

PIEDAD GAÑÁN ROJO, PhD

Professor

Chemical Engineering Department

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PROFESSIONAL PREPARATION

Universidad Pontificia Bolivariana, Colombia Chemical Engineering B.Sc. 1989-1994

Universidad Nacional de Educación Abierta y a Distancia, Spain Plastic and Rubber Engineering B.Sc. 1998-1999

Universidad del País Vasco, Spain Materials Engineering Ph.D, 1998-2001

APPOINTMENTS

2001-Present Professor, Chemical Engineering Department, Universidad Pontificia Bolivariana

2009-Present Dean of Engineering School, Universidad Pontificia Bolivariana

2006 Visiting Professor, Royal Institute of Technology

1998 Research Assistant, GAIKER

1995-2001 Research Assistant, CIDI, Universidad Pontificia Bolivariana

PUBLICATIONS (six related)

1. Castro, C., Cleenwerck, I., Trček, J., Zuluaga, R., De Vos, P., Caro, G., Aguirre, R. Putaux, J., Gañán, P. “*Gluconacetobacter medellinensis* sp. Nov., cellulose and non cellulose producing acetic acid bacteria isolated from vinegar. International Journal of Systematic and Evolutionary Microbiology, 63, 3, 1119-1125, 2013.
2. Retegi, I. Algar, F. Martin, F. Altuna, P. Stefani, R. Zuluaga, P. Gañán, I. Mondragon. “Sustainable optically transparent composites based on epoxidized soy-bean oil (ESO) matrix and high contents of bacterial cellulose (BC)”, Cellulose, 19, 1, 103-109, 2012.
3. L. Famá, P. Gañán, C. Bernal, S. Goyanes. “Biodegradable starch based nanocomposites with low water vapor permeability and high storage modulus”. Carbohydrate Polymers, 87, 3, 1989-1993, 2012.
4. Álvarez, B. Rojano, O. Almaza, O. Rojas, P. Gañán. “Self-Bonding Boards From Plantain Fiber Bundles After Enzymatic Treatment: Adhesion Improvement of Lignocellulosic Products by Enzymatic Pre-Treatment”. Journal of PolymerEnvironment, 19, 1:182–188, 2011.
5. Castro, R. Zuluaga, J-L. Putaux, G. Caro, I. Mondragon, P. Gañán. “Structural characterization of bacterialcelluloseproducedby *Gluconacetobacter swingsii* sp. from Colombian agroindustrial wastes”. Carbohydrate Polymers, 84, 1, 96-102, 2011.
6. A. Retegi, N. Gabilondo, C. Peña, R. Zuluaga, C. Castro, P. Gañán, K. de la Caba, I. Mondragon. “Bacterial cellulose films with controlled microstructure–mechanical property relationships”. Cellulose, 17, 3, 661–669, 2010.

Five other publications

1. Montoya, U., Zuluaga, R., Castro, C., Goyanes, S., Gañán, P. “Development of composite films based on thermoplastic starch and cellulose microfibrils from Colombian agroindustrial wastes”, *Journal of Thermoplastic Composite Materials*. DOI 10.1177/0892705712461663, 2012.
2. A. Arrieta, P. Gañán, S. Márquez, R. Zuluaga. “Electrically Conductive Bioplastics from Cassava Starch”. *Journal of the Brazilian Chemical Society*, 22, 6, 1170-1176, 2011.
3. H. Kerguelen, J. L. Mejía, M. Ramírez, M. Cardona, P. Gañán. “Thermoxidation of thermoplastics used in agricultural applications/Evaluación de la degradación por termoxidación de termoplásticos empleados en aplicaciones agrícolas”. *Revista Escola de Mina*, 62, 4, 469-474, 2009.
4. R. Zuluaga, J-L. Putaux, J. Cruz, J. Vélez, I. Mongradon, P. Gañán. “Cellulose microfibrils from banana rachis: Effect of alkaline treatments on structural and morphological features”. *Carbohydrate Polymers*, 76, 1, 51-59, 2009.
5. P. Gañán, R. Zuluaga, A. Restrepo, J. Labidi, I. Mondragon. “Plantain fibre bundles isolated from Colombian agro-industrial residues”. *Bioresource Technology*, 99, 3, 486-491, 2008.

SYNERGISTIC ACTIVITIES

1. Advisor/mentor: Ph.D. students, master students and undergraduate students
2. Development of curricular materials for Chemical Engineering Department, Mechanical Engineering Department, Textil Engineering Department, Materials Engineering Department and Mater in Material Engineering.
3. Refereed Journal Papers
4. Refereed Projects
5. Invited Lectures – Universidad del País Vasco, Universidad de los Andes, Universidad de Buenos Aires

COLLABORATORS & OTHER AFFILIATIONS

Iñaki Mondragon (UPV, Spain), Alfonso Jiménez (Universidad de Alicante, Spain), Silvia Goyanes (UBA, Argentina), Pablo Stefani (U. Mar del Plata, Argentina), Juan Manuel Vélez (Universidad Nacional, Colombia), María L. Aubad (Auburn University, USA), Juan Pablo Hinstroza (Cornell University, USA), Lars Berglund (Royal Institute of Tech., Sweden), Jean-Luc Putaux (Cermav, France).

Thesis Advisor and Post-Graduate Scholar Sponsor

As thesis Advisor

Current graduate students Herbert Kerguelen (University Pontificia Bolivariana, Colombia), Cristina Castro (University Pontificia Bolivariana, Colombia)

Finished work: Robin Zuluaga, Adriana Restrepo, Catalina Álvarez (University Pontificia Bolivariana, Colombia)

As master work Advisor

Finished work: Jairo Ariza, Jorge Saldarriaga, Isaac Jaramillo, Margarita Arango, Herbert Kerguelen (University Pontificia Bolivariana, Colombia)