

CV Date	12/07/2023
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## Part A. PERSONAL INFORMATION

First Name	Jesús		
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## Part C. RELEVANT ACCOMPLISHMENTS

### C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (n° x / n° y): position / total authors. If applicable, indicate the number of citations

- 1 Scientific paper.** Richard J. Mandle; Nerea Sebastián; Josu Martinez-Perdiguero; Alenka Mertelj. (3/4). 2021. On the molecular origins of the ferroelectric splay nematic phase. Nature Communications. Nature. 12-4962, pp.1-12. SCOPUS (1) <https://doi.org/10.1038/s41467-021-25231-0>
- 2 Scientific paper.** (1/1). 2020. Fermion-like behavior of elements in their spatial distribution around points of interest. Physica A: Statistical Mechanics and its Applications. 557, pp.24905-1-24905-7. ISSN 0378-4371. (0) <https://doi.org/10.1016/j.physa.2020.124905>
- 3 Scientific paper.** J. Martinez-Perdiguero (AC). (1/1). 2020. Optimized sample addressing in prism-coupled surface plasmon resonance experiments. Optics and Laser Technology. 129, pp.106240-1-106240-6. SCOPUS (0) <https://doi.org/10.1016/j.optlastec.2020.106240>
- 4 Scientific paper.** J. Martínez-Perdiguero (AC). (1/1). 2019. On a Common Mistake in the Description of the Photoelectric Effect. The Physics Teacher. 57, pp.536-537. ISSN 0031-921X. SCOPUS (1) <https://doi.org/10.1119/1.5131119>
- 5 Scientific paper.** Torrente-Rodríguez, Rebeca M.; Campuzano, Susana; Ruiz-Valdepeñas Montiel, Víctor; et al; Pingarrón, José M.2017. Advanced Electrochemical Scaffolds for Multiplexed Biosensing of Cancer Reporters in Complex Clinical Samples. Procedia Technology. 27, pp.17-20. ISSN 2212-0173. <https://doi.org/10.1016/j.protcy.2017.04.010>
- 6 Scientific paper.** Eletxigerra, U.; Martinez-Perdiguero, J. (AC); Merino, S.; Barderas, R.; Ruiz-Valdepeñas Montiel, V.; Villalonga, R.; Pingarrón, J.M.; Campuzano, S.(2/8). 2016. Electrochemical Magnetoimmunosensor for Progesterone Receptor Determination. Application to the Simultaneous Detection of Estrogen and Progesterone Breast-cancer Related Receptors in Raw Cell Lysates.Electroanalysis. 28, pp.1787-1794. ISSN 1521-4109. SCOPUS (12) <https://doi.org/10.1002/elan.201501090>
- 7 Scientific paper.** Eletxigerra, U.; Martinez-Perdiguero, J.; Merino, S.; Barderas, R.; Ruiz-Valdepeñas Montiel, V.; Villalonga, R.; Pingarrón, J.M.; Campuzano, S.2016. Estrogen receptor alfa determination in serum, cell lysates and breast cancer cells using an amperometric magnetoimmunosensing platform. Sensing and Bio-Sensing Research. 7, pp.71-76.
- 8 Scientific paper.** Retolaza, A.; Martinez-Perdiguero, J.; Merino, S.; Morales-Vidal, M.; Boj, P.G.; Quintana, J.A.; Villalvilla, J.M.; Díaz-García, M.A.(2/8). 2016. Organic distributed feedback laser for label-free biosensing of ErbB2 protein biomarker. Sensors and Actuators B. 223, pp.261-265. ISSN 0925-4005. SCOPUS (25) <https://doi.org/http://dx.doi.org/10.1016/j.snb.2015.09.093>

- 9 **Scientific paper.** Eletxigerra, U.; Martínez-Perdiguero, J. (AC); Barderas, R.; Pingarrón, J.M.; Campuzano, S.; Merino, S.(2/6). 2016. Surface plasmon resonance immunosensor for ErbB2 breast cancer biomarker determination in human serum and raw cancer cell lysates. *Analytica Chimica Acta*. 905, pp.156-162. ISSN 0003-2670. SCOPUS (42) <https://doi.org/10.1016/j.aca.2015.12.020>
- 10 **Scientific paper.** Eletxigerra, U.; Martínez-Perdiguero, J. (AC); Merino, S.; Barderas, R.; Torrente-Rodríguez, R.M.; Villalonga, R.; Pingarrón, J.M.; Campuzano, S.(2/8). 2015. Amperometric magnetoimmunosensor for ErbB2 breast cancer biomarker determination in human serum, cell lysates and intact breast cancer cells. *Biosensors and Bioelectronics*. 70, pp.34-41. ISSN 1873-4235. SCOPUS (42) <https://doi.org/https://dx.doi.org/10.1016/j.bios.2015.03.017>
- 11 **Scientific paper.** Eletxigerra, U.; Martínez-Perdiguero, J.; Merino, S.2015. Disposable microfluidic immuno-biochip for rapid electrochemical detection of tumor necrosis factor alpha biomarker. *Sensors and Actuators B*. 221, pp.1406-1411. ISSN 0925-4005. <https://doi.org/http://dx.doi.org/10.1016/j.snb.2015.08.026>
- 12 **Scientific paper.** Martínez-Perdiguero, J. (AC); Mendizabal, L.; Morant-Miñana, M.C.; Castro-Hurtado, I.; Juarros, A.; Ortiz, R.; Rodríguez, A.(1/5). 2015. Electrical insulation and breakdown properties of SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> thin multilayer films deposited on stainless steel by physical vapor deposition. *Thin Solid Films*. 595, pp.171-175. ISSN 0040-6090. SCOPUS (8) <https://doi.org/http://dx.doi.org/10.1016/j.tsf.2015.10.076>
- 13 **Scientific paper.** Eletxigerra, U.; Martínez-Perdiguero, J.; Merino, S.; Villalonga, R.; Pingarrón, J.M.; Campuzano, S.2014. Amperometric magnetoimmunoassay for the direct detection of tumor necrosis factor alpha biomarker in human serum. *Analytica Chimica Acta*. 838, pp.37-44. ISSN 0003-2670. <https://doi.org/http://dx.doi.org/10.1016/j.aca.2014.05.047>
- 14 **Scientific paper.** Martínez-Perdiguero, J (AC); Retolaza, A.; Bujanda, L.; Merino, S. (1/4). 2014. Surface plasmon resonance immunoassay for the detection of the TNF alpha biomarker in human serum. *Talanta*. 119, pp.492-497. ISSN 0039-9140. SCOPUS (45) <https://doi.org/https://dx.doi.org/10.1016/j.talanta.2013.11.063>
- 15 **Scientific paper.** Martínez-Perdiguero, J. (AC); Retolaza, A.; Otaduy, D.; Juarros, A.; Merino, S.(1/5). 2013. Real-time label-free surface plasmon resonance biosensing with gold nanohole arrays fabricated by nanoimprint lithography. *Sensors*. 13, pp.13960-13968. ISSN 1424-8220. SCOPUS (22) <https://doi.org/https://dx.doi.org/10.3390/s131013960>
- 16 **Scientific paper.** Martínez-Perdiguero, J.; Retolaza, A.; Juarros, A.; Otaduy, D.; Merino, S.2012. Enhanced Transmission through Gold Nanohole Arrays Fabricated by Thermal Nanoimprint Lithography for Surface Plasmon Based Biosensors. *Procedia Engineering*. 47, pp.805-808. ISSN 1877-7058. <https://doi.org/doi:10.1016/j.proeng.2012.09.269>
- 17 **Scientific paper.** Eletxigerra, Unai; Martínez-Perdiguero, Josu; Juarros, Aritz; Bayón, Raquel; Merino, Santos. 2012. Real-Time Label-Free Impedimetric Protein Detection Using Interdigitated Gold Microelectrodes and Flow Injection Analysis. *Procedia Engineering*. 47, pp.1390-1393. ISSN 1877-7058. <https://doi.org/10.1016/j.proeng.2012.09.416>
- 18 **Scientific paper.** Ortega, J.; Folcia, C.L.; Etxebarria, J.; Martínez-Perdiguero, J.; Gallastegui, J.A.; Ferrer, P.; Gimeno, N.; Blanca Ros, M.(4/5). 2011. Electric-field-induced phase transitions in bent-core mesogens determined by x-ray diffraction. *Physical Review E*. 84, pp.021707-1-021707-7. ISSN 1539-3755. SCOPUS (15) <https://doi.org/https://dx.doi.org/10.1103/PhysRevE.84.021707>
- 19 **Scientific paper.** Pintre, I.C.; Serrano, J.L.; Ros, M.B.; et al; Villacampa, B.2010. Bent-core liquid crystals in a route to efficient organic nonlinear optical materials. *Journal of Materials Chemistry*. 20, pp.2965-2971. ISSN 0959-9428. <https://doi.org/10.1021/ja9069166>
- 20 **Scientific paper.** Martínez-Perdiguero, J.; Etxebarria, J.; Folcia, C.L.; Ortega, J.; Gimeno, N.; Ros, M.B.2010. Pseudolayered structure of the columnar B1 phase of bent-core liquid crystals. *Physical Review E*. 82, pp.041706-1-041706-7. ISSN 1539-3755. <https://doi.org/https://dx.doi.org/10.1103/PhysRevE.82.041706>

- 21 **Scientific paper.** Martínez-Perdiguero, J.; Zhang, Y.; Walker, C.; Etxebarria, J.; Folcia, C.L.; Ortega, J.; O'Callaghan, M.J.; Baumeister, U.2010. Second harmonic generation in laterally azo-bridged H-shaped ferroelectric dimesogens. *Journal of Materials Chemistry*. 20, pp.4905-4909. ISSN 0959-9428. <https://doi.org/10.1039/B923616C>
- 22 **Scientific paper.** Alonso, I.; Martínez-Perdiguero, J.; Ortega, J.; Folcia, C.L.; Etxebarria, J.; Gimeno, N.; Ros, M.B.2010. The SmA phase of a bent-core v-shaped compound: Structure and electric-field response. *Liquid Crystals*. 37, pp.1465-1470. ISSN 0267-8292. <https://doi.org/http://dx.doi.org/10.1080/02678292.2010.521858>
- 23 **Scientific paper.** Sicilia, Alberto; Arenzon, Jeferson J.; Bray, Alan J.; Cugliandolo, Leticia F.; Dierking, Ingo; Martínez-Perdiguero, Josu; Alonso, Ibon; Pintre, Inmaculada C.2009. Domain growth in 2d: exact results, simulations and experiments. *AIP Conference Proceedings*. 1091-1, pp.162-165.
- 24 **Scientific paper.** Zhang, Y.; Martínez-Perdiguero, J.; Baumeister, U.; et al; Handschy, M.2009. Laterally azo-bridged H-shaped ferroelectric dimesogens for second-order nonlinear optics: Ferroelectricity and second harmonic generation. *Journal of the American Chemical Society*. 131, pp.18386-18392. ISSN 0002-7863. <https://doi.org/10.1021/ja9069166>
- 25 **Scientific paper.** Martínez-Perdiguero, J.; Alonso, I.; Folcia, C.L.; Etxebarria, J.; Ortega, J.2009. Local structure of the B4 phase studied by second harmonic generation and X-ray diffraction measurements. *Journal of Materials Chemistry*. 19, pp.5161-5166. ISSN 0959-9428. <https://doi.org/10.1039/B900832B>
- 26 **Scientific paper.** Martínez-Perdiguero, J.; Alonso, I.; Ortega, J.; Folcia, C.L.; Etxebarria, J.; Pintre, I.; Ros, M.B.; Amabilino, D.B.2008. Bent-core liquid-crystalline derivative of tetrathiafulvalene: Photoresponsivity and deracemization. *Physical Review E*. 77, pp.020701-1-020701-4. ISSN 1539-3755. <https://doi.org/https://dx.doi.org/10.1103/PhysRevE.77.020701>
- 27 **Scientific paper.** Sicilia, A.; Arenzon, J.J.; Dierking, I.; Bray, A.J.; Cugliandolo, L.F.; Martínez-Perdiguero, J.; Alonso, I.; Pintre, I.C.2008. Experimental test of curvature-driven dynamics in the phase ordering of a two dimensional liquid crystal. *Physical Review Letters*. 101, pp.197801-1-197801-4. ISSN 0031-9007. <https://doi.org/10.1103/PhysRevLett.101.197801>
- 28 **Scientific paper.** Alonso, I.; Martínez-Perdiguero, J.; Folcia, C.L.; Etxebarria, J.; Ortega, J.; Pintre, I.C.; Ros, M.B.2008. Polar structures of bent-core liquid crystals with tetrathiafulvalene units. *Physical Review E*. 75, pp.041701-1-041701-7. ISSN 1539-3755. <https://doi.org/10.1103/PhysRevE.78.041701>
- 29 **Scientific paper.** Pintre, I.C.; Serrano, J.L.; Ros, M.B.; et al; Gomar-Nadal, E.2008. TTF-based bent-core liquid crystals. *Chemical Communications*. 22, pp.2523-2525. ISSN 1359-7345. <https://doi.org/10.1039/B801196F>
- 30 **Scientific paper.** Alonso, I.; Martínez-Perdiguero, J.; Ortega, J.; Folcia, C.L.; Etxebarria, J.2007. Characteristics of a liquid crystal display using optically isotropic phases of bent-core mesogens. *Liquid Crystals*. 34, pp.655-658. ISSN 0267-8292. <https://doi.org/http://dx.doi.org/10.1080/02678290701251377>
- 31 **Scientific paper.** Martínez-Perdiguero, J.; Alonso, I.; Folcia, C.L.; Etxebarria, J.; Ortega, J.2006. Some aspects about the structure of the optically isotropic phase in a bent-core liquid crystal: Chiral, polar, or steric origin. *Physical Review E*. 74, pp.031701-1-031701-6. ISSN 1539-3755. <https://doi.org/https://dx.doi.org/10.1103/PhysRevE.74.031701>