



CONTACT

TELEPHONE

+52 442 3650800

EMAIL

reginasanchez@cinvestav.mx

WEBSITE

reginasanchez.github.io

ORCID

0000-0003-1506-6443

EDUCATION

PhD Materials Science
CINVESTAV, Mexico
2013 – 2017

MS. Metallurgy and
Materials Engineering
UASLP, Mexico
2009 – 2011

BS. Chemical Engineering
UASLP, Mexico
2004 – 2008

REGINA SÁNCHEZ

PROFILE

My main interests are working on green processes for polymer synthesis, in particular biodegradable polymers and biopolymers.

I have worked over the last five years in projects involving the development of novel and sustainable approaches to polymer synthesis using *deep eutectic solvents* (DESs) – a class of solvents closely related to ionic liquids. Particularly, I have experience working on free-radical polymerization (by either using organic catalysts and enzymes), ring opening polymerization and oxidative polymerization in these non-conventional media for applications in controlled drug-release and clean energy conversion systems.

RESEARCH EXPERIENCE

Nov 2015 –
Sept 2016 Instituto de Ciencia de Materiales de Madrid
Bioinspired Materials Group
Spain

Synthesis and characterization of conducting polyaniline 3D structures prepared by a novel approach using deep eutectic solvents for applications in clean energy conversion.

Nov 2010 –
Feb 2011 Universitat Politècnica de Catalunya
INTEXTER – Laboratory of Textile Polymers
Spain

Synthesis and characterization of poly(ethylene terephthalate) – CaF_2 with focus on the study of the non-isothermal crystallization behaviour of the material.

Apr 2009 –
Aug 2009 Texas A&M University
The Artie McFerrin Department of
Chemical Engineering
USA

Research internship; bioethanol production from sugarcane bagasse with focus on the integration and simulation process.



SKILLS

Linux
Mac OS
Windows
Microsoft Office
LaTeX
Gnuplot
Inkscape
GIMP



LANGUAGES

Spanish
English

PROFESSIONAL EXPERIENCE

- May 2018 – Present Research assistant
LANIMFE – Instituto de Física, UASLP
Mexico
Research and development of projects related to the industrial sector.
ISO 9001:2015 implementation.
- May 2017 – Sept 2017 Research assistant
CINVESTAV, Querétaro
Polymers & Biopolymers Group
Mexico
Enzymatic polymerization in deep eutectic solvents.
Training and academic support to graduate students.
- Sept 2011 – Dec 2012 Technical assistant
Instituto de Metalurgia – UASLP
Mexico
SEM and XRD analyses of mineral samples.
Technical support to the minerals research laboratory.
Academic support to undergraduate and graduate students.

FELLOWSHIPS & AWARDS

- 2018 SNI Level I Researcher
Awarded from the Mexican National Research System
- Nov 2018 – Oct 2019 Postdoctoral Fellowship
Rensselaer Polytechnic Institute
Laboratory of Biocatalysis and Bioprocessing
USA
Granted by the Mexican National Council of Science and Technology (CONACYT)
- 2018 MSCA – IF proposal *Seal of Excellence*
Awarded from the European Union within the H2020 Programme.
- Nov 2015 – Sept 2016 Doctoral stay Fellowship (CONACYT)
Instituto de Ciencia de Materiales de Madrid
Spain
- Jan 2013 – Jan 2016 Doctoral Fellowship (CONACYT)
CINVESTAV, Querétaro
Mexico
- Nov 2010 – Feb 2011 Master's stay Fellowship (CONACYT)

Universitat Politècnica de Catalunya
INTEXTER – Laboratory of Textile Polymers
Spain

Aug 2009 – Master's Fellowship (CONACYT)
Aug 2011 Instituto de Metalurgia – UASLP
Mexico

Apr 2009 – Exchange Fellowship
Aug 2009 Texas A & M University
The Artie McFerrin Department of Chemical
Engineering
USA

Granted by the North American Mobility Program
for Higher Education (NAMP), bilateral and
trilateral program among Mexico, Canada and the
United States with the goal of introducing process
integration for environmental control in
engineering curricula.

PUBLICATIONS

- Josué D. Mota-Morales, **Regina J. Sánchez-Leija**, Arturo Carranza, John A. Pojman, Francisco del Monte, Gabriel Luna-Bárcenas. *Prog. Polym. Sci.*, 2018, 78: 139–153.
- D. G. Ramírez-Wong, M. Ramírez-Cardona, **R. J. Sánchez-Leija**, A. Rugerio, R. A. Mauricio-Sánchez, M. A. Hernandez-Landaverde, A. Carranza, J. A. Pojman, A. M. Garay-Tapia, E. Prokhorov, J. D. Mota-Morales, G. Luna-Barcenas. *Green Chem.* 2016; 18: 4303–4311.
- R. J. Sánchez-Leija**, J. R. Torres-Lubian, A. Resendiz-Rubio, G. Luna-Bárcenas, J. D. Mota-Morales. *RSC Adv.* 2016; 6: 13072–13079.
- R. J. Sánchez-Leija**, J. A. Pojman, G. Luna-Bárcenas, J. D. Mota-Morales. *J. Mater. Chem. B* 2014; 2: 7495–7501.
- D. Cayuela, M. Cot, M. Riva, **R. J. Sánchez**, M. G. Sánchez-Loredo, I. Algaba, A. M. Manich. *J. Macromol. Sci. Part A* 2014; 51: 831–841.
- Regina Janet Sánchez-Leija**, Marta Riba-Moliner, Diana Cayuela-Marín, Octavio Domínguez-Espinós, María Guadalupe Sánchez-Loredo. *Polym. Eng. Sci.* 2014; 54: 2938–2946.
- Regina Janet Sánchez-Leija**, Marta Riba-Moliner, Diana Cayuela-Marín, Octavio Domínguez-Espinós, María Guadalupe Sánchez-Loredo. *J. Macromol. Sci. Part B* 2014; 53: 173–190.
- Feng Rao, Francisco J. Ramirez-Acosta, **Regina J. Sánchez-Leija**, Shaoxian Song, Alejandro López-Valdivieso. *Appl. Clay Sci.* 2011; 51: 38–42.

PARTICIPATION IN CONFERENCES

- “Sustainable polymer syntheses based on deep eutectic solvents”. *Annual Meeting of the Soft Condensed Matter Network (CONACyT)*, Qro., Mexico, August **2018** (Oral presentation).
- **R. J. Sánchez-Leija**, J. A. Pojman, G. Luna-Bárcenas, J. D. Mota-Morales. “Controlled release of lidocaine hydrochloride from polymerized drug-based deep eutectic solvents”. *30th International Conference on Science and Technology of Complex Fluids*, SLP, Mexico, June **2018** (Poster presentation).
- “Sustainable polymer syntheses bases on deep eutectic solvents”. Research Seminars at the Faculty of Chemical Sciences – UASLP, Mexico, February **2018**.
- “Deep eutectic solvents for green synthesis of polymers”. Young Scientist Meetings at ICMM, Madrid, Spain, February **2016** (Oral presentation).
- **R. J. Sánchez-Leija**, J. R. Torres-Lubián, A. Resendiz-Rubio, G. Luna-Bárcenas, J. D. Mota-Morales. “Enzyme-mediated free-radical polymerization of acrylamide in deep eutectic solvents”. *26th EUCHEM Conference on Molten Salts and Ionic Liquids* in Vienna, Austria, July **2016** (Poster presentation)

RELEVANT TECHNICAL TRAINING

Course “Design of Pharmaceutical Solid Forms”
Mexican Pharmaceutical Association, Mexico, July, 2014.

Course “Crystalline Structures by X-Ray Diffraction”
Mexican Society of Crystallography, Mexico, June, 2014.

Workshop “Thinking about the ISO 9001 : 2015 in my organization”
ISO Mexico Implementation Services, Mexico, September, 2018.