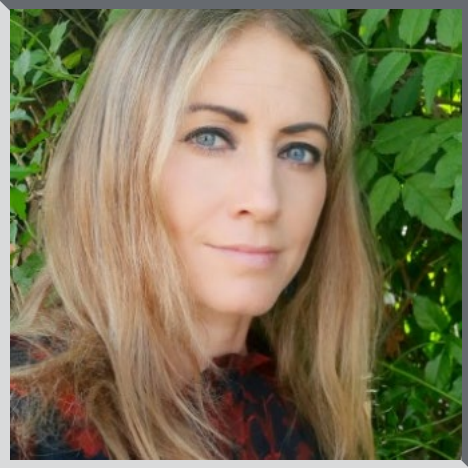

Miroslavna Kovylina Zabyako

Engineer specialized in cleanroom technology, with extensive experience in various nanofabrication and nanocaracterization techniques, as well as in research and teaching. I hold a Ph.D. in Nanoscience and stand out for my dynamism, proactivity, and enthusiasm. I have a remarkable ability to adapt to different environments, work in teams, and always give my best. Currently, I am seeking a job opportunity that will allow me to advance to the next level in my professional career.

CONTACT INFORMATION

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Moncada V

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Nacionality: Spanish

SKILLS

Laser ablation, RF sputtering, electron beam and thermal evaporation, molecular epitaxy, electron beam lithography, focused ion beam, photolithography, and nanoimprint.

Transmission and scanning electron microscopy, atomic force microscopy, optical and mechanical profilometry, magnetoresistance measurements, UV, VIS, IR, and THz spectroscopy with Fourier transform.

ABILITIES

- Curiosity, passion, enthusiasm, and motivation.
- Persistence, dedication, and discipline.
- Capacity for learning and continuous acquisition of knowledge.
- Ambition, leadership, commitment, and responsibility.
- Organization and planning, along with goal prioritization and effective time management.
- Critical and positive attitude towards challenges and difficulties.

LANGUAGES

Spanish: C2 — Expert

English: C2 — Expert

Catalan: B1 — Intermediate

Russian: C2 — Expert

EDUCATION

Ph.D. in Nanoscience, Summa Cum Laude 1/2006 - 03/2011
University of Barcelona - Barcelona
Thesis Title: "Exchange bias in Ni/FeF2 thin films and nanostructures".

Master's Degree in Nanoscience and Nanotechnology 12/2005 - 12/2006
University of Barcelona - Barcelona
Master's Thesis Title: "Magnetic nanostructures and exchange bias".

Master's Degree in Physics, Summa Cum Laude 09/1997 - 06/2003
Moscow Institute of Energy - Moscow

Master's Degree in International Economics 09/2001 - 06/2003
Independent Ecological and Political University - Moscow

PROFESSIONAL EXPERIENCE

Cleanroom Process Engineer (Ph.D. level) 10/2015 -Present
Nanophotonic Technology Center (UPV-NTC) - Valencia

- Leading various cleanroom key equipment for nanofabrication and nanocaracterization, including electron beam evaporator, mask aligner for photolithography and nanoimprint, atomic force microscope, scanning electron microscope, hot plate, and developer system, mechanical profilometer, spin coater, UV-VIS-IR and THz spectrometer with Fourier transform, and microscope mounting loupe for electronic microscopes.
- Management of resources and materials necessary for equipment operation, identification of technical issues, and proposal of solutions and corrective procedures.
- Search and selection of new equipment, experience in commercial negotiations, tender definitions, and participation in equipment purchases.
- Design, development, implementation, and improvement of nanofabrication and nanocaracterization processes aligned with research objectives, as well as planning and execution of scientific experiments in cleanroom environments.
- Development of specifications, operation manuals, and quality standards for efficient equipment usage, as well as designing, developing, and overseeing their compliance.

- Writing scientific articles for publication, maintaining updated knowledge necessary for the position, including reviewing relevant scientific literature.
- Responsible for training, supervising, and mentoring technical staff, undergraduate and graduate students, and postdoctoral researchers, providing training on equipment and process flows to doctoral students at the European level through the Marie Curie fellowship.
- Collaboration in teaching tasks for undergraduate and master's students in the training practices carried out at NTC.
- Compilation, documentation, and organization of technical data from equipment, devices, and samples for subsequent analysis, writing and presenting technical and scientific reports, as well as offering recommendations based on data obtained during research for decision-making.
- Participation in multidisciplinary research projects, both internal and external, providing technical support and advising on process solution implementation, as well as developing scientific projects and using characterization techniques in other research centers.

Senior researcher of the Micronanofabs network 07/2016 - 07/2017
Internal collaboration as a coordinator with CSIC.

Postdoctoral researcher at OCCAM 08/2014 - 09/2015
University of Toronto - Toronto, Canada

- Responsible of training, supervision, and mentoring of undergraduate and graduate students in the operation of advanced equipment such as transmission electron microscopy, scanning electron microscopy, and focused ion beam.
- Conducting tests, trials, analyses, and documentation of research results, as well as reviewing, evaluating, drafting, and publishing scientific articles in academic and specialized journals.
- Participation in research group meetings to address the progress of each project and collaboration in multidisciplinary research projects.

Visiting researcher with Prof. Glenn Hibbard 02/2014 - 08/2014
University of Toronto - Toronto, Canada

- Performing simulations of photonic structures using Finite Difference Time Domain (FDTD) in Lumerical, as well as conducting literature searches related to the topic.
- Participation in research group meetings to contribute to the development of various projects and presenting results at conferences and congresses both nationally and internationally.

Assistant Professor (Professor ayudante) 03/2009 - 08/2014
University of Barcelona - Barcelona

- Planning and teaching to groups of students from various courses, including detailed lesson plans in accordance with the established academic schedule.
- Addressing academic queries and issues of students, as well as fostering academic development and interest in the subject. Implementing teaching methods to encourage autonomy and critical thinking.
- Collaborating on academic projects and research, as well as participating in academic meetings with other professors and administrative gatherings.
- Publishing scientific articles and presenting at conferences and seminars.

Visiting Ph.D. student with Prof. Iván Schuller 10-12/2007, 10-12/2008
University of California - San Diego, Estados Unidos

- Acquiring the necessary training and education to carry out assigned tasks, including magnetoresistance measurements, as well as nanofabrication and nanocaracterization processes.
- Designing and conducting scientific experiments in the laboratory, followed by a detailed analysis of data and research results. Additionally, preparing progress reports and research findings, and participating in research group meetings to present project updates.

Ph.D. student 1/2006 - 02/2009
University of Barcelona - Barcelona

- Design, creation, and commissioning of two laboratories: one for nanofabrication, equipped with an RF sputtering system with thermal control during deposition, and another for nanocaracterization, specialized in electrical transport measurements, including magnetoresistance and LCR measurements in a frequency range from 10^{-2} to 10^{6} Hz.
- Development of a program for remote control and measurements in the nanocaracterization laboratory using LabVIEW.
- Maintenance and technical supervision of both laboratories, including resource and material management, as well as coordination and communication with external researchers.
- Learning and mastery of nanofabrication techniques, including laser ablation, thermal evaporation, and nanoimprint lithography, among others. Also, training and application of nanocaracterization tools, such as transmission and scanning electron microscopy, atomic force microscopy, optical and mechanical profilometry, among others.
- Experience in using simulation tools such as OOMMF for exchange coupling systems and FDTD (Lumerical) for nanophotonic structures.
- Preparation of grant applications for funding and support.
- Conducting tests, experiments, and analyses, followed by detailed documentation of the results obtained. Additionally, participation in regular meetings with supervisors to address technical aspects of the work and keep them updated on the progress of projects, both internal and with external collaborators.
- Development of scientific communication skills, including writing reports and manuscripts for oneself and other researchers.
- Presentation of results at conferences and academic events, as well as establishment of collaborations and research networks.
- Participation in teaching activities and specialized training courses.

PROFESSIONAL SUCCESSES

- Scholarships during my undergraduate studies (1997-2003), as well as FPI (2006) and FPU (2006-2009) scholarships during my doctoral studies due to my outstanding academic performance.
- Extensive academic career at both Spanish and international public universities.
- Accreditation (contracted doctor) granted by ANECA, enabling access to university teaching staff positions.
- Participation in publicly funded research and development (R&D) projects, as well as national and international conferences.
- Authorship of over 20 high-impact scientific articles published in journals such as Science, ACS Photonics, Nanotechnology, Applied

Physics Letters, Physical Review B, Journal of Alloys and Compounds, Scientific Reports, among others.

TEACHING

- Quantum Physics Laboratory (30, 15, and 45 hours/year during the academic years 2007-2008, 2008-2009, and 2009-2010, respectively) corresponding to the Bachelor's Degree in Physics at the University of Barcelona.
- Materials Laboratory B (20 hours/year during the academic years 2008-2009, 2009-2010, and 2010-2012) corresponding to the Bachelor's Degree in Chemistry at the University of Barcelona.
- Physics (60 hours/semester during the academic years 2011-2014) corresponding to the degree in Computer Engineering.
- Biotechnology and Nanotechnology Internship at the Nanophotonics Center during the academic years 2017-2024.

PUBLICATIONS

1. “AC conductance in granular insulating Co-ZrO2 thin films: A universal response”, Z. Konstantinović, M. García del Muro, M. Kovylina, X. Batlle, and A. Labarta, Phys. Rev. B 79, 094201, 2009.

2. “Controlling exchange bias in Co-CoOx nanoparticles by oxygen content”, M. Kovylina, M. García del Muro, Z. Konstantinovic, M. Varela, O. Iglesias, A. Labarta, and X. Batlle, Nanotechnology 20, 175702-1/175702-7, 2009.

3. “Tuning exchange bias in Ni/FeF2 heterostructures using antidot arrays”, M. Kovylina, M. Erekhinsky, R. Morales, J. E. Villegas, I. K. Schuller, A. Labarta, and X. Batlle, Appl. Phys. Lett. 95, 152507, 2009.

4. “The fabrication of ordered arrays of exchange biased Ni/FeF2 nanostructures”, M. Kovylina, M. Erekhinsky, R. Morales, I. K. Schuller, A. Labarta, and X. Batlle, Nanotechnology 21, 175301, 2010.

5. “Mirror symmetry in magnetization reversal and coexistence of positive and negative exchange bias in Ni/FeF2 heterostructures”, M. Kovylina, M. Erekhinsky, R. Morales, J. E. Villegas, I. K. Schuller, A. Labarta, and X. Batlle, Appl. Phys. Lett. 98, 152507, 2011.

6. “Magnetization reversal in Ni/FeF2 heterostructures with the coexistence of positive and negative exchange bias”, M. Kovylina, R. Morales, A. Labarta, and X. Batlle, Phys. Rev. B 86, 224414, 2012.

7. “Antiferromagnetic/ferromagnetic nanostructures for multidigit storage units”, R. Morales, M. Kovylina, I.K. Schuller, A. Labarta, and X. Batlle, Appl. Phys. Lett. 104, 032401, 2014.

8. “Manipulation of competing ferromagnetic and antiferromagnetic domains in exchange-biased nanostructures”, A. Fraile Rodriguez, A. C. Basaran, R. Morales, M. Kovylina, J. Llobet, X. Borrise, M. A. Marcus, A. Scholl, I.K. Schuller, X. Batlle, and A. Labarta, Phys. Rev. B 92, 174417, 2015.

9. “Au cylindrical nanocup: A geometrically, tunable optical nanoresonator”, M. Kovylina, N. Alayo, A. Conde, X. Borrise, J. Bausells, G. Hibbard, A. Labarta, X. Batlle, and F. Pérez-Murano, Appl. Phys. Lett. 107, 033102, 2015.

10. “Thermal Conductivity of Bulk Nanocrystalline Nickel-Diamond Composites Produced by Electrodeposition”, H. J. Cho, J. Tam, M. Kovylina, Y. J. Kim, and U. Erb, J. Alloys and Comp., 687, 570-578, 2016.

11. “Thermo-Optic Coefficient of Porous Silicon in the Infrared Region and Oxidation Process at Low Temperatures”, D. Martín-Sánchez, M. Kovylina,

S. Ponce-Alcántara, and J. García-Rupérez, J. of The Electrochemical Society, 166 (6) B355-B359, 2019.

12. “All-Silicon On-Chip Optical Nanoantennas as Efficient Interfaces for Plasmonic Devices”, S. Lechago, C. García-Meca, A. Griol, M. Kovylina, L. Bellieres, and J. Martí, ACS Photonics 6, 1094−1099, 2019.

13. “Dual Refractive Index and Viscosity Sensing Using Polymeric Nanofibers Optical Structures”, S. Ponce-Alcántara, D. Martín-Sánchez, M. Kovylina, A. Pérez-Márquez, J. Maudes, N. Murillo, and J. García-Rupérez, IEEE SENSORS JOURNAL, 19, 24, 2019.

14. “Bottom-Up Synthesis of Mesoporous TiO2 Films for the Development of Optical Sensing Layers”, D. Ortiz de Zárate, S. Serna, S. Ponce-Alcántara, M. Kovylina, and J. García-Rupérez, Chemosensors, 9, 329, 2021.

15. “Continuous-wave frequency upconversion with a molecular optomechanical nanocavity”, W. Chen, P. Roelli, H. Hu, S. Verlekar, S. Priya Amirtharaj, A. I. Barreda, T. J. Kippenberg, M. Kovylina, E. Verhagen, A. Martínez, and C. Galland, Science 374, 1264–1267, 2021.

16. “Impact of GST thickness on GST-loaded silicon waveguides for optimal optical switching”, J. Parra, J. Navarro-Arenas, M. Kovylina, and P. Sanchis, Scientific Reports 12, 9774, 2022.

17. “Accurate Transfer of Individual Nanoparticles onto Single Photonic Nanostructures”, J. Redolat, M. Camarena-Perez, A. Griol, M. Kovylina, A. Xomalis, J. J. Baumberg, A. Martinez, and E. Pinilla-Cienfuegos, ACS Appl. Mater. Interfaces, 15, 3558−3566, 2023.

18. “Effect of a DLC film on the sliding-wear behaviour of Ti6Al4V: Implications for dental implants”, F. Rodríguez-Rojas, M. Kovylina, E. Pinilla-Cienfuegos, O. Borrero-Lopez , A. Bendavid, P. J. Martin, and M. Hoffman, Surface and Coatings Technology 460, 129409, 2023.

19. "Exploiting Cherenkov Radiation With BGO-Based Metascintillators", R. Latella, A.J. Gonzalez, D. A. B. Bonifacio, M. Kovylina, A. Griol, J. M. Benlloch,P. Lecoq, and G. Konstantinou, IEEE Transactions on Radiation and Plasma Medical Sciences, 7, 8, 810-818, 2023.

20. "Plasma-Induced Surface Modification of Sapphire and Its Influence on Graphene Grown by Plasma-Enhanced Chemical Vapour Deposition", M. Sinusia, I. Bernat Montoya, T. Ivanova Angelova, A. Boscá Mojena, F.J. Díaz-Fernández, Fran, M. Kovylina, A. Martinez, E. Pinilla-Cienfuegos, and V.J Gómez Hernández, 13,1952, 2023.

CONFERENCES

1. “Magnetoresistance in positive and negative exchange bias Ni/FeF2 bilayered 200 nm antidots” (oral presentation), M. Kovylina, A. Labarta, and X. Batlle, V Reunión del Grupo Especializado de Física del Estado Sólido (GEFES), Santiago de Compostela, Spain, 2008.

2. “Focused ion beam fabrication of exchange bias ferromagnetic/antiferromagnetic bilayered nanostructures: sub-200 nm dots and antidots” (poster presentation), M. Kovylina, A. Labarta, and X. Batlle, V Reunión del Grupo Especializado de Física del Estado Sólido (GEFES), Santiago de Compostela, Spain, 2008.

3. “Magnetoresistance in positive and negative exchange bias Ni/FeF2 bilayered 200 nm antidots” (oral presentation), M. Kovylina, R. Morales, J.E. Villegas, M. Erekhinsky, I.V. Roshchin, A. Labarta, I.K. Schuller, and X. Batlle, The INTERMAG Conference Europe 2008, Madrid, Spain, 2008.

4. “Nanostructured magnetic materials” (invited conference), A. Labarta, M. Kovylina, N. Pérez, M. García del Muro, O. Iglesias, and X. Batlle, Second IRUN Symposium on Nanotechnology, Cracovia, Poland, 2009.

5. “Magnetoresistance in positive and negative exchange bias Ni/FeF2 bilayered 200 nm antidots” (poster presentation), M. Kovylina, R. Morales,

J.E. Villegas, M. Erekhinsky, I.V. Roshchin, A. Labarta, I.K. Schuller, and X. Batlle, NanoSpain 2009, Zaragoza, Spain, 2009.

6. “Exchange bias in core/shell ferromagnetic/antiferromagentic Co/Co-O” (poster presentation), M. Kovylina, Z. Konstantinović, M. García del Muro, O. Iglesias, A. Labarta, and X. Batlle, NanoSpain 2009, Zaragoza, Spain, 2009.

7. “Magnetoresistance in positive and negative exchange bias Ni/FeF2 bilayered antidots” (poster presentation), M. Kovylina, R. Morales, J.E. Villegas, M. Erekhinsky, A. Labarta, I.K. Schuller, and X. Batlle, Trends in Nanotechnology-TNT2009, Barcelona, Spain, 2009.

8. “Exchange bias in core/shell magnetic nanoparticles: experimental results and numerical simulations” (oral presentation), X. Batlle, A. Labarta, O. Iglesias, M. García del Muro and M. Kovylina, TNT2009, Barcelona, Spain, 2009.

9. “Exchange bias in core/shell magnetic nanoparticles: experimental results and numerical simulations” (invited conference), X. Batlle, A. Labarta, Ò. Iglesias, M. García del Muro, and M. Kovylina, The March Meeting of the American Physical Society, Pittsburgh, USA, 2009.

10. “Magnetoresistance in positive and negative exchange bias Ni/FeF2 bilayered antidots” (invited conference), M. Kovylina, M. Erekhinsky, R. Morales, J.E. Villegas, I. K. Schuller, A. Labarta, and X. Batlle, The Eleventh Annual Conference of the Serbian Materials Research Society (YUCOMAT 2009), Herceg Novi, Montenegro, 2009.

11. “Tuning exchange bias in Ni/FeF2 heterostructures using antidot arrays” (poster presentation), M. Kovylina, R. Morales, J.E. Villegas, M. Erekhinsky, A. Labarta, I.K. Schuller, and X. Batlle, NanoSpain 2010, Malaga, Spain, 2010.

12. “Tuning exchange bias in Ni/FeF2 heterostructures using antidot arrays” (poster presentation), M. Kovylina, R. Morales, J.E. Villegas, M. Erekhinsky, A. Labarta, I.K. Schuller, and X. Batlle, VI reunión del Grupo Especializado de Física del Estado Sólido (GEFES 2010), Zaragoza, Spain, 2010.

13. “Controlling exchange bias in Co.CoOx nanoparticles by oxygen content” (poster presentation), M. Kovylina, Z. Konstantinović, M. García del Muro, O. Iglesias, A. Labarta, and X. Batlle, VI reunión del Grupo Especializado de Física del Estado Sólido (GEFES 2010), Zaragoza, Spain, 2010.

14. “Recent advances in magnetic nanostructures” (invited conference), A. Labarta, M. Kovylina, N. Perez, M. Garcia del Muro, O. Iglesias, and X. Batlle, The Twelveth Annual Conference of the Serbian Materials Research Society (YUCOMAT 2010), Herceg Novi, Montenegro, 2010.

15. “Tuning exchange bias in Ni/FeF2 heterostructures using antidot arrays” (oral presentation), X. Batlle, M. Kovylina, A. Labarta R. Morales, J.E. Villegas, M. Erekhinsky, and I.K. Schuller, The March Meeting of the Americal Physical Society, Dallas, USA, 2011.

16. “Magnetic Multi-Digit Units for Digital Devices” (poster presentation), R. Morales, M. Kovylina, Z.P. Li, M. Erekhinsky, J.E. Villegas A. Labarta, X. Batlle, and I.K. Schuller, EuroNanoForum Nanotech Europe 2011, Budapest, Hungary, 2011.

17. “Tuning writing magnetic fields in multi-state storage media” (poster presentation), R. Morales, M. Kovylina, Z.P. Li, M. Erekhinsky, J.E. Villegas A. Labarta, X. Batlle, and I.K. Schuller, NanoSpain 2011, Bilbao, Spain, 2011.

18. “Tuning exchange bias in Ni/FeF2 heterostructures using antidot arrays” (poster presentation), M. Kovylina, R. Morales, J.E. Villegas, M. Erekhinsky, A. Labarta, I.K. Schuller, and X. Batlle, NanoSpain 2011, Bilbao, Spain, 2011.

19. “Tuning exchange bias in Ni/FeF2 heterostructures using antidot arrays” (invited conference), M. Kovylina, R. Morales, M. Erekhinsky, J.E. Villegas, A. Labarta, I.K. Schuller, and X. Batlle, Physics at the Nanoscale, International Symposium celebrating Prof. Ivan K. Schuller 65th birthday, Madrid, Spain, 2011.

20. “Exchange Biased Nanostructures” (invited conference), I.K. Schuller, R. Morales, M. Vélez, O. Petracic, I.V. Roshchin, X. Batlle, J. M. Alameda, M. Kovylina, M. Erekhinsky, J. E. Villegas, A. Labarta, A. Porat, and S. Bar-Ad, The 56th Annual Magnetism and Magnetic Materials Conference, Scottsdale, USA, 2011.

21. “Tuning exchange bias in Ni/FeF2 heterostructures using antidot arrays” (poster presentation), M. Kovylina, M. Erekhinsky, R. Morales, J.E. Villegas, I.K. Schuller, A. Labarta, and X. Batlle, NanoSpain 2012, Santander, Spain, 2012.

22. “Tuning exchange bias in Ni/FeF2 heterostructures using antidot arrays” (poster presentation), M. Kovylina, M. Erekhinsky, R. Morales, J.E. Villegas, I.K. Schuller, A. Labarta, and X. Batlle, IV workshop of Nanoscience and Nanotecnology Institute of University of Barcelona, Barcelona, Spain, 2012.

23. “Mirror symmetry in magnetization reversal and coexistence of positive and negative exchange bias in Ni/FeF2” (poster presentation), M. Kovylina, M. Erekhinsky, R. Morales, I.K. Schuller, A. Labarta, and X. Batlle, VII reunión del Grupo Especializado de Física del Estado Sólido (GEFES 2012), Sevilla, Spain, 2012.

24. “Mirror symmetry in magnetization reversal and coexistence of positive and negative exchange bias in Ni/FeF2” (presentation of communication), X. Batlle, M. Kovylina, A. Labarta, R. Morales, M. Erekhinsky, and I.K. Schuller, March Meeting of the American Physical Society, Boston, USA, 2012.

25. “Exchange Bias; Where are the pinned uncompensated spins” (invited conference), I.K. Schuller, M. Erekhinsky, R. Morales, I.V. Roshchin, M. Kovylina, A. Labarta, X. Batlle, M. Fitzsimmons, S. Bar-Ad, and S.K. Sinha, International Conference on Magnetism (ICM 2012), Busan, Republic of Korea, 2012.

26. “Tuning exchange bias in Ni/FeF2 heterostructures using antidot arrays” (presentation of communication), M. Kovylina, R. Morales, M. Erekhinsky, J.E. Villegas, I.K. Schuller, A. Labarta, and X. Batlle, International Conference on Magnetism (ICM 2012), Busan, Republic of Korea, 2012.

27. “Tuning exchange bias through nanostructure” (invited conference), M. Kovylina, R. Morales, I.K. Schuller, A. Labarta, and X. Batlle, Easter Island Nanoscience Conference, Eastern Island, Chile, 2013.

28. “Competing tunnelling and capacitive channels in granular insulating thin films: universal response” (invited conference), M. García del Muro, M. Kovylina, X. Batlle, A. Labarta, Transport in Interacting Disordered Systems, TIDS15, Sant Feliu de Guixols, Spain, 2013.

29. “Functional nanoparticle arrays fabricated by nanoimprint lithography with applications in plasmonics and nanomagnetism” (poster presentation), N. Alayo, F. Pérez-Murano, X. Borrisé, M. Kovylina, A. Conde, A. Labarta, and X. Batlle, Nanoimprint and Nanoprint Technology, Barcelona, Spain, 2013.

30. “Functional nanoparticle arrays fabricated by nanoimprint lithography with applications in plasmonics and nanomagnetism” (poster presentation), N. Alayo, M. Kovylina, A. Conde, A. Labarta, X. Batlle, J. Llobet, X. Borrisé, and F. Pérez-Murano, 39th Micro and nano Engineering (MNE) 2013, London, England, 2013.

31. “Multifunctional Fe-Au heterogeneous thin-films” (poster presentation), M. Kovylina, A. Conde, A. Labarta, and X. Batlle, VIII Edición

de la Reunión Bienal del Grupo Especializado de Física del Estado Sólido de la Real Sociedad Española de Física (GEFES 2014), Ciudad Real, Spain, 2014.

32. “Direct observations of spin configurations in exchange-biased Ni/FeF2 nanostructures” (presentation of communication), Fraile Rodríguez, A.; Kovylina, M; Basaran, A.C.; Morales, R.;Marcus, M.A.; Scholl, A.; Schuller, I.K.;Batlle, X.; Labarta, A., IEEE International magnetic conference (INTERMAG 2014), Dresden (Germany), 2014.

33. “Direct observations of spin configurations in exchange-biased Ni/FeF2 nanostructures” (presentation of communication), A. Fraile Rodríguez, M. Kovylina, A.C. Basaran, R. Morales, M.A. Marcus, A. Scholl, I.K. Schuller, X. Batlle, and A. Labarta, Trends in Nanotechnology International Conference (TNT2014), Barcelona, Spain, 2014.

34. “Tunable exchange bias through nanostructure” (invited conference), A. Labarta, M. Kovylina, A.C. Basaran, R. Morales, I.K. Schuller, A. Fraile Rodríguez, and X. Batlle, 10th International Workshop on Nanomagnetism and Superconductivity at the Nanoscale, Coma-ruga, Spain, 2014.

35. “Manipulation of hybrid magnetic nanostructures through exchange bias and interfacial strain” (oral presentation), A. Fraile Rodríguez, M. García del Muro, M. Kovylina, A.C. Basaran, I. Valmianski, R.l Morales, J.G. Ramírez, F. Kronast, M. A. Marcus, and A. Scholl, 20th International Conference on Magnetism (ICM2015),
Barcelona, Spain, 2015.

36. “Direct observation of controllable exchange bias configurations in Ni/FeF2 nanostructures” (poster presentation), A. Fraile Rodríguez, A.C. Basaran, R. Morales, M. Kovylina, M.A. Marcus, A. Scholl, I.K. Schuller, I.K., X. Batlle, and A. Labarta, 20th International Conference on Magnetism (ICM 2015), Barcelona, SPAIN, 2015.

37. “Collapse Mechanisms and Energy Absorption in Metal/Metal Microtruss Materials” (poster presentation), K. Abu Samk, A. Yaremko, M. Kovylina, and G. Hibbard, 27th Canadian Materials Science Conference, Halifax, Canada, 2015.

38. “Metallization and characterization of nanocrystalline nickel coated stereolithography polymers” (poster presentation), A. Yaremko, A. Lausic, K. Abu Samk, M. Kovylina, and G. Hibbard, 27th Canadian Materials Science Conference, Halifax, Canada, 2015.

39. “Thermal conductivity of nickel diamond composition produced by electrodeposition” (poster presentation), H.J. Cho, M. Kovylina, and U. Erb, 27th Canadian Materials Science Conference, Halifax, Canada, 2015.

40. "Thermo-optic coefficient of porous silicon in the infrared region and modelling of the oxidation process”, D. Martín-Sánchez, M. Kovylina, S. Ponce-Alcántara and J. García-Rupérez, 41st Photonics & Electromagnetics Research Symposium Rome, Italy, 2019.

41. “THz optical characterization of novel chalcogenide phase change materials”, K. Krishna, M. Kovylina, D. Pashnev, S.R. Ayyagari, I. Kašalynas, B. Vidal, and C. García-Meca, 2023 48th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz), Montreal, QC, Canada, 2023.

42. "Accurate Transfer of Individual Nanoparticles onto Single Photonic Nanostructures”, J. Redolat, M. Camarena-Pérez, A. Griol, M. Kovylina, A. Xomalis, J. J. Baumberg, A. Martínez, and Elena Pinilla-Cienfuegos, 2023 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference (CLEO/Europe-EQEC), Munich, Germany, 2023.

PARTICIPATION IN PUBLIC R&D PROJECTS

1. Magnetic Nanomaterial group funding (“Projectes de recerca per potenciar grup de Nanomaterials Magnètics”) from Agència de Gestió

d'Ajuts Universitaris i de Recerca, Generalitat de Catalunya (2009SGR876), 2009-2013.

2. Spanish-French research integration ("Acció integrada entre Espanya i França") from Spanish Ministry of Science and Innovation (HF2008-0026), 11500 €, 2008-2010.

3. Magnetic Nanomaterials: particles and ordered nanoelement arrays ("Nanomateriales magnéticos: partículas y redes ordenadas de nanoelementos") from Spanish Ministry of Education and Cience (MAT2006-03999), 175000 €, 2006-2009.

4. Magnetism and spin dependent charge transport in nanostructured materials ordered/disordered metallic/insulating ("Magnetismo y transporte de carga dependiente de espín en materiales nanoestructurados ordenados/desordenados metálicos/aislantes") from Spanish Ministry of Science and Innovation, (MAT2009-08667), 214000 €, 2010-2012.

5. Access to integrated clean room of National Microelectronics Center ("Accés a la ICTS 'Sala Blanca integrada de micro i nanofabricació'") from Instituto de Microelectrónica de Barcelona del CSIC, (NGG-143), 3500 €, 2009.

6. Funds for access to beamline of the Advanced Light Source (ALS) at the Lawrence Berkeley Laboratory ("Ajut per a l'accés a la infraestructura beamline (PEEM3) of the Advanced Light Source (ALS) del Berkeley Lab") from Lawrence Berkeley Laboratory (ALS-04887), 36877 €, 2012.

7. Magnetic multifunctional nanostructures: surface, interface and proximity effects ("Nanoestructuras magnéticas multifuncionales: efectos de superficie, interfase y Proximidad") from Spanish Ministry of Economy and Competitivity (MAT2012-33037), 167000 €, 2013-2015.

8. Funds for access to beamline of the Advanced Light Source (ALS) at the Lawrence Berkeley Laboratory ("Ajut per a l'accés a la infraestructura beamline (PEEM3) of the Advanced Light Source (ALS) del Berkeley Lab") (ALS-04887), 35473 €, 2013.

9. Magnetic Nanomaterial group funding ("Projectes de recerca per potenciar grup de Nanomaterials Magnètics") by Agència de Gestió d'Ajuts Universitaris i de Recerca, Generalitat de Catalunya, 2014-2016.

10. "Integrated Reconfigurable silicon photonic based optical Switch" by European Commission, 2015-2017.

11. "All-Phononic Circuits enabled by opto-mechanics" by European Commission, 2017-2020.

12. "Terahertz Detection Enabled By Molecular Optomechanics" by European Commission, 2020-2022.

13. "Consolidación y ampliación de la infraestructura de la sala blanca de NTC", Ministerio de Innovación, Ciencia y Universidades y cofinanciado con fondos europeos de desarrollo regional FEDER, 2022-2023.

14. "DISRUPTive Depth CAMeras with advanced Nano Imprint Lithography", Agencia Estatal de Investigación (Proyectos I+D+I en Colaboración Público-Privada) 2023-2024.