Dr. Beatriz Martín García

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Languages: Spanish (mother tongue); English (Fluent); Italian (Fluent); Portuguese (B2); French (B2)

Current position

Independent Research fellow (Ikerbasque Research Fellow – project HYMNOS) from 1st October 2022 as well as Ramón y Cajal Fellow from 1st January 2023 at the Nanodevices Group (CIC nanoGUNE BRTA). (https://www.nanogune.eu/es/personas/p-717-beatriz-martin / https://www.ikerbasque.net/es/beatriz-martin-garcia)

Indicators of Quality in Scientific Production

- **h-index: 28** with >2300 cites (source WoS) and **80 peer-reviewed papers** (67 in Q1 and 45 in D1 – source JCR): **15 as first author**, 9 as second author and **8 as corresponding author**.
- Co-**PI National Project** PID2021-128004NB-C21: HiMat. MICINN. 2022/2025.
- Co-**PI National Project** PID2019-108153GA-I00: Molding2D. MICINN. 2020/2022.
- Co-**supervisor of three PhD students**. CIC nanoGUNE
- **11 oral contributions** in international conferences: MRS, E-MRS, ANNIC or IUPAC, and **4 invited talks**.
- Awarded with **10 competitive fellowships/grants** as undergraduate and PhD student (7) and as independent researcher (3).
- **Post-doctoral** researcher (2014-2020) in the **Graphene Flagship**.
- **Reviewer** for **22** different **international journals** such as *J. Am. Chem. Soc., Adv. Funct. Mater., ACS Nano, Nano Letters, Adv. Opt. Mater., Small Structures, Nat. Comm., Nanoscale, J. Mater. Chem. C, ACS Appl. Mater. Interf., ACS Appl. Energy Mater., or ACS Appl. Nano Mater.* In **2022**, I have made **20 recognized reviews** (WoS source).
- **PhD thesis and grant proposals national and international evaluation committee participation**

Research Experience

- **01/01/2023 – today: Ramón y Cajal Research fellow** at the Nanodevices Group (CIC nanoGUNE) (Donostia-San Sebastián, Spain).
- **01/10/2022 – today: Ikerbasque Research fellow** (project *HYMNOS*) at the Nanodevices Group (CIC nanoGUNE) (Donostia-San Sebastián, Spain).
- **01/02/2020 – 30/09/2022: Research fellow** (Gipuzkoa Fellow – project *Modelfoto2D*) at the Nanodevices Group (CIC nanoGUNE) (Donostia-San Sebastián, Spain).
- **01/04/2018-31/01/2020: Postdoc researcher** on **Graphene Flagship** Spearhead Project 3 (Solar Farm) (Core 2) at the Istituto Italiano di Tecnologia (IIT) (Genova, Italy). Supervisor: Dr. Francesco Bonaccorso

- **01/04/2016-31/03/2018: Postdoc researcher** on **Graphene Flagship** WP11 Project (Energy generation) (Core 1) at the Istituto Italiano di Tecnologia (IIT) (Genova, Italy). Supervisor: Prof. Dr. Iwan Moreels and Dr. Francesco Bonaccorso
- **01/03/2014-31/03/2016: Postdoc researcher** on **Graphene Flagship** WP9 Project (Energy generation) at the Istituto Italiano di Tecnologia (IIT) (Genova, Italy). Supervisor: Prof. Dr. Iwan Moreels
- **01/02/2013-22/08/2013: Researcher** on an **INNPACTO 2012 Project** at University of Salamanca (Spain). Supervisor: Prof. Dr. M. Mercedes Velázquez.
- **16/09/2008-15/09/2012**: **PhD grant** from European Social Fund and Junta de Castilla y León (Contract 4 years) at the Chemistry-Physics Department (University of Salamanca, Spain). Supervisor: Prof. Dr. M. Mercedes Velázquez.
- **01/09/2008** – **31/05/2013**: **PhD student** at the Chemistry-Physics Department (University of Salamanca, Spain). Supervisor: Prof. Dr. M. Mercedes Velázquez.
- **2006-2007: Collaboration Research fellowship** from **Ministerio de Educación y Ciencia**. at the Chemistry-Physics Department (University of Salamanca, Spain). Supervisor: Prof. Dr. M. Mercedes Velázquez.
- **11/09/2006-22/09/2006: Undergraduate fellowship** in the **I Initial program to Physics-Chemistry and Biological Physics-Chemistry Research**. **Instituto de Química-Física Rocasolano (CSIC)**. Madrid. Course in *"Study of Clusters by time-of-flight mass spectrometry and laser techniques"* Laser Chemistry Department (51 hours). Supervisor: Dr. Rebeca de Nalda.

Education

- **17/10/2012-03/10/2013: Master *"Innovation Management"*.** Instituto Tecnológico de Aragón and University of Zaragoza (Spain). End of Master Project: *"State-of-the-art: Nanomaterials in Food Packaging"*. Mark: Excellent. Supervisor: Dr. Cristina Crespo.
- **01/09/2008-31/05/2013: PhD Thesis** *"Self-assembled systems of Nanomaterials on Langmuir-Blodgett films"* **with European Mention.** Mark: Excellent *cum laude*. Chemistry-Physics Department (University of Salamanca, Spain). Supervisor: Prof. M. M. Velázquez. (https://www.educacion.gob.es/teseo/mostrarRef.do?ref=1037235)
- **14/02/2010-19/02/2010:** Selected to participate in the **XI Molecular Materials National Training** organized by the University of Valladolid (Spain). Peñafiel (Valladolid, Spain).
- **01/06/2009-26/06/2009: Interuniversitary Master *"Science and Technology of Colloids and Interfaces"*** with Quality Mention of Ministerio de Educación y Ciencia of Spain. June 2009. Physics Department. University of Santiago de Compostela (Spain). Mark: 10.
- **11/09/2008: Minor Thesis**: *"Properties of PS-MA-BEE block copolymer insoluble monolayers"*. Supervisor: Prof. Dr. M. Mercedes Velázquez. Marks: Excellent *Cum Laude* with honours degree in Chemical Engineering at the University of Salamanca (Spain).
- **03/10/2002-28/02/2008: Chemical Engineer Degree**, School of Chemistry Sciences. University of Salamanca (Spain). End of Career Project: *"Design of a Laundry Detergent Production Plant"*. Mark: Excellent. February 2008. Supervisor: Prof. Dr. Eva María Martín del Valle.

Main publications:

1. Ray, A.; **Martín-García, B.**; Prato, M.; Moliterni, A.; Bordignon, S.; Spirito, D.; Marras, S.; Goldoni, L.; Boopathi, K.M.; Moro, F.; Maria Casati, N.P.; Giacobbe, C.; Saidaminov, M.I.; Giannini, C.; Chierotti, M.R.; Krahne, R.; Manna, L.*; Abdelhady, A.L.* Mixed Organic Cations Promote Ambient Light-Induced Formation of Metallic Lead in Lead Halide Perovskite Crystals. *ACS Appl. Mater. Interfaces* **2023**, 15, 23, 28166-28174. (The work was focused on the understanding of the role of the precursors on the formation of metallic lead in perovskites, including a spectroscopy study of the structural phase transitions by Raman and the optoelectronic properties.) (Impact factor: 9.5)

2. Asensio, Y.; Marras, S.; Spirito, D.; Gobbi, M.; Ipatov, M.; Casanova, F.; Mateo-Alonso, A.; Hueso, L.E.*; **Martín-García, B.*.** Magnetic Properties of Layered Hybrid Organic-Inorganic Metal-Halide Perovskites: Transition Metal, Organic Cation and Perovskite Phase Effects. *Adv. Funct. Mater.* **2022**, 2207988. (The work investigates the modulation of the magnetic properties of perovskites by chemical design relating composition, crystal structure and magnetic ordering.) (Impact factor: 19)

3. **Martín-García, B.***; Spirito, D.*; Lin, M.-L.; Leng, Y.-C.; Artyukhin, S.; Tan, P.-H.; Krahne, R.* Low-Frequency Phonon Modes in Layered Silver-Bismuth Double Perovskites: Symmetry, Polarity, and Relation to Phase Transitions. *Adv. Opt. Mater.* **2022**, 10, 2200240. (The work investigates the structural dynamics of flakes of exfoliated layered Ag-Bi bromide double perovskites by angle-dependent polarized Raman spectroscopy and density functional theory modeling correlating vibrational modes and crystal structure.) (Impact factor: 9)

4. Pescetelli, S.; Agresti, A.; Viskadouros, G.; Razza, S.; Rogdakis, K.; Kalogerakis, I.; Spiliarotis, E.; Leonardi, E.; Mariani, P.; Sorbello, L.; Pierro, M.; Cornaro, C.; Bellani, S.; Najafi, L.; **Martín-García, B.**; Del Rio Castillo, A.E.; Oropesa-Nuñez, R.; Prato, M.; Maranghi, S.; Parisi, M.L.; Sinicropi, A.; Basosi, R.; Bonaccorso, F.; Kymakis, E.; Di Carlo, A. Integration of two-dimensional materials-based perovskite solar panels into a stand-alone solar farm. *Nat. Energy* **2022**, 7, 597–607. (The work was focused on the materials' design and fabrication for outdoor field tests of large-scale perovskite modules and panels.) (Impact factor: 56.7)

5. Spirito, D.*; Asensio, Y.; Hueso, L.E.; **Martín-García, B.***. Raman spectroscopy in layered hybrid organic-inorganic metal halide perovskites. *JPhys Materials* **2022**, 5 034004. (Review on the use of Raman spectroscopy for the study of hybrid organic-inorganic metal halide perovskites.) (Impact factor: 4.8)

6. Spirito, D.; Barra-Burillo, M.; Calavalle, F.; Manganelli, C.L.; Gobbi, M.; Hillenbrand, R.; Casanova, F.; Hueso, L.E.; **Martín-García, B.*** Tailoring Photoluminescence by Strain-Engineering in Layered Perovskite Flakes. *Nano Lett.* **2022**, 22, 10, 4153–4160. (Front cover) (The work was focused on the modulation of the photoluminescence emission of perovskite flakes using thermo-mechanically strain induced by the creation of domes on SiO_2 rings.) (Impact factor: 10.8)

7. Calavalle, F.; Suárez-Rodríguez, M.; **Martín-García, B.**; Johansson, A.; Vaz, D.C.; Yang, H.; Maznichenko, I.V.; Ostanin, S.; Mateo-Alonso, A.; Chuvilin, A.; Mertig, I.; Gobbi, M.; Casanova, F.; Hueso, L.E. Gate-tuneable and chirality-dependent charge-to-spin conversion in Tellurium nanowires. *Nat. Mater.* **2022**, 21, 526-532. (The work was focused on the use of colloidally synthesized chiral Te nanowires for exploring the relation between symmetry, relativistic effects, and electronic transport.) (Impact factor: 41.2)

8. Tezze, D.; Pereira, J.M; Asensio, Y.; Ipatov, M.; Calavalle, F.; Casanova, F.; Bittner, A.M.; Ormaza, M.*; **Martín-García, B.***; Hueso, L.E.; Gobbi, M.* Tuning the magnetic properties of $NiPS_3$ through organic-ion intercalation. *Nanoscale* **2022**, *14*, 1165-1173. (The work was focused on the modulation of the magnetic properties of 2D magnets by organic cation intercalation using electrochemical and cation exchange approaches.) (Impact factor: 6.7)

9. Ray, A.; **Martín-García, B.**; Moliterni, A; Casati, N.; Boopathi, K.M.; Spirito, D.; Goldoni, L.; Prato, M.; Giacobbe, C.; Giannini, C.; Di Stasio, F.; Krahne, R.; Manna, L.; Abdelhady, A.L. Mixed Dimethylammonium/Methylammonium Lead Halide Perovskite Single Crystals for Improved Structural Stability and Enhanced Photodetection. *Adv. Mater.* **2022**, 2106160. (The work was focused on the understanding of how the organic cation dynamics governs the structural phase transitions and how this translates to the temperature-dependent photodetector performance.) (Impact factor: 29.4)

10. Saleh, G.; Biffi, G.; Di Stasio, F.; **Martín-García, B.**; Abdelhady, A.L.; Manna, L.; Krahne, R.; Artyukhin, S. Methylammonium Governs Structural and Optical Properties of Hybrid Lead Halide Perovskites through Dynamic Hydrogen Bonding. *Chem. Mater.* **2021**, *33*, 8524–8533. (The work was focused on the understanding of the interplay between thermal energy and the energetics of molecular orientations to explain the structural phase transitions of the material, supported by experimental photoluminescence spectroscopy experiments.) (Impact factor: 10.508)

11. **Martín-García, B.*†**; Spirito, D.*†; Biffi, G.; Artyukhin, S.; Bonaccorso, F.; Krahne, R. Phase Transitions in Low-Dimensional Layered Double Perovskites: The Role of the Organic Moieties. *J. Phys. Chem. Lett.* **2021**, 12, 280-286. (†co-first authors and corresponding) (The work was focused on the modulation of the phase transition temperature in bulk layered Pb-free double perovskites by changing the organic cation.) (Impact factor: 6.888)

12. Spirito, D.; **Martín-García, B.**; Mišeikis, V.; Coletti, C.; Bonaccorso, F.; Krahne, R. Modeling Photodetection at the Graphene/Ag_2S Interface. *Physica status solidi (RRL)–Rapid Research Letters*, **2021**, 15, 6, 2100120. (The work was focused on the investigation of the transport at the interface in different configurations by using a phototransistor configuration with graphene as a charge-transport layer and semiconductor nanocrystals as a light-sensitive layer.) (Impact factor: 3.277)

13. Ray, A.†; **Martín-García, B.**†; Martinelli, A.†; Spirito, D.; Locardi, F.; Altamura, D.; Giannini, C.; Prato, M.; Manna, L.; Abdelhady, A.L. Impact of Local Structure on Halogen Ion Migration in Layered Methylammonium Copper Halide Memory Devices. *J. Mater. Chem. A* **2020**, 8, 17516-17526. (†co-first authors) (The work was focused on the understanding of the ion/vacancy migration paths from the crystal structure determination and memory application of copper halide perovskites.) (Impact factor: 12.732))

14. Toso, S.†; Akkerman, Q.A†; **Martín-García, B.**†; Prato, M.; Zito, J.; Infante, I.; Dang, Z.; Moliterni, A.; Giannini, C.; Bladt, E.; Lobato Hoyos, I.P.; Ramade, J.; Bals, S.; Buha, J.; Spirito, D.; Mugnaioli, E.; Gemmi, M.; Manna, L. Nanocrystals of Lead Chalcohalides: A Series of Kinetically Trapped Metastable Nanostructures. *J. Am. Chem. Soc.* **2020**, *142*, 22, 10198–10211. (†co-first authors)(The work was focused on the colloidal synthesis, crystal structure determination and optoelectronic application of lead chalcohalides, up to now only accessible at high pressure and temperatures.) (Impact factor: 15.419)

15. Rosina, I.; **Martín-García, B.**; Spirito, D.; Dang, Z.; Gariano, G.; Marras, S.; Prato, M.; Krahne, R.; De Trizio, L.; Manna, L. Metastable CdTe@HgTe core@shell Nanostructures Obtained by Partial Cation Exchange Evolve into Sintered CdTe films Upon Annealing. *Chem. Mater.* **2020**, 32, 7, 2978-2985. (The work was focused on the development of one-step cation and ligand exchange strategy for the sintering of CdTe NCs towards photoresponse films. I was in charge of the VIS-NIR photoluminescence spectroscopy and Raman characterization and also involved in the design of the film fabrication for the optoelectronic devices). (Impact factor: 9.811)

16. Boopathi, K.M.; **Martín-García, B.**; Ray, A.; Pina, J.M.; Marras, S.; Saidaminov, M.I.; Bonaccorso, F.; Di Stasio, F.; Sargent, E.H.; Manna, L.; Abdelhady, A.L. Permanent Lattice Compression of Lead-Halide Perovskite for Persistently Enhanced Optoelectronic Properties. *ACS Energy Lett.* **2020**, 5, 642-649. (The work was focused on the study of the unexpected enhanced optoelectronic properties of a single crystal of $MAPbBr_3$ at its edges resulting from a new synthesis-growth protocol. I was in charge of the micro-PL and Raman characterization and also involved in the macro-PL steady state and lifetime characterization). (Impact factor: 23.101)

17. **Martín-García, B.***; Spirito, D.; Bellani, S.; Prato, M.; Romano, V.; Polovitsyn, A.; Brescia, R.; Oropesa-Nuñez, R.; Najafi, L.; Ansaldo, A.; D'Angelo, G.; Pellegrini, V.; Krahne, R.; Moreels, I.*;

Bonaccorso, F.* Extending the Colloidal Transition Metal Dichalcogenide Library to ReS_2 Nanosheets for Application in Gas Sensing and Electrocatalysis. *Small* **2019**, 1904670. (co-corresponding author) (The work was focused on the colloidal synthesis of rhenium-based chalcogenides and their potential use as gas sensor after proper surface functionalization and electrocatalysts in HER). (Impact factor: 11.459)

18. Akkerman, Q.A.†; **Martín García, B.†**; Buha, J.; Almeida, G.; Toso, S.; Marras, S.; Bonaccorso, F.; Petralanda, U.; Infante, I.; Manna, L. Ultrathin Orthorhombic PbS nanosheets. *Chem. Mater.*, **2019**, *31*, 8145-8153. (†co-first authors) (The work was focused on the synthesis design towards 1.2 nm thick PbS nanosheets and their potential use in photodetectors.) (Impact factor: 9.567)

19. Agresti, A.; Pescetelli, S; Palma, A.L.; **Martín-García, B.**; Najafi, L.; Bellani, S.; Moreels, I., Prato, M.; Bonaccorso, F.; Di Carlo, A. Two-Dimensional Material Interface Engineering for Efficient Perovskite Large-Area Modules. *ACS Energy Lett.*, **2019**, *4*, 1862-1871. (The work is the result of collaborative IIT and Tor Vergata University project, focused on the integration of 2D materials in perovskite solar modules to improve their efficiency and stability. I was in charge of developing and design the functionalization of MoS_2, its dispersion in process-material compatible solvents and film formation to ensure a good energy band alignment with the perovskite layer. Moreover, I carried out the characterization of f-MoS_2 by TEM, absorbance and SEM for the film preparation tests.) (Impact factor: 19.003)

20. Bellani, S; **Martín-García, B.**; Oropesa-Nuñez, R.; Romano, V.; Najafi, L.; Demirci, C.; Prato, M.; Del Rio Castillo, A.E.; Marasco, L.; Mantero, E.; D'Angelo, G.; Bonaccorso, F. "Ion sliding" on graphene: a novel concept to boost supercapacitor performance. *Nanoscale Horizons.* **2019**, 4, 1077-1091. (Collaborative work at Graphene Labs (IIT) in which I was involved in the preparation and SEM characterization of the electrodes. I also carried out graphene flakes characterization by TEM and Raman spectroscopy) (Impact factor: 9.927)

21. Romano, V.†; **Martín-García, B.†**; Bellani, S.; Marasco, L.; Panda, J.K.; Oropesa-Nuñez, R.; Najafi, L.; Del Rio Castillo, A.E.; Prato, M.; Mantero, E.; Pellegrini, V.; D'Angelo, G.; Bonaccorso, F. Flexible Graphene/Carbon Nanotube Electrochemical Double-Layer Capacitors with Ultrahigh Areal Performance. *ChemPlusChem*, **2019**, 84, 882-892. (†co-first authors) (The work was focused on the preparation and characterization of graphene-carbon nanotube flexible supercaps by large scalable materials and electrodes production methods.) (Impact factor: 2.753)

22. Venettacci, C.; **Martín-García, B.**; Prato, M.; Moreels, I.; De Iacovo, A. Increasing responsivity and air stability of PbS colloidal quantum dot photoconductors with iodine surface ligands. *Nanotechnology*, **2019**, *40*, 405204. (The work is the result of a collaborative Universita Roma Tre, University of Ghent and IIT project, focused on the development of air-stable NIR photoconductor. I was in charge of the PbS QDs synthesis and the corresponding TEM and spectroscopic characterization. Moreover, I was involved in the design of the solid ligand exchange protocols together with the FTIR measurements for the monitoring of the organic ligands removal. I also carried out the additional SEM characterization of the devices.) (Impact factor: 3.551)

23. **Martín-García, B.***; Spirito, D.; Krahne, R; Moreels, I. Solution-processed silver sulphide nanocrystal film for resistive switching memories. *J. Mater. Chem. C*, **2018**, *6 (48)*, 13128-1313. (*corresponding author) (In this work, we developed the integration of solution-based approaches in ReRAMs by using colloidal $Ag_{2-x}S$ nanocrystals as resistive switching medium and optimizing the device design to enhance the performance.) (Impact factor: 6.641)

24. **Martín-García, B.**; Bi, Y.; Prato, M.; Spirito, D.; Krahne, R.; Konstantatos, G.; Moreels, I. Reduction of moisture sensitivity of PbS quantum dot solar cells by incorporation of reduced graphene oxide. *Solar Energy Materials and Solar Cells*, **2018**, *183*, 1-7. (The work is the result of

collaborative IIT-ICFO project, including a research stay, focused on the integration of PbS QD-rGO hybrid materials in PbS-based solar cells to enhance their ambient stability keeping a good power conversion efficiency) (Impact factor: 6.019)

25. Najafi, L.; Taheri, B; **Martín-García, B.**; Bellani, S.; Di Girolamo, D.; Agresti, A.; Oropesa-Nuñez, R.; Pescetelli, S.; Vesce, L.; Calabrò, E.; Prato, M.; Del Rio Castillo, A.E.; Di Carlo, A.; Bonaccorso, F. MoS_2 Quantum Dot/Graphene Hybrids for Advanced Interface Engineering of a $CH_3NH_3PbI_3$ Perovskite Solar Cell with an Efficiency of over 20%. *ACS Nano,* **2018**, *12 (11),* 10736-10754 (Collaborative project between IIT and Tor Vergata University (Prof. Dr. Aldo Di Carlo). I was in charge of developing the functionalization of rGO to create MoS_2-rGO hybrid inks in perovskite compatible solvents. I carried out the SEM/EDS/FIB characterization of the solar cells.) (Impact factor: 13.903)

26. Meir, N.; **Martín-García, B.**; Moreels, I.; Oron, D. Revisiting the Anion framework conservation in cation exchange processes. *Chem. Mater.*, **2016**, *28*, 7872-7877. (Collaborative project with Weizmann Institute of Science (Prof. D. Oron). My contribution was the development of the cation exchange protocols to maintain the photoluminescence properties and the morphology of the original materials after cation exchange. I carried out UV-vis characterization of the samples in solution (steady-state, lifetime and QY)) (Impact factor: 9.466)

27. **Martín-García, B.**; Polovitsyn, A.; Prato, M.; Moreels, I. Efficient charge transfer in solution-processed PbS quantum dot–reduced graphene oxide hybrid materials. *J. Mater. Chem. C.* **2015,** *3(27),* 7088-7095. (This work describes the development of solution approaches for QD-rGO hybrid materials for optoelectronic applications). (Impact factor: 5.066)

28. **Martín-García, B.**; Velázquez, M.M. Nanoparticle Self-assembly assisted by Polymers: The Role of Shear Stress in the Nanoparticle Arrangement of Langmuir and Langmuir-Blodgett Films. *Langmuir* **2014**, 30 *(2),* 509-516. (Study of the influence of successive compression-expansion cycles and the addition of polymers on the QD film dynamics, and morphology at the air-water interface and onto solids). (Impact factor: 4.457)

29. Alejo, T.; **Martín-García, B.**; Merchán, M.D.; Velázquez, M.M. QDs supported on Langmuir-Blodgett films of Polymers and Gemini Surfactant. J. Nanomaterials. **2013** (doi: jnm/aip/287094/) (Study of the effect of the substrate coating with surfactants and polymers on the QDs assembly by means of surface properties such as wetting ability and film morphology). (Impact factor: 1.611)

30. **Martín-García, B.**; Paulo, P.M.R.; Costa, S.M.B.; Velázquez, M.M. Photoluminescence Dynamics of CdSe QD/polymer Langmuir-Blodgett Thin Films: Morphology Effects. *J. Phys. Chem. C.* **2013**, 117 *(28),* 14787-14795. (The works explores the relation between QDs photoluminescence dynamics and film morphology through the density of energy traps using Fluorescence Lifetime Imaging Microscopy PicoQuant® set-up). (Impact factor: 4.835)

31. **Martín-García, B.**; Velázquez, M.M. Block copolymer assisted self-assembly of nanoparticles into Langmuir-Blodgett films: Effect of polymer concentration. *Mater. Chem. Phys.* **2013**, 141 *(1),* 324-332. (Study of the effect of the monolayers surface properties on the dewetting mechanism, and therefore on the films morphology). (Impact factor: 2.129)

32. **Martín-García, B.**; Velázquez, M.M.; Rossella, F.; Bellani, V.; Diez, E.; Fierro, J.L.G.; Pérez-Hernández, J.A.; Hernández-Toro, J.; Claramunt, S.; Cirera, A. Functionalization of reduced graphite oxide sheets with a zwitterionic surfactant. *ChemPhysChem* **2012**, 13 *(16),* 3682-3690. (Focused on the synthesis and deposition of chemically-derived graphene and its non-covalent functionalization). (Impact factor: 3.349)

33. **Martín-García, B.**; Velázquez, M.M.; Pérez-Hernández, J.A.; Hernández-Toro, J. Langmuir and Langmuir-Blodgett films of a maleic anhydride derivative: Effect of subphase divalent cations. *Langmuir* **2010**, *26 (18)*, 14556-14562. (This work highlights the relevance of interfacial interactions between insoluble monolayers and multivalent ions in the fundamental knowledge and thin film technology). (Impact factor: 4.268)

Other publications from collaborations:

34. Prudnikau, A.; Roshan, H.; Paulus, F.; **Martín-García, B.**; Hübner, R.; Bahmani Jalali, H.; De Franco, M.; Prato, M.; di Stasio, F.*; Lesnyak, V.* Efficient Near-Infrared Light-Emitting Diodes Based on CdHgSe Nanoplatelets. *Adv. Funct. Mater.* **2023** (just accepted manuscript - adfm.202310067R1). (Impact factor: 19 (year 2022))

35. Yang, H.; Ormaza, M.; Chi, Z.; Dolan, E.; Ingla-Aynés, J.; Safeer, C.K.; Herling, F.; Ontoso, N.; Gobbi, M.; **Martín-García, B.**; Schiller, F.; Hueso, L.E.; Casanova, F. Gate-Tunable Spin Hall Effect in an All-Light-Element Heterostructure: Graphene with Copper Oxide. *Nano Lett.* **2023**, 23, 10, 4406-4414. (Collaborative work inside CIC nanoGUNE in which I was involved in the Raman spectroscopy characterization of the materials.) (Impact factor: 12.262 (year 2021))

36. Chen, S.; Leng, P. L.; Konečná, A.; Modin, E.; Gutierrez-Amigo, M.; Vicentini, E.; **Martín-García, B.**; Barra-Burillo, M.; Niehues, I.; Maciel Escudero, C.; Xie, X. Y.; Hueso, L. E.; Artacho, E.; Aizpurua, J.; Errea, I.; Vergniory, M. G.; Chuvilin, A.; Xiu, F. X.; Hillenbrand, R. Real-Space Observation of Ultraconfined in-Plane Anisotropic Acoustic Terahertz Plasmon Polaritons. *Nat. Mater.* **2023**, doi: 10.1038/s41563-023-01547-8. (Collaborative work inside CIC nanoGUNE in which I participated in the crystal structure characterization of the Ag_2Te platelets and discussions.) (Impact factor: 47.656 (year 2021))

37. Molina-García, M.A.; Bellani, S.; Del Rio Castillo, A.E.; Conticello, I.; Gabatel, L.; Zappia, M.I.; Eredia, M.; Thorat, S.B.; **Martín-García, B.**; Ceseracciu, L.; Piccinni, M.; Bonaccorso, F. Wet-jet milling exfoliated hexagonal boron nitride as industrial anticorrosive pigment for polymeric coatings. *JPhys: Materials*, **2023**, doi: 10.1088/2515-7639/acd0d8. (Collaborative work with BeDimensional Spa in which I carried out the FTIR spectroscopy characterization of the materials.) (Impact factor: 12.262 (year 2021))

38. Sekhar M., C.; Pippia, G.; Tanghe, I.; **Martín-García, B.**; Rousaki, A.; Vandenabeele, P.; Schiettecatte, P.; Moreels, I.; Geiregat, P.* Charge Carrier Dynamics in Colloidally Synthesized Monolayer MoX_2 Nanosheets. *J. Phys. Chem. Lett.* **2023**, 14, 10, 2620–2626. (Collaborative work with Ghent University in which I carried out the Raman spectroscopy characterization of the materials.) (Impact factor: 6.888 (year 2021)) Q1

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54. Caligiuri, V; Tedeschi, G.; Palei, M.; Miscuglio, M.; **Martín-García, B.**; Guzman-Puyol, S.; Keshavarz Hedayati, M.; Kristensen, A.; Athanassiou, A.; Cingolani, R.; Sorger, V.J.; Salerno, M.; Bonaccorso, F.; Krahne, R.; Heredia-Guerrero, J.A. Biodegradable and Insoluble Cellulose Photonic Crystals and Metasurfaces. *ACS Nano* **2020**, *14*, 8, 9502-9511. (Collaborative work in which I was in charge of the Raman spectroscopy measurements/experiments and the corresponding samples preparation) (Impact factor: 15.881)

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which I was in charge of the PL spectroscopy experiments and the SEM/EDS characterization of the membranes.) (Impact factor: not available (year 2020))

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61. Najafi, L.; Bellani, S.; Castelli, A.; Arciniegas, M.P.; Brescia, R.; Oropesa-Nuñez, R.; **Martín-García, B.**; Serri, M.; Drago, F.; Manna, L.; Bonaccorso, F. Octapod-shaped CdSe nanocrystals hosting Pt with high-mass activity for the hydrogen evolution reaction. *Chem. Mater.* **2020**, 32, 6, 2420-2429. (Collaborative work at Graphene Labs (IIT) in which I was involved in the SEM-EDS characterization of the electrodes and FTIR characterization of the nanocrystals) (Impact factor: 9.811)

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64. Caligiuri, V.; Biffi, G.; Palei, M.; **Martín-García, B.**; Pothuraju, R.D.; Bretonnière, Y.; Krahne, R. Angle and Polarization Selective Spontaneous Emission in Dye-Doped Metal/Insulator/Metal Nanocavities. *Adv. Opt. Mater.* **2020**, 1901215. (Collaborative work IIT-University of Lyon in which I was involved in the optimization of the dye-films preparation) (Impact factor: 8.286)

65. Castelli, A.; Dhanabalan, B.; Polovitsyn, A.; Caligiuri, V.; Di Stasio, F.; Scarpellini, A.; Brescia, R.; Palei, M.; **Martín-García, B.**; Prato, M.; Manna, L.; Moreels, I.; Krahne, R.; Arciniegas, M.P. Core/Shell CdSe/CdS Bone-Shaped Nanocrystals with a Thick and Anisotropic Shell as Optical Emitters. *Adv. Opt. Mater.* **2020**, 1901463. (Collaborative work IIT-University of Ghent in which I was involved in the photoluminescence spectroscopic characterization of the materials) (Impact factor: 8.286)

66. Najafi, L.; Bellani, S; Oropesa-Nuñez, R.; Prato, M.; **Martín-García, B.**; Brescia, R. Bonaccorso, F. Single-/Few-Layer Graphene as Long-Lasting Electrocatalyst for Hydrogen Evolution Reaction. *ACS Appl. Energy Mater.* **2019**, 28, 5373-5379. (Collaborative work at Graphene Labs (IIT) in which I was involved in the SEM/EDX characterization of the electrodes) (Impact factor: 4.473)

67. Galle, T; Khoshkhoo, M.S.; **Martín-García, B.**; Meerbach, C.; Sayevich, V.; Koitzsch, A.; Lesnyak, V.; Eychmuller, A. Colloidal PbSe Nanoplatelets of Varied Thickness with Tunable Optical Properties. *Chem. Mater.*, **2019**, *31 (10)*, 3803-3811. (Collaborative project with TU Dresden (Dr. Vladimir Lesnyak). I was in charge of the preparation of a high QY reference PbS QDs sample together with complementary NIR photoluminescence spectroscopy characterization)) (Impact factor: 9.567)

68. Miscuglio, M.; Borys, N. J.; Spirito, D.; **Martín-García, B.**; Proietti Zaccaria, R.; Weber-Bargioni, A.; Schuck, P.J.; Krahne, R. Planar Aperiodic Arrays as Metasurfaces for Optical Near-Field Patterning. *ACS Nano,* **2019**, 13, 5646-5654. (Collaborative work IIT- Lawrence Berkeley National Laboratory in which I was in charge of the synthesis of the targeted 2 nm diameter PbS QDs and their TEM and absorbance-PL spectroscopic characterization in solution and in films. Moreover, I designed the spin-coating parameters of the PbS QDs film preparation on top of the nanostructures) (Impact factor: 14.588)

69. Najafi, L.; Bellani, S; Oropesa-Nuñez, R.; Prato, M.; **Martín-García, B.**; Brescia, R. Bonaccorso, F. Carbon Nanotube supported $MoSe_2$ holey flake:Mo_2C ball hybrids for bifunctional pH-universal water splitting. *ACS Nano* **2019**, 13, 3162-3176. (Collaborative work at Graphene Labs (IIT) in which I was involved in the SEM/EDX characterization of the electrodes) (Impact factor: 14.588)

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71. Bellani, S.; Petroni, E.; Del Rio Castillo, A.E.; Curreli, N.; **Martín-García, B.**; Oropesa-Nuñez, R.; Prato, M.; Bonaccorso, F. Scalable production of graphene inks via wet-jet milling exfoliation for screen-printed micro-supercapacitors. *Adv. Funct. Mater.* **2019,** 29, 1807659. (Collaborative work at Graphene Labs (IIT) in which I was involved in the SEM characterization of the supercaps together with the design and tests of the device polymer encapsulation and washing) (Impact factor: 16.836)

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73. Christodoulou, S.; Climente, J.I.; Planelles, J.; Brescia, R.; Prato, M.; **Martín-García, B.**; Khan, A.H.; Moreels, I. Chloride-Induced thickness control in CdSe nanoplatelets. *Nano Lett.*, **2018**, *18 (10)*, 6248-6254 (Collaborative project inside the NanoCrystal Photonics Lab (IIT) and later with the University of Ghent (Prof. Dr. Iwan Moreels). I performed the UV-vis photoluminescence spectroscopy of the samples and prepared reference CdSe QD samples for EDS-HRTEM and XPS control measurements) (Impact factor: 12.279 (year 2018))

74. Lox, J.F.L.; Dang, Z.; Dzhagan, V.M.; Spittel, D.; **Martín-García, B.**; Moreels, I.; Zahn, D.R.T.; Lesnyak, V. Near-Infrared Cu–In–Se-Based Colloidal Nanocrystals via Cation Exchange. *Chem. Mater.*, **2018**, *30 (8)*, 2607-2617. (Collaborative project with TU Dresden (Dr. Vladimir Lesnyak). I was in charge of the preparation of a high QY reference PbS QDs sample together with complementary NIR photoluminescence spectroscopy characterization). (Impact factor: 10.159 (year 2018))

75. Bellani, S; Najafi, L.; **Martín-García, B.**; Ansaldo, A.; Del Rio Castillo, A.E.; Prato, M.; Moreels, I.; Bonaccorso, F. Graphene-Based Hole-Selective Layers for High-Efficiency, Solution-Processed, Large-Area, Flexible, Hydrogen-Evolving Organic Photocathodes. *J. Phys. Chem. C*, **2017**, *121* (40), 21887–21903 (Collaborative project with Graphene Labs (IIT) (Dr. Francesco Bonaccorso). My contribution was the development of functionalization strategies for GO and rGO to enhance not only the photocathode performance, but also endurance and adhesion) (Impact factor: 4.484)

76. Najafi, L.; Bellani, S.; **Martín-García, B.**; Oropesa-Nunez, R.; Del Rio Castillo, A.E.; Prato, M.; Moreels, I; Bonaccorso, F. Solution-processed hybrid graphene flake/2H-MoS_2 quantum dot heterostructures for efficient electrochemical hydrogen evolution. *Chem. Mater.*, **2017**, *29* (14), 5782–5786. (Collaborative project with Graphene Labs (IIT). I contributed with UV-vis photoluminescence characterization of the MoS_2 QDs to prove the quantum confinement effect from flakes to QDs) (Impact factor: 9.890)

77. Polovitsyn, A.; Dang, Z.; Movilla, J.L.; **Martín-García, B.**; Khan, A.H.; Bertrand, G.H.V.; Brescia, R.; Moreels, I. Synthesis of air-stable CdSe/ZnS core-shell nanoplatelets with tunable emission wavelength. *Chem. Mater.*, **2017**, *29*, 5671-5680. (Collaborative project inside the NanoCrystal Photonics Lab (IIT). I contributed performing the NMR characterization of the samples and precursors for the understanding of the Chemistry involved in the nanoplatelets growth and shelling) (Impact factor: 9.890)

78. Khan, A.H.; Brescia, R.; Polovitsyn, A.; Angeloni, I.; **Martín-García, B.**; Moreels, I. Near-infrared emitting colloidal PbS nanoplatelets: lateral size control and optical spectroscopy. *Chem. Mater.*, **2017**, *29*, 2883-2889. (Collaborative project inside the NanoCrystal Photonics Lab (IIT). My contribution was the support in the NIR photoluminescence spectroscopic characterization). (Impact factor: 9.890)

79. Ayadi, F.; **Martín-García, B.**; Colombo, M.; Polovitsyn, A.; Scarpellini, A.; Ceseracciu, L.; Moreels, I.; Athanassiou, A. Mechanically flexible and optically transparent three-dimensional nanofibrous amorphous aerocellulose. *Carbohydrate Polymers*, **2016**, *149*, 217-223. (Collaborative project with Smart Materials (IIT) (Dr. Athanassia Athanassiou). My contribution was the development of the strategy for QD infiltration in the aerocellulose and the UV-vis-NIR spectroscopic characterization of the materials) (Impact factor: 4.811)

80. Quesnel, E.; Roux, F; Emieux, F.; Faucherand, P.; Kymakis, E.; Volonakis, G.; Giustino, F.; **Martín-García, B.**; Moreels, I.; Gürsel, S.A.; Yurtcan, A.B.; Di Noto, V; Talyzin, A.; Baburin, I.; Tranca, D.; Seifert, G.; Crema, L.; Speranza, G.; Tozzini, V.; Bondavalli, P.; Pognon, G.; Botas, C.; Carriazo, D.; Singh, G.; Rojo, T.; Kim, G.; Yu, W.; Grey, C.P.; Pellegrini, V. Graphene-based technologies for

energy applications, challenges and perspectives. *2D Materials*, **2015**, *2(3)*, 030204. (Description of the developments made by the different partners at the WP Energy Storage and Generation at the Graphene Flagship) (Impact factor: 9.611)

Book chapters:

1. Alejo, T.; López-Díaz, D.; **Martín-García, B.**; Merchán, M.D.; Sánchez-Hidalgo, R.; Velázquez, M.M. Chapter: Manufacturing ordered films of nanoparticles by Langmuir–Blodgett in *Handbook of Modern Coating Technologies: Fabrication Methods and Functional Properties*. Elsevier. (ISBN 978-0-444-63240-1). March 2021.
2. Velázquez, M.M.; Alejo, T.; López-Díaz, D.; **Martín-García, B.**; Merchán, M.D. Chapter: Langmuir-Blodgett Methodology: A Versatile Technique to Build 2D Material Films in *Two-dimensional Materials - Synthesis, Characterization and Potential Applications*. IntechOpen. (doi: 10.5772/63495). August 2016.

Patents:

1. WO 2020/212925 - Krahne, R.; Miscuglio, M.; Spirito, D.; **Martín-García, B.**; Proietti Zaccaria, R.; Borys, N. J.; Weber-Bargioni, A.; Schuck, P.J. "A method for the design and manufacture of an optical device including an aperiodic matrix of nanostructures for near-field optical modulation and optical devices based on an aperiodic matrix of nanostructures obtainable by means of said method". Published: 22/10/2020. (https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020212925&tab=PCTDOCUMENTS)

2. WO 2020/170154 - Bellani, S.; Najafi, L.; **Martín-García, B.**; Oropesa-Nuñez, R.; Bonaccorso, F.; Zani, P. "Electrically conductive adhesive". Published: 27/08/2020. (https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020170154&tab=PCTDOCUMENTS). Holder: Istituto Italiano di Tecnologia. License Agreement with Enel Green Power SPA for exploiting the patent.

Research Funded Projects and Grants as PI

1. Project PID2021-128004NB-C21: Hybrid layered materials for nanodevices (HiMat). Ministerio de Ciencia e Innovación. Call 2020 - «R+D+i Projects». PIs: Marco Gobbi & Beatriz Martín-García (CIC nanoGUNE BRTA). 2022-2025. Grant: 139.150€. Participation: **PI.**
2. Project - Ramón y Cajal Fellowship: Development of tailor-made 2D materials for optoelectronic devices. Agencia Estatal de Investigación - Ministerio de Educación y Ciencia. (Orden CIN/1478/2021, BOE 31/12/2021). PI: Beatriz Martín-García (CIC nanoGUNE BRTA). 2023-2027. Grant: Contract + 42.000€. Participation: **PI.**
3. Project - Ikerbasque Research Fellow: Rational design of low-dimensional and hybrid organic-inorganic materials for optoelectronic and spintronic applications (HYMNOS). PI: Beatriz Martín-García (CIC nanoGUNE BRTA). 2022-2027. Grant: Contract + 10.000€. Participation: **PI.**
4. Project PID2019-108153GA-I00: Molecular engineering of superconducting and ferromagnetic 2D materials: towards on-demand physical properties. Ministerio de Ciencia e Innovación. Call 2019 - «R+D+i Projects». PIs: Marco Gobbi & Beatriz Martín-García (CIC nanoGUNE BRTA). 2020-2022. Grant: 78.650€. Participation: **PI.**
5. Gipuzkoa Fellow for talent attraction and retention. Project: Photoluminescence modulation of bidimensional materials (2D) by physicochemical methods (ModelFoto2D). Gipuzkoa Council. Call 2019 - (B.O.G. n.171, 09/09/2019); Call 2020 – (B.O.G n.190, 05/10/2020); & Call 2021 – (B.O.G. n.53, 22/03/2021). PI: Beatriz Martín-García (CIC nanoGUNE BRTA). 2020-2022. Grant: 117.775€. Participation: **PI.**

Research Funded Projects Participation

1. Graphene Flagship SH3 – Solar Farm (Istituto Italiano di Tecnologia, no. 785219-Graphene Core 2). European Union Horizon 2020 framework. PI: Francesco Bonaccorso. (Istituto Italiano di Tecnologia). 2018-2020. Participation: Postdoctoral researcher.
2. Graphene Flagship WP11 – Energy generation (Istituto Italiano di Tecnologia, no. 696656-Graphene Core 1). European Union Horizon 2020 framework. PI: Iwan Moreels. (Istituto Italiano di Tecnologia). 2016-2018. Participation: Postdoctoral researcher.
3. Graphene Flagship WP9 – Energy generation and storage (Istituto Italiano di Tecnologia, no. 604391-Graphene Ramp-up Phase). European Union 7th Framework Programme. PI: Iwan Moreels. (Istituto Italiano di Tecnologia). 2014-2016. Participation: Postdoctoral researcher.
4. INNPACTO 2012 Project DINNAMIC IPT-2012-0429-420000 (University-Company Partnership Project): Products obtained by Deposition and Lamination Technologies of Carbon and Silver-based Nanomaterials for Functional Elements in the Automobile Industry. Ministerio de Economía y Competitividad. INNPACTO 2012 Call. PI: M. Mercedes Velázquez. (Universidad de Salamanca). 2012-2014. Grant: 136.550€. Participation: PhD student/researcher.
5. Project MAT 2010-19727: Tuning the properties of nanostructured systems, quantum dots and graphene by using polymer and surfactant assembled systems. Ministerio de Ciencia e Innovación. Call 2010 – R&D Projects. PI: M. Mercedes Velázquez. (Universidad de Salamanca). 2010-2014. Grant: 84.700€. Participation: PhD student.
6. Project MAT 2007-62666: Fluid interfaces: equilibrium and dynamic properties of polymer and surfactant interfaces. Ministerio de Educación y Ciencia. Call 2007 – R&D Projects. PI: M. Mercedes Velázquez. (Universidad de Salamanca). 2008-2010. Grant: 48.400€. Participation: PhD student.
7. Project SA138A08: Formation and properties of dense adsorbed polymer films at the air-water interface: possibility to use them for the optic sensors building. Junta de Castilla y León. Call 2007 - R&D Projects. PI: M. Mercedes Velázquez. (Universidad de Salamanca). 2008-2010. Grant: 11.800€. Participation: PhD student.

Direction of works and training/teaching activities:

1. Co-**supervising** a **PhD student** Samuele Mattioni with Prof. L.E. Hueso working on synthesis and characterization of low dimensional materials. Title: *Chemical synthesis of low-dimensional materials with optical and magnetic properties for device applications* at CIC nanoGUNE. (PhD program: Physics of Nanostructures and Advanced Materials – EHU/UPV). Starting date: 01/10/2023.
2. Co-**supervising** a **PhD student** Lucía Olano Vegas with Prof. L.E. Hueso working on devices fabrication with low dimensional materials. Title: *Spintronic devices with low-dimensionality* at CIC nanoGUNE. (PhD program: Physics of Nanostructures and Advanced Materials – EHU/UPV). Starting date: 01/08/2023.
3. Co-**supervising** a **PhD student** Yaiza Asensio García with Prof. L.E. Hueso working on spectroscopy characterization of 2D materials. Title: *Characterization of cutting-edge 2D materials for their integration in optoelectronic and spintronic devices* at CIC nanoGUNE. (PhD program: Physics of Nanostructures and Advanced Materials – EHU/UPV). Starting date: 01/09/2021.
4. Co-**supervision** of a **Master student** Lucía Olano Vegas with Prof. L.E. Hueso. Title: *Characterization of low-symmetry ReS_2 flakes for optoelectronic device fabrication* at CIC nanoGUNE. (Master in Nanoscience – EHU/UPV 2021/2022). Date: 01/10/2022-12/07/2023. Mark: 9/10
5. Co-**supervision** of an **undergraduate student** Asier Ribechini Álvarez with Prof. L.E. Hueso for End-of-career project (Trabajo Fin de Grado). Title: *Study of 2D materials for their integration in optoelectronic devices* at CIC nanoGUNE. (Physics degree – EHU/UPV). Date: 01/10/2022-31/07/2023. Project carried out under a **IKASIKER fellowship** (Government Basque Country).
6. **Supervision** of an **undergraduate student** Asier Ribechini Álvarez for summer practices. Title: *Fabrication and Characterization of 2D van der Waals Heterostructures for optoelectronic*

applications at CIC nanoGUNE. (Physics degree – EHU/UPV). Date: 13/06/2022-12/08/2022. (264 h)

7. **Supervision** of an **undergraduate student** Luis Arriola Carril for End-of-career project (Trabajo Fin de Grado). Title: *Study of the optical properties of layered perovskites for their integration in devices* at CIC nanoGUNE. (Physics degree – EHU/UPV). Project carried out under a **IKASIKER fellowship** (Government Basque Country). Starting date: 01/09/2021-31/07/2022. Mark: 9.5/10
8. **Supervision** of an **undergraduate student** Luis Arriola Carril for summer practices. Title: *Fabrication and characterization of 2D heterostructures* at CIC nanoGUNE. (Physics degree – EHU/UPV). Date: 15/06/2021-31/08/2021. (351 h)
9. Co-**supervision** of a **Master student** Manuel Suárez Rodríguez with Prof. F. Casanova working on colloidally synthesized metals for spintronic devices. Title: *Chiral induced spin polarization in elemental Tellurium* at CIC nanoGUNE. (Master in Nanoscience – EHU/UPV 2020/2021). Defense: 14/07/2021. Mark: 9.5/10.
10. **Training** of **2 MSc, 9 PhD** and **5 Post-docs** at Istituto Italiano di Tecnologia (Italy, 2014/2020) for the following equipment: UV-vis-NIR photoluminescence spectroscopy, thermal evaporator inside glovebox, solar cells fabrication and solar simulator; also elaborating the corresponding user's manuals.
11. **Laboratory practices teaching** (120h) in Chemical Engineering Degree (60h - 2010/2011) and Pharmacy Degree (60h - 2011/2012) at the University of Salamanca.

Most relevant fellowships and awards:

My **CV and scientific merits** have been **recognized** and **supported** by **5 competitive individual fellowships** as undergraduate and PhD student.

- **2011: Short Stay Fellowship** (01/05/2011-31/07/2011) from Junta de Castilla y León (ORDEN EDU/296/2011 - BOCyL n.62, 30/03/2011). Project: *"Photoluminescent properties of semiconductor nanocrystals on solid substrates"* at Instituto Superior Tecnico, Lisbon, Portugal. Grant: 2.500 €.
- **2009: Travel grant** (01/06/2009-26/06/2009) from Ministerio de Educación y Ciencia (B.O.E. n.153, 25/06/2009) for attending to the Interuniversitary Master *"Science and Technology of Colloids and Interfaces" (Quality Mention)* at the University of Santiago de Compostela (Spain). Grant: 1.060 €.
- **2008-2012**: **PhD Fellowship** (16/09/2008-15/09/2012) from European Social Fund and Junta de Castilla y León (ORDEN EDU/1486/2008, BOCyL n.158, 18/08/2008) at the University of Salamanca (Spain). Supervisor: Prof. M. Mercedes Velázquez. Grant: 82.517,41 €.
- **2006-2007: Collaboration Research fellowship from Ministerio de Educación y Ciencia** (02/10/2006-29/06/2007). Chemistry-Physics Department – School of Chemical Sciences (University of Salamanca, Spain). Supervisor: Prof. M. Mercedes Velázquez. Taking part in the following Research Projects from Ministerio de Educación y Ciencia (MAT 2004-04180 and MAT 2007-62666). Grant: 2.411 €.
- **2006: Fellowship** for the **I Initial program to Physics-Chemistry and Biological Physics-Chemistry Research**. **Instituto de Química-Física Rocasolano (CSIC)**. Madrid (Spain). 11/09/2006-22/09/2006. Course in *"Study of Clusters by time-of-flight mass spectrometry and laser techniques"* Laser Chemistry Department (51 hours). Supervisor: Dr. Rebeca de Nalda.

And **3 competitive individual fellowships** as independent researcher:

- **2022: Ramón y Cajal Fellowship** from Agencia Estatal de Investigación - Ministerio de Educación y Ciencia. (Orden CIN/1478/2021, BOE 31/12/2021 - https://www.aei.gob.es/sites/default/files/convocatory_info/2022-10/PROPUESTA_RESOLUCION_DEFINITIVA_RYC_2021%20firmado.pdf)
- **2022: Ikerbasque Research Fellow** from Ikerbasque – Basque Foundation for Science (Call Research Fellows 2022 - https://www.ikerbasque.net/es/convocatorias/research-fellows-2022-1)
- **2020: Gipuzkoa Fellow for talent attraction and retention.** Gipuzkoa Council. Call 2019 - (B.O.G. n.171, 09/09/2019); Call 2020 – (B.O.G n.190, 05/10/2020); & Call 2021 – (B.O.G. n.53, 22/03/2021).

My **experimental, technical and communication skills** have been valued and recognized by **academic** and **conference individual awards**, as well as receiving the **positive evaluation** from **ANECA** for: Associate Professor (26/10/2016) and Assistant Professor (18/12/2013).

- **2019**: Best **poster prize** at Graphene Week 2019 (Helsinki, Finland – 23/09/2019-27/09/2019) for her work on: *"Colloidal synthesis of ReS_2 nanosheets with potential application in gas sensing and electrocatalysis"*
- **2008**: University of Salamanca (Spain) **Extraordinary master's degree award** (Minor thesis) in *Chemical Engineering* granted on 28/01/2009.

Mobility: Research Stays

1. **IHP-Leibniz Institute**, Frankfurt Oder (Germany). Research stays as guest researcher at the Materials Research Department. 16th-18th August **2021**; 23rd-25th August 2021; 24th January-11th February **2022**; 2nd-3rd June 2022; 1st-8th August **2023**. (5 weeks). Stay inside the collaboration for carrying out *temperature-dependent low-frequency micro-Raman measurements and micro-photoluminescence with UV excitation of layered materials*. Results published: Spirito, D. et al. *Nano Lett.* **2022**, 22, 4153 and a manuscript under preparation.

2. **Institut de Ciencies Fotoniques** (ICFO, The Institute of Photonic Sciences), Castelldefels (Barcelona, Spain). Research stay in the Functional Optoelectronic Nanomaterials Group. 11th- 29th July **2016** and 15th – 25th February **2017**. (4 weeks). Supervisors: Prof. Gerasimos Konstantatos. Stay inside the Collaboration in WP11 (Graphene Flagship), project: *"Development of QD-graphene based solar cells"*. Results published: Martín-García, B. *et al. Sol. Energy Mater. Sol. Cells*, **2018**, *183*, 1-7.

3. **Instituto Superior Tecnico**, Lisbon, Portugal. Research stay in the Molecular Photochemistry Group. May 1st to July 31st, 2011 and October 1st -15th **2011** (14 weeks). Supervisors: Prof. Silvia M.B. Costa and Dr. Pedro M.R. Paulo. **Short Stay Fellowship** from Junta de Castilla y León. Project: *"Photoluminescent properties of semiconductor nanocrystals on solid substrates"* mainly by means of Fluorescence Lifetime Imaging Microscopy. Results published: Martín-García, B. *et al. J. Phys. Chem. C.* **2013**, 117 *(28)*, 14787-14795.

4. **Center for Technology of the Institute for Optoelectronic Systems and Microtechnology** (CT-ISOM, Unique Scientific and Technological Infrastructures in Spain). Madrid, Spain. March **2011** (2 weeks). Supervisor: Dr. David López-Romero. **Fellowship** from ISOM for the project: *"Nanocontacts on Chemically derived Graphene"*.

5. **Universidad Complutense de Madrid**, Spain. November **2009** (1 week). Departamento de Química-Física I. Complex Systems Group. Supervisor: Prof. Francisco Ortega and Prof. Ramón G. Rubio. Project: *"Ellipsometric measurements of polymer Langmuir-Blodgett films deposited onto silicon substrates"*.

Research networking:

During my research career I have collaborated with **international renowned groups** in Italy, Germany, Belgium, Greece, Portugal, Spain, Canada, USA and Israel, demonstrating **remarkable organizational and coordination skills**, and reflected in the corresponding **articles published**. Nowadays I actively collaborate with:

- **Istituto Italiano di Tecnologia** (IIT) with several **projects ongoing** focused on micro-Raman and micro-photoluminescence **spectroscopy** and optoelectronic **devices** with bulk metal-halide **perovskites** (Prof. L. Manna, Dr. R. Krahne & Dr. M. Prato) (e.g. Ray, A.; Martín-García, B.; *et al.*

ACS Appl. Mater. Interfaces 2023, 15, 28166; Ray, A.†; Martín-García, B.†; *et al. J. Mater. Chem. A* 2020, 8, 17516 & Ray, A.; Martín-García, B.; et al. *Adv. Mater.* 2022, 2106160.).

- **Lukasiewicz Research Network PORT-Poland & Khalifa University-UAE** working on **bulk metal-halide perovskites synthesis and Raman spectroscopy characterization** with Dr. A.L. Abdelhady (e.g. Ray, A.; Martín-García, B.; *et al.* ACS Appl. Mater. Interfaces 2023, 15, 28166; Ray, A.; Martín-García, B.; *et al. Adv. Mater.* 2022, 2106160).
- **IHP-Leibniz Institute-Germany** with Dr. D. Spirito for access to **low-frequency micro-Raman spectroscopy** (e.g. *Nano Lett.* **2022**, 22, 4153).
- **Ghent University-Belgium** with Prof. I. Moreels with the current project on **micro-Raman study of colloidally synthesized transition metal dichalcogenides** (e.g. Mutyala, C.S. *et al. J. Phys. Chem. Lett.* 2023, 14, 2620; Pippia, G. *et al. Nanoscale* 2022, 14, 15859 & Pippia, G. et al. *ACS Appl. Nano Mater.* 2022, 5, 10311).
- **TU Dresden-Germany** with Prof. V. Lesnyak with the ongoing project on **micro-Raman spectroscopy study of colloidal nanocrystals** (e.g. Prudnikau, A., *et al. Adv. Funct. Mater.* 2023 (just accepted); Antanovich, A. *et al. Chem. Mater.* 2022, doi: 10.1021/acs.chemmater.2c01920).
- **Chinese Academy of Sciences-China** with Prof. P-H. Tan for access to **ultra-low-frequency and low-temperature (4K)** micro-Raman and photoluminescence **spectroscopy** (e.g. Martín-García, B. *et al. Adv. Opt. Mater.* 2022, 10, 2200240).
- **BeDimensional Spa** (Dr. F. Bonaccorso) & Hellenic Mediterranean University (Prof. E. Kymakis) (e.g. Tsikritzis, D. et al. *Mat. Adv.* 2020, 1, 450-462 & Chatzimanolis, K. et al. *Nanoscale Adv.*, 2021, 3, 3124-3135) for the study of thin film **perovskite solar cells** built **integrating 2D materials**.

Furthermore, I have participated as **coordinator** from CIC nanoGUNE (grant requested 179.4 k€) in the **writing** of a **RISE proposal** (MITRA-101007862, rate 90.8%, first in the awaiting list) - EC Horizon 2020 Framework Programme, with IIT leading the Consortium including **12 partners** from: Europe (IIT, EPFL, CIC nanoGUNE), USA (MIT, Northwestern University, University of California), Canada (INRS, University of Toronto, University of Victoria), South America (Universidad Nacional de San Martín, Universidad de Chile) and Africa (University of Zululand).

Oral/Poster Contributions at Conferences:

1. **2024**: *Exploring low-dimensional materials by Raman spectroscopy: from hybrid metal-halide perovskites to chiral elemental tellurium.* **Martín-García, B.**; Spirito, D.; Barra-Burillo, M.; Calavalle, F.; Manganelli, C.L.; Marras, S.; Gobbi, M.; Hillenbrand, R.; Casanova, F.; Hueso, L.E. **(Invited Oral Contribution).** CLEO 2024 Conference – Symposium Disruptive Photonic Detectors: Recent Advancement and Development with Novel Optical Materials. Charlotte, North Carolina (USA). May 2024.

2. **2023:** *Magnetic Properties Control in Layered Hybrid Organic-inorganic Metal-halide Perovskites by Composition and Perovskite Phase Selection*. Asensio, Y.; Barra-Burillo, M.; Spirito, D.; Calavalle, F.; Manganelli, C.L.; Marras, S.; Gobbi, M.; Ipatov, M.; Mateo-Alonso, A.; Hillenbrand, R.; Casanova, F.; Hueso, L.E.; **Martín-García, B. (Oral Contribution).** JEMS 2023 – 13th Joint European Magnetic Symphosia. Madrid (Spain), 28 August - 1 September 2023.

3. **2023:** *Hybrid metal-halide 2D perovskite flakes under strain: insights from photoluminescence and micro-Raman spectroscopy*. Barra-Burillo, M.; Spirito, D.; Calavalle, F.; Manganelli, C.L.; Gobbi, M.; Hillenbrand, R.; Casanova, F.; Hueso, L.E.; **Martín-García, B. (Oral Contribution).** N2D – Nanophotonics of 2D materials, San Sebastián (Spain), 19-22 June 2023.

4. **2023**: *Engineering optical and magnetic properties in layered organic-inorganic metal halide perovskites.* **Martín-García, B.**; Asensio, Y.; Barra-Burillo, M.; Spirito, D.; Calavalle, F.; Manganelli, C.L.; Marras, S.; Gobbi, M.; Ipatov, M.; Mateo-Alonso, A.; Hillenbrand, R.; Casanova,

F.; Hueso, L.E. **(Invited Oral Contribution).** Materials for Sustainable Development Conference – MATSUS 23 – Symposium Materials for Quantum Technology (QMat). Valencia (Spain), March 2023. **(Chairwoman of session QMat1.3)**

5. **2023**: *Layered hybrid metal-halide perovskites under strain: insights from photoluminescence and micro-Raman spectroscopy.* **Martín-García, B.;** Spirito, D.; Barra-Burillo, M.; Calavalle, F.; Manganelli, C.L.; Gobbi, M.; Hillenbrand, R.; Casanova, F.; Hueso, L.E. **(Invited Oral Contribution).** XII Reunión del grupo de física de la materia condensada de la RSEF – GEFES 2023. Salamanca (Spain), February 2023.

6. **2023**: *Modulating the magnetic properties of layered hybrid organic-inorganic metal-halide perovskites by chemical design.* Asensio, Y.; Marras, S.; Spirito, D.; Gobbi, M.; Ipatov, M.; Casanova, F.; Mateo-Alonso, A.; Hueso, L.E.; **Martín-García, B.** (Poster contribution). XII Reunión del grupo de física de la materia condensada de la RSEF – GEFES 2023. Salamanca (Spain), February 2023.

7. **2022**: *Strain-modulation of the Photoluminescence of 2D Hybrid Metal-Halide Perovskite Flakes.* Barra-Burillo, M.; Spirito, D.; Calavalle, F.; Manganelli, C.L.; Gobbi, M.; Hillenbrand, R.; Casanova, F.; Hueso, L.E.; **Martín-García, B.** (Poster contribution). Nanophotonics and Micro/Nano Optics International Conference 2022. Paris (France), October 2022.

8. **2022:** *Hybrid metal-halide perovskites under micro-Raman and photoluminescence spectroscopy: from fundamentals to applications.* **B. Martín-García. (Invited Oral Contribution).** Symposium on Advanced Technologies and Materials (ATAM 2022). Wroclaw (Poland), September 2022.

9. **2022:** *Micro-Raman spectroscopy study of hybrid metal halide perovskites: From fundamental understanding to applications.* **B. Martín-García. (Oral Contribution).** XVIII Escuela Nacional de Materiales Moleculares. Santiago de Compostela (Spain), March 2022.

10. **2022:** *Low-dimensional layered halide double perovskites: The role of the organic cations in the phase transition.* **B. Martín-García**, D. Spirito, G. Biffi, S. Artyukhin, F. Bonaccorso, R. Krahne. **(Oral Contribution)**. nanoGe Spring Meeting 2022 – Symposium: Photophysics of Halide Perovskites and Related Materials - from Bulk to Nano. Online meetup conference, March 2022.

11. **2022:** *Nanostructures for optical properties engineering in 2D hybrid halide perovskite flakes.* M. Barra-Burillo, D. Spirito, F. Calavalle, C.L. Manganelli, M. Gobbi, R. Hillenbrand, F. Casanova, L.E. Hueso, **B. Martín-García**. **(Oral Contribution)** Spanish Workshop on Nanolithography – NANOLITO 2022. Online meetup workshop, January 2022.

12. **2021:** *Manipulating the magnetism of $NiPS_3$ via organic ion intercalation.* D. Tezze, J. Pereira, F. Calavalle, Y. Asensio, B. Martín-García, M. Gobbi, L. E. Hueso. (Poster Contribution). Chem2DMat2021-European conference on chemistry of two-dimensional materials. Online meetup conference, August-September 2021.

13. **2020:** *Phase transitions in low-dimensional layered double perovskites and their relation to indirect/direct bandgap conditions.* **B. Martín-García**, D. Spirito, G. Biffi, S. Artyukhin, F. Bonaccorso and R. Krahne. (Poster Contribution). 11th International Conference on Quantum Dots – QD2020, Online meetup conference, December 2020.

14. **2020:** *ReS_2 nanosheets from colloidal synthesis for application in gas sensing and electrocatalysis.* **B. Martín-García**, D. Spirito, S. Bellani, M. Prato, V. Romano, A. Polovitsyn, R. Oropesa-Nuñez, R. Brescia, L. Najafi, A. Ansaldo, G. D'Angelo, V. Pellegrini, R. Krahne, I. Moreels and F. Bonaccorso.

(Poster Contribution). Shape-Controlled Nanocrystals: Synthesis, Characterization Methods and Applications – nanoGE, Online meetup conference, May 2020.

15. **2019:** *Colloidal synthesis of ReS_2 nanosheets with potential application in gas sensing and electrocatalysis.* **B. Martín-García**, D. Spirito, S. Bellani, M. Prato, V. Romano, A. Polovitsyn, R. Oropesa-Nuñez, R. Brescia, L. Najafi, A. Ansaldo, G. D'Angelo, V. Pellegrini, R. Krahne, I. Moreels and F. Bonaccorso. (Poster Contribution). Graphene Week 2019, Helsinki (Finland), September 2019. **(Best poster prize)**

16. **2018**: *Toward electrochemical metallization switching memories with colloidal silver sulfide nanocrystals.* D. Spirito, **B. Martín-García**, R. Krahne and I. Moreels. **(Oral Contribution).** ANNIC 2018 Conference - Colloidal Nanocrystals Symposium, Berlin (Germany), October 2018.

17. **2017:** *PbS QD solar cells with improved stability under ambient conditions through integration of reduced graphene oxide.* **B. Martín-García**, Y. Bi, M. Prato, D. Spirito, R. Krahne, G. Konstantatos and I. Moreels. **(Oral Contribution)**. NanoGe 2017 Conference – SF2- Solution processed innovative solar cells, Barcelona (Spain), September 2017. **(Chairwoman of session SF2.4)**

18. **2017:** *Enhancing the stability of PbS QD solar cells by incorporation of reduced graphene oxide.* **B. Martín-García**, Y. Bi, M. Prato, D. Spirito, R. Krahne, G. Konstantatos and I. Moreels. **(Oral Contribution)**. SSI 21 Conference, Padova (Italy), June 2017.

19. **2016:** *Photovoltaic applications of quantum dot-reduced graphene oxide hybrid materials.* **B. Martín-García**, D. Spirito, R. Krahne, and I. Moreels. (Poster Contribution). Graphene 2016 Conference, Genova (Italy), April 2016.

20. **2015:** *Thin sheets of colloidal quantum dot –reduced graphene oxide hybrid materials for energy and opto-electronic applications.* **B. Martín-García**, A. Polovitsyn, M. Prato and I. Moreels. **(Oral Contribution)**. ECOF14 Conference, Genova (Italy), June 2015.

21. **2015:** *Synthesis of colloidal quantum dot – reduced graphene oxide hybrid inks for optp-electronic applications.* **B. Martín-García**, A. Polovitsyn, M. Prato, L. Manna and I. Moreels. **(Oral Contribution)**. E-MRS Spring meeting, Lille (France), May 2015.

22. **2015:** *Coupling colloidal quantum dots and reduced graphene oxide for solution-processed photovoltaics.* **B. Martín-García**, A. Polovitsyn, M. Prato, L. Manna, V. Pellegrini and I. Moreels. **(Invited Oral Contribution – T17.01).** MRS Spring meeting, Symposium T: Graphene and carbon nanotubes. San Francisco (USA), April 2015.

23. **2014:** *Coupling NIR PbS QDs and graphene-based materials for photovoltaic applications.* **B. Martín-García**, M. Prato, L. Manna and I. Moreels. (Poster Contribution). International Conference of Fundamental Processes in Semiconductor Nanocrystals, Oxford (UK), September 2014.

24. **2013:** *Shearing as a driving force to direct the assembly of nanocomposite films.* **B. Martín-García**, M.M. Velázquez. **(Oral Contribution).** 5th Iberian Meeting on Colloids and Interfaces (RICI5). June 2013 San Sebastián-Donostia. Spain.

25. **2012:** *Photoluminiscence of CdSe QDs/polymer LB films resolved in time and in space by fluorescence lifetime imaging microscopy.* **B. Martín-García**, P.M.R. Paulo, S.M.B. Costa, M.M. Velázquez. **(Oral Contribution)**. XXIV IUPAC Symposium on Photochemistry. July 2012 Coimbra. Portugal.

26. **2012:** *Dynamic properties of CdSe QDs/copolymer films at the air-water interface.* **B. Martín-García**, M.M. Velázquez. (Poster Contribution) NANAX 5. May 2012 Fuengirola (Málaga). Spain.

27. **2011:** *Chemically converted graphene nanosheets: Langmuir-Blodgett deposition.* **B. Martín-García**, M. M. Velázquez, E. Diez, F. Rossella, V. Bellani, J.A. Pérez-Hernández, J. Hernández-Toro. (Poster Contribution) ImagineNano Conference 2011. April 2011 Bilbao. Spain.

28. **2010:** *From graphite to graphene: chemical strategies.* **B. Martín-García**, M. M. Velázquez, E. Diez, F. Rossella, V. Bellani, J.A. Pérez-Hernández, J. Hernández-Toro. (Poster Contribution) International Soft Matter Conference. July 2010 Granada. Spain.

29. **2010:** *Design and synthesis of nanoparticles using self-assembly materials.* T. Alejo, **B. Martín-García**, M.D. Merchán, M.M. Velázquez. (Poster Contribution) NANOFutures. June 2010, Gijón. Spain.

30. **2010:** *Characterization of CdSe QDs-copolymer systems.* **B. Martín-García**, M. M. Velázquez. (Poster Contribution) 10th European Conference of Atoms Molecules and Photons (ECAMP 10). July 2010, Salamanca. Spain.

31. **2009:** *Effect of electrolytes on the Langmuir monolayers of a block copolymer derived of maleic anhydride.* **B. Martín-García**, M. M. Velázquez. **(Oral Contribution)** VIII Reunión del Grupo especializado de Coloides e interfases (GECI) y III Reunión Ibérica de Coloides e Interfases (RICI). July 2009, Granada. Spain.

32. **2008:** *Effect of the polymer structure on the 2D glass transition.* **B. Martín-García**, D. López-Díaz, M.M. Velázquez. (Poster Contribution) 19th IUPAC Conference on Physical Organic Chemistry. July 2008. Santiago de Compostela, Spain.

Outreach activities:

1. **Basque Research Technology Alliance 2023.** Participation in the promotional project videos for visualizing the activities in Energy. September 2023. Donostia. Spain.
2. **Emakumeak Zientzian 2023**. Participation in the CIC nanoGUNE BRTA workshop organized for girls (secondary school) within the Women in Science initiative. 10th February 2023. Donostia. Spain.
3. **International Day of Women and Girls in Science 2021**. Instituto Cervantes Roma & ASIERI (Association of Spanish researchers in the Italian Republic). Online video will be available at: https://www.youtube.com/playlist?list=PLZlEPuLmqTUqNdxv3am4R9f_WnWUcZxSj
4. **Mobile World Congress 2018**. Graphene flagship stand - Energy storage and generation presenting the perovskites solar modules project. February 2018. Barcelona. Spain. Graphene Flagship official video available at: https://www.youtube.com/watch?v=RAZcQ1DCEEw (min: 0:27)
5. Collaboration at the Graphene Labs – IIT booth at **Genoa Science Festival**. October 2014 Genoa. Italy.
6. Participation at the **I Semana de divulgación científica en Química e Ingeniería Química.** (Poster Contribution) Facultad de Ciencias Químicas. November 2010 Salamanca. Spain.

Evaluation Committees

Grant proposals:

1. **Examiner of grant proposals for the German Research Foundation (DFG)** inside the Clusters of Excellence 2023 funding scheme – panel 02. 23rd-24th October 2023 (online procedure).
2. **Examiner of grant proposals for the Spanish National Agency (Spain)** inside the Proyectos de Generación de Conocimiento 2022 funding scheme – panel Materials Science. April 2023 (online procedure).
3. **Examiner of grant proposals for the National Science Center (Poland)** inside the SONATA-BIS 12 funding scheme – panel Condensed Matter Physics. December 2022 (online procedure).

PhD thesis:

4. **Member of the Evaluation Committee of the PhD Thesis** *"Experimental and Theoretical Investigation of strong Acid Hydrates"* defended by Sophie Espert and carried out under the supervision of Prof. A. Desmedt (University of Bordeaux) and Prof. D. Sánchez-Portal (Materials Physics Center – EHU/UPV) on the 30th March 2023 at Materials Physics Center (San Sebastián-Donostia, Spain).
5. **Member of the Evaluation Committee of the PhD Thesis** *"Perovskite Nanomaterials: Transport Studies and Devices"* defended by Álvaro J. Magdaleno de Benito and carried out under the supervision of Prof. F. Prins on the 20th January 2023 at IFIMAC (Madrid, Spain).
6. **Member of the Evaluation Committee of the PhD Thesis** *"Diving into the colloidal synthesis of Transition Metal Dichalcogenides"* defended by Gabriele Pippia and carried out under the supervision of Prof. I. Moreels and Prof. Z. Hens on the 27th October 2022 (committee meeting) and 5th December 2022 (public PhD thesis defense) at Ghent University (Ghent, Belgium).
7. **Chair of the Evaluation Committee of the PhD Thesis** *"Further into the Infrared with Quantum Dot Photodetectors"* defended by Onur Özdemir and carried out under the supervision of Prof. G. Konstantatos on the 4th February 2022 at ICFO (Castelldefels, Spain).

Master:

1. **Member of the Evaluation Committee of the Master Thesis** under the Master Program Nanoscience UPV/EHU *"Laser-coupled multielectrode array system for plasmon-driven neuronal stimulation"* defended by Gaizka Otegi and carried out under the supervision of Prof. M. Grzelczak (DIPC – EHU/UPV) on the 13th September 2023 at Materials Physics Center (San Sebastián-Donostia, Spain).
2. **Member of the Evaluation Committee of the Master Thesis** under the Master Program Nanoscience UPV/EHU *"Molecular mobility in simplified Industrial ternary mixtures for tire applications"* defended by Jaime Caldevilla and carried out under the supervision of Prof. A. Alegría Loinaz (EHU/UPV) on the 13th September 2023 at Materials Physics Center (San Sebastián-Donostia, Spain).
3. **Member of the Evaluation Committee of the Master Thesis** under the Master Program Nanoscience UPV/EHU *"Ab-initio study of melamine on Cu(100): Inelastic electron tunneling spectroscopy and the impact of tautomerization"* defended by Manex Alkorta and carried out under the supervision of Prof. T. Frederiksen (DIPC - EHU/UPV) on the 13th September 2023 at Materials Physics Center (San Sebastián-Donostia, Spain).

Journal Reviewer

Reviewer for **22** different **international journals**: *J. Am. Chem. Soc., Adv. Funct. Mater., ACS Nano, Nano Letters, Adv. Opt. Mater., Small Structures, Nat. Comm., Nanoscale, J. Mater. Chem. C, ACS Appl. Mater. Interf., ACS Appl. Energy Mater., ACS Appl. Nano Mater., Solar Energy Materials & Solar Cells, Colloids and Surfaces A & B, Nanomaterials, Physica Status Solidi, Physics Letters A, ChemCatChem, Molecules, Applied Surface Science, Journal of Alloys and Compounds or Applied Sciences*.

Management Experience

1. Economic Committee (Member: From March 2010 to January 2011; Secretary: From May 2012 to September 2012). Chemistry-Physics Department. University of Salamanca.
2. Teaching Committee (Member: From January 2011 to May 2012 and From December 2012 to September 2013; Secretary: From May 2011 to May 2012). Chemistry-Physics Department. University of Salamanca.
3. Research Committee (Member). Chemistry-Physics Department. University of Salamanca. (From January 2011 to May 2012).
4. Regular Committee (Member). Chemistry-Physics Department. University of Salamanca. (From December 2012 to September 2013).

San Sebastián-Donostia, November 15th, 2023