

Victoria Esteso

Born on April 25, 1990

Curriculum vitae

Professional career

Current position: Spanish Research Council (CSIC) employee

Full Time Teaching Assistant, Condensed Matter Physics Department,
University of Sevilla, Sevilla, Spain (18 months)

*Optics, Experimental Techniques I (Condensed Matter), Mechanics and Waves, taught
to 1st, 2nd, 3rd and 5th course at Physics Degree, Mathematics and Physics Degree
and Health Engineering Degree.*

Teaching experience > 300 hours

Spanish Research Council (CSIC) employee (18 months)

Education

**2021 Ph.D. Program in Science and Technology of New Materials at the Institute of
Materials Science of Seville (CSIC-University of Seville). 'La Caixa' Foundation
Fellow**

Title: Study of the Casimir force in plane-parallel systems

*Visiting PhD Researcher (2 months) at Indiana University Purdue University of
Indianapolis (IUPUI), Indianapolis, US*

*Visiting PhD Researcher (5 months) at Laboratoire Kastler Brossel (LKB), Paris,
France*

2014 MSc Science and Technology of New Materials, University of Seville, Seville,
Spain *Subjects: Synthesis of Materials and Nanostructures, Characterization
Techniques of Materials, Computation in Material Science.*

2013 Physics Degree (Five years programme), Universidad Complutense de Madrid,
Spain. *Nine subjects graded with honors.*

*Optative Subjects: Optical Properties of Matter, Magnetic Materials, Magnetic
Properties of Materials, Order and Dimensionality (Superconductivity), Atomic
Process, Molecular Process, Biophysics.*

2008 International Baccalaureate Diploma (IB) Certificate

Research at a glance

Interests Optical materials, quantum optics, dispersion forces, strong-coupling
phenomena, molecular dynamics, condensed matter physics

Metrics 10 publications, 7 of them as first author, h-index of 4, and a total of 40
citations (Scopus)

2 invited talks at conferences

17 contributions to national and international conferences (9 oral, 8 posters)

Projects European project: ERC Starting Grant POLIGHT

participation National projects: Explora FIS2017-91018-EXP, MAT2014-54852-R

Supervision 1 Bachelor Student

List of publications

1. M. Ibisate, J. Galisteo-Lopez, **V. Estesó**, C. López. FRET-mediated Amplified Spontaneous Emission in DNA-CTMA Complexes, *Advance Optical Materials*, 1 (9), 651-656, 2013.
2. **V. Estesó**, S. Carretero-Palacios, and H. Míguez. Nanolevitation phenomena in real plane-parallel systems due to the balance between Casimir and gravity forces. *The Journal of Physical Chemistry C*, 119 (10), 5663–5670, 2015.
3. **V. Estesó**, S. Carretero-Palacios, and H. Míguez. Effect of temperature variations on equilibrium distances in levitating parallel dielectric plates interacting through Casimir forces. *Journal of Applied Physics*, 119(14), 144301, 2016.
4. **V. Estesó**, S. Carretero-Palacios, and H. Míguez. Casimir-Lifshitz Force Based Optical Resonators. *The Journal of Physical Chemistry Letters*, 10(19), 5856-5860, 2019.
5. **V. Estesó**, S. Carretero-Palacios, P. Thiyam, H. Míguez, D.F. Parsons, I. Brevik, and M. Boström. Trapping of gas bubbles in water at a finite distance below a water–solid interface. *Langmuir*, 35 (12), 4218–4223, 2019.
6. **V. Estesó**, S. Carretero-Palacios, and H. Míguez. Optical interference effects on the Casimir-Lifshitz force in multilayer structures. *Physical Review A*, 101(3), 033815, 2020.
7. J. Miranda-Muñoz, V. Estesó, A. Jimenez-Solano, G. Lozano and H. Míguez. Finite Size Effects on Light Propagation throughout Random Media: Relation between Optical Properties and Scattering Event Statistics. *Advanced Optical Materials*, 8(1), 1901196, 2020.
8. **V. Estesó**, S. Carretero-Palacios, L.G. MacDowell, J. Fiedler, D. F. Parsons, F. Spallek, H. Míguez, C. Persson, S. Y. Buhmann, I. Brevik and M. Boström. Premelting of ice adsorbed on a rock surface. *Physical Chemistry Chemical Physics*, 22(20), 11362-11373, 2020.
9. M. Boström, V. Estesó, J. Fiedler, I. Brevik, S.Y. Buhmann, C. Persson, S. Carretero-Palacios, D. F. Parsons, and R. W. Corkery. Self-preserving ice layers on CO₂ clathrate particles: implications for Enceladus, Pluto and similar ocean worlds. *Astronomy and Astrophysics*. doi:10.1051/0004-6361/202040181), 2021.
10. **V. Estesó**, L. Calio, H. Espinós, G. Lavarda, T. Torres, J. Feist, F.J. García-Vidal, G. Bottari, and H. Míguez. Light Harvesting Properties of a Subphthalocyanine Solar Absorber Coupled to an Optical Cavity. (*Accepted*).