

Victor Lopez-Richard

List of Publications by Year in descending order

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129
papers

1,290
citations

394390

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129
docs citations

129
times ranked

1236
citing authors

#	ARTICLE	IF	CITATIONS
1	Aharonov-Bohm Interference in Neutral Excitons: Effects of Built-In Electric Fields. <i>Physical Review Letters</i> , 2010, 104, 086401.	7.8	80
2	Spin-orbit coupling and intrinsic spin mixing in quantum dots. <i>Physical Review B</i> , 2004, 69, .	3.2	72
3	Influence of quantum dot shape on the Landé-g-factor determination. <i>Physical Review B</i> , 2004, 69, .	3.2	55
4	Spin-orbit and electronic interactions in narrow-gap quantum dots. <i>Physical Review B</i> , 2004, 70, .	3.2	41
5	Light sensitive memristor with bi-directional and wavelength-dependent conductance control. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	35
6	Temperature-dependent Raman study of thermal parameters in CdS quantum dots. <i>Nanotechnology</i> , 2012, 23, 125701.	2.6	34
7	Strain-induced enhancement of resonant current of holes in multilayered heterostructures. <i>Physical Review B</i> , 1998, 57, 4525-4543.	3.2	28
8	Morphology in semimagnetic $\text{Pb}_{1-x}\text{Mn}_x\text{Se}$ nanocrystals: Thermal annealing effects. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	28
9	Formal analytical solutions for the Gross-Pitaevskii equation. <i>Physica D: Nonlinear Phenomena</i> , 2008, 237, 2342-2352.	2.8	27
10	Photocurrent-voltage relation of resonant tunneling diode photodetectors. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	26
11	Markovian and Non-Markovian Light-Emission Channels in Strained Quantum Wires. <i>Nano Letters</i> , 2009, 9, 3129-3136.	9.1	24
12	Optical transitions in a single CdTe spherical quantum dot. <i>Physical Review B</i> , 2003, 68, .	3.2	23
13	Electric-field inversion asymmetry: Rashba and Stark effects for holes in resonant tunneling devices. <i>Physical Review B</i> , 2006, 74, .	3.2	23
14	Nanothermometer Based on Resonant Tunneling Diodes: From Cryogenic to Room Temperatures. <i>ACS Nano</i> , 2015, 9, 6271-6277.	14.6	23
15	Voltage-controlled hole spin injection in nonmagnetic GaAs/AlAs resonant tunneling structures. <i>Physical Review B</i> , 2006, 73, .	3.2	21
16	Mechanisms of interdot coupling in (In,Ga)As/GaAs quantum dot arrays. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	21
17	Tailoring Electronic Transparency of Twin-Plane 1D Superlattices. <i>ACS Nano</i> , 2011, 5, 5519-5525.	14.6	21
18	Electron transport in quantum dot chains: Dimensionality effects and hopping conductance. <i>Journal of Applied Physics</i> , 2013, 113, 183709.	2.5	20

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19	Dark-exciton valley dynamics in transition metal dichalcogenide alloy monolayers. Scientific Reports, 2019, 9, 4575.	3.3	20
20	Magneto-optical properties of nanocrystals: Zeeman splitting. Physical Review B, 2003, 67, .	3.2	19
21	Radiative versus nonradiative optical processes in PbS nanocrystals. Journal of Applied Physics, 2011, 109, .	2.5	18
22	Circular polarization from a nonmagnetic p-i-n resonant tunneling diode. Applied Physics Letters, 2007, 90, 062120.	3.3	17
23	Polarization resolved luminescence in asymmetric n-type GaAs/AlGaAs resonant tunneling diodes. Applied Physics Letters, 2008, 92, .	3.3	16
24	Phonon-assisted tunneling in coupled semiconductor quantum dots. Physical Review B, 2005, 71, .	3.2	15
25	Carrier transfer in vertically stacked quantum ring-quantum dot chains. Journal of Applied Physics, 2015, 117, .	2.5	15
26	Azobenzene Adsorption on the MoS ₂ (0001) Surface: A Density Functional Investigation within van der Waals Corrections. Journal of Physical Chemistry C, 2018, 122, 18895-18901.	3.1	15
27	Insights into the nature of optically active defects of ZnO. Journal of Luminescence, 2020, 227, 117536.	3.1	15
28	Resonant electron-phonon coupling: Magnetopolarons in InP. Physical Review B, 1996, 54, 10502-10507.	3.2	14
29	Light controlled spin polarization in asymmetric n-type resonant tunneling diode. Applied Physics Letters, 2007, 91, .	3.3	14
30	Zeeman splitting and spin dynamics tuning by exciton charging in two-dimensional systems. Physical Review B, 2011, 84, .	3.2	13
31	Characterization of spin-state tuning in thermally annealed semiconductor quantum dots. Physical Review B, 2010, 82, .	3.2	12
32	In-plane mapping of buried InGaAs quantum rings and hybridization effects on the electronic structure. Journal of Applied Physics, 2012, 112, .	2.5	12
33	Temperature tuning from direct to inverted bistable electroluminescence in resonant tunneling diodes. Journal of Applied Physics, 2017, 122, 154502.	2.5	12
34	Manipulation of g-factor in diluted magnetic semiconductors quantum dots: Optical switching control. Applied Physics Letters, 2006, 88, 052101.	3.3	11
35	Negative magnetopolarization in thermally annealed self-assembled quantum dots. Physical Review B, 2008, 77, .	3.2	11
36	Spin injection from two-dimensional electron and hole gases in resonant tunneling diodes. Applied Physics Letters, 2011, 99, 233507.	3.3	11

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37	Paramagnetic shift in thermally annealed $\text{Cd}_x\text{Zn}_{1-x}\text{Se}$ quantum dots. <i>New Journal of Physics</i> , 2012, 14, 043038.	2.9	11
38	Low temperature magneto-photoluminescence of $\text{GaAsBi}/\text{GaAs}$ quantum well heterostructures. <i>Journal of Applied Physics</i> , 2014, 115, 123518.	2.5	11
39	Bose-Einstein condensates: Analytical methods for the Gross-Pitaevskii equation. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2006, 354, 115-118.	2.1	10
40	Electrical control of singlet-triplet entanglement in lateral quantum dot molecules. <i>Applied Physics Letters</i> , 2009, 95, 083101.	3.3	10
41	Anisotropic Confinement, Electronic Coupling and Strain Induced Effects Detected by Valence-Band Anisotropy in Self-Assembled Quantum Dots. <i>Nanoscale Research Letters</i> , 2011, 6, 56.	5.7	10
42	Structural and magnetic confinement of holes in the spin-polarized emission of coupled quantum ring-quantum dot chains. <i>Physical Review B</i> , 2014, 90, .	3.2	10
43	A Memristive Pascaline. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2016, 63, 558-562.	3.0	10
44	Electronic structure of semimagnetic semiconductor heterostructures. <i>Semiconductor Science and Technology</i> , 1988, 3, 564-571.	2.0	9
45	Photoluminescence of $\text{GaAs}/\text{Al}_x\text{Ga}_{1-x}$ multiple quantum well structures containing δ -doping superlattices. <i>Physical Review B</i> , 2003, 67, .	3.2	9
46	Multichannel field-effect spin-barrier selector: Spin-carrier dynamics under full spin-orbit coupling. <i>Physical Review B</i> , 2005, 72, .	3.2	9
47	Bose-Einstein condensation in an optical lattice: A perturbation approach. <i>Physical Review A</i> , 2009, 79, .	2.5	9
48	Spin polarization in quantum wires: Influence of Dresselhaus spin-orbit interaction and cross-section effects. <i>Physical Review B</i> , 2009, 79, .	3.2	9
49	Analytical Model for Heterogeneous Crystallization Kinetics of Spherical Glass Particles. <i>Journal of the American Ceramic Society</i> , 2009, 92, 2616-2618.	3.8	9
50	The migration of Mn^{2+} ions in $\text{Cd}_{1-x}\text{Mn}_x\text{S}$ nanocrystals: Thermal annealing control. <i>Solid State Communications</i> , 2012, 152, 337-340.	1.9	9
51	Berry phase and Rashba fields in quantum rings in tilted magnetic field. <i>Physical Review B</i> , 2015, 92, .	3.2	9
52	Non-parabolicity due to conduction-valence band coupling. <i>Journal of Physics C: Solid State Physics</i> , 1987, 20, L727-L733.	1.5	8
53	Interband and intersubband absorption in HgCdTe multiple quantum wells. <i>Physical Review B</i> , 1999, 59, 10158-10164.	3.2	8
54	Anomalous Landé factor in narrow-gap semiconductor heterostructures. <i>Solid State Communications</i> , 2000, 114, 649-654.	1.9	8

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55	Kinetics of excitonic complexes on tunneling devices. <i>Physical Review B</i> , 2005, 71, .	3.2	8
56	Inversion asymmetry spin splitting in self-assembled quantum rings. <i>Physical Review B</i> , 2008, 77, .	3.2	8
57	Cooperative Effects in the Photoluminescence of (In,Ga)As/GaAs Quantum Dot Chain Structures. <i>Nanoscale Research Letters</i> , 2010, 5, 991-1001.	5.7	8
58	Hole-mediated ferromagnetism in coupled semimagnetic quantum dots. <i>Physical Review B</i> , 2011, 84, .	3.2	8
59	Topology Driven g -Factor Tuning in Type-II Quantum Dots. <i>Physical Review Applied</i> , 2019, 11, .	3.8	8
60	Resonant Raman scattering in a magnetic field assisted by Fröhlich interaction in zinc-blende-type semiconductors. <i>Physical Review B</i> , 1998, 58, 16136-16143.	3.2	7
61	Electron optical-phonon scattering rates in spherical CdSe quantum dots in an external magnetic field. <i>Physical Review B</i> , 2002, 65, .	3.2	7
62	Optical phonons in spherical core/shell semiconductor nanoparticles: Effect of hydrostatic pressure. <i>Physical Review B</i> , 2010, 82, .	3.2	7
63	Quantum oscillations of spin polarization in a GaAs/AlGaAs double quantum well. <i>Physical Review B</i> , 2012, 86, .	3.2	7
64	Resonant tunneling of electrons in AlSb/GaInAsSb double barrier quantum wells. <i>AIP Advances</i> , 2020, 10, 055024.	1.3	7
65	Optical Mapping of Nonequilibrium Charge Carriers. <i>Journal of Physical Chemistry C</i> , 2021, 125, 14741-14750.	3.1	7
66	Magneto resonant Raman scattering in zinc-blende-type semiconductors: Electron-phonon interaction mediated by a deformation potential. <i>Physical Review B</i> , 1997, 56, 15691-15700.	3.2	6
67	Dielectric response in narrow-gap semiconductor quantum wells in a magnetic field. <i>Journal of Applied Physics</i> , 2001, 89, 6400-6407.	2.5	6
68	Zeeman effect and magnetic anomalies in narrow-gap semiconductor quantum dots. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2004, 20, 286-289.	2.7	6
69	Intraband magnetoabsorption as a probing tool for the quantum dot charge. <i>Applied Physics Letters</i> , 2005, 87, 231101.	3.3	6
70	Carrier transfer in the optical recombination of quantum dots. <i>Physical Review B</i> , 2011, 83, .	3.2	6
71	Excited states of exciton-polariton condensates in 2D and 1D harmonic traps. <i>Physical Review B</i> , 2014, 89, .	3.2	6
72	Mimicking of pulse shape-dependent learning rules with a quantum dot memristor. <i>Journal of Applied Physics</i> , 2016, 120, .	2.5	6

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73	Electroluminescence on-off ratio control of GaAs/AlGaAs -based resonant tunneling structures. <i>Physical Review B</i> , 2018, 98, .	3.2	6
74	Local density of states in parabolic quantum corrals. <i>Physical Review B</i> , 2004, 69, .	3.2	5
75	Role of X valley on the dynamics of electron transport through a GaAs/AlAs double-barrier structure. <i>Physical Review B</i> , 2008, 78, .	3.2	5
76	Contrasting LH-HH subband splitting of strained quantum wells grown along [001] and [113] directions. <i>Physical Review B</i> , 2010, 81, .	3.2	5
77	Spin channels exploring finite superlattices: Vertical and lateral transport. <i>Physical Review B</i> , 2010, 81, .	3.2	5
78	Voltage-driven ring confinement in a graphene sheet: assessing conditions for bound state solutions. <i>Nanotechnology</i> , 2012, 23, 385201.	2.6	5
79	Nanoscale Tipping Bucket Effect in a Quantum Dot Transistor-Based Counter. <i>Nano Letters</i> , 2017, 17, 2273-2279.	9.1	5
80	Interplay between structure asymmetry, defect-induced localization, and spin-orbit interaction in Mn-doped quantum dots. <i>Physical Review B</i> , 2017, 95, .	3.2	5
81	Defect-induced magnetism in II-VI quantum dots. <i>Physical Review B</i> , 2019, 99, .	3.2	5
82	Multiband electron resonant Raman scattering in quantum wells in a magnetic field. <i>Physical Review B</i> , 2003, 67, .	3.2	4
83	Zeeman effect and magnetic field induced spin-hybridization in semiconductor quantum dots. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 6949-6960.	1.8	4
84	Spin-orbit effects in single electron quantum rings. <i>Semiconductor Science and Technology</i> , 2007, 22, 301-306.	2.0	4
85	Magneto-optical properties in IV-VI lead-salt semimagnetic nanocrystals. <i>Nanoscale Research Letters</i> , 2012, 7, 374.	5.7	4
86	Photomodulation of transport in monolayer dichalcogenides. <i>Physical Review B</i> , 2018, 98, .	3.2	4
87	Evidence for the formation of metallic In after laser irradiation of InP. <i>Journal of Applied Physics</i> , 2019, 126, .	2.5	4
88	Determination of Carrier Density and Dynamics via Magneto-electroluminescence Spectroscopy in Resonant-Tunneling Diodes. <i>Physical Review Applied</i> , 2021, 15, .	3.8	4
89	Resonant Tunneling Diodes: Mid-Infrared Sensing at Room Temperature. <i>Nanomaterials</i> , 2022, 12, 1024.	4.1	4
90	The Ubiquitous Memristive Response in Solids. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 5351-5356.	3.0	4

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91	Erratum to "Anomalous Landé factor in narrow-gap semiconductor heterostructures" Solid State Communications, 2000, 115, 515.	1.9	3
92	Raman spectra of a two-dimensional electron gas in narrow-gap semiconductor quantum wells in magnetic fields: Spin-flip and anisotropic effects. Physical Review B, 2002, 66, .	3.2	3
93	Spin-Flip Effect in Narrow-Gap Semiconductor Quantum Wells. Physica Status Solidi (B): Basic Research, 2002, 231, 263-277.	1.5	3
94	Magneto-optical investigation of two-dimensional gases in n-type resonant tunneling diodes. Semiconductor Science and Technology, 2012, 27, 015018.	2.0	3
95	Superfluidity and collective oscillations of trapped Bose-Einstein condensates in a periodical potential. European Physical Journal D, 2012, 66, 1.	1.3	3
96	Damping of confined excitation modes of one-dimensional condensates in an optical lattice. Physical Review A, 2015, 92, .	2.5	3
97	Temperature, detriment, or advantage for memory emergence: The case of ZnO. Journal of Chemical Physics, 2022, 157, .	3.0	3
98	Resonant magnetotunneling of photogenerated holes in double barrier structures. Journal of Applied Physics, 2003, 93, 5830-5832.	2.5	2
99	Turismo de aventura: conceitos e paradigmas fundamentais. Turismo Em análise, 2004, 15, 199.	0.1	2
100	Spin carrier dynamics under full spin-orbit coupling. Microelectronics Journal, 2005, 36, 480-483.	2.0	2
101	Controlled optical switching in DMS quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 344-346.	0.8	2
102	Tunability of magnetization in lateral few electron double quantum dots. Journal of Applied Physics, 2010, 108, 094325.	2.5	2
103	Control of p-d exchange interaction in single Mn-doped vertically coupled asymmetric double quantum dots. Physical Review B, 2010, 82, .	3.2	2
104	Gate-controlled electron g-factor in lateral quantum dot molecules. Journal of Applied Physics, 2011, 110, 124309.	2.5	2
105	Tunable magnetic property of lateral quantum dot molecules. Journal of Physics: Conference Series, 2011, 334, 012064.	0.4	2
106	Circular polarization in a non-magnetic resonant tunneling device. Nanoscale Research Letters, 2011, 6, 101.	5.7	2
107	Excitonic spin-splitting in quantum wells with a tilted magnetic field. Journal of Physics Condensed Matter, 2016, 28, 055503.	1.8	2
108	Multichannel scattering mechanism behind the reentrant conductance feature in nanowires subject to strong spin-orbit coupling. Physical Review B, 2020, 102, .	3.2	2

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109	Gerenciamento de riscos em programas de aventura. Turismo Em an�lise, 2007, 18, 94.	0.1	2
110	Magneto-optical anisotropy in the absorption coefficient of narrow-gap quantum wells. Physica B: Condensed Matter, 2000, 284-288, 1928-1929.	2.7	1
111	Symmetries and anisotropies of the electronic states within full spin-orbit coupling. Physica Status Solidi (B): Basic Research, 2005, 242, 1788-1792.	1.5	1
112	Magnetic phase diagram of non-magnetic few-electron quantum dot molecules. Journal Physics D: Applied Physics, 2012, 45, 055301.	2.8	1
113	Tuning hole mobility in InP nanowires. Applied Physics Letters, 2012, 101, 182104.	3.3	1
114	Optical and transport properties correlation driven by amorphous/crystalline disorder in InP nanowires. Journal of Physics Condensed Matter, 2016, 28, 475303.	1.8	1
115	Quantum well electronic states in a tilted magnetic field. Journal of Physics Condensed Matter, 2017, 29, 325503.	1.8	1
116	Magnetic and power tuning of spin-asymmetric multiple excitons in a GaAs quantum well. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 129, 114599.	2.7	1
117	L�mpada de Hg para experimentos e demonstra�es de f�sica moderna: introdu�o ao efeito fotoel�trico e outros t�picos. Revista Brasileira De Ensino De Fisica, 2008, 30, 4502.1-4502.6.	0.2	1
118	Abordagem integradora para implementa�o de um sistema de gest�o de seguran�a e impactos de visita�o em �reas naturais protegidas. Turismo Em an�lise, 2020, 31, 597-618.	0.1	1
119	Polaron renormalization and lifetime broadening effects on Raman scattering under magnetic field. Physica B: Condensed Matter, 1999, 263-264, 813-815.	2.7	0
120	Anomalies on the Zeeman splitting and dielectric response due to the lack of inversion symmetry in narrow-gap semiconductor quantum wells. , 0, , .		0
121	Effective g -factor control in II-VI quantum dots: morphological effects. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 807-810.	0.8	0
122	Spin-hybridization effects in quantum dots. AIP Conference Proceedings, 2005, , .	0.4	0
123	Eigenstate symmetries and information transfer in parabolic quantum reflectors. Physical Review B, 2009, 79, .	3.2	0
124	Spin-current switch based on vertical asymmetric double quantum dots containing single manganese. Journal of Applied Physics, 2012, 111, 07C320.	2.5	0
125	Effective particle-hole symmetry breaking, quasi-bond state engineering and optical absorption in graphene based gated dot-ring nanostructures. RSC Advances, 2016, 6, 51845-51855.	3.6	0
126	Collective modes of trapped spinor Bose-Einstein condensates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 215303.	1.5	0

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127	From Dot to Ring: Tunable Exciton Topology in Type-II InAs/GaAsSb Quantum Dots. Nanoscience and Technology, 2018, , 57-88.	1.5	0
128	Interband magneto-absorption in narrow-gap semiconductor quantum wells. Brazilian Journal of Physics, 1999, 29, 679-684.	1.4	0
129	Spin-dependent analysis of homogeneous and inhomogeneous exciton decoherence in magnetic fields. Physical Review B, 2022, 105, .	3.2	0