



# Silvia González Pérez

Latin America and the Caribbean

Theoretical and computational chemistry

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Dr. Silvia González Pérez works on molecular modelling of potential new substances that can be synthesized or purified from natural products, in addition to Quantum Quantitative Structure Activity or Properties Relationships, and heterogeneous catalysis in metal, bimetals, nanotubes, and oxides. Though hers is only one of a few research teams in Ecuador in the field of Theoretical and Computational Methods, with the support of her University her team was able to install the first high processor computing (HPC) server in the country with specialized software (VASP, Gaussian, CRYSTAL) in order to make valuable contributions to the field.

As a student, Dr. Silvia González Pérez was drawn to computational chemistry because it provides information about the properties of substances and chemical reactions, answering the question "Why does it do that?". She graduated in Chemical Engineering from the Instituto Politécnico Nacional, México and obtained her PhD degree at Universitat de Barcelona, Spain, where she worked with on Quantum Chemistry and Computational Methods, as part of the research team at the Institut de Química Teórica and Computational. Now, as a theoretical chemist, her specific research subjects include overall decontamination reactions and materials including metals and bimetals.

Dr. González Pérez is currently a teacher of Physical Chemistry at the Universidad Técnica Particular de Loja in Ecuador. Together with colleagues in the Chemical Department as well as undergraduate Chemical Engineering students and collaborators, Since 2009, she has been a student advisor, with some of her students having completed their undergraduate theses with promising results. Together with other Ecuadorian researchers from Escuela Politécnica Nacional and Universidad San Francisco de Quito universities in Quito, she co-founded the GETNANO network for collaborations in the study of materials. The group works on joint projects and has also organized courses for students.

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Receiving the OWSD - Elsevier Foundation Award is very important for the advancement of science in Ecuador. Scientific work is hard in all places around the world, but even more so in countries in development. I hope this award gives confidence to Ecuadorian scientists, especially the youngest ones.

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