



Ana
CRUZ

My passion is to foster a respectful and sustainable relationship with the environment, integrating scientific and educational knowledge to achieve a positive impact on society. I consider myself a curious woman, eager to learn, and skilled at teamwork, always keeping the collective goal in mind while respecting individuality.

TEACHER AND RESEARCHER

PERSONAL DATA

- 📞 1122533590
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- 🌐 [linkedin.com/in/ana-cruz-33431b316](https://www.linkedin.com/in/ana-cruz-33431b316)
- 📍 Riobamba 178 CABA 1025

TOOLS

- Bash
- Python
- Fortran 95
- Gromacs
- Lammmps
- Latex

LANGUAGES

- NAtive Spanish
- English (Level B1)

WORK EXPERIENCE

DOCTORAL FELLOW

Institute of Theoretical and Applied Physical Chemistry Research (INIFTA-CONICET)

2023 - Presente

- Research on "Polymer Nanogels with Stimulus-Responsive Properties as Platforms for the Development of Biomaterials: Computational Simulation Studies."

SECONDARY AND HIGH SCHOOL TEACHER

Institución Educativa Rodrigo Lara Bonilla

2018 - 2023 (Neiva, Huila, Colombia)

- Natural Sciences, Chemistry, and Physics.
- Head of the Department (2019–2020).
- Development of an Environmental Education Project.
- Teachers' Representative in the School Council (2021)

SECONDARY AND HIGH SCHOOL TEACHER

Institución Educativa Los Negros

2015 - 2018 (Algeciras, Huila, Colombia)

- Natural Sciences, Chemistry, and Physics.
- Head of the Department (2016–2018).
- Development of an Environmental Education Project.
- Teachers' Representative in the School Council (2021)

EDUCATION

BACHELOR'S DEGREE IN BASIC EDUCATION WITH AN EMPHASIS ON NATURAL SCIENCES AND ENVIRONMENTAL EDUCATION

Universidad Surcolombiana

2006 - 2011 (Neiva, Huila, Colombia)

MASTER'S DEGREE IN ENVIRONMENTAL ENGINEERING AND MANAGEMENT

Universidad Surcolombiana

2019-2021 (Neiva, Huila, Colombia)

PROFESSIONAL DEVELOPMENT COURSES

Institute of Physics of Liquids and Biological Systems (IFLYSIB) - National University of La Plata (UNLP)

Computacional Tools for Scientists

2023

SCHOLARSHIP

National Council for Scientific and Technical Research (CONICET)

Internal Doctoral Scholarship (2023 - 2028)

Research Topic: "Stimuli-Responsive Polymer Nanogels as Platforms for Biomaterial Development: Computational Simulation Studies"

Director: Dr. Gabriel Sebastian Longo / Co-Director: Dr. Alberto Albesa

Workplace: Institute of Theoretical and Applied Physical-Chemical Research (INIFTA)

PUBLICATIONS

- Cruz-González, A. M., Vargas-Santana, M. S., Ortiz, C. P., Cerquera, N. E., Delgado, D. R., Martínez, F., ... & Acree Jr, W. E. (2021). Solubility of sulfadiazine in (ethylene glycol+ water) mixtures: Measurement, correlation, thermodynamics and preferential solvation. *Journal of Molecular Liquids*, 323, 115058.
- Vargas-Santana, M. S., Cruz-González, A. M., Ortiz, C. P., Delgado, D. R., Martínez, F., Peña, M. Á., ... & Jouyban, A. (2021). Solubility of sulfamerazine in (ethylene glycol+ water) mixtures: Measurement, correlation, dissolution thermodynamics and preferential solvation. *Journal of Molecular Liquids*, 337, 116330 <https://doi.org/10.1016/j.molliq.2021.116330>
- Cruz-González, A. M., Vargas-Santana, M. S., de Jesus Polania-Orozco, S., Ortiz, C. P., Cerquera, N. E., Martínez, F., ... & Acree Jr, W. E. (2021). Thermodynamic analysis of the solubility of triclocarban in ethylene glycol+ water mixtures. *Journal of Molecular Liquids*, 325, 115222 <https://doi.org/10.1016/j.molliq.2020.115222>
- Vargas-Santana, Martha Sofia, Cruz-González, Ana María, Cerquera, Nestor Enrique, Escobar Rodríguez, Alana Sofia, Cardenas, Rossember E., Calderón-Losada, Omar, Ortiz, Claudia Patricia, & Delgado, Daniel Ricardo. (2021). Extended Hildebrand solubility approach and Yalkowsky-Roseman mode l for estimating the solubility of sulfadiazine and sulfamethazine in some [ethylene glycol (1) + water (2)] mixtures at several temperatures. *Revista Colombiana de Ciencias Químico - Farmacéuticas*, 50(3), 812-836. Epub December 18, 2023. <https://doi.org/10.15446/rcciquifa.v50n3.100240>
- Álvarez-Gómez, Y., Cruz-González, A. M., & Delgado, D. R. (2023). Evaluación del uso de la radiación UV y ozono en la degradación de algunas sulfonamidas. *Revista Colombiana de Ciencias Químico-Farmacéuticas*, 52(3). <https://revistas.unal.edu.co/index.php/rcciquifa/article/view/112482/91275>



POSTER PRESENTATIONS

XVI Jornadas de tesisistas del INIFTA 2024

07 / 2024

Nanogeles de Polímeros con respuesta a cambios de la calidad del solvente como vehículos de biomateriales: Estudio por simulaciones computacionales

Cruz-Gonzalez, A.M. Albesa, A. G.; Longo, G. S.

La Plata, Provincia de Buenos Aires, Argentina

LatinXChem

10 / 2024

Polymer Nanogels Responsive to Solvent Quality Changes as Biomaterial Carries: Studies through Computer Simulations

Cruz-Gonzalez, A.M.; Albesa, A. G.; Longo, G. S.

Virtual event