
WELCOME

Prof. Oscar Miguel Rivera Borroto, BSc.

Professor of Mathematical Statistics

**Hydrogen Technologies, Drug Discovery and Molecular Design,
Chem-Bio-Informatic, Chemometric, Molecular Modelling,
Computational and Theoretical Chemistry Specialist**



Mailing Address

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QUALIFICATIONS

Bachelor of Science (BSc.): Chemical Sciences, [Central University of Las Villas](#), Santa Clara, Villa Clara, Cuba, 7/03.

EXPERTISE AND CURRENT WORK INTERESTS

Teaching main interests: My current teaching interest includes Quantum Chemistry and Mathematical Statistics as well as “rational” drug design.

Research main interests: My current research interests are on the area of drug discovery, specifically the development of new computational methods for chem-bio-informatic researches. In this sense, I’m also interested on the development of novel molecular and macromolecular (carbohydrates, proteins and nucleic acids) descriptors for using it in the development of QSPR/QSAR, “rational” (computer-aided) drug design, characterization of molecular similarity, computational (virtual and *in silico*) screening, proteins and nucleic acids classification, macromolecule-drug interactions, folding degree description, and early pharmacokinetics and toxicity prediction.

Some Recent Publication...

- [O. M. Rivera](#), L. M. Peralta, E. Gonzalez Suarez, M. Laborde, Comparison of catalysts for hydrogen production by the ethanol steam reforming reaction, Memories of the event (book): HYPOTHESIS VI Hydrogen Power Theoretical and Engineering Solutions International Symposium, Havana, Cuba, May 8th to 12th, 2005
- [O. M. Rivera](#), L. M. Peralta, E. González Suárez, M. Laborde, Comparison of catalysts for hydrogen production by the ethanol steam reforming reaction. Catalytic role of active metallic species in the ethanol steam reforming reaction pathway, Memories of the event (CD): The 9th International Electronic Conference on Synthetic Organic Chemistry ECSOC-9 <http://www.usc.es/congresos/ecsoc/ECSOC-9.htm>, Santiago de Compostela, Spain, Nov 1st to 30th, 2005.
- [O. M. Rivera](#), L. M. Peralta, E. González Suárez, M. Laborde, Molecules representation at the real vector space R^{118} , Cuban Journal of Chemistry, Vol. XVIII, Num.1, 2006