Isaac Rodriguez-Vargas

List of Publications by Year
in descending order

92 papers	655 citations	777949 13 h-index	843174 20 g-index
92 all docs	92 docs citations	92 times ranked	294 citing authors

#	Article	IF	Citations
1	Biperiodic superlattices and transparent states in graphene. Scientific Reports, 2022, 12, 832.	1.6	1
2	Non-conventional Fermi velocity graphene superlattices. Superlattices and Microstructures, 2022, , 107158.	1.4	1
3	Electronic cloaking of confined states in phosphorene junctions. Journal of Physics Condensed Matter, 2022, 34, 195301.	0.7	5
4	Improvement of tunneling magnetoresistance and spin-valley polarization in magnetic silicene superlattices induced by structural disorder. Physical Review B, 2022, 105, .	1.1	8
5	Theoretical simulation of optical absorption coefficients in heterostructure based on semi-parabolic-double quantum wells. European Physical Journal Plus, 2022, 137, 1.	1.2	5
6	Temperature effects on the conductance, spin-valley polarization and tunneling magnetoresistance of single magnetic silicene junctions. Journal of Physics Condensed Matter, 2022, 34, 305304.	0.7	1
7	Bandgap engineering in massive-massless graphene superlattices. Physica B: Condensed Matter, 2022, 640, 414052.	1.3	1
8	Tunneling magnetoresistance and spin-valley polarization in magnetic silicene superlattices. Physical Review B, 2021, 103, .	1.1	19
9	Enhancement of the thermoelectric properties in bilayer graphene structures induced by Fano resonances. Scientific Reports, 2021, 11, 13872.	1.6	10
10	Thermoelectricity in massive-massless complex graphene structures. Superlattices and Microstructures, 2021, 157, 107004.	1.4	1
11	Self-similar transport, spin polarization and thermoelectricity in complex silicene structures. Scientific Reports, 2020, 10, 14679.	1.6	5
12	Enhancement of the Seebeck coefficient and power factor in gated silicene superlattices induced by aperiodicity. Journal of Applied Physics, 2020, 128, .	1.1	7
13	Heavy and light exciton states in c-AlGaN/GaN asymmetric double quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 124, 114248.	1.3	7
14	Effects of disorder on the transport and thermoelectric properties of silicene superlattices. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 120, 114100.	1.3	9
15	Enhancement of the Fano-resonance response in bilayer graphene single and double barriers induced by bandgap opening. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 119, 113999.	1.3	5
16	Low-dimensional thermoelectricity in aperiodic gated graphene superlattices. Journal of Applied Physics, 2020, 127, .	1.1	4
17	Bandgap engineering in aperiodic Thue-Morse graphene superlattices. AIP Advances, 2019, 9, .	0.6	5
18	Non-conventional graphene superlattices as electron band-pass filters. Scientific Reports, 2019, 9, 8759.	1.6	7

#	Article	IF	Citations
19	Pseudospin-dependent <i>Zitterbewegung</i> in monolayer graphene. Journal of Applied Physics, 2019, 125, .	1.1	8
20	TM plasmonic modes in a multilayer graphene-dielectric structure. Superlattices and Microstructures, 2019, 125, 247-255.	1.4	9
21	Controlling the optical absorption properties of Î´-FETs by means of contact voltage and hydrostatic pressure effects. Superlattices and Microstructures, 2019, 127, 157-164.	1.4	5
22	Intermediate band formation in a Î´-doped like QW superlattices of GaAs/Al x Ga 1â^'x As for solar cell design. Superlattices and Microstructures, 2018, 115, 191-196.	1.4	1
23	Low-dimensional thermoelectricity in graphene: The case of gated graphene superlattices. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 101, 188-196.	1.3	15
24	Giant oscillating magnetoresistance in silicene-based structures. AIP Conference Proceedings, 2018, , .	0.3	0
25	Self-similar transmission patterns induced by magnetic field effects in graphene. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 101, 22-28.	1.3	5
26	Asymmetrical external effects on transmission, conductance and giant tunneling magnetoresistance in silicene. Superlattices and Microstructures, 2018, 113, 483-496.	1.4	12
27	Transport properties and thermoelectric effects in gated silicene superlattices. Journal of Applied Physics, 2018, 124, .	1.1	12
28	Nonlocal and memory effects in nanoscaled thermoelectric layers. Journal of Applied Physics, 2017, 121, .	1.1	7
29	Transmission and transport properties in Cantor graphene structures: The case of magnetoelectric modulation. Physica B: Condensed Matter, 2017, 510, 109-116.	1.3	11
30	Self-similar conductance patterns in graphene Cantor-like structures. Scientific Reports, 2017, 7, 617.	1.6	22
31	Energy minibands degeneration induced by magnetic field effects in graphene superlattices. Superlattices and Microstructures, 2017, 112, 561-573.	1.4	3
32	Effect of the magnetic field on the nonlinear optical rectification and second and third harmonic generation in double<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0006.gif" overflow="scroll"><mml:mi>Î´</mml:mi></mml:math>-doped GaAs quantum wells. Physica B: Condensed Matter, 2017, 525, 30-35.	1.3	22
33	Transmittance and Absorption Properties of Graphene Multilayer Quasiperiodic Structure: Period-Doubling case. MRS Advances, 2017, 2, 2781-2786.	0.5	1
34	Study of the optical properties of dielectric-graphene-dielectric multilayer quasi-periodic structures: Thue-Morse case. MRS Advances, 2017, 2, 2787-2792.	0.5	1
35	Fano resonances in bilayer graphene superlattices. Scientific Reports, 2017, 7, 16708.	1.6	12
36	Angle-dependent bandgap engineering in gated graphene superlattices. AIP Advances, 2016, 6, .	0.6	11

#	Article	IF	Citations
37	SELF-SIMILAR CHARGE TRANSMISSION IN GAPPED GRAPHENE. Fractals, 2016, 24, 1630002.	1.8	13
38	Hybrid matrix method for stable numerical analysis of the propagation of Dirac electrons in gapless bilayer graphene superlattices. Superlattices and Microstructures, 2016, 93, 186-201.	1.4	12
39	Electron transport in Al Ga1â^'As Î´-MIGFETs: Conductivity enhancement induced by magnetic field effects. Superlattices and Microstructures, 2016, 100, 867-875.	1.4	4
40	Self-similar transmission properties of aperiodic Cantor potentials in gapped graphene. European Physical Journal B, 2016, 89, 1.	0.6	15
41	Scaling behavior in the transmission coefficient for a self-affine multi-barrier system using graphene. Europhysics Letters, 2015, 111, 57006.	0.7	10
42	The role of fractal aperiodic order in the transmittance, conductance and electronic structure of graphene-based systems. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 69, 177-185.	1.3	8
43	Highâ€pressure effects on the intersubband optical absorption coefficient and relative refractive index change in an asymmetric double â€doped GaAs quantum well. Physica Status Solidi (B): Basic Research, 2015, 252, 683-688.	0.7	9
44	Fibonacci quasiregular graphene-based superlattices: Quasiperiodicity and its effects on the transmission, transport and electronic structure properties. Physica B: Condensed Matter, 2015, 478, 99-107.	1.3	12
45	Propiedades de transporte de una superred de grafeno tipo sinusoidal. Nova Scientia, 2015, 7, 431.	0.0	0
46	The role of bridging courses of mathematics and physics on an undergraduate physics program. Nova Scientia, 2015, 7, 185.	0.0	0
47	Quantum confined Stark effect in Gaussian quantum wells: A tight-binding study. , 2014, , .		0
48	Propagation of Dirac electrons in Cantor graphene multilayers. , 2014, , .		3
49	Selfsimilar and fractal analysis of n-type delta-doped quasiregular GaAs quantum wells. , 2014, , .		0
50	Electronic structure computation and differential capacitance profile in Î´-doped FET as a function of hydrostatic pressure. , 2014, , .		0
51	Nonlinear optical properties in an asymmetric double Î´-doped quantum well with a Schottky barrier: Electric field effects. Physica Status Solidi (B): Basic Research, 2014, 251, 415-422.	0.7	15
52	Magnetoelectric barriers in monolayer graphene: Red and blue shifts of the low energy conductance peaks and its relation to the spectrum of bound states. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 63, 248-258.	1.3	5
53	Asymmetric GaAs n-type double Î´-doped quantum wells as a source of intersubband-related nonlinear optical response: Effects of an applied electric field. Journal of Luminescence, 2014, 147, 77-84.	1.5	32
54	Electrostatic and substrate-based monolayer graphene superlattices: Energy minibands and its relation with the characteristics of the conductance curves. Superlattices and Microstructures, 2014, 73, 98-112.	1.4	26

#	Article	IF	Citations
55	Selfsimilar analysis of n-type delta-doped quasiregular GaAs quantum wells. Nova Scientia, 2014, 6, 162.	0.0	0
56	Nonlinear absorption coefficient and relative refraction index change for an asymmetrical double <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0022.gif" overflow="scroll"><mml:mi>Î´</mml:mi></mml:math>-doped quantum well in GaAs with a Schottky barrier potential. Physica B: Condensed Matter, 2013, 424, 13-19.	1.3	10
57	Nonlinear absorption coefficient and relative refraction index change for an asymmetrical double delta-doped quantum well in GaAs with a Schottky barrier potential.. Materials Research Society Symposia Proceedings, 2012, 1479, 125-131.	0.1	0
58	Nonlinear optical properties related to intersubband transitions in asymmetrical double Î´-doped GaAs; effects of an applied electric field. Materials Research Society Symposia Proceedings, 2012, 1479, 133-138.	0.1	0
59	Conductance Properties of Multilayered Silver-Mean and Period-Doubling Graphene Structures. Materials Research Society Symposia Proceedings, 2012, 1479, 117-123.	0.1	0
60	Transmission properties of multilayered Period Doubling and Silver-Mean graphene structures. Materials Research Society Symposia Proceedings, 2012, 1371, 143.	0.1	0
61	Transmission of Dirac Electrons Through Graphene Multilayers with Gaussian Profile. Materials Research Society Symposia Proceedings, 2012, 1371, 129.	0.1	0
62	Resonant tunneling through double barrier graphene systems: A comparative study of Klein and non-Klein tunneling structures. Journal of Applied Physics, 2012, 112, 073711.	1.1	32
63	The hydrostatic pressure effects on intersubband optical absorption of n -type Î´-doped quantum well in GaAs. Solid State Sciences, 2012, 14, 440-444.	1.5	27
64	Improvement of the quantum confined Stark effect characteristics by means of energy band profile modulation: The case of Gaussian quantum wells. Journal of Applied Physics, 2011, 110, .	1.1	2
65	Study of the electronic properties of GaAsâ€based atomic layer doped field effect transistor (ALDâ€FET) under the influence of hydrostatic pressure. Physica Status Solidi (B): Basic Research, 2009, 246, 581-585.	0.7	21
66	Concentration and band offset dependence of the electronic basic transition of cubic In Ga1â^'N/In Ga1â^'N quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 1466-1468.	1.3	6
67	Hole states in diamond p-delta-doped field effect transistors. Journal of Physics: Conference Series, 2009, 167, 012065.	0.3	3
68	Influence of the hydrostatic pressure onto the electronic and transport properties of n-type double -doped GaAs quantum wells. Microelectronics Journal, 2008, 39, 438-441.	1.1	12
69	Energy states in GaAs delta-doped field effect transistors under hydrostatic pressure. Microelectronics Journal, 2008, 39, 648-650.	1.1	13
70	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si10.gif" overflow="scroll"><mml:mrow><mml:mi mathvariant="bold">k</mml:mi><mml:mo>Â·</mml:mo><mml:mi mathvariant="bold">p</mml:mi></mml:mrow></mml:math> calculations of p-type Î´-doped quantum wells in Si. Solid-State Electronics, 2008, 52, 849-856.	0.8	0
71	Miniband structure of parabolic superlattices. Microelectronics Journal, 2008, 39, 423-426.	1.1	4
72	ELECTRON SUBBAND STRUCTURE AND MOBILITY TRENDS IN P-N DELTA-DOPED QUANTUM WELLS IN SI. Progress in Electromagnetics Research Letters, 2008, 1, 159-165.	0.4	5

#	Article	IF	Citations
73	ENHANCEMENT OF THE ELECTRONIC CONFINEMENT IMPROVES THE MOBILITY IN P-N-P DELTA-DOPED QUANTUM WELLS IN SI. Progress in Electromagnetics Research Letters, 2008, 1, 167-172.	0.4	0
74	ELECTRONIC SPECTRUM STUDY OF PARABOLIC GAAS/AL_{X}GA_{1-X}AS SUPERLATTICES. Progress in Electromagnetics Research Letters, 2008, 1, 237-243.	0.4	0
75	Quasi-bound Electronic States in Multiple Delta-doped Quantum Wells. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2008, 4, 168-170.	0.4	1
76	Miniband Structure Formation of p-type delta-doped Superlattices in GaAs. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2008, 4, 286-290.	0.4	0
77	Hole-level structure of double -doped quantum wells in Si: The influence of the split-off band. Physica B: Condensed Matter, 2007, 389, 227-233.	1.3	6
78	Hole subband structure in single and double p-typeÎ´-doped diamond quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 415-417.	0.8	1
79	Electronic Structure in Funtion of the Temperature by Si Delta-doped Quantum Wells in GaAs. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2007, 3, 851-854.	0.4	6
80	P-N-P delta doped Quantum Wells in GaAs. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2007, 3, 855-858.	0.4	2
81	Subband and transport calculations in double n-type Î´-doped quantum wells in Si. Journal of Applied Physics, 2006, 99, 033702.	1.1	24
82	calculations for double p-type -doped quantum wells in GaAs. Superlattices and Microstructures, 2006, 40, 100-112.	1.4	3
83	Thomasâ€“Fermi approximation of double n-type delta-doped GaAs quantum wells: sub-band and transport calculations. Microelectronics Journal, 2005, 36, 404-406.	1.1	4
84	Mean life times of quasi-bound states in Î´-doped GaAs quantum wells. Microelectronics Journal, 2005, 36, 347-349.	1.1	2
85	Thomas-Fermi-Dirac calculations of valence band states of double p-type d-doped quantum wells in Si. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3634-3636.	0.8	2
86	Hole subband structure and mobility calculations of double p-type d-doped GaAs quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3637-3640.	0.8	0
87	Resonant states inn-type Î´-doped GaAs quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3649-3652.	0.8	4
88	Thomas-Fermi-Dirac calculations of valence band states in two p-type delta-doped ZnSe quantum wells. Physica Status Solidi (B): Basic Research, 2005, 242, 1043-1053.	0.7	5
89	An alternative way of calculating the superlattice Green function for discrete media. Surface Science, 2004, 554, 245-252.	0.8	5
90	Thomasâ€“Fermiâ€“Dirac theory of the hole gas of a double p-type Î´-doped GaAs quantum wells. Surface Science, 2003, 537, 75-83.	0.8	32

#	Article	IF	Citations
91	QUANTUM TRANSPORT AND THERMOELECTRICITY IN COMPLEX MAGNETIC GRAPHENE STRUCTURES. Fractals, 0, , 2150181.	1.8	1
92	Thermoelectric effects in self-similar multibarrier structure based on monolayer graphene. Fractals, 0, , .	1.8	0