

EDUCATION

- 2012 PhD in Chemical-Physics, Bordeaux 1 University, France : *Mention Très Honorable (Summa Cum Laude)*.
Dissertation : Theoretical description of Eley–Rideal reaction dynamics on Nitrogen recombination over Tungsten surfaces.
Supervisors : Prof. Jean-Claude Rayez (Bordeaux) and Prof. Jesús Rubayo-Soneira (Havana).
- 2010 *Master in Nuclear Physics*, Higher Institute of Technologies and Applied Sciences (InSTEC), Cuba : *Mention Excelente (Summa Cum Laude)*.
- 2007 *Licenciado (bac+5) in Nuclear Physics*, InSTEC, Cuba : *Mention Título de Oro (Summa Cum Laude)*.
- 2001 *Bachelor*, Pre-University Institute of Vocational Sciences, Granma, Cuba.

PROFESSIONAL EXPERIENCE

- 2015– *Postdoctoral Research Associate*, LERMA, CNRS, Observatory of Paris, Meudon, France.
- 2012–15 *Assistant Professor*, General Physics and Mathematics Department (courses: *Methods of Mathematical Physics, Linear Algebra and Classical Mechanics*), InSTEC, Cuba.
- 2011–12 *Instructor Professor*, General Physics and Mathematics Department (courses: *Methods of Mathematical Physics and Mathematical Analysis*), InSTEC, Cuba
- 2007–11 *Scientific Reserve (Teaching Assistant)*, General Physics and Mathematics Department (courses: *Methods of Mathematical Physics and Optics*), InSTEC, Cuba.
- 2003–07 *Assistant student*, General Physics and Mathematics Department (courses: *Classical Mechanics, Optics and Electromagnetism*), InSTEC, Cuba.

RESEARCH FIELDS

Photodissociation processes on Van der Waals complexes · Molecular Dynamic Simulations · Molecular recombination on gas-surface interfaces · Quasi-classical methodology · Potential energy surfaces · Quantum methods of coupled equations

PUBLICATIONS

12. E. Quintas-Sánchez, P. Tuckey and M-L. Dubernet
“A new potential energy surface for $\text{HCS}^+ - \text{H}_2$ and scattering cross-sections”
In preparation.
11. E. Quintas-Sánchez and M-L. Dubernet
“The Water-HCN dimer: First-principles calculation of a rigid-rotor potential energy surface”
In preparation.
10. M-L. Dubernet, E. Quintas-Sánchez, *et al.*
“The Virtual Atomic and Molecular Data Center (VAMDC) Consortium”
Journal of Physics B: Atomic, Molecular and Optical Physics, **49**, 074003 (2016).
9. M-L. Dubernet, E. Quintas-Sánchez and P. Tuckey
“New potential energy surface for the $\text{HCS}^+ - \text{He}$ system and inelastic rate coefficients for the interstellar medium”
The Journal of Chemical Physics **143**, 044315 (2015).
8. R. Petuya, C. Crespos, E. Quintas Sánchez and P. Larregaray
“Comparative Theoretical Study of H_2 Eley-Rideal Recombination Dynamics on W(100) and W(110)”
The Journal of Physical Chemistry C **118**, 11704 (2014).
7. E. Quintas Sánchez, P. Larregaray and C. Crespos
“Influence of Surface Symmetry on the Onset of Nitrogen Eley-Rideal Recombination on Tungsten”
The Journal of Physical Chemistry C **118**, 12224 (2014).

6. E. Quintas Sánchez, P. Larregaray, C. Crespos and A. Pérez Mellor
"Estudio teórico del mecanismo Eley-Rideal en la recombinación de nitrógeno sobre tungsteno (110)"
Revista Cubana de Física 30, 66 (2013).
5. E. Quintas Sánchez, C. Crespos, P. Larregaray, L. Martin Gondre, J. Rubayo-Soneira and J. C. Rayez
"Surface temperature effects on the energetics of N₂ molecules formed by Eley-Rideal recombination on W(100)"
The Journal of Chemical Physics 138, 024706 (2013).
4. E. Quintas Sánchez, P. Larregaray, C. Crespos, L. Martin Gondre, J. Rubayo-Soneira and J. C. Rayez
"Dynamical reaction pathways in Eley-Rideal recombination of nitrogen from W(100)"
The Journal of Chemical Physics 137, 064709 (2012).
3. L. Barrios Herrera, E. Quintas Sánchez, L. Martin, C. Crespos, P. Larregaray, J. C. Rayez and J. Rubayo Soneira
"Sección eficaz Eley-Rideal en la recombinación de nitrógeno sobre W(100)"
Revista Cubana de Física 28(1E), 61-65 (2011).
2. E. Quintas Sánchez, P. Larregaray, C. Crespos, L. Martin Gondre, J. Rubayo-Soneira and J. C. Rayez
"Dinámica Eley-Rideal vs átomos-calientes en la recombinación de Nitrógeno sobre W(100)"
Revista Cubana de Física 27(2B), 244-250 (2010).
1. J. L. Borrel, N. López-Pino, O. Díaz Rizo, K. D'Alessandro, F. Padilla, Y. Arbelo, A. R. García, E. Quintas Sánchez and A. O. Casanova
"Uranium enrichment determination of the InSTEC sub-critical ensemble fuel by gamma spectrometry"
Nucleus 45, 37-43 (2009).

CONFERENCES • WORKSHOPS • SEMINARIES

- 2016 - 1st Molecules in Motion (MOLIM) Training School: From potentials to dynamic. Curia, Portugal.
- 2015 - Journées Scientifiques du GDR ThéMS (*Théorie, Modélisation, Simulation*), Orsay, France.
 - 13th International Workshop on Quantum Reactive Scattering, Salamanca, Spain.
- 2012 - 2nd Workshop on Atomic and Molecular Physics. Varadero, Cuba.
 - Seminar at ICIMAF, Havana, Cuba.
- 2011 - XII Simposio de la Sociedad Cubana de Física. Havana, Cuba.
- 2010 - VI International Meeting on Photodynamics. Havana, Cuba.
 - Journée Scientifique du ISM, Talence, France.
 - Passion for Knowledge, Donostia - San Sebastian, Spain.
 - International Meeting on Atomic and Molecular Physics and Chemistry (IMAMPC), Madrid, Spain.
- 2009 - Seminar at CSIC, Madrid, Spain.
 - 1st Workshop on Atomic and Molecular Physics. La Havane, Cuba.
 - XII Workshop on Nuclear Physics and VI International Symposium on Nuclear-Related Techniques. Havana, Cuba.
 - Journée Dynamique du Sud Ouest (JDSO), Talence, France.
 - XIV International Workshop on Quantum Systems in Chemistry and Physics (QSCP), Madrid, Spain.
- 2008 - V International Meeting on Photodynamics. Havana, Cuba.
- 2007 - XXXIII Congreso de Químicos Teóricos de Expresión Latina (QUITEL). Havana, Cuba.

COLLABORATIVE RESEARCH VISITS

- 2014 Observatory of Paris, Meudon, France (5 months).
- 2010 Donostia International Physics Center (DIPC), San Sebastián, Spain (2 weeks).

AWARDS

- 2013 Prize *Outstanding Scientific Result* by InSTEC, Cuba.
- 2013 Professor *Tiza de Oro*, InSTEC, Cuba.
- 2008 Grant from the French Embassy in Cuba for an International Joint Doctorate between InSTEC, Cuba, and Université Bordeaux 1, France.
- 2007 Prize *Best Academic Graduated* by InSTEC, Cuba.
- 2001 Gold Medal, Iberoamerican Physics Olympiad. Sorata, Bolivia.

LANGUAGES

- Spanish Native language.
- English speech: good, reading: good, writing: good.
- French speech: regular, reading: good, writing: elementary.

REFERENCES

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