

# Enrique Del Barco

## List of Publications by Year in descending order

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54  
papers

2,609  
citations

257450

24  
h-index

182427

51  
g-index

57  
all docs

57  
docs citations

57  
times ranked

2791  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nematic superconductivity in the topological semimetal $\text{Ca}_2\text{Sb}$ . Physical Review B, 2022, 105, .		
2	Stable Universal and Input Single-Molecule Logic Gates. Advanced Materials, 2022, 34, e2202135.	21.0	10
3	Bias-Polarity-Dependent Direct and Inverted Marcus Charge Transport Affecting Rectification in a Redox-Active Molecular Junction. Advanced Science, 2021, 8, e2100055.	11.2	14
4	A single atom change turns insulating saturated wires into molecular conductors. Nature Communications, 2021, 12, 3432.	12.8	16
5	Design principles of dual-functional molecular switches in solid-state tunnel junctions. Applied Physics Letters, 2020, 117, .	3.3	20
6	Electric-field-driven dual-functional molecular switches in tunnel junctions. Nature Materials, 2020, 19, 843-848.	27.5	124
7	Subterahertz spin pumping from an insulating antiferromagnet. Science, 2020, 368, 160-165.	12.6	175
8	Sub-Kelvin (100 mK) time resolved electron paramagnetic resonance spectroscopy for studies of quantum dynamics of low-dimensional spin systems at low frequencies and magnetic fields. Review of Scientific Instruments, 2019, 90, 085106.	1.3	2
9	Molecular spintronics. Journal of Applied Physics, 2019, 125, .	2.5	26
10	Extreme Field Sensitivity of Magnetic Tunneling in Fe-Doped $\text{Li}_3\text{Mn}_3\text{N}$ . Physical Review Letters, 2018, 120, 147202.	7.0	1
11	How to distinguish between interacting and noninteracting molecules in tunnel junctions. Nanoscale, 2018, 10, 3904-3910.	5.6	4
12	Transition from direct to inverted charge transport Marcus regions in molecular junctions via molecular orbital gating. Nature Nanotechnology, 2018, 13, 322-329.	31.5	98
13	Effects of uniaxial pressure on the quantum tunneling of magnetization in a high-symmetry $\text{Mn}_{12}$ single-molecule magnet. Physical Review B, 2017, 95, .	3.2	7
14	Molecular diodes with rectification ratios exceeding 105 driven by electrostatic interactions. Nature Nanotechnology, 2017, 12, 797-803.	31.5	224
15	Electrostatic control over temperature-dependent tunnelling across a single-molecule junction. Nature Communications, 2016, 7, 11595.	12.8	35
16	Temperature dependent charge transport across tunnel junctions of single-molecules and self-assembled monolayers: a comparative study. Dalton Transactions, 2016, 45, 17153-17159.	3.3	22
17	Tunable crossover between one- and three-dimensional magnetic dynamics in $\text{Co}_2\text{O}$ single-chain magnets organized by halogen bonding. Physical Review B, 2016, 93, .	3.2	13
18	A Single-Level Tunnel Model to Account for Electrical Transport through Single Molecule- and Self-Assembled Monolayer-based Junctions. Scientific Reports, 2016, 6, 26517.	3.3	70

#	ARTICLE	IF	CITATIONS
19	Moderate positive spin Hall angle in uranium. Applied Physics Letters, 2015, 107, 232403.	3.3	6
20	Dynamical spin injection at a quasi-one-dimensional ferromagnet-graphene interface. Applied Physics Letters, 2015, 106, .	3.3	12
21	Controlling the direction of rectification in a molecular diode. Nature Communications, 2015, 6, 6324.	12.8	197
22	Three-Leaf Quantum Interference Clovers in a Trigonal Single-Molecule Magnet. Physical Review Letters, 2014, 113, 087201.	7.8	12
23	Nanoscale constrictions in superconducting coplanar waveguide resonators. Applied Physics Letters, 2014, 105, .	3.3	31
24	A Microscopic and Spectroscopic View of Quantum Tunneling of Magnetization. Nanoscience and Technology, 2014, , 77-110.	1.5	8
25	Spin Pumping in Permalloy/Graphene and Permalloy/Graphite Interfaces. IEEE Transactions on Magnetics, 2013, 49, 3147-3150.	2.1	9
26	Anomalous field sweep rate dependence of the tunnel relaxation in single-molecule magnet Mn <sup>4</sup> β. Polyhedron, 2013, 66, 179-182.	2.2	0
27	Low temperature hysteretic behavior of the interpenetrating 3-D network structured [Ru <sub>2</sub> (O <sub>2</sub> CMe) <sub>4</sub> ] <sub>3</sub> [Fe(CN) <sub>6</sub> ] magnet. Polyhedron, 2013, 64, 73-76.	2.2	9
28	Single-crystal EPR spectroscopy of a Co(II) single-chain magnet. Polyhedron, 2013, 66, 218-221.	2.2	9
29	Quantum tunneling of magnetization in trigonal single-molecule magnets. Physical Review B, 2012, 85, .	3.2	26
30	Dynamic spin injection into chemical vapor deposited graphene. Applied Physics Letters, 2012, 101, .	3.3	43
31	Magnetic field dependent transport through a Mn <sup>4</sup> single-molecule magnet. Journal of Applied Physics, 2011, 109, .	2.5	17
32	Asymmetric Berry-Phase Interference Patterns in a Single-Molecule Magnet. Physical Review Letters, 2011, 106, 227201.	7.8	25
33	Relieving frustration: The case of antiferromagnetic Mn <sub>3</sub> molecular triangles. Physical Review B, 2011, 84, .	3.2	8
34	Magnetic quantum tunneling: insights from simple molecule-based magnets. Dalton Transactions, 2010, 39, 4693.	3.3	129
35	Tunneling and inversion symmetry in single-molecule magnets: The case of the Mn <sub>12</sub> molecule. Physical Review B, 2010, 82, .	3.2	13
36	Ferromagnetic Ordering and Simultaneous Fast Magnetization Tunneling in a Ni <sub>4</sub> Single-Molecule Magnet. Inorganic Chemistry, 2010, 49, 5780-5782.	4.0	27

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37	Comment on "Influence of the Dzyaloshinskii-Moriya Exchange Interaction on Quantum Phase Interference of Spins". Physical Review Letters, 2009, 103, 059701; author reply 059702.	7.8	9
38	Manifestation of Spin Selection Rules on the Quantum Tunneling of Magnetization in a Single-Molecule Magnet. Physical Review Letters, 2009, 103, 017202.	7.8	53
39	Nanomodulation of Molecular Nanomagnets. Inorganic Chemistry, 2009, 48, 3480-3492.	4.0	49
40	Diffusion profiles and magnetic properties of Mn-implanted silicon after thermal annealing. Journal of Materials Science: Materials in Electronics, 2008, 19, 263-268.	2.2	0
41	Quantum interference of tunnel trajectories between states of different spin length in a dimeric molecular nanomagnet. Nature Physics, 2008, 4, 277-281.	16.7	77
42	Structures And Magnetization Of Defect-Associated Sites In Silicon. AIP Conference Proceedings, 2008, , .	0.4	0
43	On-chip integration of high-frequency electron paramagnetic resonance spectroscopy and Hall-effect magnetometry. Review of Scientific Instruments, 2008, 79, 074703.	1.3	6
44	Control of the inhomogeneity degree by magnetic dilution in crystals of antiferromagnetic molecular rings. Physical Review B, 2008, 78, .	3.2	12
45	Fabrication of nanogapped single-electron transistors for transport studies of individual single-molecule magnets. Journal of Applied Physics, 2007, 101, 09E102.	2.5	60
46	Magnetic and microwave studies of high-spin states of single-molecule magnet Ni <sub>4</sub> . Polyhedron, 2005, 24, 2695-2700.	2.2	7
47	Magnetic Quantum Tunneling in the Single-Molecule Magnet Mn <sub>12</sub> -Acetate. Journal of Low Temperature Physics, 2005, 140, 119-174.	1.4	131
48	Quantum Superposition of High Spin States in the Single Molecule Magnet Ni <sub>4</sub> . Physical Review Letters, 2004, 93, 157202.	7.8	74
49	Spin-transfer-induced precessional magnetization reversal. Applied Physics Letters, 2004, 84, 3897-3899.	3.3	244
50	Distribution of internal transverse magnetic fields in a Mn <sub>12</sub> -based single molecule magnet. Physical Review B, 2004, 69, .	3.2	19
51	Symmetry of Magnetic Quantum Tunneling in Single Molecule Magnet Mn <sub>12</sub> -Acetate. Physical Review Letters, 2003, 91, 047203.	7.8	76
52	Quadratic transverse anisotropy term due to dislocations in Mn <sub>12</sub> acetate crystals directly observed by EPR spectroscopy. Physical Review B, 2002, 65, .	3.2	22
53	Tunneling splittings in Mn <sub>12</sub> -acetate single crystals. Europhysics Letters, 2002, 60, 768-774.	2.0	30
54	Magnetic qubits as hardware for quantum computers. Nanotechnology, 2001, 12, 181-186.	2.6	280