

CURRICULUM VITAE

Personal data

Name: Juan Escrig Murúa Birth date: November 04th, 1980

Nationality: Chilean and Spanish Email: juan.escrig@usach.cl

Current position: Dean of the Faculty of Science at the University of Santiago de Chile

Street address: Avda. Libertador Bernardo O'Higgins 3363, Estacion Central, Chile.

Web page: <https://www.webofscience.com/wos/author/record/1015858>

Education and professional career

- Doctor in Physics, University of Santiago, Chile, march 2003 - april 2007.
- Degree in Applied Physics, University of Santiago, Chile, march 1999 - january 2003.

Work experience

- University of Santiago de Chile.
 - Dean, Faculty of Science, january 2021 – to date.
 - Full Professor, Department of Physics, january 2011 – to date.
 - Associate dean for Research and Postgraduate Studies, Faculty of Science, june 2017 – december 2020.
 - Associate Professor, Department of Physics, january 2011 – December 2020.
 - Member of the Graduate Program Evaluation Commission (CEPP), University of Santiago, Chile, january 2014 – may 2019.
 - Assistant Professor, Department of Physics, january 2008 - december 2010.
 - Postdoc, University of Santiago, Chile, august 2007 - december 2007.
- Institutional Coordinator at the University of Santiago de Chile of the Science Up Consortium, july 2020 – to date.
- Executive Director of the Center of Nanoscience and Nanotechnology, CEDENNA, august 2023 – march 2025.
- Editorial Board Member of Scientific Reports, may 2018 – to date.
- Program Evaluator of the Agencia Qualitas, nov 2017 – dec 2017.
- Program Evaluator of the Agencia Qualitas, nov 2016 – jan 2017.

- Program Evaluator of the Agencia Acreditadora de Chile, oct 2015 – nov 2015.
- Coordinator of the panel processing equipments and materials testing of FONDEQUIP, september 2015 - october 2015.
- Study Group of “Theoretical and Experimental Physics” of Fondecyt, Conicyt, june 2012 - may 2015.
- Treasurer, Chilean Society of Physics, april 2010 - april 2013.
- Postdoc, Max Planck Institute of Microstructure Physics, Germany, april 2007 – june 2007.

Scholarships and Awards

- Best Research Award for the Contribution and Honorable Achievement in Innovative Research, 21st Edition of International Research Awards on Civil and Environmental Engineering, January 2025.
- International Best Researcher Award for the Research & Excellence in “Nanomagnetism & Spintronics”, International Society for Scientific Network (ISSN) Awards, November 2022.
- Chilean candidate for the APEC Science Prize for Innovation, Research and Education (ASPIRE) 2017, Conicyt, march 2017.
- IAAM Scientist Medal – 2017 for notable and outstanding research in the Advanced Materials Science & Technology, International Association of Advanced Materials, march 2017.
- Outstanding Reviewer Awards 2016 – Nanotechnology, IOP Publishing, March 2017.
- Member of the Global Young Academy (GYA), may 2015 – may 2020.
- Researcher of the Frontier Science Program, Chilean Academy of Sciences, january 2012 - december 2015.
- Alexander von Humboldt Fellowship for a Postdoctoral stay for 2 years at the University of Hamburg, Hamburg, Germany. Unrealized stay, september 2007.
- Grant of the Max Planck Society for a Postdoctoral stay for 2 months at the Max Planck Institute of Microstructure Physics, Halle, Germany, april 2007 - june 2007.
- Scholarship for graduate studies, Conicyt, march 2003 – April 2007. (PhD student).
- Scholarship Millennium Nucleus Research Assistant "Condensed Matter Physics" 2002 - 2003. (Undergraduate Student).

Projects

- Fondecyt Financing through projects since 2014.
 - Fondecyt EQM 160155, 2016 – 2018, Responsible researcher.
 - Fondecyt EQM 140092, 2014 – 2016, Responsible researcher.
 - Fondecyt EQM 1200045, 2012 – 2014, Responsible researcher.
- Fondecyt Financing through projects since 2007.
 - Fondecyt Regular N° 1240829, 2024 – to date, Responsible researcher.
 - Fondecyt Regular N° 1200302, 2020 – 2024, Responsible researcher.
 - Fondecyt Regular N° 1150952, 2015 – 2019, Responsible researcher.
 - Fondecyt Regular N° 1110784, 2011 – 2015, Responsible researcher.
 - Fondecyt Iniciación N° 11070010, 2007 – 2010, Responsible researcher.
 - Fondecyt Regular N° 1201491, 2020 – 2024, Co-researcher.
 - Fondecyt Regular N° 1200782, 2020 – 2022, Co-researcher.
 - Fondecyt Regular N° 1200766, 2020 – 2021, Co-researcher.
 - Fondecyt Regular N° 1170624, 2017 – 2021, Co-researcher.
 - Fondecyt Regular N° 1121034, 2012 – 2016, Co-researcher.
 - Fondecyt Regular N° 1120356, 2012 – 2016, Co-researcher.
 - Fondecyt Regular N° 1080300, 2008 – 2011, Co-researcher.
 - Fondecyt de Postdoctorado N° 3200392, 2020 – 2021, Researcher sponsor.
 - Fondecyt de Postdoctorado N° 3180042, 2018 – 2021, Researcher sponsor.
 - Fondecyt de Postdoctorado N° 3180470, 2018 – 2019, Researcher sponsor.
 - Fondecyt de Postdoctorado N° 3140073, 2013 – 2016, Researcher sponsor.
 - Fondecyt de Postdoctorado N° 3130393, 2012 – 2015, Researcher sponsor.
- Researcher Responsible for Redes Project 190158, 2019 – 2021.
- Director of the Center of Nanoscience and Nanotechnology, CEDENNA (www.cedenna.cl), Financing Basal #AFB220001, 2023 – to date.
- Associate researcher of the Center of Nanoscience and Nanotechnology, CEDENNA (www.cedenna.cl), Financing Basal #AFB220001, 2009 – 2023.
- Funding from the Millennium Science Initiative through Nuclei since 2007.
 - Millennium Nucleus on Basic and Applied Magnetism P10-061-F (www.magnetismo.cl), 2011 - 2014, Associate Researcher.
 - Millennium Nucleus on Basic and Applied Magnetism (www.magnetismo.cl), from 2007 to 2010, Young researcher.
- Responsible researcher in Chile of the project i-LINK0783, 2013 – 2015.
- Researcher at project funded by the US Air Force, AFOSR FA9550-11-1-0347 (USA), 2011 – 2013.

- Researcher at project of collaboration CSIC-USACH, 2011 – 2012.
- Funding of VRIDEI-USACH
 - Proyecto 042431EM_Ayudante, 2024 - 2025, Researcher sponsor.
 - Proyecto 042331EM_Ayudante, 2023 - 2024, Researcher sponsor.
 - Proyecto 042331EM_POSTDOC, 2023-2024, Researcher sponsor.
 - Proyecto 042131EM_POSTDOC, 2021-2022, Researcher sponsor.
 - Dicyt Asociativo N° 051831EM_DAS, 2018 – 2021, Responsible researcher.
 - Project POSTDOC_DICYT, 2016-2018, Researcher sponsor.
 - Project USA 1555, 2016-2018, Researcher sponsor.

Organization of scientific conferences

- XIV International Symposium on Nano & Supramolecular Chemistry, Santiago, Chile, 31 august – 03 september 2025.
- II Simposio Avances Recientes en Física de la Materia Condensada, Puerto Varas, Chile, 05-08 december 2022.
- VI Congreso Nacional de Nanotecnología, 22-25 november 2021, Online.
- V Congreso Nacional de Nanotecnología, Pucón, Chile, 25-29 november 2018.
- Asian Advanced Materials Congress (ASAMC), Diamond Princess Cruise, Singapur, 11-16 march 2017.
- Simposio Avances Recientes en Física de la Materia Condensada, Los Andes, Chile, 27-28 october 2016.
- VII Workshop Chile-México sobre Magnetismo, Nanociencia y sus Aplicaciones, Arica, Chile, 03 – 07 september 2015.
- V Escuela de Magnetismo para Estudiantes Universitarios, Los Andes, 19 october 2014.
- V Workshop Chile-México sobre Magnetismo, Nanociencia y sus Aplicaciones, Santiago, 30-31 may 2013.
- IV Escuela de Magnetismo para Estudiantes Universitarios, Santiago, 19-20 November 2012.
- III Escuela de Magnetismo para Estudiantes Universitarios, Valparaíso, 24-25 october 2011.
- III Workshop Chile-México sobre Magnetismo, Nanociencia y sus Aplicaciones, Los Andes, 27-29 march 2011.
- II Escuela de Magnetismo para Estudiantes Universitarios, 30 August – 01 September 2010.
- Sólidos 2009, 11-13 november 2009.

- Workshop Chile-Mexico on Magnetism, Nanoscience and Applications, 11-14 january 2009.
- I Escuela de Magnetismo para Estudiantes Universitarios, 09-10 october 2008.
- Workshop Properties of Nanostructures, 04-07 december 2006.

Human Capital Formation

Sponsored postdocs:

- Chandra Kumar, PhD in Physics. Fondecyt Postdoctorado 3240551. From 2023 to 2024.
- Daniela Alburquenque, PhD in Chemistry. Dicyt 042331EM_Ayudante. From 2023 to 2024.
- Cristopher Morales, PhD in Physics. Dicyt Postdoctorado 042131EM_POSTDOC. From 2021 to 2022.
- Paulina Márquez, PhD in Chemistry. Fondecyt Postdoctorado 3200392. From 2020 to 2021.
- Eduardo Saavedra, PhD in Physics. Basal AFB180001. From 2020 to 2021.
- Alejandro Riveros, PhD in Physics. Fondecyt Postdoctorado 3180470. From 2018 to 2020.
- Felipe Tejo, PhD in Physics. Dicyt Postdoctorado 041931EM_POSTDOC. From 2019 to 2020.
- Alejandro Pereira, Project Fondecyt de Postdoctorado N° 3140073. From 2013 to 2016.
- Dr. Juan Luis Palma, Project Fondecyt de Postdoctorado N° 3130393. From 2012 to 2015.

Students currently working with Professor:

Postgraduate

- Felipe Sarria, Master in Physics, Universidad de Santiago de Chile.

Undergraduate

- Piero Terruzi, Physics engineering, Universidad de Santiago de Chile.
- Vicente Catalán, Physics engineering, Universidad de Santiago de Chile.
- Andrés Mejías, Physics engineering, Universidad de Santiago de Chile.
- Tania Tobar, Physics engineering, Universidad de Santiago de Chile.
- Valentina Solís, Physics engineering, Universidad de Santiago de Chile.

Theses completed:

Postgraduate

- Eduardo Saavedra, PhD in Physics, november 18, 2019.
- Felipe Tejo, PhD in Physics, october 31, 2018.
- Nicolás Vidal, PhD in Physics, september 03, 2018.
- Cristopher Morales, PhD in Physics, april 26, 2017.
- Rosa Corona, PhD in Physics, september 26, 2016.

- Álvaro Espejo, PhD in Physics, december 01, 2015.
- Diego Salazar, PhD in Physics, april 23, 2015.
- Alejandro Pereira, PhD in Engineering Sciences, september 26, 2013.

Undergraduate

- Lukas Grifferos, Physics engineering, december 30, 2024.
- Javiera Vargas, Physics engineering, november 26, 2024.
- Francisco Olea, Physics engineering, july 25, 2022.
- Felipe Velozo, Physics engineering, january 22, 2020.
- Claudia Arenas, Physics engineering, july 07, 2017.
- Camilo Silva, Physics engineering, november 20, 2015.
- Nicolás Vidal y Felipe Tejo, Degree in Physics and Mathematics Education, october 16, 2013.
- Daniela Alburquenque, Degree in Chemistry, april 15, 2011.
- Marco Ossandón, Physics engineering, may 28, 2010.

Teaching

Postgraduate

- Introduction to numerical simulations.
- Introduction to mechanisms of magnetization reversal.
- Introduction to experimental techniques
- Spin waves: theory and applications
- Thermoelectricity
- Topic of Micromagnetism.
- Advanced Topic of Micromagnetism.

Undergraduate

- Advanced Laboratory.
- Introduction to Physics.
- Introduction to Electromagnetism.
- Electromagnetism I.
- Electromagnetism II.

Outreach

- Director of numerous outreach activities:
 - School of Magnetism for university students.
 - Coordinator of the Nanoscience and Nanotechnology Workshop for Teachers of Secondary students.
 - Coordinator of the XX Olympiad of Knowledge of the University of Santiago, Chile.

- General coordinator of the contest on science and education (CCE).
- General coordinator of the Initiative Pronano (www.pronano.cl).
- Talks presented in schools and general public.
- I am currently a member of the Editorial Board of the Revista Ciencia Joven.
- Referee of the journal Brotes Científicos, electronic journal that is oriented towards primary and secondary students, to publish the investigations with which they participate in different Student Fairs throughout the country.
- Member of the Scientific Committee of the XXIV Olympiad Chilean Physics, 06 December, 2016.
- Member of the Organizing Committee of the XVIII Olympiad Regional Metropolitan in Physics 2010, September 24, 2010.
- Member of the Organizing Committee of the XVII Olympiad Chilean Physics, University of Santiago, Chile, 28 to 30 October 2009.

Scientific articles

WoS papers

1. E. Saavedra, F. Sarria, A. Mejías, A. Pereira, J. Escrig, “*Engineering spin-wave dynamics in magnetic nanowires: The role of morphology and aspect ratio*”, **Applied Physics Letters** (in press).
2. C. Saji, E. Saavedra, J. Escrig, “*Optimizing heat dissipation in permalloy wire-tube nanostructures: A pathway to improved hyperthermia treatments*”, **Applied Physics Letters** **126**, 182402 (2025).
3. L. Grifferos, D. Alburquenque, J. Vargas, C. Kumar, E. Saavedra, A. Pereira, J. F. Marco, J. Escrig, “*Synthesis and Characterization of HfO₂@Fe₃O₄ Core–Shell Nanotubes: Insights into Potential Magnetic Functionalities*”, **ACS Applied Electronic Materials** **7**, 4103-4113 (2025).
4. A. Maine, E. Garrido, S. Salazar, M. Leal, C. P. Silva, J. Pavez, J. Escrig, G. Gunther, X. Briones, “*Thin films of poly(ionic liquids) containing L-alanine and L-serine amino acids for immobilization of laccase*”, **ACS Applied Polymer Materials** **7**, 2396-2407 (2025).
5. C. Kumar, M. Shrivastav, J. Escrig, S. Talu, R. P. Yadav, F. Guzman, “*Unravelling the impact of Surface roughness and cationic Ni²⁺ vacancies to Ni³⁺ ions ratio on optical properties of NiOx thin film: Insights fractal and multi-fractal dimension*”, **Ceramics International** **51**, 15256-15272 (2025).
6. E. Saavedra, P. Terruzzi, J. L. Palma, J. Escrig, “*Interplay between geometry and spin dynamics in elongated magnetic nanoislands: Elliptical vs stadium-shaped cases*”, **Journal of Magnetism and Magnetic Materials** **622**, 172939 (2025).
7. P. Terruzzi, E. Saavedra, J. Escrig, “*Impact of the helicoidal geometry on the magnetic properties of permalloy nanowires for spintronic applications*”, **Computational Materials Science** **249**, 113628 (2025).

8. E. Saavedra, L. A. Valdez, P. Díaz, N. Bajales, J. Escrig, “Engineering magnetic chirality in FeGe nanocylinders: Exploring topological states for spintronic applications”, **Applied Physics Letters** **125**, 262402 (2024).
9. P. Sandoval, C. Mancilla, N. Tasso, E. Saavedra, J. Escrig, “Geometric parameter control for tunable resonance frequencies in asymmetric nanodots: equilibrium states and dynamic response”, **Physica Scripta** **99**, 115010 (2024).
10. C. Kumar, M. Shrivastav, J. Escrig, J. L. Palma, S. Talu, F. Guzmán, R. P. Yadav, “Impact of fractal dimension and lateral correlation length on surface plasmon resonance activity in sputtered silver layers”, **Nano-Structures & Nano-Objects** **39**, 101294 (2024).
11. E. Saavedra, D. Altbir, J. Escrig, S. Castillo-Sepúlveda, R. M. Corona, V. L. Carvalho-Santos, “Exploring hopfion stability and dynamics in ring-like structures”, **Results in Physics** **62**, 107835 (2024).
12. C. Kumar, M. Shrivastav, J. Escrig, J. L. Palma, R. P. Yadav, H. Silva, A. Zarate, “The correlation between Surface scaling behavior and optical properties of NiO thin films nanostructures: An investigation based on fractal concepts”, **Ceramics International** **50**, 41614 (2024).
13. C. Kumar, V. Kashyap, J. Escrig, M. Shrivastav, V. Kumar, F. Guzman, K. Saxena, “The dopant (n- and p-type)-, band gap-, size- and stress-dependent field electron emission of silicon nanowires”, **Physical Chemistry Chemical Physics** **26**, 17609 (2024).
14. E. Saavedra, F. Tejo, N. Vidal-Silva, J. Escrig, “Symmetry breaking-induced resonance dynamics in Bloch point nanospheres: Unveiling magnetic volume effects and geometric parameters for advanced applications in magnetic sensing and spintronics”, **ACS Applied Materials & Interfaces** **16**, 27605 (2024).
15. M. I. Broens, E. Saavedra, E. F. Pusiol, N. Bajales, J. Escrig, “Tailoring ferromagnetic resonance properties of cobalt nanowires: effects of shape and magnetocrystalline anisotropies”, **Journal of Materials Chemistry C** **12**, 7009 (2024).
16. C. Kumar, M. Shrivastav, J. Escrig, L. P. Campos, A. I. Martínez, H. Silva, A. Zarate, “The investigation of thickness-dependent mono-fractal, optical and optoelectronics properties of sputtered silver thin film for silicon solar cell”, **Vacuum** **225**, 113247 (2024).
17. F. N. Mélica, E. Saavedra, J. Escrig, N. Bajales, O. E. Linarez Pérez, D. M. Arciniegas Jaimes, “Static and dynamic magnetic properties of circular and square nanodots in hexagonal cells”, **Physical Chemistry Chemical Physics** **26**, 5621 (2024).
18. M. A. Salguero Salas, D. M. Arciniegas Jaimes, V. C. Fuertes, E. Saavedra, A. Pereira, J. Escrig, O. E. Linarez Pérez, N. Bajales, “Tuning magnetic properties of CoxNi100-x nanodots: Micromagnetic insights for tailoring enhanced electrochemical performance in energy storage devices”, **The Journal of Physical Chemistry C** **128**, 6259 (2024).
19. M. I. Broens, E. Saavedra, N. Bajales, D. Laroze, J. Escrig, “Geometry-induced Bloch point domain wall in Permalloy conical frustum nanowires for advanced spintronics applications”, **Applied Physics Letters** **124**, 182403 (2024).
20. D. Alburquenque, J. Vargas, F. Tasca, C. Zúñiga Loyola, L. Troncoso, P. Rivas, J. Lisoni, J. Escrig, “Effects of metal-ion substitution on the structural, morphological,

- and electrochemical properties of $\text{LiFe}_x\text{Zn}_y\text{Mn}_{2-x-y}\text{O}_4$ ($x, y = 0.25$ or 0.75)", **Journal of Alloys and Compounds** **971**, 172603 (2024).*
21. D. M. Arciniegas Jaimes, J. M. Carballo, M. I. Broens, M. Bruno, F. Tejo, E. Saavedra, J. ESCRIG, N. Bajales, "Magnetic properties of CoNi nanowires and nanotubes: Insights from micromagnetic simulations and composition-dependent equations", **Results in Physics** **54**, 107082 (2023).
 22. F. Aguilera-Granja, R. H. Aguilera-del-Toro, E.E. Vogel, J. ESCRIG, "Adsorption of silanediol-like molecules on TiO_2 nano-clusters: A density-functional-theoretic study", **Journal of Physics and Chemistry of Solids** **183**, 111642 (2023).
 23. A. Pereira, G. Sáez, E. Saavedra, J. ESCRIG, "Tunable magnetic properties of interconnected permalloy nanowire networks", **Nanomaterials** **13**, 1971 (2023).
 24. E. F. Pusiol, E. Saavedra, A. Pereira, J. L. Palma, N. Bajales, J. ESCRIG, "Dynamic susceptibility of Fe_3O_4 nanotubes", **Discover Nano** **18**, 61 (2023).
 25. F. Olea de la Hoz, E. Saavedra, A. Pereira, J. ESCRIG, "Static and dynamic magnetic properties of Fe_3O_4 nanotubes", **Nanomaterials** **13**, 1265 (2023).
 26. R. M. Corona, E. Saavedra, S. Castillo-Sepúlveda, J. ESCRIG, D. Altbir, V. L. Carvalho-Santos, "Curvature-induced stabilization and field-driven dynamics of magnetic hopfions in toroidal nanorings", **Nanotechnology** **34**, 165702 (2023).
 27. P. Márquez, C. Patiño Vidal, A. Pereira, L. Vivas, J. L. Palma, C. López de Dicastillo, J. ESCRIG, "Hollow iron oxide nanospheres obtained through a combination of atomic layer deposition and electrospraying technologies", **Nanomaterials** **12**, 3180 (2022).
 28. S. Levis, A. Villegas, J. ESCRIG, N. Bajales Luna, D. M. Arciniegas Jaimes, "Quasi-static properties of one-dimensional permalloy nanostructures: a comparative analysis as a function of geometrical parameters", **Anales AFA** **33**, 31 (2022).
 29. G. Sáez, P. Díaz, N. Vidal-Silva, J. ESCRIG, E. E. Vogel, "Bloch points stabilization by means of diameter modulations in cylindrical nanowires", **Results in Physics** **39**, 105768 (2022).
 30. N. Vidal-Silva, G. Sáez, E. Saavedra, J. ESCRIG, E. E. Vogel, "Dynamic susceptibility of a Bloch point singularity confined in a magnetic nanowire", **Results in Physics** **37**, 105530 (2022).
 31. E. Navarro, M. U. González, F. Berón, F. Tejo, J. ESCRIG, J. M. García-Martín, "Large-area nanopillar arrays by glancing angle deposition with tailored magnetic properties", **Nanomaterials** **12**, 1186 (2022).
 32. D. M. Arciniegas Jaimes, M. I. Broens, E. Saavedra, N. Bajales Luna, J. ESCRIG, "Wave reversal mode in permalloy wire-tube nanostructures", **AIP Advances** **12**, 035044 (2022).
 33. E. Saavedra, S. Castillo-Sepúlveda, R. M. Corona, D. Altbir, J. ESCRIG, V. L. Carvalho-Santos, "Influence of curvature on the dynamical susceptibility of bent nanotubes", **Results in Physics** **35**, 105290 (2022).
 34. F. Aguilera-Granja, J. M. Montejano-Carrizales, E. E. Vogel, J. ESCRIG, "Hollow structures of Ti_nO_m systems with $m=2n$: A density functional theoretical study", **Journal of Physics and Chemistry of Solids** **164**, 110646 (2022).
 35. E. Saavedra, J. L. Palma, J. ESCRIG, "Dynamic susceptibility spectra of stadium-shaped and elliptical nanostructures", **Journal of Magnetism and Magnetic Materials** **541**, 168493 (2022).

36. E. Saavedra, F. Tejo, N. Vidal-Silva, J. ESCRIG, “Magnonic key based on skyrmion clusters”, **Scientific Reports** **11**, 23010 (2021).
37. G. Sáez, P. Díaz, E. Cisternas, E. E. Vogel, J. ESCRIG, “Information storage in permalloy modulated magnetic nanowires”, **Scientific Reports** **11**, 20811 (2021).
38. E. Saavedra, N. Vidal-Silva, J. ESCRIG, “Dynamic susceptibility of permalloy wire-tube nanostructures”, **Results in Physics** **31**, 104874 (2021).
39. A. Riveros, F. Tejo, J. ESCRIG, K. Y. Guslienko, O. Chubykalo-Fesenko, “Field-dependent energy barriers of magnetic Neel skyrmions in ultrathin circular nanodots”, **Physical Review Applied** **16**, 014068 (2021).
40. D. M. Arciniegas Jaimes, P. Márquez, J. ESCRIG, O. Linarez Pérez, N. Bajales, “A comparative analysis of the electrochemical performance obtained for magnetic graphene oxide-based composites”, **Materials Letters** **290**, 129473 (2021).
41. M. A. Merlo, D. M. Arciniegas Jaimes, J. ESCRIG, O. Linarez Pérez, N. Bajales, “Carbon-coated alumina nanochannels-based composite: A conductivity analysis by means of electrochemical impedance spectroscopy”, **Materials Letters** **295**, 129795 (2021).
42. D. M. Arciniegas Jaimes, S. Raviolo, J. M. Carballo, N. Bajales, J. ESCRIG, “Wave reversion mode stability as a function of diameter and wall thickness for permalloy and nickel nanotubes”, **Journal of Magnetism and Magnetic Materials** **523**, 167578 (2021).
43. P. Márquez, D. Alburquenque, F. Celis, R. Freire, J. ESCRIG, “Structural, morphological and magnetic properties of iron oxide thin films obtained by atomic layer deposition as a function of their thickness”, **Journal of Magnetism and Magnetic Materials** **530**, 167914 (2021).
44. R. M. Corona, S. Castillo-Sepúlveda, D. Altbir, J. ESCRIG, “Controlling domain wall chirality by combining hard and soft magnetic materials in planar nanostructures with wire-ring morphology”, **Current Applied Physics** **21**, 180-183 (2021).
45. D. M. Arciniegas Jaimes, P. Márquez, A. Ovalle, J. ESCRIG, O. Linarez Pérez, N. Bajales, “Permalloy nanowires/graphene oxide composite with enhanced conductive properties”, **Scientific Reports** **10**, 13742 (2020).
46. F. Tejo, F. Velozo, R. G. Elías, J. ESCRIG, “Oscillations of skyrmion clusters in Co/Pt multilayer nanodots”, **Scientific Reports** **10**, 16517 (2020).
47. E. Saavedra, R. M. Corona, N. Vidal-Silva, J. L. Palma, D. Altbir, J. ESCRIG, “Dynamic and static properties of stadium-shaped antidot arrays”, **Scientific Reports** **10**, 20024 (2020).
48. D. A. Carvajal, A. Riveros, J. ESCRIG, “Orbit-like trajectory of the vortex core in ferrimagnetic dots close to the compensation point”, **Results in Physics** **19**, 103598 (2020).
49. F. Tejo, E. Saavedra, J. C. Denardin, J. ESCRIG, “Dynamic susceptibility of skyrmion clusters in Co/Pt nanodots”, **Applied Physics Letters** **117**, 152401 (2020).
50. M. Guerrero Correa, F. B. Martínez, C. Patiño Vidal, C. Streitt, J. ESCRIG, C. López de Dicastillo, “Antimicrobial metal-based nanoparticles: a review on their synthesis, types and antimicrobial action”, **Beilstein Journal of Nanotechnology** **11**, 1450-1469 (2020).
51. E. Saavedra, J. P. Burr, D. Alburquenque, J. L. Palma, J. M. García-Martín, J. ESCRIG, “Co/Ni multilayers ordered according to a periodic, Fibonacci and Thue

- Morse sequence obtained by Atomic Layer Deposition*", **Nano Express** **1**, 020002 (2020).
52. E. Saavedra, J. Escrig, "Dynamic susceptibility of interconnected pentagonal spin ice lattices", **Journal of Magnetism and Magnetic Materials** **513**, 167084 (2020).
 53. G. Sáez, E. Cisternas, P. Díaz, E. E. Vogel, J. P. Burr, E. Saavedra, J. Escrig, "Tuning the coercive field by controlling the magnetization reversal process in permalloy modulated nanowires", **Journal of Magnetism and Magnetic Materials** **512**, 167045 (2020).
 54. C. L. de Dicastillo, C. Patiño Vidal, I. Falcó, G. Sánchez, P. Márquez, J. Escrig, "Antimicrobial bilayer nanocomposites based on the incorporation of as-synthesized hollow zinc oxide nanotubes", **Nanomaterials** **10**, 503 (2020).
 55. D. Alburquenque, P. Márquez, L. Troncoso, A. Pereira, F. Celis, M. Sánchez-Arenillas, J. F. Marco, J. L. Gautier, J. Escrig, " $\text{LiM}_{0.5}\text{Mn}_{1.5}\text{O}_4$ -d ($M=\text{Co}$ or Fe) spinels with a high oxidation state obtained by ultrasound-assisted thermal decomposition of nitrates", **Journal of Solid State Chemistry** **284**, 121175 (2020).
 56. S. Raviolo, A. Pereira, D. M. Arciniegas Jaimes, J. Escrig, N. Bajales, "Angular dependence of the magnetic properties of Permalloy nanowire array: A comparative analysis between experiment and simulation", **Journal of Magnetism and Magnetic Materials** **499**, 166240 (2020).
 57. S. Raviolo, D. M. Arciniegas Jaimes, N. Bajales, J. Escrig, "Wave reversal mode: a new magnetization reversal mechanism in magnetic nanotubes", **Journal of Magnetism and Magnetic Materials** **497**, 165944 (2020).
 58. D. Salazar Aravena, J. Escrig, D. Laroze, "Unusual behavior of the magnetization reversal process of interacting nanostructures with wire-tube morphology", **Journal of Magnetism and Magnetic Materials** **497**, 165935 (2020).
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Conferences

The author has participated in numerous presentations at national and international conferences. Then only those presentations that have been effectively exposed by J. Escrig are cited.

Invited talks

1. Juan Escrig, “*Nanomagnetismo: diseñando imanes pequeños para futuras aplicaciones*”, **XXIV Simposio Chileno de Física**, 2024, Temuco, Chile.
2. Juan Escrig, “*Innovative nanostructure synthesis for antimicrobial applications: Combining electrospinning, electrospraying and atomic layer deposition techniques*”, **XXXI International Materials Research Congress**, 2023, Cancún, México.
3. Juan Escrig, “*Nanotecnología made in Chile*”, **Segundo Simposio de Nanotecnología**, 2019, Santiago, Chile.
4. Juan Escrig, “*Novel hollow titanium dioxide nanospheres and nanotubes obtained through a combination of atomic layer deposition and electrospinning technologies*”, **XXVIII International Materials Research Congress**, 2019, Cancún, México.
5. Juan Escrig, “*Energía: Oportunidades y desafíos para Cedenna*”, **X Taller Interno Cedenna**, 2019, Santiago, Chile.
6. Juan Escrig, “*Magnetic and electrical characterization of nickel-rich NiFe thin films and nanotubes synthesized by ALD*”, **MRS Spring Meeting & Exhibit**, 2017, Phoenix, USA.
7. Juan Escrig, “*Magnetic properties of NiFe thin films and nanotubes synthesized by ALD and subsequent thermal reduction*”, **Asian Advanced Materials Congress**, 2017, Diamond Princess Cruises, Singapore.
8. Juan Escrig, “*Síntesis y caracterización de películas delgadas y nanoestructuras magnéticas mediante deposición de capas atómicas (ALD)*”, **VIII Escuela de Nanoestructuras**, 2016, Valparaíso, Chile.
9. Juan Escrig, “*Síntesis, caracterización y modelamiento de nanoestructuras magnéticas*”, **VIII Escuela de Nanoestructuras**, 2016, Valparaíso, Chile.

10. S. Allende, D. Altbir, J. Escrig, P. Landeros, A. Riveros, E. Salcedo, P. Vargas, N. Vidal-Silva, E. E. Vogel, “*Nanotubos magnéticos*”, **Seminario Intensivo sobre “Materia Condensada y Física Estadística”**, 2016, Pucón, Chile.
11. J. Escrig, “*Magnetic properties of NiFe thin films and nanotubes synthesized by atomic layer deposition and subsequent thermal reduction*”, **XI Latin American Workshop on Magnetism, Magnetic Materials and their Applications**, 2016, Playa del Carmen, Mexico.
12. J. Escrig, “*Synthesis and characterization of thin films and nanostructures by atomic layer deposition (ALD)*”, **Emerging Technologies 2016**, 2016, Montreal, Canada.
13. J. Escrig, “*Magnetic properties of nanowires and nanotubes*”, **International Conference on Small Science**, 2013, Las Vegas, USA.
14. J. Escrig, “*Magnetic properties of nanowires and nanotubes*”, **X Latin American Workshop on Magnetism, Magnetic Materials and Their Applications**, 2013, Buenos Aires, Argentina.
15. J. Escrig, “*Reversión de la magnetización en nanohilos y nanotubos magnéticos*”, **Reunión Nacional Sólidos 2011**, 2011, Tucumán, Argentina.

Conference contributions

1. Juan Escrig, “*Engineering core-shell magnetic nanotubes for spintronic applications*”, **International Workshop on Spintronics (SPIN Galápagos)**, 2025, Puerto Baquerizo Moreno, Ecuador.
2. Juan Escrig, “*Static and dynamic magnetic properties of Fe₃O₄ nanotubes*”, **18th International Seminar on Condensed Matter and Statistical Physics (SIMAFE)**, 2023, Temuco, Chile.
3. Juan Escrig, “*Innovative nanostructure synthesis for antimicrobial applications: Combining electrospinning, electrospraying and atomic layer deposition techniques*”, **VII Congreso Nacional de Nanotecnología**, 2023, Pucón, Chile.
4. Juan Escrig, “*Combining electrospinning, electrospraying and atomic layer deposition techniques*”, **XII Latin American Workshop on Magnetism and Magnetic Materials**, 2023, Puerto Varas, Chile.
5. Juan Escrig, “*Nanotubos magnéticos*”, **II Simposio Avances Recientes en Física de la Materia Condensada**, 2022, Puerto Varas, Chile.
6. Juan Escrig, Noelia Bajales, Diana M. Arciniegas Jaimes, Sofía Raviolo, Julieta M. Carballo, “*Wave reversal mode: A new magnetization reversal mechanism in*

- magnetic nanotubes*”, **15th Joint MMM-Intermag Conference**, 2022, New Orleans, USA (online).
7. Juan Escrig, Daniela Alburquenque, Carol L. De Dicastillo, María J. Galotto, Cristian Patiño, Yesseny Vásquez-Martínez, Claudia Torrent, Alejandro Pereira, Juan L. Palma, “*Novel antimicrobial nanomaterials obtained through a combination of atomic layer deposition and electrospinning technologies*”, **XI Workshop Chile-México sobre el Magnetismo, Nanociencia y sus Aplicaciones**, 2019, Pucón, Chile.
 8. Juan Escrig, “*Susceptibilidad dinámica de nanoestructuras y geometrías complejas*”, **II Taller Interno Línea 2 Nanoestructuras Magnéticas CEDENNA 2019**, 2019, Arica, Chile.
 9. Juan Escrig, Alejandro Riveros, Nicolás Vidal-Silva, Felipe Tejo, “*Analytical and numerical Ku-B phase diagrams for cobalt nanostructures: stability region for a Bloch skyrmion*”, **XXVII International Materials Research Congress**, 2018, Cancún, México.
 10. Juan Escrig, Mohamed Shaker Salem, Felipe Tejo, Robert Zierold, Philip Sergelius, Josep M. Montero Moreno, Detlef Goerlitz, Kornelius Nielsch, “*Composition and diameter modulation of magnetic nanowire arrays fabricated by a novel approach*”, **XXVII International Materials Research Congress**, 2018, Cancún, México.
 11. Juan Escrig, “*Resultados recientes y en desarrollo del Laboratorio de Nanomagnetismo*”, **Reunión sobre Nanoestructuras Magnéticas**, 2018, Viña del Mar, Chile.
 12. M. S. Salem, F. Tejo, R. Zierold, P. Sergelius, J. M. Montero Moreno, D. Goerlitz, K. Nielsch, J. Escrig, “*Composition and diameter modulation of a magnetic nanowire arrays fabricated by a novel approach*”, **XII Seminario Intensivo Magnetismo y Física Estadística 2017**, 2017, Temuco, Chile.
 13. J. Escrig, “*Magnetic and electrical characterization of nickel-rich NiFe thin films and nanotubes synthesized by ALD*”, **XXVI International Materials Research Congress**, 2017, Cancún, México.
 14. J. Escrig, “*Dewetting of Ni thin films obtained by ALD due to the thermal reduction process: variation of the thicknesses*”, **XXVI International Materials Research Congress**, 2017, Cancún, México.
 15. J. Escrig, “*Síntesis, caracterización y modelamiento de nanoestructuras magnéticas*”, **I Workshop de la Facultad de Ciencia**, 2016, Santiago, Chile.
 16. J. Escrig, “*Síntesis y caracterización de películas delgadas y nanoestructuras mediante ALD*”, **V Taller Interno CEDENNA**, 2015, Los Andes, Chile.

17. A. Pereira, J. L. Palma, R. Zierold, J. C. Denardin, M. Vázquez, K. Nielsch, J. Escrig, “*Magnetic properties of iron oxide nanotubes: Influence of the diameter of the nanotubes*”, **20th International Conference on Magnetism**, 2015, Barcelona, España.
18. A. Espejo, N. Vidal-Silva, J. A. López-López, D. Goerlitz, K. Nielsch, J. Escrig, “*Current-driven vortex domain wall motion in wire-tube nanostructures*”, **20th International Conference on Magnetism**, 2015, Barcelona, España.
19. A. Pereira, J. L. Palma, R. Zierold, J. C. Denardin, M. Vázquez, K. Nielsch, J. Escrig, “*Magnetic properties of iron oxide nanotubes: Influence of the diameter of the nanotubes*”, **2nd International Conference on Nanomagnetism and Spintronics (RTNSA 2015)**, 2015, Ordizia, España.
20. A. Espejo, N. Vidal-Silva, J. A. López-López, D. Goerlitz, K. Nielsch, Juan Escrig, “*Current-driven vortex domain wall motion in wire-tube nanostructures*”, **2nd International Conference on Nanomagnetism and Spintronics (RTNSA 2015)**, 2015, Ordizia, España.
21. A. Pereira, J. L. Palma, R. Zierold, J. C. Denardin, M. Vázquez, K. Nielsch, J. Escrig, “*Síntesis de nanoestructuras mediante deposición de capas atómicas (ALD): Desde películas delgadas hasta sistemas complejos*”, **Seminario Intensivo Magnetismo y Física Estadística**, 2014, Temuco, Chile.
22. C. Silva Cea, A. Pereira, J. Palma, R. Zierold, J. C. Denardin, M. Vázquez, K. Nielsch, J. Escrig, “*Magnetic properties of iron oxide nanotubes: influence of the outer diameter*”, **59th Annual Conference on Magnetism and Magnetic Materials**, 2014, Honolulu, Estados Unidos.
23. A. Pereira, J. Palma, D. Salazar-Aravena, M. Vázquez, J. C. Denardin, J. Escrig, “*Magnetic properties of cylindrical nanostructures with wire-tube morphology*”, **59th Annual Conference on Magnetism and Magnetic Materials**, 2014, Honolulu, Estados Unidos.
24. J. Escrig, “*Síntesis de nanoestructuras mediante deposición de capas atómicas (ALD): Desde películas delgadas hasta sistemas complejos*”, **VI Workshop Chile-México sobre el Magnetismo, Nanociencia y sus Aplicaciones**, 2014, Cancún, México.
25. F. Tejo, N. Vidal-Silva, J. Escrig, “*Angular dependence of the coercivity and remanence of cylindrical diameter modulated nanowires*”, **58th Annual Conference on Magnetism and Magnetic Materials**, 2013, Denver, Estados Unidos.

26. D. Salazar-Aravena, R. M. Corona, D. Goerlitz, K. Nielsch, J. Escrig, “*Magnetic properties of multisegmented cylindrical nanoparticles with alternating magnetic wire and tube segments*”, **58th Annual Conference on Magnetism and Magnetic Materials**, 2013, Denver, Estados Unidos.
27. M. S. Salem, P. Sergelius, R. M. Corona, D. Goerlitz, K. Nielsch, J. Escrig, “*Magnetic properties of cylindrical diameter modulated Ni₈₀Fe₂₀ nanowires: Interaction and coercive fields*”, **58th Annual Conference on Magnetism and Magnetic Materials**, 2013, Denver, Estados Unidos.
28. Kristina Pitzschel, Julien Bachmann, Josep M. Montero-Moreno, Juan Escrig, Detlef Goerlitz, Kornelius Nielsch, “*Modos de reversión e interacciones magnetostáticas en nanotubos multicapas*”, **V Workshop Chile-México sobre el Magnetismo, Nanociencia y sus Aplicaciones**, 2013, Santiago, Chile.
29. J. Escrig, L. G. Vivas, M. P. Proenca, S. Allende, D. Altbir, D. G. Trabada, G. A. Badini-Confalonieri, C. T. Sousa, J. Ventura, M. Vázquez, “*Magnetic properties of Co-based nanowire and nanotube arrays*”, **XVIII Simposio Chileno de Física**, 2012, La Serena, Chile.
30. J. Escrig, “*Magnetic anisotropy of Co-based nanowire arrays*”, **IV Mini-Workshop Magnetismo Básico y Aplicado**, 2012, Santiago, Chile.
31. J. Escrig, “*Cálculos recientes sobre las propiedades magnéticas de nanoestructuras magnéticas*”, **Seminario Magnetismo y Mecánica Estadística**, 2011, Temuco, Chile.
32. J. Escrig, A. Pereira, D. Altbir, “*Magnetostatic interactions between nanowires and nanotubes*”, **56th Annual Conference on Magnetism & Magnetic Materials**, 2011, Scottsdale, AZ, USA.
33. J. Escrig, “*Dependencia angular de la coercividad en nanohilos y nanotubos magnéticos*”, **III Workshop Chile-México sobre Magnetismo, Nanociencia y sus Aplicaciones**, 2011, Los Andes, Chile.
34. M. Del Canto, S. Michea, D. Alburquenque, A. Pereira, R. Pastene, J. L. Gautier, J. C. Denardin, J. Escrig, “*Síntesis y caracterización de nanopartículas de níquel*”, **XVII Simposio Chileno de Física**, 2010, Pucón, Chile.
35. K. Pitzschel, J. M. Montero Moreno, C. Morales, S. Martens, O. Albrecht, J. Kimling, G. Meier, D. Gorlitz, J. Escrig, J. Bachmann. K. Nielsch, “*Cylindrical magnetic nanowires and nanotubes with modulated diameter*”, **XVII Simposio Chileno de Física**, 2010, Pucón, Chile.
36. J. Escrig, “*Micromagnetismo aplicado a sistemas micro y nanométricos*”, **II Escuela de Magnetismo para Estudiantes Universitarios**, 2010, Santiago, Chile.

37. J. Escrig, K. Pitzschel, J. Bachmann, K. Nielsch, “*Propiedades magnéticas de nanotubos de Fe_3O_4 bifásicos: teoría y experimentos*”, **III MiniWorkshop Magnetismo Básico y Aplicado**, 2010, Coya-Rancagua, Chile.
38. J. Escrig, C. Morales, D. Altbir, K. Pitzschel, J. M. Montero Moreno, O. Albrecht, J. Bachmann, K. Nielsch, “*Magnetic properties of ordered arrays of pseudo-one-dimensional nanostructures with modulated diameters*”, **II Workshop Chile-México sobre Magnetismo, Nanociencia y sus Aplicaciones**, 2010, Cocoyoc, México.
39. J. Escrig, C. Morales, K. Pitzschel, J. Bachmann, K. Nielsch, “*Magnetostatic interactions between nanotubes with modulated diameters*”, **Sólidos 2009**, 2009, Valparaíso, Chile.
40. J. Escrig, C. Morales, K. Pitzschel, J. M. Montero Moreno, O. Albrecht, J. Bachmann, K. Nielsch, “*Magnetic properties of ordered arrays of pseudo-one-dimensional nanostructures with modulated diameters*”, **10th International Conference on Frontiers of Polymers and Advanced Materials**, 2009, Santiago, Chile.
41. J. Escrig, C. Morales, K. Pitzschel, J. M. Montero Moreno, O. Albrecht, J. Bachmann, K. Nielsch, “*Magnetic properties of ordered arrays of pseudo-one-dimensional nanostructures with modulated diameters*”, **11th International Conference on Advanced Materials**, 2009, Rio de Janeiro, Brasil.
42. J. Escrig, K. Pitzschel, J. M. Montero Moreno, O. Albrecht, K. Nielsch, J. Bachmann, “*Arreglos ordenados de nanotubos magnéticos con modulaciones controladas de sus diámetros*”, **II Mini-Workshop Núcleo Milenio Magnetismo Básico y Aplicado**, 2009, Rancagua, Chile.
43. J. Escrig, K. Pitzschel, J. M. Montero Moreno, O. Albrecht, K. Nielsch, J. Bachmann, “*Arreglos ordenados de nanotubos magnéticos con modulaciones controladas de sus diámetros*”, **I Congreso Nacional de Nanotecnología y Nanociencias**, 2009, Valparaíso, Chile.
44. J. Escrig, S. Allende, D. Altbir, M. Bahiana, “*How do magnetic nanotubes interact?*”, **At the Frontiers of Condensed Matter IV**, 2008, Buenos Aires, Argentina.
45. J. Escrig, S. Allende, D. Altbir, M. Bahiana, “*Interacciones magnetostáticas entre nanotubos magnéticos*”, **XVI Simposio Chileno de Física**, 2008, Valparaíso, Chile.
46. J. Escrig, S. Allende, D. Altbir, P. Landeros, M. Bahiana, “*Magnetostatic interactions between magnetic nanotubes*”, **Europe International Magnetism Conference Intermag**, 2008, Madrid, España.

47. J. Escrig, “*An analytical approach to the coercivity of magnetic nanowires and nanotubes*”, **I Mini-Workshop Núcleo Milenio Magnetismo Básico y Aplicado**, 2008, Reñaca, Chile.
48. J. Escrig, P. Landeros, D. Altbir, M. Bahiana, J. d’Albuquerque e Castro, “*Multicapas de anillos magnéticos nanométricos*”, **IV Simposio Chileno de Estudiantes de Física**, 2006, Santiago, Chile.
49. J. Escrig, P. Landeros, D. Altbir, E. E. Vogel, P. Vargas, “*Diagramas de fase de nanotubos magnéticos*”, **II Taller Nacional de Jóvenes Científicos ICM**, 2005, Villa Alemana, Chile.
50. J. Escrig, P. Landeros, D. Altbir, E. E. Vogel, P. Vargas, “*Aspect ratio phase diagram for magnetic nanotubes*”, **VII Latin American Workshop on Magnetism and Magnetic Materials and their Applications LAW3M**, 2005, Reñaca, Chile.
51. J. Escrig, P. Landeros, J. C. Retamal, D. Altbir, J.d’Albuquerque e Castro, “*Diagramas de fase magnéticos em sistemas com anisotropia uniaxial*”, **I Taller Latinoamericano de Nanoestructuras Magnéticas**, 2002, Reñaca, Chile.
52. J. Escrig, P. Landeros, J. C. Retamal, D. Altbir, J. d’Albuquerque e Castro, “*Diagramas de fase de partículas magnéticas nanométricas*”, **XIII Simposio Chileno de Física**, 2002, Concepción, Chile.

Referee of Journals or Projects

Referee in Scientific Journals (in parentheses the number of revisions made)

- (30) Journal of Magnetism and Magnetic Materials
- (17) Applied Physics Letters
- (11) Journal of Physics D: Applied Physics
- (10) IEEE Transactions on Magnetics
- (10) Journal of Applied Physics
- (10) Materials Chemistry and Physics
- (9) Nanotechnology
- (5) Journal of Physics: Condensed Matter
- (4) MRS Communications
- (4) Physics Letters A
- (4) Physica Status Solidi (RRL) – Rapid Research Letters
- (3) ACS Nano
- (3) Indian Journal of Physics

- (3) International Journal of Modern Physics B
- (3) Journal of Alloys and Compounds
- (3) Materials Science and Engineering B
- (2) Condensed Matter
- (2) Crystal Growth & Design
- (2) The European Physical Journal Applied Physics
- (2) Journal of Materials Chemistry C
- (2) Journal of Materials Science
- (2) Materials Letters
- (2) Nanoscale Research Letters
- (2) Physica E: Low-dimensional systems and nanostructures
- (2) Review of Scientific Instruments
- (2) Scientific Reports
- (2) Small
- (2) Surface Review and Letters
- (2) The European Physical Journal B
- (1) ACS Applied Materials & Interfaces
- (1) ACS Omega
- (1) AIP Advances
- (1) Advanced Functional Materials
- (1) Advances in Condensed Matter Physics
- (1) Advances in Nano Research
- (1) Proceedings of Magnetism and Magnetic Materials (MMM) Conference
- (1) Applied Physics A
- (1) Current Nanoscience
- (1) International Journal of Metals
- (1) International Scholarly Research Notices
- (1) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences
- (1) Journal of Computational Electronics
- (1) Journal of Superconductivity and Novel Magnetism
- (1) Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films
- (1) New Journal of Chemistry
- (1) Physica B: Condensed Matter
- (1) Physica Status Solidi B
- (1) RSC Advances
- (1) Solid State Sciences

Evaluator of Scientific Projects (in parentheses the number of revisions made)

- (1) Academie Universitaire Loouvain incoming Post-doctoral Fellowships co-funded by the Marie Curie Actions of the European Commission, Belgium.
- (1) Austrian Science Fund, Austria.
- (1) Swiss National Science Foundation (SNSF), Switzerland.
- (3) Projects of Scientific Research and Technology, National Agency for Scientific and Technological Promotion, Argentina.
- (2) Projects Innova Chile (Corfo), Santiago, Chile.
- (1) Ecos-Conicyt Scientific Cooperation Program Project, Chile.
- (3) Projects Fondecyt Initiation, Chile.
- (3) Projects Fondecyt Regular, Chile.
- (6) Projects Fondecyt, Chile.
- (1) DIUFRO Projects at the University of La Frontera, Temuco, Chile.
- (1) Projects Inter-Faculties UDD at the University of Desarrollo, Santiago, Chile.
- (1) Projects of Centers DIUV at the University of Valparaiso, Valparaíso, Chile.
- (1) Internal Competition for R&D Projects of the Central University of Chile, Chile.