartagena, Colombia, September 2005.
111. M. Baños Cabán, R. Rivera, O. Bravo, K. Rodríguez, J. Salas, O.M. Suárez, "Design and Development of a Horizontal Mechanical Testing Machine with Corrosion Resisting Materials," 25th PRISM, Univ. of Puerto Rico – Mayagüez, March 2005.
112. R. G. I. Hidalgo, Z. H. Melgarejo, O.M. Suárez, "AFM Analysis of Functionally-Graded Aluminum Matrix Composites for High Wear Aerospace Applications," 25th PRISM, Univ. of Puerto Rico – Mayagüez, March 2005.
113. C. J. Rodríguez, A. Quispitupa, N. Duque, O.M. Suárez, "Characterization of Fatigue Crack Growth Rate in AF1410 Steel through Optical and Atomic Force Microscopy," 25th PRISM, Univ. of Puerto Rico – Mayagüez, March 2005.
114. I. Arocho, O.M. Suárez, "Recycled Rubber as an Energy Absorbent Sandwich Material for Highway Guardrails," 24th PRISM, Univ. of Puerto Rico – Humacao, March 2004.
115. H. Calderón Arteaga, O.M. Suárez, "A Study of Heat Treatment and Mechanical Deformation Effects on Heat-Treated Aluminum Matrix Through Experimental Design," 24th PRISM, Univ. of Puerto Rico – Humacao, March 2004.
116. A. Pagán, E. Colón Jiménez, O.M. Suárez, "Composites Reinforced with Borides and Dissolved Magnesium and Copper to Improve Mechanical Properties," 24th PRISM, Univ. of Puerto Rico – Humacao, March 2004.
117. J. Yupa Luna, O.M. Suárez, "Corrosion Effect of Aluminum-Copper-Boron Composites in 3.5% NaCl Solution," 24th PRISM, Univ. of Puerto Rico – Humacao, March 2004.
118. E. X. Colón Jiménez, O.M. Suárez, "Heat-Treatable Aluminum Matrix Composite from Recycled Aluminum Can Alloys Containing Boron Reinforcements for Aerospace Applications," Puerto Rico Space Grant Consortium Second Congress on Integrating NASA Research and Education Projects in Puerto Rico, San Juan, Puerto Rico, November 2003.
119. O.M. Suárez, J. Yupa Luna, H. E. Calderón Arteaga, O. A. Ruiz Cortés, L. M. Baca Cárdenas, "Heat Treatable Cast Aluminum Matrix Composite Reinforced with Borides," 14th AAAS & EPSCoR Annual Meeting, Dorado, Puerto Rico, May 2002.

120. C. Beras Aulet, E. X. Colón Jiménez, J. Yupa Luna, H. E. Calderón Arteaga, O.M. Suárez, "Production and Heat Treatment of Aluminum Matrix Composites Based on Recycled Can Alloys to Improve Mechanical Properties," 23rd PRISM, Univ. of Puerto Rico – Río Piedras, March 2003.
121. O.A. Ruiz Cortés, J. Yupa Luna, H. E. Calderón Arteaga, O.M. Suárez, "Heat-Treatable Aluminum Matrix Composite Containing Boron for Aerospace and Automotive Applications," 22nd PRISM, Univ. of Puerto Rico – Arecibo, March 2002.
122. J. Rodríguez, O. González, R. Zapata, K. Villanueva, J. Vergara, N. Torres, W. Velázquez, J. Cruz, O.M. Suárez, "Creation of a Recycle Research Center at UPRM," 22nd PRISM, Univ. of Puerto Rico – Arecibo, March 2002.

Posters

1. A. Castro, O.M. Suárez, "Nano-Engineered Mortars with Pozzolan Material for Structural Patchment," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
2. J. López Calero, O.M. Suárez, "Biodegradable Chitosan Matrix Composite Reinforced with Titanium Dioxide for Biocidal Applications," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
3. M. Vázquez, O.M. Suárez, "Al-Ce Alloys Processed via Gravity Casting and Liquid Phase Sintering for Aerospace Application," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
4. R.D. Montalvo, O. Abelleira, O.M. Suárez, "Assessing the Viability of Using *Spathodea campanulata* Wood with Recycled Polymers and the Enhancement of its Properties," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
5. N.A. Burgos León, O.M. Suárez, "Fabrication of Aluminum Welding Fillers Reinforced with Niobium Diboride Nanoparticles for Aerospace Applications," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
6. M.X. de Jesús-López, O.M. Suárez, "Study of Al₁₁Ce₃ Distribution in Aluminum Matrix Produced via Centrifugal Casting," 38th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-Mayagüez, Mayagüez, PR, May 2019.
7. G. Reyes, J. López, O.M. Suárez, "Synthesis and Characterization of Chitosan/TiO₂ as a Biocide Composite Research," XXIII Sigma Xi Student Poster Day, University of Puerto Rico - Mayagüez, April 2019.
8. Y. Saltar, R. Padín, M. de Jesús, O.M. Suárez, "Heat Treatment Optimization of AlCe Based Alloys via Differential Scanning Calorimetry," XXIII Sigma Xi Student Poster Day, University of Puerto Rico - Mayagüez, April 2019.
9. C. Ramos, J. Colón, M. de Jesús, O.M. Suárez, "Aluminum-Cerium Alloys Treated with Niobium Diboride Nanoparticles for Aerospace Applications," XXIII Sigma Xi Student Poster Day, University of Puerto Rico - Mayagüez, April 2019.
10. K. Maldonado, W. Crespo, K. Ramos, M. de Jesús, O.M. Suárez, "Study of Al₁₁Ce₃ Distribution in Aluminum Matrix Produced via Centrifugal Casting," XXIII Sigma Xi Student Poster Day, University of Puerto Rico - Mayagüez, April 2019.
11. A. Gómez Pérez, N. Burgos, A. Calle, O.M. Suárez, "Fabrication of Aluminum Welding Fillers Reinforced with Niobium Diboride Nanoparticles for Aerospace Applications," Undergraduate Student Poster Contest (Materials Processing and Manufacturing Division), 149 TMS Annual Meeting & Exhibition, San Antonio, TX, March 2019.
12. K. Silva-Reyes, J.C. Vargas-Martinez, K. Baez-Cruz, J. Velazquez-Diaz, O.M. Suárez, "Fabrication of a Porous Zn Metal Via Selective Dissolution of an Al-Zn Alloy in NaOH Aqueous Solutions," Undergraduate Student Poster Contest (Materials Processing and Manufacturing Division), 149 TMS Annual Meeting & Exhibition, San Antonio, TX, March 2019.
13. M. de Jesus-Lopez, W. Crespo-Martínez, Á. Torres-Gonzalez, K. Ramos-Ortiz, O.M. Suárez, "Study of Al₁₁Ce₃ Distribution in Aluminum Matrix Produced via Centrifugal Casting," Graduate Student Poster Contest (Materials Processing and Manufacturing Division), 149 TMS Annual Meeting & Exhibition, San Antonio, TX, March 2019.

14. J. Colon, M. de Jesus, C. Ramos, R. Vega, O.M. Suárez, "Aluminum-Cerium Alloys Treated with Niobium Diboride Nanoparticles for Aerospace Applications," Undergraduate Student Poster Contest, 149 TMS Annual Meeting & Exhibition, San Antonio, TX, March 2019. **First Prize, Undergraduate Poster Contest in the TMS Light Metals Division.**
15. R. Padin, M. de Jesus, O.M. Suárez, "Heat Treatment Optimization of Al-Ce Based Alloys Using Differential Scanning Calorimetry," Undergraduate Student Poster Contest, 149 TMS Annual Meeting & Exhibition, San Antonio, TX, March 2019.
16. J.A. Colón, M.X. de Jesús-López, O.M. Suárez, "Effect of Silicon and Magnesium on Mechanical Properties of Novel Aluminum-Cerium Alloys for Aerospace Applications," XXII Sigma Xi Student Poster Day, University of Puerto Rico - Mayagüez, May 2018.
17. K.M. Serrano Rodríguez, J.E. López Calero, A. Quintero García, Y. López Massa, L. Orta Rodríguez, Z. Oquendo Berríos, K. Amador Martínez, A. Torres Rivera, J. Montalvo Miranda, L. Badillo Orocho, O.M. Suárez, "Synthesis and Characterization of Chitosan/TiO₂ as a Biocide Composite," XXII Sigma Xi Student Poster Day, University of Puerto Rico - Mayagüez, May 2018.
18. K. Rodríguez, C. Lorenzo, A. Castro, N. Torres, C. Medina, O.M. Suárez, "Nanoparticle-Bearing Mortars for Structural Patchment," XXII Sigma Xi Student Poster Day, University of Puerto Rico - Mayagüez, May 2018.
19. Y. Franqui, A. Cotto, O.M. Suárez, "Experimental Mixture Design of Concrete Incorporating Recycled Plastic and Silica Nanoparticles as Supplementary Cementitious Material," XXII Sigma Xi Student Poster Day, University of Puerto Rico - Mayagüez, May 2018.
20. K. Silva, K. Báez, J. Vargas-Martínez, J. Díaz, O.M. Suárez, "Porous Metal from Selective Dissolution of Al-Zn Alloy," XXII Sigma Xi Student Poster Day, University of Puerto Rico - Mayagüez, May 2018.
21. A.R. Gómez Pérez, A. Calle, N. Burgos, O.M. Suárez, "Fabrication of Novel Aluminum Welding Fillers Reinforced with Nanoparticles," XXII Sigma Xi Student Poster Day, University of Puerto Rico - Mayagüez, May 2018.
22. A. Quintero García, J.E. López Calero, Y. López Massa, K. Torres Mora, J.L. Soto Vargas, Z. Oquendo Berrios, L.H. Orta Rodriguez, K. M. Serrano Rodriguez, K. Amador Martínez, O.M. Suárez, "Synthesis and Characterization of Chitosan-based Composite Containing TiO₂ Nanoparticles and Their Antibacterial Activity" , Undergraduate Student Poster Contest, 148 TMS Annual Meeting & Exhibition 2018, Phoenix, AZ, March 2018.
23. K. Báez, J.C. Vargas-Martínez, J. Díaz, O.M. Suárez, "Porous Metal from Selective Dissolution of Al-Cu-Mg Alloy", Undergraduate Student Poster Contest, 148 TMS Annual Meeting & Exhibition 2018, Phoenix, AZ, March 2018.
24. C. Crespo, A. Calle, M. Hernández , O.M. Suárez, "Fabrication of Novel Aluminum Welding Fillers Reinforced with NbB₂ Nanoparticles", Undergraduate Student Poster Contest, 148 TMS Annual Meeting & Exhibition 2018 TMS, Phoenix, AZ, March 2018.
25. M. Díaz Parés, D. Florián-Algarín, X. Li, H. Choi, O.M. Suárez, "Effect of Alumina Nanoparticles on the Portevin-Le Chatelier Phenomenon in Al-Mg Alloys", Undergraduate Student Poster Contest, 148 TMS Annual Meeting & Exhibition 2018, Phoenix, AZ, March 2018. **First Prize, Undergraduate Poster Contest in the TMS Structural Materials Division.**
26. C. Lorenzo, A. Castro, N. Torres, C. Medina, O.M. Suárez, "Mortar Designs with Fly Ash and Nano-silica for Structural Patchments", ERN Conference, Washington, DC, Feb. 2018.
27. Y. López Massa, A. Quintero Garcia, J.E. López Calero, K. Torres Mora, J.L. Soto Vargas, Z. Oquendo Berrios, L.H. Orta Rodriguez, K. M. Serrano Rodriguez, K. Amador Martínez, O.M. Suárez, "Synthesis and Characterization of Chitosan Based Films Containing TiO₂ Nanoparticles As a Biocide," 2017 SACNAS: The National Diversity in STEM Conference in Salt Lake City, Utah. **First Prize, Undergraduate Poster Contest in the Engineering (general) Category.**
28. M.D. Marrero, A. Ramos, D. Florián, O.M. Suárez, "The Portevin-Le Chatelier Phenomenon in Al-Mg Alloys Containing Nanoparticles," American Society for Engineering Education (ASEE) Zone II Annual Conference, San Juan, PR, March 2017. **Best Overall Southeastern Section and 2nd Prize Individual Research Poster.**
29. A. Calle, V. Nadal, C. Rivera, O.M. Suárez, "Experimental Design Analysis of Stir Casting of Enhanced Aluminum Filler Reinforced with NbB₂ Nanoparticles", Forward Research & Innovation Summit, San Juan, PR, September 2016.
30. M. González, H. Soto, C. Rivera, A. Castro, O. M. Suárez, "Effect of Silica Nanoparticles on the Early Age Strength of High Performance Concrete", Forward Research & Innovation Summit, San Juan, PR, September 2016.

31. C.M. Medina, F.R. Benítez, R.E. Marrero, H. Soto, O.M. Suárez, "Study of High Strength Concrete Reinforced with Bamboo Fibers", Forward Research & Innovation Summit, San Juan, PR, September 2016.
32. A. Avilés, C. Hernández, J. Ambrose, K. González, O.M. Suárez, P. Tarafa, "Immobilization of Titanium Dioxide in Crushed Recycled Glass for Atrazine Photo-degradation", Faculty Academy Symposium, University of Puerto Rico - Mayagüez, May 2016.
33. A.F. Calle, C. Vázquez, J. de Jesús Silva, M. Corchado, O.M. Suárez, "Experimental Design Analysis of Stir Casting of Enhanced Aluminum Filler Reinforced with NbB₂ Nanoparticles", 2016 Institute of Industrial and Systems Engineers (IISE) Annual Conference & Expo, Anaheim, California, May 2016. **First Prize, Graduate Poster Competition of the Industrial and Systems Engineering Research Conference (ISERC).**
34. C. Hernández, A. Avilés, J. Ambrose, K. González, P. Tarafa, O.M. Suárez, "Immobilization of Titanium Dioxide in Crushed Recycled Glass for Atrazine Photo-degradation", XXI Sigma Xi Student Poster Day, University of Puerto Rico - Mayagüez, April 2016.
35. J.C. Vargas-Martínez, A.J. Urbán-Ríos, "Selective Corrosion of Al-Cu-Mg Alloys for Porous Metals Applications", 36th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), Pontifical Catholic University, Ponce, PR, March 2016.
36. J. López, H. Colón, A. Castro, O.M. Suárez, "Synthesis of Aluminum with Multiwalled Carbon Nanotubes by Mechanically Alloying and Sintering", Undergraduate Student Poster Contest, 145 Annual Meeting & Exhibition 2015 TMS, Nashville, TN, February 2015.
37. M. Rullán-Semidey, O. M. Suárez, H. Soto, C. Medina, "High Strength Air-entrained Concrete with Partial Replacement of Fly Ash and Nanostructured Silica", Undergraduate Student Poster Contest, 145 Annual Meeting & Exhibition 2015 TMS, Nashville, TN, February 2016.
38. A. Urbán Ríos, J. Vargas Martínez, O. M. Suárez, "Selective Dissolution of Al-Cu-Mg Alloys for Porous Metals Applications", Undergraduate Student Poster Contest, 145 Annual Meeting & Exhibition 2015 TMS, Nashville, TN, February 2016.
39. D. Florian-Algarin; M. Marrero-García, J. Martínez, R. Martínez; O.M. Suárez, "Effect of NbB₂ Nanoparticles on the Portevin-Le Chatelier Phenomenon in Al-Mg Alloys", Graduate Student Poster Contest, 145 Annual Meeting & Exhibition 2015 TMS, Nashville, TN, February 2016.
40. M. Hernández-Quezada, J. Colón, S. Soto, O.M. Suárez, "Study of Thermomechanical Properties of an Al-Zn Matrix Reinforced with Dodecaboride Particles", Undergraduate Student Poster Contest, 145 Annual Meeting & Exhibition 2015 TMS, Nashville, TN, February 2016.
41. A. Calle, C. Vázquez, J. de Jesús, O.M. Suárez, "Experimental Design Analysis of Stir Casting of Enhanced Aluminum Filler Reinforced with NbB₂ Nanoparticles", Graduate Student Poster Contest, 145 Annual Meeting & Exhibition 2015 TMS, Nashville, TN, February 2015.
42. J. Ambrose, A. Aviles, W. Cuadrado, O.M. Suárez, "Photo-degradation of Atrazine with TiO₂ Deposited on Crushed, Recycled Glass," 8th NEA Science Day, March 2015.
43. J. Martínez, A. Declét, N. Sepúlveda, C. Ortiz, O.M. Suárez, "Synthesis and Characterization of Bio-Composite and Ferroelectric Nanoparticles," 8th NEA Science Day, March 2015.
44. U. Barajas, A. de Jesús, O.M. Suárez, "Study of Aluminum Matrix Composite (AMC) Used in the Deposition of Thin Films by RF Sputtering Magnetron," Student Poster Contest, 144 Annual Meeting & Exhibition 2015 TMS, Orlando, FL, March 2015. **First Prize, Graduate Poster Contest in the TMS Light Metals Division.**
45. J.L. Colón, S. Soto, O.M. Suárez, "Study of thermo-mechanical properties of a novel Al-Zn composite reinforced with boride particles," Student Poster Contest, 144 Annual Meeting & Exhibition 2015 TMS, Orlando, FL, March 2015.
46. N. Sepúlveda, A. Declét, J. Martínez, O.M. Suárez, "Study of the Electrical Properties of Bio-polymer-based Composite Containing Ferroelectric Nanoparticles," Student Poster Contest, 144 Annual Meeting & Exhibition 2015 TMS, Orlando, FL, March 2015.
47. L.A. Laracuenta, A. Amarillys L. Hernandez, G. Nazario, G., J. de Jesús, O.M. Suárez, "Photo-degradation of Atrazine with Recycled Glass Filter Functionalized with TiO₂," Student Poster Contest, 144 Annual Meeting & Exhibition 2015 TMS, Orlando, FL, March 2015. **First Prize, Undergraduate Poster Contest in the TMS Extraction and Processing Division.**
48. M.X. de Jesús, M.E. Ramos-Sepúlveda, K. Figueroa-Marrero, S. Soto, M. Rodríguez-Ocasio, O.M. Suárez, "Fabrication and Characterization of Chitin-bamboo Composites," Student Poster Contest, 144 Annual Meeting & Exhibition 2015 TMS, Orlando, FL, March 2015.
49. H. Soto, O.M. Suárez, N.M. Garcia, C.M. Medina, E.J. de la Cruz, "Analysis of Mechanical Properties of Concrete Containing Fly Ash and Nano-silica," Student Poster Contest, 144 Annual Meeting & Exhibition 2015 TMS, Orlando, FL, March 2015.

50. N.M. García, L.E. Zapata, O.M. Suárez, M. Cabrera, "Effect of Fly Ash and Nano-Silica on Concrete Compressive Strength at Early Age," Annual SACNAS National Conference 2014, Los Angeles, CA, October 2014.
51. J. Salcedo, C. Rivera, S. Soto, M. de Jesus, O.M. Suárez, "Study and Modeling of Creep Behavior of Chitin Carbon Nanotubes Composites," General Poster Session, Materials Science & Technology 2014, Pittsburgh, PA, October 2014.
52. N.M. García, L.E. Zapata, O.M. Suárez, "Effect of Fly Ash and Nano-Silica on Concrete's Compressive Strength," Research Academy Symposium, UPR-Mayagüez, May 2014.
53. K. Rivera, S. Soto, C. Rivera, J. Salcedo, M. de Jesús, O.M. Suárez, "Thermo-mechanical Behavior of Chitin-Cellulose-Carbon Nanotubes Composites," CoHemis-UPRM SACNAS, Mayagüez, PR, April 2014.
54. E.J. de la Cruz, C.M. Medina, N.M. García, L.E. Zapata, O.M. Suárez, "Effect of Fly Ash and Nano-Silica on Concrete's Compressive Strength," XIX Sigma Xi Student Poster Day, University of Puerto Rico at Mayagüez, April 2014.
55. J. López, A. Decllet, R. Rivera, E. Reyes, N. Ramírez, C. Ortiz, O.M. Suárez, "Effects of Ferroelectric Nanoparticles in a Polymer-based Composite," 5th Convention of Chemical Engineering Students of Puerto Rico, March 2014.
56. J. Salcedo-Perez, S. Soto, C. Rivera, O.M. Suárez, "On the Fabrication of a Biopolymer-based Nanocomposite", Emerging Researchers National Conference (ERN), Washington, DC, February 2014.
57. E. Reyes, A. Decllet, R. Rivera, J. López, O.M. Suárez, "Effects of Ferroelectric Nanoparticles in Polymer-based Composite", Emerging Researchers National Conference (ERN), Washington, DC, February 2014. **First Prize, Undergraduate Poster Contest in the Technology and Engineering Category.**
58. N. Garcia, L.E. Zapata, O.M. Suárez, M. Cabrera, G. Torres, "Effect of Fly Ash and Nano-Silica on Concrete's Compressive Strength", Emerging Researchers National Conference (ERN), Washington, DC, February 2014.
59. J. De Jesús, W. Cuadrado, L. Hernández, G. Nazario, O.M. Suárez, "Porosity and Percolation in Sintered Recycled Glass for Polluted Soil Filtering", Emerging Researchers National Conference (ERN), Washington, DC, February 2014.
60. W. Cuadrado, A. Arroyo, L.M. Hernández, G. Nazario, O.M. Suárez, "Characterization of Recycled Glass Sintered with TiO₂ Particles Designed for the Remediation of Polluted Soils", General Poster Session, 143 Annual Meeting & Exhibition TMS, San Diego, CA, February 2014.
61. S. Soto, J. Salcedo. O.M. Suárez, "Creep Behavior of Chitin-CNT Composites", General Poster Session, 143 Annual Meeting & Exhibition TMS, San Diego, CA, February 2014.
62. A. Rodríguez, O.M. Suárez, "Effect of Nitride Coating on the Properties of Aluminum-Silicon Composites Containing Borides," Student Poster Contest, 143 Annual Meeting & Exhibition TMS, San Diego, CA, February 2014.
63. A. Padilla, R. Marrero, D. Florián, O.M. Suárez, "Strengthening of Al and Al-Mg Alloy Wires by Melt Inoculation with Al/MgB₂ Nanocomposite," Student Poster Contest, 143 Annual Meeting & Exhibition TMS, San Diego, CA, February 2014. **First Prize, TMS Light Metals Division.**
64. L. Laracuenta, W. Cuadrado, J. De Jesús, L.M. Hernández, G. Nazario, O.M. Suárez, "Fabrication and Characterization of TiO₂/Glass Composites for Environmental Remediation", Student Poster Contest, 143 Annual Meeting & Exhibition TMS, San Diego, CA, February 2014.
65. C.M. Medina, G.E. Del Orbe, N. García, O.M. Suárez, "Effect of Fly Ash and Nano-silica on Concrete Compressive Strength at Early Age", Northeast Alliance for Graduate Education and the Professoriate, 7th NEA Science Day, University of Puerto Rico, Mayagüez, February 2014
66. W. Cuadrado, A. Arroyo, L. Hernández, A. López, G. Nazario, O.M. Suárez, "Structural Characterization of Sintered Recycled Glass Designed for Polluted Soil Filtering," General Poster Session, Materials Science & Technology 2013, Montreal, Canada, October 2013.
67. D. Florián-Algarín, O.M. Suárez, "Study of Wire Fabrication of Aluminum Treated with Diboride Particles," General Poster Session, Materials Science & Technology 2013, Montreal, Canada, October 2013.
68. W. Cuadrado, A. Arroyo, L. Hernández, G. Nazario, O.M. Suárez, "Structural and Compression Characteristics of Sintered Recycled Glass Filters Designed for the Remediation of Polluted Soils," 25th Anniversary Conference of Great Minds in STEM, New Orleans, LA, October 2013.
69. M. Corchado, M. Hernández, F. Reyes, O.M. Suárez, "Effects of Increasing AlB₂ Particles and Zinc on Mechanical Properties of Gravity Cast Aluminum Matrix Composites," 25th Anniversary Conference of Great Minds in STEM, New Orleans, LA, October 2013. **Third Prize, Undergraduate Poster Contest.**

70. W. Cuadrado, J. Figueroa, L. Hernández, A. López, G. Nazario, O.M. Suárez, "Percolation in Sintered Recycled Glass Designed for Polluted Soil Filtering" 33rd Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Turabo, Gurabo, PR, March 2013.
71. S. Soto-Medina, K. Esquilín-García; J. Salcedo; D. Marty-Flores; O.M. Suárez, "On the Fabrication of Chitin/Carbon Nanotube Composites," Student Poster Contest, 142 Annual Meeting & Exhibition 2013 TMS, San Antonio, TX, March 2013.
72. G. Nazario, W. Cuadrado, A. Arroyo, J. Figueroa, L. Hernández, A. López, O.M. Suárez, "Porosity and Percolation in Sintered Recycled Glass for Polluted Soil Filtering," Student Poster Contest, 142 Annual Meeting & Exhibition 2013 TMS, San Antonio, TX, March 2013. **First Prize, TMS Extraction and Processing Division.**
73. M. Corchado, F. Reyes, O.M. Suárez, "Effects of Boron and Zinc on Impact Tests of Al-B-Zn Alloy," Student Poster Contest, 142 Annual Meeting & Exhibition 2013 TMS, San Antonio, TX, March 2013. **First Prize, TMS Light Metals Division.**
74. U. Barajas-Valdes, S. Flores-Bonano, O.M. Suárez, "On the Fabrication of Sputtering Aluminum Targets Containing AlB₂ Particles and Their Use in the Deposition of Thin Films," Student Poster Contest, 142 Annual Meeting & Exhibition 2013 TMS, San Antonio, TX, March 2013.
75. L. Zapata-Orduz, G. Portela, O.M. Suárez, "Stochastic Analysis Based on Weibull Statistics Assisted by Artificial Neural Network Simulations in Concretes Containing Fly Ash, Micro/Nano-SiO₂ under Indirect Tension," Student Poster Contest, 142 Annual Meeting & Exhibition 2013 TMS, San Antonio, TX, March 2013.
76. D. Florian-Algarin, A. Padilla-Vega, O.M. Suárez, "On the Processing of Aluminum Wires Treated with Diboride Nanoparticles and their Electrical and Mechanical Properties," Student Poster Contest, 142 Annual Meeting & Exhibition 2013 TMS, San Antonio, TX, March 2013.
77. N.N. López-Menéndez, J.M. Moreno-Quiles, A. Acosta-Ubiera, O.M. Suárez, "Processing and Characterization of a Novel NbB₂/Al Nanocrystalline Composite," Student Poster Contest, 142 Annual Meeting & Exhibition 2013 TMS, San Antonio, TX, March 2013.
78. W. Cuadrado, E. Carire, J. Figueroa, L. Hernández, A. López, G. Nazario, O. M. Suárez, "Percolation in Sintered Recycled Glass for Polluted Soil Filtering", Emerging Researchers National (ERN) Conference, Washington, DC, February 2013.
79. N.N. López, J. Moreno-Quiles, O.M. Suárez, "Processing and Mechanical Characterization of a NbB₂/Al Composite," Alliance for Graduate Education and the Professoriate North East, 6th NEA Science Day, University of Puerto Rico, Mayagüez, Puerto Rico, February 2013. **First Prize in the Undergraduate Poster Competition.**
80. M. Corchado, F. Reyes and O.M. Suárez, "Effects of Zinc and AlB₂ Particles on Absorbed Impact Energy of an Aluminum Matrix Composite", 6th NEA Science Day, University of Puerto Rico, Mayagüez, Puerto Rico, February 2013. **Second Prize in the Undergraduate Poster Competition.**
81. L. Zapata, G. Portela, O.M. Suárez, and O. Molina. "Weibull Statistical Analysis in Superplasticized Ternary and Quaternary Concretes Containing Different Mineral Admixtures and Nano-SiO₂", 6th NEA Science Day, University of Puerto Rico, Mayaguez, Puerto Rico, February 2013. **Second Prize in the Graduate Poster Competition.**
82. W. Cuadrado, "Porosity and Percolation in Sintered Recycled Glass for Polluted Soil Filtering." Alliance for Graduate Education and the Professoriate North East, 6th NEA Science Day, University of Puerto Rico, Mayagüez, Puerto Rico, February 2013.
83. L. Zapata, J. Guzmán, G. Portela, and O.M. Suárez. "Comparison between Pearson Cross-Correlation and Connection Weights Approach to Quantify Variable Importance in Artificial Neural Network Models Applied to Complex Concrete Mix Designs Using Amorphous Silica Nano Particles" 6th NEA Science Day, University of Puerto Rico, Mayaguez, Puerto Rico, February 2013.
84. J. C. Elías, L. Zapata, G. Portela, and O.M. Suárez. "Artificial Intelligence Assisting a Case of Experimental Design with Lack-of-Fit in Tests of Normal Consistency on Ternary Mixes: PC-nS-FA", 6th NEA Science Day, University of Puerto Rico, Mayaguez, Puerto Rico, February 2013.
85. J.J. Rivera, L. Zapata, G. Portela, O.M. Suárez. "Tensile Strength of High-Performance Concrete Containing Fly Ash, Silica Fume and Nanoparticles of Silica Using Advanced Nonlinear Statistical Techniques", 6th NEA Science Day, University of Puerto Rico, Mayaguez, Puerto Rico, February 2013.
86. K.P. Ramos, L. Zapata, G. Portela, and O.M. Suárez. "Fresh State Interactions between Portland Cement Type I, Micro/Nano-SiO₂ and Five Polycarboxylate-Type Superplasticizers", 6th NEA Science Day, University of Puerto Rico, Mayaguez, Puerto Rico, February 2013.

87. U. Barajas-Valdes, S. Flores-Bonano, O.M. Suárez. "Effects of AlB₂ Reinforcement Particles Embedded on Al Matrix", Alliance for Graduate Education and the Professoriate North East, 5th NEA Science Day, University of Puerto Rico, Mayagüez, Puerto Rico, October 2012.
88. S. Flores-Bonano, F. Rodríguez Ruiz, O.M. Suárez, W. Silva Araya. "Tortuosity Index Based on Dynamic Mechanical Properties of Polyimide Foam for Aerospace Application", Alliance for Graduate Education and the Professoriate North East, 5th NEA Science Day, University of Puerto Rico, Mayagüez, Puerto Rico, October 2012.
89. J.J. Rivera, L.E. Zapata, G. Portela, O.M. Suárez, "Normal Consistency of Ternary Mixes: PC-nS-FA/SF Analyzed by Using Response Surface Methodology". Alliance for Graduate Education and the Professoriate North East, 5th NEA Science Day, University of Puerto Rico, Mayagüez, Puerto Rico, October 2012.
90. U. Barajas-Valdez, S. Flores-Bonano, O.M. Suárez. "Effects of AlB₂ Reinforcement Particles Embedded on Al Matrix", 7th Transdisciplinary Research Conference, Puerto Rico Louis Stokes Alliance for Minority Participation (PR-LSAMP), Turabo University, Caguas, Puerto Rico, May 2012.
91. E.G. Estremera, R.A. Soler-Crespo, A. Declet, R. Valle, U. Barajas, O.M. Suárez, "Aluminum-Zinc Dealloying: A Comparative Analysis of Processing Methods for Porous Metals", 7th Transdisciplinary Research Conference, Puerto Rico Louis Stokes Alliance for Minority Participation (PR-LSAMP), Turabo University, Caguas, Puerto Rico, May 2012.
92. G. Rodríguez-Quiñones, D. Florián-Algarín, O.M. Suárez, "Processing of Aluminum Wires and its Effect on their Electrical Properties", 7th Transdisciplinary Research Conference, Puerto Rico Louis Stokes Alliance for Minority Participation (PR-LSAMP), Turabo University, Caguas, Puerto Rico, May 2012.
93. L.D. Ruiz, A. Declet, F. Ortiz, B. Maldonado, O. Rodríguez, O.M. Suárez, "Biomimetic Materials: Chitin-Calcium Carbonate Composite", 7th Transdisciplinary Research Conference, Puerto Rico Louis Stokes Alliance for Minority Participation (PR-LSAMP), Turabo University, Caguas, Puerto Rico, May 2012.
94. D. Marty, M. Hernandez, N. Cortés, S. Soto, O.M. Suárez, "Hardness Study of Cold Rolled Al-Zn-Si-B Composite", XVII Sigma Xi Student Poster Day, University of Puerto Rico at Mayagüez, March 2012.
95. J. Figueroa, W. Cuadrado, A. López, L. Hernández, G. Nazario, O.M. Suárez, "Porosity in Sintered Recycled Glass and its Applications in Agriculture", XVII Sigma Xi Student Poster Day, University of Puerto Rico at Mayagüez, March 2012.
96. R.J. Valle-Ramos, E. Estremera, R.A. Soler-Crespo, A. Declet, U. Barajas-Valdés, O. M. Suárez and A. J. Hernández-Maldonado, "Aluminum-Zinc Dealloying: a Comparative Analysis of Processing Methods for Porous Metals", XVII Sigma Xi Student Poster Day, University of Puerto Rico at Mayagüez, March 2012.
97. F.A. Rodríguez-Ruiz, E. Carire, O. M. Suárez, W. Silva-Araya, "Study of Polyimide Foam for Aerospace Applications", XVII Sigma Xi Student Poster Day, University of Puerto Rico at Mayagüez, March 2012.
98. S. Flores-Bonano, U. Barajas-Valdes, O.M. Suárez, "Effects of AlB₂ Reinforcement Particles Embedded on Al Matrix", XVII Sigma Xi Student Poster Day, University of Puerto Rico at Mayagüez, March 2012.
99. J.M. Moreno-Quiles, N.N. López-Meléndez, O.M. Suárez, "Feasibility Study of the Fabrication of a Niobium Diboride / Aluminum Composite", XVII Sigma Xi Student Poster Day, University of Puerto Rico at Mayagüez, March 2012.
100. D. Florián-Algarín, G. Rodríguez-Quiñones, O.M. Suárez, "Processing of Aluminum Wires and its Effect on their Electrical Properties", XVII Sigma Xi Student Poster Day, University of Puerto Rico at Mayagüez, March 2012.
101. S. Soto Medina, O.M. Suárez, N. Cortés Urrego, "Creep Behavior of Al-Cu Composites Reinforced with AlB₂ Particles", XVII Sigma Xi Student Poster Day, University of Puerto Rico at Mayagüez, March 2012.
102. G. Rodríguez-Quiñones, D. Florián-Algarín, O.M. Suárez, "Processing of Aluminum Wires and its Effect on their Electrical Properties", Student Poster Contest, 141 Annual Meeting & Exhibition 2012 TMS, Orlando, FL, March 2012. **Best in Show Award.**
103. R.A. Soler-Crespo, E.G. Estremera, R. Valle, A. Declet, U. Barajas-Valdez, A.J. Hernández-Maldonado, O.M. Suárez, "Aluminum-Zinc Dealloying: A Comparative Analysis of Processing Methods for Porous Metals", Student Poster Contest, 141 Annual Meeting & Exhibition 2012 TMS, Orlando, FL, March 2012. **First Prize, TMS Extraction and Processing Division.**
104. J.M. Moreno-Quiles, N.N. López-Meléndez, O.M. Suárez, "Feasibility Study of the Fabrication of a Niobium Diboride / Aluminum Composite", Student Poster Contest, 141 Annual Meeting & Exhibition 2012 TMS, Orlando, FL, March 2012.
105. L. Zapata, G. Portela, O.M. Suárez, O. Carrasquillo, "Rheological Performance and Compressive Strength of Superplasticized Mortar Cements with SiO₂ Nanoparticles Additions", Student Poster Contest, 141 Annual Meeting & Exhibition 2012 TMS, Orlando, FL, March 2012.

106. D. Florián-Algarín, G. Rodríguez-Quiñones, O.M. Suárez, "Processing of Aluminum wires and Its Effect on their Electrical Properties", 32nd Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico–Carolina, PR, March 2012.
107. S. Soto Medina, O.M. Suárez, N. Cortés Urrego, "Creep Behavior of Al-Cu Composites Reinforced with AlB₂ Particles", 32nd PRISM, University of Puerto Rico–Carolina, PR, March 2012.
108. L.M. Sánchez-Sosa, F. T. Pérez, N. Plaza, W. Cuadrado, A. López, O.M. Suárez, "Effect of Boron Levels and Vibrations in the Wear Coefficient of Aluminum Matrix Composites", Emerging Researchers National (ERN) Conference, Atlanta, GA, February 2012.
109. A. Declét, L.D. Ruiz, B. Maldonado, F. Ortiz, O. Perales, O.M. Suárez, "Methodology for the Synthesis of Chitin/ Calcium Carbonate Layered Composites", Emerging Researchers National (ERN) Conference, Atlanta, GA, February 2012.
110. O.M. Suárez, O. Perales, C. Rinaldi, A. Hernandez, J. Santos, F.R. Roman, "CREST Nanotechnology Center for Biomedical and Energy-Driven Systems & Applications HRD 0833112," 2011 NSF Nanoscale Science and Engineering Grantees Conference, Arlington, VA, December 5-7, 2011.
111. L.D. Ruiz, A. Declét, F. Ortiz, B. Maldonado, O. Rodriguez, O.M. Suárez, "Synthesis and Characterization of Bio-Inspired Polymer/Mineral Nanocomposites", 2011 American Institute of Chemical Engineering Annual Meeting, Minneapolis, MN, November 2011.
112. R.A. Soler-Crespo, E. Estremera, A. Declét, R. Carrasquillo, O.M. Suárez, "Electrochemical Dealloying of Aluminum-Zinc Alloys: Formation of Macroporous Structures," Student Poster Contest, Materials Science & Technology, Columbus, OH, October 2011. **First Prize**
113. R. Manzano, G. Ramos, O.M. Suárez, "A Comparative Study of Centrifuged Al-Si/AlB₂ and AlB₁₂ Composites," Student Poster Contest, 140 Annual Meeting & Exhibition 2011 TMS, San Diego, CA, February 2011. **Best in Show Award**
114. A. Cintrón-Aponte, J.R. Vázquez, O.M. Suárez, "Statistical Analysis of the Effect of Boride Distribution in Metal Matrix Composite for Different Manufacturing Processes," Student Poster Contest, 140 Annual Meeting & Exhibition 2011 TMS, San Diego, CA, February 2011.
115. N. Cortés, O.M. Suárez, "Creep Behavior of Al-Cu and Al-Si Composite Reinforced with Diboride Particles, " 31st Puerto Rico Interdisciplinary Scientific Meeting (PRISM), Interamerican University –Bayamón, PR, March 2011.
116. G. Ramos, O.M. Suárez, "Study of Hybrid Al/AlB₂ Thin Films Deposited over Polymer Substrates via Sputtering," 31st PRISM, Interamerican University –Bayamön, PR, March 2011.
117. M. Collet, N. Cortés, X.F. De Jesús Padilla, H.E. Calderón, O.M. Suárez, "Thermomechanical Characterization of Al-Cu-Mg Composites Reinforced with Diboride Particles," The Sigma Xi Scientific Research Society Sigma Xi XV Poster Day – UPR Mayagüez PR, April 2010.
118. C.M. Cabañas, N. Plaza, O.M. Suárez, "Characterization of Al-Mg-Zn-B and Al-Zn-B Composites," The Sigma Xi Scientific Research Society Sigma Xi XV Poster Day – UPR Mayagüez PR, April 2010.
119. G. Ramos, P. Santiago, R. Manzano, O.M. Suárez, "Fabrication of Functionally Graded Aluminum-Based Targets for Sputtering Deposition of Hybrid Composites," 30th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), Univ. of Puerto Rico-Mayagüez, March 2010.
120. R.G.I. Hidalgo-Hernandez, N. Plaza, "Tribological Characterization of Al-Cu-Mg-B Composites Subject to Mechanical Wear," 30th PRISM, Univ. of Puerto Rico-Mayagüez, March 2010.
121. N. Cortés, X.F. De Jesús Padilla, H.E. Calderón, O.M. Suárez, "Thermomechanical Characterization of Al-Cu-Mg Composites Reinforced with Diboride Particles," 30th PRISM, Univ. of Puerto Rico-Mayagüez, March 2010.
122. G. Ramos, J. Martín, O.M. Suárez, "Fabrication of Functionally-Graded Aluminum-Based Sputtering Targets for Hybrid Composites," Student Poster Contest, 139 Annual Meeting & Exhibition 2010 TMS, Seattle, WA, February 2010.
123. X. de Jesús Padilla, N. Cortés, O.M. Suárez, "On the Thermomechanical Response of Al-Cu Mg Composites," Student Poster Contest, 139 Annual Meeting & Exhibition 2010 TMS, Seattle, WA, February 2010. **First Prize, TMS Light Metals Division.**
124. N. Schmitt, R. Rivera, Y. Martínez, O.M. Suárez, " Study of Al-Sn Alloys Covered by Arc-Melted Al-Si for Bearing Applications," Student Poster Contest, 139 Annual Meeting & Exhibition 2010 TMS, Seattle, WA, February 2010.
125. N. Plaza, N. Álvarez, O.M. Suárez, "Vibration Effects on the Fabrication of Structural Al-Zn-B Composites," Student Poster Contest, 139 Annual Meeting & Exhibition 2010 TMS, Seattle, WA, February 2010. **First Prize, TMS Structural Materials Division.**

126. L. Muñoz, O.M. Suárez, "Processing of AlB₂-Reinforced Al-Zn Alloys," Student Poster Contest, 139 Annual Meeting & Exhibition 2010 TMS, Seattle, WA, February 2010.
127. C.R. Cosme, H.E. Calderón, O.M. Suárez, "On X-Ray Diffraction Peak Shifting in Aluminum Diboride due to Substitutional Diffusion," The Sigma Xi Scientific Research Society Sigma Xi XIV Poster Day – UPR Mayagüez PR, April 2009.
128. S. de Hoyos, P. Barrado, H.E. Calderón, O.M. Suárez, "Effect of AlB₂ Reinforcements on the High Temperature Thermomechanical Response of Al-Based Composites," The Sigma Xi Scientific Research Society Sigma Xi XIV Poster Day – UPR Mayagüez PR, April 2009.
129. J. Torres, J. Vázquez, O.M. Suárez, "Study and Modeling of the Relationship Between Volume Fraction and Hardness in Aluminum Matrix Composites," The Sigma Xi Scientific Research Society Sigma Xi XIV Poster Day – UPR Mayagüez PR, April 2009.
130. L. Olaya-Luengas, O.M. Suárez, "Fabrication and Characterization of Squeezed Cast Aluminum Matrix Composites Containing Boride Reinforcement," The Sigma Xi Scientific Research Society Sigma Xi XIV Poster Day – UPR Mayagüez PR, April 2009.
131. N. Plaza, O.M. Suárez, "Effects of Magnesium Levels in Aluminum Matrix Composites Subject to Mechanical Wear and Abrasion," The Sigma Xi Scientific Research Society Sigma Xi XIV Poster Day – UPR Mayagüez PR, April 2009.
132. R. Hidalgo, N. Plaza, O.M. Suárez, "Effects of Magnesium Levels in Aluminum Matrix Composites Subject to Mechanical Wear and Abrasion," 29th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), UPR-Río Piedras, March 2009
133. E. Estremera, L. Olaya-Luengas, O.M. Suárez, "Fabrication and Characterization of Squeezed Cast Al-Cu Alloys Reinforced with Dodecaboride Particles," Northeast Alliance for Graduate Education and the Professoriate NEA Science Day, Mayagüez PR, March 2009.
134. L. Muñoz, L. Olaya-Luengas, O.M. Suárez, "Squeezed Cast Al-Cu Alloys/AlB₁₂ Composites: Characterization by Differential Thermal Analysis Technique," Northeast Alliance for Graduate Education and the Professoriate NEA Science Day, Mayagüez PR, March 2008.
135. L. Olaya-Luengas, O.M. Suárez, "Characterization of Al-Cu Alloys/AlB₁₂ Composites by High-Temperature X-Ray Diffraction," Northeast Alliance for Graduate Education and the Professoriate NEA Science Day, Mayagüez PR, March 2009.
136. H.E. Calderón, G. Sandoval, C. Príncipe, O.M. Suárez, "AlB₂ Particle Segregation in Al-Cu-Mg Matrix by Means of Centrifugal Casting," Northeast Alliance for Graduate Education and the Professoriate NEA Science Day, Mayagüez PR, March 2009.
137. R. Hidalgo-Hernández, O.M. Suárez, "Effects of Magnesium Levels in Aluminum Matrix Composites Subject to Mechanical Wear and Abrasion," Northeast Alliance for Graduate Education and the Professoriate NEA Science Day, Mayagüez PR, March 2009.
138. L. Olaya-Luengas, E. Estremera, N. Alicea, E. Watts, L. Muñoz, O.M. Suárez, "Fabrication and Characterization of Squeezed Cast Aluminum Matrix Composites with Boride Reinforcements," General Poster Session, 138 Annual Meeting & Exhibition 2009 TMS, San Francisco, CA, February 2009.
139. H.E. Calderón, G. Sandoval, C. Príncipe, O.M. Suárez, "AlB₁₂ Particle Segregation in Al-Cu-Mg Composites by Means of Centrifugal Casting," General Poster Session, 138 Annual Meeting & Exhibition 2009 TMS, San Francisco, CA, February 2009.
140. N. Cantrés, J. Vázquez, O.M. Suárez, "Is it possible to use Recycled Metallic Matrix Composites for New Applications?" Student Poster Contest, 138 Annual Meeting & Exhibition 2009 TMS, San Francisco, CA, February 2009. **First Prize, TMS Light Metals Division.**
141. A. Cintrón, V. Martínez, C. Báez, O.M. Suárez, "On the Statistical Analysis of the Effects of Chemical Composition in Directionally Solidified Al-V-Zr-B Compositions," Student Poster Contest, 138 Annual Meeting & Exhibition 2009 TMS, San Francisco, CA, February 2009. **First Prize, TMS Extraction and Processing Division.**
142. N. Plaza, R. Hidalgo, O.M. Suárez, "Effects of Magnesium Levels in Aluminum Composites subject to Mechanical Wear and Abrasion," Student Poster Contest, 138 Annual Meeting & Exhibition 2009 TMS, San Francisco, CA, February 2009. **First Prize, Structural Materials Division.**
143. M. Cruz, S. Burgos, O.M. Suárez, "Characterization of Al-Cu Alloys Reinforced with Dodecaborides upon Arc-Furnace," Student Poster Contest, 138 Annual Meeting & Exhibition 2009 TMS, San Francisco, CA, February 2009.
144. Z. H. Melgarejo, P. Resto, D. S. Stone, O.M. Suárez, "Study of Particle-Matrix Interaction in Al/AlB₂ Composite via Nanoindentation," 2008 MRS Fall Meeting, Boston, MA, December 2008

145. R. Carrasquillo, R. Rivera, Y. Martínez, T. Adelakin, O.M. Suárez, "Development of an Alternative Aluminum Matrix Composite for Bearing Applications," 2008 Sigma Xi Annual Meeting and Student Research Conference, Washington, DC, November 2008. **First Prize, Engineering Category.**
146. R. Hidalgo, N. Plaza, O.M. Suárez, "Microcharacterization of Al-B-Cu-Mg Composite Subject to Mechanical Wear and Abrasion," Best Practice Conference 2008, Dorado, PR, October 2008
147. O.M. Suárez, O. Perales, O. Uwakweh, J. Santos, C. Rinaldi, "PREM Proposal, Synergistic Partnership of Research and Education Nanostructured and Functional Materials," Aerospace Vision Conference 2008 / Posters Exhibition, Mayagüez, PR, September 2008
148. O.M. Suárez, C. Rinaldi, O. Perales, A. Hernández, J. Santos, "CREST Proposal, Nanotechnology Center for Biomedical and Energy-Driven Systems and Applications," Aerospace Vision Conference 2008 / Posters Exhibition, Mayagüez, PR, September 2008
149. L. Olaya-Luengas, M. Cruz, C. S. Príncipe, O.M. Suárez, "Characterization of Al-Cu reinforced with Dodecaborides," Aerospace Vision Conference 2008 / Posters Exhibition, Mayagüez, PR, September 2008
150. R. G. I. Hidalgo, N. Plaza, Z. H. Melgarejo, O.M. Suárez, "Tribological Characterization of Aluminum Matrix Composites Subject to Mechanical Wear," Aerospace Vision Conference 2008 / Posters Exhibition, Mayagüez, PR, September 2008
151. H. E. Calderón, C. Smith, O. Menéndez, J. Vázquez, L. Reyes-Russi, O.M. Suárez, "Inoculation of Aluminum Alloys with Nanosized XB_2 Particles," Aerospace Vision Conference 2008 / Posters Exhibition, Mayagüez, PR, September 2008
152. H. E. Calderón, O.M. Suárez, E. Barrios, "Mechanical Characterization of Thermomechanically Treated Aluminum Matrix Composites Reinforced with AlB_2 Particles," Aerospace Vision Conference 2008 / Posters Exhibition, Mayagüez, PR, September 2008
153. J. Torres, J. R. Vázquez, O.M. Suárez, "Thermal Characterization of a Metastable Aluminum Borides," Materials Science & Technology 2008 Conference & Exhibition, Pittsburgh, PA, October 2008
154. H. E. Calderón, C. Smith, O. Menéndez, O. Suárez, "Microstructure-Properties Relationship of Aluminum Alloys Inoculated with Nanosized Borides," Materials Science & Technology 2008 Conference & Exhibition, Pittsburgh, PA, October 2008
155. M. Cruz, C. S. Príncipe, A. Rodríguez, L. Olaya-Luengas, O.M. Suárez, "Characterization of Al-Cu Alloys Reinforced with Dodecaborides," Materials Science & Technology 2008 Conference & Exhibition, Pittsburgh, PA, October 2008
156. R. Hidalgo, N. Plaza, A. Callejo, O.M. Suárez, "Microcharacterization of Al-B-Cu-Mg Composites Subject to Mechanical Wear and Abrasion," Materials Science & Technology 2008 Conference & Exhibition, Pittsburgh, PA, October 2008
157. R. Hidalgo, N. Plaza, A. Callejo, O.M. Suárez, "Microcharacterization of Al-B-Cu-Mg Composites Subject to Mechanical Wear and Abrasion," NSF 2008 Joint Annual Meeting, Washington, DC, June 2008
158. L. Olaya-Luengas, R. Mendoza-Villalobos, C. Príncipe-Martínez, O.M. Suárez, "Chemical Composition Effects on the Microstructure of Functionally-Graded Aluminum Matrix Composites," Annual Meeting Experimental Program to Stimulate Competitive Research EPSCoR – Condado Plaza, San Juan PR, April 2008.
159. M. Cruz-Ruíz, C. Príncipe-Martínez, A. Rodríguez-Vaquero, L. Olaya-Luengas, O.M. Suárez, "Characterization of Al-Cu Alloys Reinforced with Dodecaborides," ASEE Southeastern Section Annual Conference, University of Memphis, Memphis, TN, April 2008
160. L. Olaya-Luengas, R. Mendoza-Villalobos, C. Príncipe-Martínez, O.M. Suárez, "Chemical Composition Effects on the Microstructure of Functionally-Graded Aluminum Matrix Composites," The Sigma Xi Scientific Research Society Sigma Xi XIII Poster Day – UPR Mayagüez PR, April 2008
161. C. Príncipe-Martínez, M. Cruz-Ruíz, A. Rodríguez-Vaquero, L. Olaya-Luengas, O.M. Suárez, "Characterization of Al-Cu Alloys Reinforced with Dodecaborides," The Sigma Xi Scientific Research Society Sigma Xi XIII Poster Day – UPR Mayagüez PR, April 2008
162. N. Plaza, R. G. I. Hidalgo, C. Osorio, O.M. Suárez, "Pin-on-Disk Construction for Tribological Characterization of Al Matrix Composites," The Sigma Xi Scientific Research Society Sigma Xi XIII Poster Day – UPR Mayagüez PR, April 2008
163. T. K. Adelakin, O.M. Suárez, G. Gutiérrez, "Influence of Centrifugal Casting Parameters on the Distribution of Reinforcing Particles in Aluminum Matrix Composites," The Sigma Xi Scientific Research Society Sigma Xi XIII Poster Day – UPR Mayagüez PR, April 2008
164. R. G. I. Hidalgo, N. Plaza, A. Callejo, O.M. Suárez, "Microcharacterization of Al-B-Cu-Mg Composites Subject to Mechanical Wear and Abrasion," The Sigma Xi Scientific Research Society Sigma Xi XIII Poster Day – UPR Mayagüez PR, April 2008

165. G. Sandoval, H. E. Calderón and O.M. Suárez, "AlB₂ Particle Segregation in Al-Cu-Mg Matrix by Means of Centrifugal Casting," The Sigma Xi Scientific Research Society Sigma Xi XIII Poster Day – UPR Mayagüez PR, April 2008
166. R. Hidalgo, N. Plaza, A. Callejo, O.M. Suárez, "Microcharacterization of Al-B-Cu-Mg Composites Subject to Mechanical Wear and Abrasion," 2008 EPSCoR Annual Meeting, San Juan, PR, April 2008
167. R. Hidalgo, N. Plaza, A. Callejo, O.M. Suárez, "Microcharacterization of Al-B-Cu-Mg Composites Subject to Mechanical Wear and Abrasion," 28th PRISM, UPR-Arecibo, March 2008
168. L. Olaya-Luengas, R. Mendoza-Villalobos, C. Príncipe-Martínez, O.M. Suárez, "Chemical Composition Effects on the Microstructure of Functionally-Graded Aluminum Matrix Composites," 137 Annual Meeting & Exhibition 2008 TMS, General Poster Sesion, New Orleans LO, March 2008. **First Prize, TMS Light Metals Division.**
169. C. Príncipe-Martínez, M. Cruz-Ruíz, A. Rodríguez-Vaquero, L. Olaya-Luengas, O.M. Suárez, "Characterization of Al-Cu Alloys Reinforced with Dodecaborides," 137 Annual Meeting & Exhibition 2008 TMS, Student Poster Contest – Structural Material Division, New Orleans LO, March 2008. **First Prize, TMS Structural Materials Division.**
170. A. Cintrón-Aponte, L. Príncipe, J. González, O.M. Suárez, "Design of Experiment: Effect Of Boron in Al-Si Composites Under Centrifugal and Gravity Castings," 137 Annual Meeting & Exhibition 2008 TMS Student Poster Contest, March 2008. **First Prize, TMS Extraction and Processing Division.**
171. T. K. Adelakin, O.M. Suárez, G. Gutiérrez, "Influence of Centrifugal Casting Parameters on the Distribution of Reinforcing Particles in Aluminum Matrix Composites," Northeast Alliance for Graduate Education and the Professoriate NEA Science Day, Mayagüez PR, February 2008
172. H. E. Calderón and O.M. Suárez, "Fatigue Analysis by Impact Loads," Northeast Alliance for Graduate Education and the Professoriate NEA Science Day, Mayagüez PR, February 2008
173. R. G. I. Hidalgo, N. Plaza, A. Callejo, O.M. Suárez, "Fabrication and Characterization of Al/AlB₂ Composites for Machinery Subject to Lunar Regolith Abrasion," Northeast Alliance for Graduate Education and the Professoriate NEA Science Day, Mayagüez PR, February 2008
174. L. Olaya-Luengas, A. Rodríguez-Vaquero, O.M. Suárez, "Characterization of Aluminum Alloys Reinforced with Borides and Dodecaborides by Advanced X-Ray Diffraction," Northeast Alliance for Graduate Education and the Professoriate NEA Science Day, Mayagüez PR, February 2008
175. M. Cruz-Ruiz, C. Príncipe-Martínez, L. Olaya-Luengas, O.M. Suárez, "DTA Characterization of Al-Cu Alloys Reinforced with Dodecaborides," Northeast Alliance for Graduate Education and the Professoriate NEA Science Day, Mayagüez PR, February 2008
176. A. Cintrón-Aponte, S. Pedraza, O.M. Suárez, "Statistical Analysis of Reinforcements Distribution in Al-B-Cu Composites," 6a Feria de Investigación y Diseño en Ingeniería Industrial y Ramas Afines, University of Puerto Rico-Mayagüez, November 2007
177. L. Olaya-Luengas, A. Rodríguez Vaquer, N. Alicea Fuentes, O.M. Suárez, "Characterization of Aluminum Alloys Reinforced with Borides and Dodecaborides by Advanced X-Ray Diffraction," 6a Feria de Investigación y Diseño en Ingeniería Industrial y Ramas Afines, University of Puerto Rico-Mayagüez, November 2007
178. L. Olaya Luengas, M. Cruz Ruiz, C. Príncipe Martinez, O.M. Suárez, "DTA Characterization of Al-Cu Alloys Reinforced with Dodecaborides," 6a Feria de Investigación y Diseño en Ingeniería Industrial y Ramas Afines, University of Puerto Rico-Mayagüez, November 2007
179. L. Reyes-Russi, J. Vázquez, L. Berríos, R. Mendoza, O.M. Suárez, "Processing and Characterization of (AlMg)B₂-Based Composites and Nanocomposites Containing 5-10-15wt%MgB₂," Puerto Rico EPSCoR Annual Meeting, Río Grande, PR, May 2007
180. O.M. Suárez, "PREM: Constructing the Future of Materials Science & Engineering," Puerto Rico EPSCoR Annual Meeting, Río Grande, PR, May 2007
181. L. Berríos, R. Mendoza, J. Vázquez, L. Reyes-Russi, O.M. Suárez, "Processing and Characterization of Mechanically Alloyed Al/MgB₂ Composites," XI Sigma Xi Student Poster Day, Mayagüez, PR, April 2007
182. S. Pedraza, C. Báez, O.M. Suárez, "Effect of Directional Heat Flow on the Solidification Characteristics of Aluminum Boron Copper Composites," XI Sigma Xi Student Poster Day, Mayagüez, PR, April 2007
183. C. Benítez, O.M. Suárez, "Effect of Heat Treatment on Aluminum Boron Magnesium Composites," XI Sigma Xi Student Poster Day, Mayagüez, PR, April 2007
184. R. G. I. Hidalgo, O.M. Suárez, K. Sridharan, "Fabrication and Characterization of Al/AlB₂ Composites for Machinery Subject to Lunar Regolith Abrasion," XI Sigma Xi Student Poster Day, Mayagüez, PR, April 2007

185. A. Cintrón-Aponte, S. Pedraza, O.M. Suárez, "Statistical Analysis of Reinforcements Distribution in Al-B-Cu Composites," XI Sigma Xi Student Poster Day, Mayagüez, PR, April 2007
186. R. Mendoza, L. Olaya, O.M. Suárez, "Diborides and Dodecaborides in Al-B-Cu-Mg Composites," XI Sigma Xi Student Poster Day, Mayagüez, PR, April 2007
187. V. T. Estrella, Alexis Torres, Hermes Calderón, O.M. Suárez, "The Effect of Ceramic Materials in Aluminum Alloys," XI Sigma Xi Student Poster Day, Mayagüez, PR, April 2007
188. L. Olaya-Luengas, S. Pedraza, C. Báez, O.M. Suárez, "Effect of Directional Heat Flow on the Solidification Characteristics of Aluminum Boron Copper Composites," 27th PRISM, Inter American University – Bayamón, March 2007
189. J. Vázquez, L. Reyes-Russi, O.M. Suárez, "Comparative Analysis of Processing Routes for the Synthesis and Characterization of Al+MgB₂ Composites Under Vacuum," Poster Competition, 2007 TMS Annual Meeting, Orlando, FL, February 2007. **First Prize, TMS Light Metals Division.**
190. C. Báez, S. Pedraza, O.M. Suárez, "Influence of Varying Cooling Rates on the Directional Solidification of an Aluminum-Copper-Boron Composite,," Poster Competition, 2007 TMS Annual Meeting, Orlando, FL, February 2007. **First Prize, TMS Structural Materials Division.**
191. H. E. Calderón, O.M. Suárez, "Fatigue Analysis by Impact Loads," Poster Competition, 2007 TMS Annual Meeting, Orlando, FL, February 2007
192. O.M. Suárez, G. Gutiérrez, K. Sridharan, T. Adelakin, M. A. Giordano, "Synthesis and Characterization of Functionally-Graded Aluminum Matrix Composite for High Wear Resistance in Aerospace Applications," Puerto Rico Space Grant Consortium Annual Meeting, University of Puerto Rico - Rio Piedras, February 2007
193. R. G. I. Hidalgo, O.M. Suárez, "Fabrication and Characterization of Al/AIB₂ Composite for Machinery Subject to Lunar Regolith Abrasion," 1st Scientific Meeting of the Puerto Rico Space Grant Consortium, San Juan, Puerto Rico, November 2006
194. L. Reyes-Russi, J. Vázquez, O.M. Suárez, "Synthesis and Characterization of (AlMg)₂ Based Composites Under Vacuum," Advances in Chemical Sciences & Engineering in Puerto Rico, Dorado, Puerto Rico, November 2006
195. S. R. Pedraza, J. Santos, O.M. Suárez, E. Marrero, "Establishing Partnership between Universities and High Schools to Raise Awareness on Materials Science and Engineering," Materials Science & Technology 2006 Conference and Exhibition, Cincinnati, OH, October 2006
196. S. R. Pedraza, R. G. I. Hidalgo, O.M. Suárez, "Studies on Rapid Solidification of Al-B-X Composites," Materials Science & Technology 2006 Conference and Exhibition, Cincinnati, OH, October 2006
197. L. Reyes-Russi, O.M. Suárez, "Synthesis and Characterization of (AlMg)₂ Composites and Nanocomposites under Vacuum," Materials Science & Technology 2006 Conference and Exhibition, Cincinnati, OH, October 2006
198. L. Reyes-Russi, K. Rivera, O.M. Suárez, "Synthesis and Characterization of (AlMg)₂ Composites under Vacuum," Second Transdisciplinary Research Conference, PR-LSAMP, Mayagüez, PR, May 2006
199. G. Ramos, O.M. Suárez, "Characterization of Functionally Graded Aluminum Matrix Composite Using Atomic Force Microscope," Poster Competition, ASEE Southeastern Section Annual Conference and Meeting, Tuscaloosa, Alabama, April 2006
200. S. Pedraza, R. G. I. Hidalgo, C. Báez, O.M. Suárez, "Study of Processing Routes of Al-B-X-Composites," 26th PRISM, Univ. of Puerto Rico – Cayey, March 2006
201. L. Reyes Russi, K. Rivera Colon, O.M. Suárez, "Diffusion Study of AlMg+AlB₂ under Vacuum and Synthesis and Characterization of (AlMg)₂ Composites under Vacuum," 26th PRISM, Univ. of Puerto Rico – Cayey, March 2006
202. Z. H. Melgarejo Pinto, O.M. Suárez, K. Sridharan, G. Ramos, "Functionally Graded Aluminum Matrix Composites For High Wear Aerospace Applications," 26th PRISM, Univ. of Puerto Rico – Cayey, March 2006
203. R. G. I. Hidalgo, S. Pedraza, O.M. Suárez, "Characterization of Aluminum-Boron Copper Composites for Aerospace Applications," NorthEast Alliance Science Day, Mayagüez, PR, February 2006
204. Z. H. Melgarejo, O.M. Suárez, K. Sridharan, G. Ramos, "Functionally Graded Aluminum Matrix Composites for High Wear Aerospace Applications," NorthEast Alliance Science Day, Mayagüez, PR, February 2006
205. A. Quispitupa, S. Charca, B. Shafiq, O.M. Suárez, D. Concepción, "AF1410 Steel: Hold Time Effect in Fatigue," 2005 PR-EPSCoR Annual Conference, Rio Grande, Puerto Rico, September 2005.
206. Z. H. Melgarejo, O.M. Suárez, K. Sridharan, G. Ramos, "Functionally Graded Aluminum Matrix Composites For High Wear Aerospace Applications," 2005 PR-EPSCoR Annual Conference, Rio Grande, Puerto Rico, September 2005.

207. J. Botero, M. Valentín, O.M. Suárez, "Tire Rubber: State of the Art, Current Situation and Possible Uses as Commodity in Puerto Rico," 25th PRISM, Univ. of Puerto Rico – Mayagüez, March 2005
208. N. Duque, C. J. Rodríguez, A. Quispitupa, O.M. Suárez, B. Shafiq, "Atomic Force Microscopy Analysis of Fractured Surfaces in AF 1410 Steel Using Scanning Probe Image Processor," 25th PRISM, Univ. of Puerto Rico – Mayagüez, March 2005
209. H. Calderón, O.M. Suárez, "Mixture-Split Spit Plot Experiment in Metal Matrix Composites Reinforced with Diboride Particles," 25th PRISM, Univ. of Puerto Rico – Mayagüez, March 2005
210. Z. H. Melgarejo, N. Duque, O.M. Suárez, "Functionally-Graded Aluminum Matrix Composites for High Wear Aerospace Applications," 25th PRISM, Univ. of Puerto Rico – Mayagüez, March 2005
211. A. Quispitupa, B. Shafiq, O.M. Suárez, "Fatigue Analysis of AF1410 Steel," 25th PRISM, Univ. of Puerto Rico – Mayagüez, March 2005
212. N. Duque, A. Quispitupa, C. Rodríguez, B. Shafiq, O.M. Suárez, "Qualitative and Quantitative Analysis of Fracture Surface in AF1410 Steel by means of Atomic Force Microscopy," First Transdisciplinary Research Conference, Puerto Rico Louis Stokes Alliance for Minority Participation (PR-LSAMP), San Juan, PR, December 2004.
213. R. G. I. Hidalgo, Z. H. Melgarejo, O.M. Suárez, "Functionally-Graded Aluminum Matrix Composite for High Wear Aerospace Applications," First Transdisciplinary Research Conference, PR-LSAMP, San Juan, PR, December 2004.
214. O.M. Suárez, O. Perales, J. Santos, C. Rinaldi, O. Uwakweh, E. Hellstrom, M. Tomar, S. P. Singh, M. Pérez Lugo, "Synergistic Partnership for Research and Education on Functional and Nanostructured Materials," First Transdisciplinary Research Conference, PR-LSAMP, San Juan, PR, December 2004.
215. E. X. Colón Jiménez, O.M. Suárez, "Heat-Treatable Aluminum Matrix Composite from Recycled Aluminum Can Alloys Containing Boron Reinforcements for Aerospace Applications," IX Sigma Xi Poster Day, Univ. of Puerto Rico-Mayagüez, April 2004.
216. H. E. Calderón Arteaga, E. R. Castro Moura, P. A. Fuentes Cosme, A. Rivera Santiago, O.M. Suárez, "Design Experiment Mix-Factorial Applied to the Study of Aluminum Matrix Composites Reinforced with Ceramic Particles," VIII Sigma Xi Poster Day, Univ. of Puerto Rico-Mayagüez, April 2003.
217. J. Yupa Luna, H. E. Calderón Arteaga, O. A. Ruiz Cortés, O.M. Suárez, "Heat-Treatable Composite with Boride Reinforcements," VII Sigma Xi Poster Day, Univ. of Puerto Rico-Mayagüez, April 2002.
218. R. Agosto Sánchez, D. Álvarez Ruiz, O.M. Suárez, "Computation of Steel Scrap Dissolution in High Carbon Iron Melts," VII Sigma Xi Poster Day, Univ. of Puerto Rico-Mayagüez, April 2002.

Invited Seminars

1. "Multifunctional Aluminum Matrix Composites," Society of Hispanic Professional Engineers Annual Meeting, Ft. Worth, TX, Nov. 2012.
2. "A Low Cost Aluminum Matrix Composite Inherently Multifunctional," Dept. of Metallurgical and Materials Engineering, University of Alabama, Tuscaloosa, AL, Aug. 2010.
3. "Engineering Materials: From Nano to Mega," Dept. of Metallurgy, National Technological University, Córdoba, Argentina, May 2008.
4. "Al-B-X Composite Materials for Aerospace Applications," Mechanical Engineering Graduate Seminar, Univ. of Puerto Rico, Mayagüez, October 2005.
5. "Diborides are not only Superconducting Materials: Use of AlB₂-Reinforced Structural and Functional Materials," Dept. of Mechanical Engineering, Old Dominion University, Norfolk, VA, March 2005.
6. "Synergistic Partnership on Nanostructured and Functional Materials," National Science Foundation MRSEC Directors' Meeting, Arlington, VA, April 2004
7. Puerto Rico House Committee's Public Hearing: "The Need for the Creation of a Center to Study Materials Recycling at the University of Puerto Rico-Mayagüez," coordinated and presented at the Univ. of Puerto Rico-Mayagüez, March 2002
8. "Materials Recycling: Technology, Implementation and Social and Economic Impact in Puerto Rico" coordinated, organized and presented at the Univ. of Puerto Rico-Mayagüez, December 2001.
9. "Cast Iron Research in the New Millennium: Thermal Analysis and Microstructural Control" presented at the Dept. of Metallurgical Engineering, Univ. of Utah, July 2001.
10. "Cast Iron Research at the University of Wisconsin-Madison" presented at the Dept. of General Engineering, Univ. of Puerto Rico-Mayagüez, January 2000.

Graduate Theses and Dissertations Supervised

Doctoral Dissertations

1. David J. Florián Algarín, "Portevin-Le Chatelier Phenomenon in Al-Mg Alloys Containing Nanoparticles," PhD in Civil Engineering, Univ. of Puerto Rico-Mayagüez (2018) [ongoing]
2. Ulises Barajas Valdés, "Study of Light Weight, High Strength, Multifunctional Composite Material: Aluminum Reinforced with AlB₂ Particles," PhD in Civil Engineering, Univ. of Puerto Rico-Mayagüez (2017).
3. Hermes E. Calderón Arteaga, "Effect of Cyclic High Loading Rates on the Fatigue Strength of Aluminum-Based Composites," PhD in Civil Engineering, Univ. of Puerto Rico-Mayagüez (2009)

Master of Science Theses

1. Johnny López Calero, "Biopolymer-Based Composites for Dielectric Applications," M.S. in Materials Science and Engineering, Univ. of Puerto Rico-Mayagüez [ongoing]
2. Manny X. de Jesús López, "Centrifugal Casting of Al-AlB₁₂ Based Composites" M.S. in Materials Science and Engineering, Univ. of Puerto Rico-Mayagüez [ongoing]
3. Alfer Castro, "High Performance Concrete for Applications Requiring Early Age Strength," M.S. in Civil Engineering, Univ. of Puerto Rico-Mayagüez [ongoing]
4. Juan C. Vargas Martínez, "Fabrication of Sub-Micron-Porous Metals via Selective Phase Dissolution of an Al-Cu Alloy," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2018).
5. Andrés F. Calle Hoyos, "Experimental Design Analysis of Stir Casting of Enhanced Aluminum Filler Reinforced with NbB₂ Nanoparticles," M.S. in Industrial Engineering, Univ. of Puerto Rico-Mayagüez [ongoing]
6. Hildélix L. Soto Toro, "Characterization of an Optimized High Performance Concrete with Partial Replacement of Cement by Fly Ash and Nanosilica," M.S. in Civil Engineering, Univ. of Puerto Rico-Mayagüez (2018).
7. (Co Adviser) Amarillys Avilés Miranda, "Immobilization of Titanium Dioxide in Crushed Recycled Glass for Atrazine Photo-Degradation," M.S. in Civil Engineering, Univ. of Puerto Rico-Mayagüez (2016).
8. Amarilis Declat Vega, "Fabrication and Characterization of Bioferroelectric Composites," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2015)
9. Nitza M. García Berríos, "Effect of Fly Ash and Nanosilica on Concrete Compressive Strength at Early Age," M.S. in Industrial Engineering, Univ. of Puerto Rico-Mayagüez (2015)
10. Sujeily Soto Medina, "Fabrication and Characterization of Chitin-Carbon Nanotubes Composites," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2015)
11. Wesley Cuadrado Castillo, "Fabrication and Characterization of Sintered Recycled Glass Designed for Polluted Soil Filtering," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2014)
12. David J. Florián Algarín, "Study of Wire Fabrication of Aluminum Treated with Diboride Particles," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2014)
13. Sugeily Flores Bonano, "Tortuosity Index Based on Dynamic Mechanical Properties of Polyimide Foam for Aerospace Application," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2014)
14. Elvin G. Estremera Pérez, "Fabrication and Characterization of Porous Aluminum and Zinc Via Selective Dissolution of Al-Zn Alloys," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2013)
15. Natalia Cortés Urrego, "Thermomechanometric Study of Al-Cu-B Composites Reinforced with Diboride Particles," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2011)
16. Glorimar Ramos Rivera, "Fabrication, Characterization and Testing of Functionally Graded Aluminum-Based Targets for Sputtering Deposition of Hybrid Composites," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2011)
17. Ruth G. I. Hidalgo Hernández, "Tribological Characterization of Al-Cu-Mg-B Composites Subject to Mechanical Wear," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2009)
18. Lilia Olaya Luengas, "Characterization of Squeeze-Cast AlB₁₂/Al and AlB₂/Al Composites," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2009)
19. Tunde K. Adelakin, "An Experimental Study of Aluminum Boride Particles Distribution in Centrifugally Cast Al/AlB_x Composites," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2009)

20. (Co Adviser) Pedro J. Resto, "Nanoindentation of the Aluminum Diboride Phase in an Aluminum-Aluminum Diboride Composite," M. S. in Materials Science, Univ. of Wisconsin-Madison (2007).
21. Sandra R. Pedraza Torres, "Studies on Directional and Rapid Solidification of Al-B-Cu Composites," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2007)
22. Luvina Reyes Russi, "Synthesis and Characterization of (AlMg)B₂ - Aluminum Based Composites and Nanocomposites," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2007)
23. Z. Humberto Melgarejo Pinto, "Fabrication and Characterization of Functionally Graded Al/AlB₂ Matrix Composites for High Wear Aerospace Applications Using Centrifugal Casting," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2006)
24. Nairobi B. Duque Rojas, "AFM Studies on Fractured Surfaces of AF1410 Steel and AA7075-T6 Aluminum Alloy," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2006)
25. Jacinto Yupa Luna, "Corrosion Behavior of Al-Cu-B Composites in 3.5% NaCl Solution," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2004)
26. Hermes E. Calderón Arteaga, "Mechanical Deformation Effects on Heat-Treated Aluminum Matrix Composites," M.S. in Mechanical Engineering, Univ. of Puerto Rico-Mayagüez (2004)

Recognitions and Awards

2013-2014 Distinguished Professor, in recognition for outstanding academic achievements awarded by the Dept. of General Engineering, Univ. of Puerto Rico-Mayagüez, May 2015.

2014 Distinguished Researcher Award, conferred in by the UPRM Research Academy for Faculty and Post-Doctoral Fellows, and the UPRM Engineering Dean's Office, May 2014.

2013 Education Award, conferred during the 25th Anniversary Conference of Great Minds in STEM™ held in New Orleans, LA in October 2013.

2011-2012 Distinguished Professor, in recognition for outstanding academic achievements awarded by the Dept. of General Engineering, Univ. of Puerto Rico-Mayagüez, May 2013.

2008-2009 Distinguished Professor, in recognition for outstanding academic achievements awarded by the Dept. of General Engineering, Univ. of Puerto Rico-Mayagüez, May 2010.

2004-2005 Distinguished Professor, in recognition for outstanding academic achievements awarded by the Dept. of General Engineering, Univ. of Puerto Rico-Mayagüez, May 2005.

Nomination by the College of Engineering, Univ. of Puerto Rico-Mayagüez to the ASEE Southeastern Section 2005 New Faculty Research Award, Feb. 2005.

Monthly World Most Relevant Article on Foundry Issues, acknowledged by the *Fundidores* magazine, Madrid, Spain for the article "Late Sulfur Inoculation of Spheroidal Graphite Cast Irons," published in *Intl. J. of Cast Metals Research*, **16**, (2003): pp. 1-7.

Nomination by the College of Engineering, Univ. of Puerto Rico-Mayagüez to the ASEE Southeastern Section 2004 New Faculty Research Award, Feb. 2004.

Nomination by the Dept. of General Engineering, Univ. of Puerto Rico-Mayagüez and the Dept. of Materials Science & Eng., Univ. of Wisconsin-Madison, to the Council on Undergraduate Research 2004 Fellows Award, Oct. 2003.

2002-2003 Distinguished Professor, in recognition for outstanding academic achievements awarded by the Dept. of General Engineering, Univ. of Puerto Rico-Mayagüez, May 2003.

Monthly World Most Relevant Article on Foundry Issues, acknowledged by the *Fundidores* magazine, Madrid, Spain for the article "Late Sulfur Additions to Post-Inoculated High Carbon Equivalent Ductile Iron Melts," published in *AFS Trans*, **108**, (2000): pp. 63-70.

Excellence in Teaching Award in recognition for outstanding teaching at the Univ. of Wisconsin-Madison, conferred by the Graduate School, University of Wisconsin-Madison, May 2000.

Outstanding Teaching Assistant awarded by Polygon Engineering Council of the College of Engineering, Univ. of Wisconsin-Madison, April 1996, 1997, 1998, 1999, and 2000 (i. e. for 5 consecutive years).

Ronald W. Ruddle Memorial Scholarship awarded by Foseco Inc. and the Foundry Educational Foundation on November 6, 1999 for "outstanding academic achievement, dedication to cast metals research, and professional potential."

First Prize "Excellence in Metallography" in the 1999 Merrill E. Scheil Metallography Contest organized by the American Society for Materials - Milwaukee Chapter on May 11, 1999 for the poster "Electron Channeling Contrast Application to the Analysis of Grain Structures in Ceramic and Metallic Materials."

Honorable Mention in the Color Microscopy Class at the 1997 International Metallographic Contest jointly sponsored by the International Metallographic Society and the American Society for Materials in Seattle, WA in July 1997 for the poster "Metallographic Study of an Al-Cu-B Alloy."

Third Prize in the 1996 Merrill E. Scheil Metallography Contest organized by the American Society for Materials - Milwaukee Chapter on May 13, 1997 for the poster "As-Cast Microstructure of a Heat Treatable Al-Cu-B Alloy".

Second Prize in the 1996 Merrill E. Scheil Metallography Contest organized by the American Society for Materials - Milwaukee Chapter on May 7, 1996 for the poster "Microstructural Modifications of an Al - 32 wt. % Cu Alloy Through High Temperature Heat Treatment" submitted by Carol J. Schmidt and Oscar M. Suárez.

Educational Achievement Award for participation in the College of Engineering Teaching Improvement Program, granted by the Dept. of Engineering Professional Development, University of Wisconsin-Madison, Aug. 1995.

Second Prize in the 1992 Powder Metallurgy Metallography Competition, organized by the American Powder Metallurgy Institute, during the 1992 Powder Metallurgy World Congress in San Francisco, CA, in June 1992.

Best Article on Aluminum, awarded by the Argentine Chamber of Aluminum Industry, for the paper "Efficacy Assessment Test of Al Grain Refiners. Development and Application" presented during the 1988 Argentine Metals Society Congress.

Fellowships, Scholarships, Participation by Invitations in Select Workshops

Selected Participant in "Science: Becoming the Messenger," a communications skill-building workshop organized by NSF, December 12-13, 2011.

Fellowship granted by the NSF Summer Institute on Nanomechanics and Materials to participate in the "Multiscale Science Based-Modeling and Simulation and Experimental Validation on Enabling Materials" course held in Evanston, IL on May 27 - 30, 2009.

Research Assistantship granted by the Dept. of Materials Science and Engineering, Univ. of Wisconsin - Madison, [Jan. 1991-May 1993, Sept. 1993-Aug. 1995, July-Aug. 1997, June 1998-Aug. 1998, June 1999-Aug. 1999].

Teaching Assistant Fellowship nominated by the Dept. of Materials Science and Engineering and awarded by the College of Engineering Teaching Improvement Program, University of Wisconsin - Madison, [Feb. 1996-May 1996].

Advanced Researcher Fellowship granted by Council of Scientific and Technological Research (CONICOR), Córdoba, Argentina. Project: "Solidification Modeling of Al Casting Alloys" [Apr. 1990-Aug. 1990].

Professional Fellowship granted by Center for Materials Research and Metrology (CIMM), Córdoba, Argentina. Objective: Technical Assistance in Failure Analysis, Mechanical Testing, *In Situ* Mechanical Testing of High Voltage Towers, Development of Softwares for Tensile Testing Data Processing and Corrosion Susceptibility of Austenitic Stainless Steels, [Oct. 1988-Oct. 1989].

Researcher Formation Fellowship granted by CONICOR, Córdoba, Argentina. Project: "Development of a Standard Test for Al Alloys Grain Refiners," [Apr. 1987-Nov. 1988].

Engineering Student Scholarship granted by CIMM, Córdoba, Argentina. Project: "Degassing and Modification of Al-Si Alloys," [Sept. 1983-May 1985].

Thesis & Dissertation

"Thermal Analysis and Microstructure Control of Cast Irons." O.M. Suárez, Ph D Dissertation, Univ. of Wisconsin - Madison (2000).

"Heterogeneous Nucleation Catalysis in Al-Ti-B Master Alloys." O.M. Suárez, M. S. Thesis, Univ. of Wisconsin - Madison (1993).

Professional Memberships

Society for the Advancement of Material and Process Engineering (SAMPE) since 2015

Phi Kappa Phi Honor Society since 2015

Association for Iron & Steel Technology (AIST) since 2005

American Ceramics Society (ACerS) since 2005

Sigma Xi Research Society since 1998

American Society for Materials (ASM International) since 1990

The Minerals, Metals & Materials Society (TMS) since 1990

Extracurricular and Community Activities

Scientific Fair Project Mentor, Mayagüez School District, Mayagüez, Puerto Rico.

Evaluator for the Scientific Fair of the Mayagüez School District, Mayagüez, Puerto Rico.

Chair of Community Action on Latin America - C.A.L.A., non-profit community organization [April 1996 – July 2000]. C.A.L.A. received the 2000 Award of Merit by the North Central Confederation of Latin Americanists in Milwaukee in October 2000.

“Backyard Hero Award” conferred by Community Shares of Wisconsin for humanitarian work done for indigenous communities in Mexico, as a member of Community Action on Latin America. Jan. 1999.