

Ivan Orlando Almanza Stable
Chemical Engineer | Master's in Chemical Engineering
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SUMMARY

Chemical engineer with three years of work experience as Instructor Professor of the Department of Chemical Engineering of the University of Cienfuegos, Cuba. Researcher in analysis, modeling and simulation of chemical processes, thermodynamics and machine learning, Mexico. Fluent in Spanish and English. Eager to learn and grow in the field.

EXPERIENCE

University of Cienfuegos, Cienfuegos, Cuba

Instructor Professor of the Department of Chemical Engineering | July 2017 – December 2019

- Teach classes in the subjects: Process Engineering I, Mass Transfer I, Process Optimization, Mathematical Modeling for Chemical Engineers and Technological Processes II in the degrees of Chemical Engineering and Industrial Engineering.
 - Thesis director of 6 Chemical Engineering students in projects on synthesis and modeling of charcoal briquettes using industrial waste for reuse as biomass.
 - Co-project director of the Cienfuegos paper industry for recycling kraft paper and wastewater treatment.
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EDUCATION

Bachelor's in Chemical Engineering | University of Cienfuegos, Cienfuegos, Cuba | 2017

Master's degree of Science in Chemical Engineering | National Technological of México, Aguascalientes, México | 2022

SKILLS

Good knowledge and understanding of English in a technical environment | Strong experience in statistics, programming, mathematics | Management of computer software | Leadership and collaboration | Programming in Matlab and Python | Management of engineering software (Aspen Plus, Aspen Hysys, Statgraphics, Gausian) | Oral skills communication | EDA | Data analysis | Data visualization | Machine Learning skills | Technical communication skills | Active listening skills | Regression analysis | Hands-on experience |

RESEARCH

1. Formulation of charcoal briquettes using UEB residual sludge Glucose Cienfuegos as binders.
 2. Thermodynamic models improved with artificial intelligence tools for the prediction of surface tension of fatty acids and refrigerants.
 3. Impact of critical point restriction on the calculation of surface tension of organic acids using group contribution models. <https://doi.org/10.55815/418006>
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COURSES

"Química Computacional"	August 2021
Instituto Tecnológico de Aguascalientes	
"Crash Courseon Python"	October 2023
Google, Coursera	
"Google Advanced Data Analytics"	January 2024
Google, Coursera	

Awards

"Virtual Symposium held by the LatinXinChE community", 2023, BEST PRESENTATION AWARD

SCIENTIFIC EVENTS

- *I.O Almanza-Stable, A. Bonilla-Petriciolet, 2021, A reliable group contribution model for the prediction of surface tension for organic acids, MSDE Symposium 2021: frontiers in molecular engineering, United Kingdom.*
 - *I.O Almanza-Stable, A. Bonilla-Petriciolet, 2021, Prediction of surface tension of organic acids via group contribution models, Twitter Latin American Conference on Environmental and Chemical Process Systems Engineering #LatinEnvChemPSE, México.*
 - *I.O Almanza-Stable, A. Bonilla-Petriciolet, 2021, A new model for predicting the surface tension of refrigerants, #LatinXChem Twitter Conference 2021, México.*
 - *I.O Almanza-Stable, A. Bonilla-Petriciolet, 2021, Modeling of surface tension of organic acids using a group contribution approach, 10th ROSTOCKER INTERNATIONAL CONFERENCE: "TECHNICAL THERMODYNAMICS: THERMOPHYSICAL PROPERTIES AND ENERGY SYSTEMS", Alemania.*
 - *I.O Almanza-Stable, R.R Suárez ,A. Bonilla-Petriciolet 2022, Modeling of the surface tension of refrigerants using an automatic machine learning approach based on the SVM model and groups contribution, #LatinXChem Twitter Conference 2022*
 - *I.O. Almanza-Stable, R.R. Suárez, A. Bonilla-Petriciolet, 2022, Auto machine learning for the prediction of surface tension of refrigerants, Twitter Latin American Conference on Environmental and Chemical Process Systems Engineering #LatinEnvChemPSE, México.*
 - *I.O. Almanza-Stable, R.R. Suárez, A. Bonilla-Petriciolet, 2022, Modelación de la tensión superficial de compuestos clasificados como refrigerantes mediante herramientas de aprendizaje de máquina automatizado, Congreso Internacional de Tecnologías en Refrigeración México.*
 - *I.O Almanza-Stable, A. Bonilla-Petriciolet, 2022, Application of artificial neural networks and group contribution models for calculating the surface tension of organic acids, WORKSHOP on Circular Bioeconomy and Biomass-oriented Industrial Symbiosis, Lisboa.*
 - *I.O Almanza-Stable, A. Bonilla-Petriciolet, 2022, Surface tension modeling of refrigerants using ANN and Group Contribution approaches, #RSCPPoster Twitter Conference, México.*
 - *I.O. Almanza-Stable, R.R. Suárez, A. Bonilla-Petriciolet, 2023, Auto Machine Learning model based on the group contribution principle for the prediction of surface tension of refrigerant families, #RSCPPoster Twitter Conference, México.*
 - *I.O. Almanza-Stable, R.R. Suárez, A. Bonilla-Petriciolet, 2023, Modeling of Surface Tension of Refrigerant Compounds Using Auto Machine Learning and Group Contribution Approach, Rapid Fire Event LatinXinChE, México.*
 - *I.O. Almanza-Stable, R.R. Suárez, A. Bonilla-Petriciolet, 2023, Automated Machine Learning Approach for Surface Tension Modeling in Ionic Liquids, "Computing and Simulations, and Advanced Materials (Spanish), Virtual Symposium held by the LatinXinChE community, México.*
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MSDE Symposium 2021: frontiers in molecular engineering

17-18 June 2021

This is to certify that

Ivan Orlando Almanza Stable

attended the above virtual conference



Professor Tom Welton OBE CChem FRSC FCGI
President, Royal Society of Chemistry





July 1st, 2021, Aguascalientes, México

Certificate

This is to certify that the poster

**Prediction of surface tension of organic acids via group contribution
models**

I.O. Almanza-Stable, A. Bonilla-Petriciolet

has been presented in the Twitter Latin American Conference on Environmental and Chemical Process Systems Engineering #LatinEnvChemPSE.

Prof. Adrián Bonilla-Petriciolet



SECRETARIA DE
ESTADOS UNIDOS MEXICANOS
INSTITUTO TECNOLÓGICO
DE AGUASCALIENTES



September 24, 2021

This is to certify that

Iván Orlando Almanza Stable and Adrián Bonilla Petriciolet

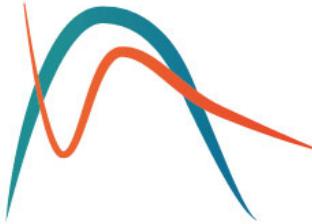
participated in the #LatinXChem Twitter Conference 2021 on Sept. 20, 2021 with the poster #Eng032 entitled:

A new model for predicting the surface tension of refrigerants

Gabriel Merino
on behalf of the
#LatinXChem Organizing Committee

Gabe Dos Passos Gomes
#LXChemEng organizer

Víctor Zavala
#LXChemEng organizer



THERMAM 2021



CERTIFICATE OF PARTICIPATION

This is to certify that

Iván Orlando Almanza Stable

has participated

at the 10th ROSTOCKER INTERNATIONAL CONFERENCE: "TECHNICAL THERMODYNAMICS: THERMOPHYSICAL PROPERTIES AND ENERGY SYSTEMS", 09-10 September 2021,
which was organized online by the University of Rostock, GERMANY.

Chair of the conference:

A handwritten signature in blue ink that appears to read 'Karsten Müller'.

Prof. Dr.-Ing. habil. Karsten Müller



This is to certify that

I.O Almanza-Stable, R.R Suárez ,A. Bonilla-Petriciolet

participated in the #LatinXChem Twitter Conference 2022 on Nov. 28, 2022 with the poster entitled:

Modeling of the surface tension of refrigerants using an automatic machine learning approach based on the SVM model and groups contribution

A handwritten signature in black ink, appearing to read "Gabriel Merino".

Gabriel Merino
On behalf of the #LatinXChem
Organizing Committee

A handwritten signature in blue ink, appearing to read "Elisa L. Orth".

Elisa Souza Orth
On behalf of the #LXChemPhys
Category Organizers

July 21st, 2022

This is to certify that the poster

Auto machine learning for the prediction of surface tension of refrigerants

I.O. Almanza-Stable, R.R. Suárez, A. Bonilla-Petriciolet

has been presented in the 2022 Twitter Latin American Conference on Environmental and Chemical Process Systems Engineering #LatinEnvChemPSE.

Prof. Adrián Bonilla-Petriciolet



Chairman of the Organizing Committee of #LatinEnvChemPSE



UNIVERSIDAD DE
GUANAJUATO

CIDESI®

CIATEC



Se otorga la presente

constancia

A: Iván Orlando Almanza Stable

Por su participación como ponente de la Conferencia **"Modelación de la tensión superficial de compuestos clasificados como refrigerantes mediante herramientas de aprendizaje de máquina automatizado"**, en el Congreso Internacional de Tecnologías en Refrigeración el día 13 de octubre de 2022, realizado en vivo en línea virtual.

Dr. Vicente Pérez García
Presidente del CITeR'22
Universidad de Guanajuato

Dr. José Julián III Montes Rodríguez
Vicepresidente del CITeR'22
CIDESI

Certificate of Participation

This certificate attests that **Iván Almanza Stable** participated in the **WORKSHOP on Circular Bioeconomy and Biomass-oriented Industrial Symbiosis**, held online on February 16th, 2022, from 13h30 to 18h15 CET / 7h30 to 13h15 EST.

The organising committee:



Natural Resources
Canada

Ressources naturelles
Canada



2022 #RSCPoster Twitter conference

This is to certify that

Iván Orlando Almanza Stable

Instituto Tecnológico de Aguascalientes, México

participated in the Royal Society of Chemistry's
2022 #RSCPoster Twitter Conference
with a poster entitled:

Surface tension modeling of refrigerants using ANN and Group Contribution approaches

Thank you for your participation.



Laura Ghandhi

Lead Organiser, 2022 #RSCPoster Twitter Conference
Royal Society of Chemistry





#RSCPoster 2023

This is to certify that

Iván Orlando Amanza Stable

Instituto Tecnológico de Aguascalientes, Mexico

participated in the Royal Society of Chemistry's
2023 #RSCPoster Conference
with a poster entitled:

Auto Machine Learning model based on the group contribution principle for the prediction of surface tension of refrigerant families

Thank you for your participation



Edward Gardner
Organiser, 2023 #RSCPoster Conference
Royal Society of Chemistry



Celeste Brady
Organiser, 2023 #RSCPoster Conference
Royal Society of Chemistry



CERTIFICATE OF PARTICIPATION

This certificate is presented to:

Ivan Orlando Almanza Stable

For his presentation titled "Modeling of Surface Tension of Refrigerant Compounds Using Auto Machine Learning and Group Contribution Approach" at the first Rapid Fire Event held by the LatinXinChE community in April 2023

Gabriel J. Rodriguez-Rivera

Gabriel Rodríguez-Rivera
Chair of LatinXinChE community

Eduardo Chacin

Eduardo A. Chacín Ruiz
**Graduate student liaison
of LatinXinChE community**



CERTIFICATE OF ACHIEVEMENT

BEST PRESENTATION AWARD

In the “Computing and Simulations, and Advanced Materials (Spanish)” section
for the presentation titled “Automated Machine Learning Approach for Surface
Tension Modeling in Ionic Liquids”

AWARDED TO

Ivan Orlando Almanza Stable

At the first Virtual Symposium held by the LatinXinChE community: “Advances
and contributions of Latinx Chemical Engineers” on September 6th, 2023

Gabriel J. Rodriguez-Rivera

Gabriel Rodríguez-Rivera
Chair of LatinXinChE

Eduardo Chacin

Eduardo A. Chacin Ruiz
Graduate Student Liaison in LatinXinChE