

# Javier Mateos

## List of Publications by Year in descending order

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254  
papers

2,713  
citations

236612

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253896

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255  
all docs

255  
docs citations

255  
times ranked

1082  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimization of the Epilayer Design for the Fabrication of Doped GaN Planar Gunn Diodes. IEEE Transactions on Electron Devices, 2022, 69, 514-520.	1.6	3
2	Temperature and Gate-Length Dependence of Subthreshold RF Detection in GaN HEMTs. Sensors, 2022, 22, 1515.	2.1	5
3	Monte Carlo analysis of thermal effects in the DC and AC performance of AlGaIn/GaN HEMTs. Solid-State Electronics, 2022, 193, 108289.	0.8	3
4	Non-linear thermal resistance model for the simulation of high power GaN-based devices. Semiconductor Science and Technology, 2021, 36, 055002.	1.0	7
5	Bias-dependence of surface charge at low temperature in GaN Self-Switching Diodes. , 2021, , .		0
6	Technological Parameters and Edge Fringing Capacitance in GaN Schottky Barrier Diodes: Monte Carlo Simulations. , 2021, , .		0
7	Temperature Behavior of Gunn Oscillations in Planar InGaAs Diodes. IEEE Electron Device Letters, 2021, 42, 1136-1139.	2.2	2
8	Influence of Laser Modulation Frequency on the Performance of Terahertz Photoconductive Switches on Semi-Insulating GaAs Exhibiting Negative Differential Conductance. IEEE Transactions on Terahertz Science and Technology, 2021, 11, 591-597.	2.0	1
9	Monte Carlo analysis of the influence of surface charges on GaN asymmetric nanochannels: Bias and temperature dependence. Journal of Applied Physics, 2021, 130, .	1.1	5
10	Dielectric Passivation and Edge Effects in Planar GaN Schottky Barrier Diodes. IEEE Transactions on Electron Devices, 2021, 68, 4296-4301.	1.6	1
11	Analysis of Surface Charge Effects and Edge Fringing Capacitance in Planar GaAs and GaN Schottky Barrier Diodes. IEEE Transactions on Electron Devices, 2020, 67, 3530-3535.	1.6	10
12	Noise and charge discreteness as ultimate limit for the THz operation of ultra-small electronic devices. Scientific Reports, 2020, 10, 15990.	1.6	2
13	Analysis of trap states in AlGaIn/GaN self-switching diodes via impedance measurements. Microelectronics Reliability, 2020, 114, 113806.	0.9	2
14	Trap-related frequency dispersion of zero-bias microwave responsivity at low temperature in GaN-based self-switching diodes. Nanotechnology, 2020, 31, 405204.	1.3	8
15	Interplay between channel and shot noise at the onset of spiking activity in neural membranes. Journal of Computational Electronics, 2020, 19, 792-799.	1.3	0
16	Special Issue on Terahertz Devices. Semiconductor Science and Technology, 2020, 35, 040201.	1.0	1
17	Comprehensive characterization of Gunn oscillations in $\text{In}_{0.53}\text{Ga}_{0.47}\text{As}$ planar diodes. Semiconductor Science and Technology, 2020, 35, 115009.	1.0	3
18	Design and Fabrication of Planar Gunn Nanodiodes Based on Doped GaN. , 2019, , .		5

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19	GaN-based SSD structure for THz applications. , 2019, , .		5
20	Impact ionization and band-to-band tunneling in In <sub>x</sub> Ga <sub>1-x</sub> As PIN ungated devices: A Monte Carlo analysis. Journal of Applied Physics, 2018, 123, 034501.	1.1	1
21	Noise and Charge Discreteness as Ultimate Limit for the THz Operation of Ultra-Small Electronic Devices. , 2018, , .		0
22	Fabrication Process of Non-Linear Planar Diodes Based on GaN. , 2018, , .		0
23	Planar Asymmetric Semiconductor Nanodiodes for THz Detection. , 2018, , .		1
24	Voltage controlled sub-THz detection with gated planar asymmetric nanochannels. Applied Physics Letters, 2018, 113, .	1.5	13
25	GaN nanodiode arrays with improved design for zero-bias sub-THz detection. Semiconductor Science and Technology, 2018, 33, 095016.	1.0	12
26	Ion shot noise in Hodgkin-Huxley neurons. Journal of Computational Electronics, 2018, 17, 1790-1796.	1.3	5
27	Monte Carlo analysis of III-V PIN diodes for tunnel-FETs and Impact Ionization-MOSFETs. , 2017, , .		2
28	Geometry and bias dependence of trapping effects in planar GaN nanodiodes. , 2017, , .		3
29	Microwave detection up to 43.5 GHz by GaN nanodiodes: Experimental and analytical responsivity. , 2017, , .		3
30	Stochastic model for action potential simulation including ion shot noise. Journal of Computational Electronics, 2017, 16, 419-430.	1.3	4
31	Anomalous DC and RF behavior of virgin AlGaIn/GaN HEMTs. Semiconductor Science and Technology, 2017, 32, 035011.	1.0	9
32	A high performance Full Adder based on Ballistic Deflection Transistor technology. , 2017, , .		1
33	Stochastic model for ion shot noise in Hodgkin and Huxley neurons. , 2017, , .		1
34	Monte Carlo calculation of In <sub>0.53</sub> Ga <sub>0.47</sub> As and InAs noise parameters. , 2017, , .		0
35	Impact of substrate and thermal boundary resistance on the performance of AlGaIn/GaN HEMTs analyzed by means of electro-thermal Monte Carlo simulations. Semiconductor Science and Technology, 2016, 31, 065005.	1.0	21
36	Modeling and Study of Two-BDT-Nanostructure based Sequential Logic Circuits. , 2016, , .		2

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37	Ballistic deflection transistor very high frequency modeling. , 2016, , .		0
38	Characterization and modeling of traps and RF frequency dispersion in AlGaIn/AlIn/GaN HEMTs. , 2016, , .		0
39	Modeling edge capacitances in ultra-scaled GaAs Schottky barrier diodes for THz applications. , 2016, , .		1
40	Monte Carlo modeling of ultra-fast operating Ballistic Deflection Transistor. , 2016, , .		3
41	Monte Carlo Study of 2-D Capacitance Fringing Effects in GaAs Planar Schottky Diodes. IEEE Transactions on Electron Devices, 2016, 63, 3900-3907.	1.6	14
42	Design and Analysis of High Performance Ballistic Nanodevice-Based Sequential Circuits Using Monte Carlo and Verilog AMS Simulations. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 2236-2244.	3.5	2
43	A 520â€“620-GHz Schottky Receiver Front-End for Planetary Science and Remote Sensing With 1070 Kâ€“1500 K DSB Noise Temperature at Room Temperature. IEEE Transactions on Terahertz Science and Technology, 2016, 6, 148-155.	2.0	67
44	Room Temperature Direct and Heterodyne Detection of 0.28â€“0.69-THz Waves Based on GaN 2-DEG Unipolar Nanochannels. IEEE Transactions on Electron Devices, 2016, 63, 353-359.	1.6	27
45	Review of electron transport properties in bulk InGaAs and InAs at room temperature. Lithuanian Journal of Physics, 2016, 55, .	0.1	5
46	Exploration of digital latch design using ballistic deflection transistors â€” Modeling and simulation. , 2015, , .		3
47	Modelling of Thermal Boundary Resistance in a GaN Diode by means of Electro-Thermal Monte Carlo Simulations. Journal of Physics: Conference Series, 2015, 609, 012005.	0.3	2
48	Shot-noise suppression effects in InGaAs planar diodes at room temperature. Journal of Physics: Conference Series, 2015, 647, 012061.	0.3	2
49	0.69 THz room temperature heterodyne detection using GaN nanodiodes. Journal of Physics: Conference Series, 2015, 647, 012006.	0.3	0
50	Ultra-high responsivity of optically active, semiconducting asymmetric nano-channel diodes. Journal of Physics: Conference Series, 2015, 647, 012013.	0.3	1
51	Optimization of Ballistic Deflection Transistors by Monte Carlo Simulations. Journal of Physics: Conference Series, 2015, 647, 012066.	0.3	5
52	Improvement of interfacial and electrical properties of Al <sub>2</sub> O <sub>3</sub> /n-Ga <sub>0.47</sub> In <sub>0.53</sub> As for III-V impact ionization MOSFETs. Journal of Physics: Conference Series, 2015, 647, 012062.	0.3	1
53	Monte Carlo model for the analysis and development of III-V Tunnel-FETs and Impact Ionization-MOSFETs. Journal of Physics: Conference Series, 2015, 647, 012056.	0.3	1
54	Temperature and Surface Traps Influence on the THz Emission from InGaAs Diodes. Journal of Physics: Conference Series, 2015, 647, 012039.	0.3	0

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55	Experimental verification of low-frequency noise effects at the onset of oscillations in planar Gunn diodes. , 2015, , .		0
56	Experimental analysis of shot-noise suppression in InGaAs/InAlAs recessed planar diodes at room temperature. , 2015, , .		0
57	Study of surface charges in ballistic deflection transistors. Nanotechnology, 2015, 26, 485202.	1.3	11
58	Self-consistent electro-thermal simulations of AlGaIn/GaN diodes by means of Monte Carlo method. Semiconductor Science and Technology, 2015, 30, 035001.	1.0	5
59	Monte Carlo modelling of noise in advanced III-V HEMTs. Journal of Computational Electronics, 2015, 14, 72-86.	1.3	9
60	Time-dependent physics of double-tunnel junctions. , 2015, , .		0
61	Time-dependent shot noise in multi-level quantum dot-based single-electron devices. Semiconductor Science and Technology, 2015, 30, 055002.	1.0	4
62	Evaluation of the thermal resistance in GaN-diodes by means of electro-thermal Monte Carlo simulations. , 2015, , .		0
63	Anomalous low-frequency noise increase at the onset of oscillations in Gunn diodes. , 2015, , .		0
64	Optimization and small-signal modeling of zero-bias InAs self-switching diode detectors. Solid-State Electronics, 2015, 104, 79-85.	0.8	21
65	Phonon black-body radiation limit for heat dissipation in electronics. Nature Materials, 2015, 14, 187-192.	13.3	69
66	GaN-based Implanted self switching diodes for THz imaging. , 2014, , .		0
67	Time-domain Monte Carlo simulation of GaN planar Gunn nanodiodes in resonant circuits. , 2014, , .		0
68	Experimental assessment of anomalous low-frequency noise increase at the onset of Gunn oscillations in InGaAs planar diodes. Applied Physics Letters, 2014, 105, .	1.5	9
69	Effect of tunnel injection through the Schottky gate on the static and noise behavior of GaInAs/AlInAs high electron mobility transistor. Journal of Applied Physics, 2014, 116, 234502.	1.1	5
70	Frequency-dependent shot noise in single-electron devices. , 2014, , .		0
71	Monte Carlo study of the operation of GaN planar nanodiodes as sub-THz emitters in resonant circuits. Semiconductor Science and Technology, 2014, 29, 115032.	1.0	6
72	Comparative Monte Carlo analysis of InP- and GaN-based Gunn diodes. Journal of Applied Physics, 2014, 115, .	1.1	25

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73	Operation of GaN Planar Nanodiodes as THz Detectors and Mixers. IEEE Transactions on Terahertz Science and Technology, 2014, 4, 670-677.	2.0	13
74	On the effect of $\hat{\Gamma}$ -doping in self-switching diodes. Applied Physics Letters, 2014, 105, .	1.5	12
75	Optimized V-shape design of GaN nanodiodes for the generation of Gunn oscillations. Applied Physics Letters, 2014, 104, .	1.5	27
76	Time-domain Monte Carlo simulations of resonant-circuit operation of GaN Gunn diodes. , 2013, , .		4
77	Numerical study of sub-millimeter Gunn oscillations in InP and GaN vertical diodes: Dependence on bias, doping, and length. Journal of Applied Physics, 2013, 114, .	1.1	19
78	Accurate predictions of terahertz noise in ultra-small devices: A limiting factor for their practical application?. , 2013, , .		0
79	Monte Carlo analysis of thermal effects in self-switching diodes. , 2013, , .		3
80	Cryogenic Performance of Low-Noise InP HEMTs: A Monte Carlo Study. IEEE Transactions on Electron Devices, 2013, 60, 1625-1631.	1.6	9
81	Ballistic deflection transistor: Geometry dependence and boolean operations. , 2013, , .		4
82	Nonlinear nanochannels for room temperature terahertz heterodyne detection. Semiconductor Science and Technology, 2013, 28, 125024.	1.0	15
83	Room temperature THz detection and emission with semiconductor nanodevices. , 2013, , .		2
84	Experimental demonstration of direct terahertz detection at room-temperature in AlGaIn/GaN asymmetric nanochannels. Journal of Applied Physics, 2013, 113, .	1.1	62
85	200 GHz communication system using unipolar InAs THz rectifiers. , 2013, , .		0
86	Noise in terahertz detectors based on semiconductor nanochannels. , 2013, , .		1
87	Searching for THz Gunn oscillations in GaN planar nanodiodes. Journal of Applied Physics, 2012, 111, .	1.1	48
88	Analysis of nonharmonic oscillations in Schottky diodes. Journal of Applied Physics, 2012, 112, 053703.	1.1	0
89	Kink effect and noise performance in isolated-gate InAs/AlSb high electron mobility transistors. Semiconductor Science and Technology, 2012, 27, 065018.	1.0	9
90	Monte Carlo studies of the intrinsic time-domain response of nanoscale three-branch junctions. Journal of Applied Physics, 2012, 111, 084511.	1.1	0

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91	Plasma Enhanced Terahertz Rectification and Noise in InGaAs HEMTs. IEEE Transactions on Terahertz Science and Technology, 2012, 2, 562-569.	2.0	21
92	Effects of a High-k Dielectric on the Performance of 0.1- $\mu$ m Ballistic Deflection Transistors. IEEE Electron Device Letters, 2012, 33, 1120-1122.	2.2	9
93	Monte Carlo study of the noise performance of isolated-gate InAs/AlSb HEMTs. Semiconductor Science and Technology, 2012, 27, 015008.	1.0	2
94	Toward THz Gunn oscillations in planar GaN nanodiodes. , 2011, , .		0
95	Monte Carlo study of the noise performance of isolated-gate InAs HEMTs. , 2011, , .		2
96	Dynamic Monte Carlo study of isolated-gate InAs/AlSb HEMTs. Semiconductor Science and Technology, 2011, 26, 025004.	1.0	10
97	Noise and Terahertz rectification in semiconductor diodes and transistors. , 2011, , .		1
98	Monte Carlo study of impact ionization and hole transport in InAs HEMTs with isolated gate. , 2011, , .		0
99	Transconductance characteristics and plasma oscillations in nanometric InGaAs field effect transistors. Solid-State Electronics, 2011, 56, 116-119.	0.8	2
100	Evidence of surface charge effects in T-branch nanojunctions using microsecond-pulse testing. Nanotechnology, 2011, 22, 445203.	1.3	2
101	Comparison of noise characteristics of GaAs and GaN Schottky diodes for millimeter and submillimeter applications. , 2011, , .		0
102	Correlation between low-frequency current-noise enhancement and high-frequency oscillations in GaN-based planar nanodiodes: A Monte Carlo study. Applied Physics Letters, 2011, 99, 062109.	1.5	15
103	Exploring Digital Logic Design Using Ballistic Deflection Transistors Through Monte Carlo Simulations. IEEE Nanotechnology Magazine, 2011, 10, 1337-1346.	1.1	12
104	Analysis of noise spectra in GaAs and GaN Schottky barrier diodes. Semiconductor Science and Technology, 2011, 26, 055023.	1.0	6
105	Monte Carlo study of the dynamic performance of isolated-gate InAs/AlSb HEMTs. , 2011, , .		0
106	Submillimeter-Wave Oscillations in Recessed InGaAs/InAlAs Heterostructures: Origin and Tunability. Acta Physica Polonica A, 2011, 119, 111-113.	0.2	5
107	Monte Carlo Analysis of Impact Ionization in Isolated-Gate InAs/AlSb High Electron Mobility Transistors. Acta Physica Polonica A, 2011, 119, 222-224.	0.2	1
108	Monte Carlo Analysis of the Dynamic Behavior of InAlAs/InGaAs Velocity Modulation Transistors: A Geometrical Optimization. Acta Physica Polonica A, 2011, 119, 193-195.	0.2	0

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109	Enhanced Terahertz detection in self-switching diodes. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2010, 23, 301-314.	1.2	7
110	A Generalized Drift-Diffusion Model for Rectifying Schottky Contact Simulation. IEEE Transactions on Electron Devices, 2010, 57, 1539-1547.	1.6	6
111	Monte Carlo Study of the Dynamic Performance of a 100-nm-Gate InAlAs/InGaAs Velocity Modulation Transistor. IEEE Transactions on Electron Devices, 2010, 57, 2572-2578.	1.6	0
112	Monte Carlo study of kink effect in isolated-gate InAs/AlSb high electron mobility transistors. Journal of Applied Physics, 2010, 108, .	1.1	14
113	Terahertz current oscillations assisted by optical phonon emission in GaN n+nn+ diodes: Monte Carlo simulations. Journal of Applied Physics, 2010, 107, 053707.	1.1	6
114	Three-terminal junctions operating as mixers, frequency doublers and detectors: a broad-band frequency numerical and experimental study at room temperature. Semiconductor Science and Technology, 2010, 25, 125013.	1.0	18
115	DC and RF cryogenic behaviour of InAs/AlSb HEMTs. , 2010, , .		2
116	Plasma-resonant THz detection with HEMTs. , 2010, , .		1
117	Sub-THz frequency analysis in nano-scale devices at room temperature. , 2010, , .		3
118	THz generation based on Gunn oscillations in GaN planar asymmetric nanodiodes. , 2010, , .		1
119	Monte Carlo study of ballistic effects in high speed InAs-based quantum hot electron transistor. , 2010, , .		0
120	Isolated-gate InAs/AlSb HEMTs: A Monte Carlo study. , 2010, , .		0
121	Plasmonic noise in nanometric semiconductor layers. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P02030.	0.9	5
122	Noise and terahertz rectification linked by geometry in planar asymmetric nanodiodes. Applied Physics Letters, 2009, 94, 093512.	1.5	24
123	Fabrication and fundamentals of operation of an InAlAs/InGaAs velocity modulation transistor. Applied Physics Letters, 2009, 94, 103504.	1.5	2
124	Monte Carlo Study of an InAlAs/InGaAs Velocity Modulation Transistor. , 2009, , .		0
125	Monte Carlo investigation of terahertz plasma oscillations in gated ultrathin channel of n-InGaAs. Applied Physics Letters, 2009, 95, 152102.	1.5	8
126	Monte Carlo analysis of thermal effects in GaN HEMTs. , 2009, , .		4

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127	Influence of the branches width on the nonlinear output characteristics of InAlAs/InGaAs-based three-terminal junctions. Journal of Applied Physics, 2009, 105, 094504.	1.1	15
128	Noise Enhanced THz Rectification Tuned by Geometry in Planar Asymmetric Nanodiodes. , 2009, , .		0
129	High-mobility heterostructures based on InAs and InSb: A Monte Carlo study. Journal of Applied Physics, 2009, 105, .	1.1	34
130	High Frequency Noise in GaN HEMTs. , 2009, , .		1
131	Monte Carlo analysis of noise spectra in InAs channels from diffusive to ballistic regime. , 2009, , .		0
132	Monte Carlo Simulation of Sb-based Heterostructures. , 2009, , .		1
133	Tunable Terahertz Resonance in Planar Asymmetric Nanodiodes. , 2009, , .		0
134	Frequency response of T-shaped Three Branch Junctions as Mixers and Detectors. , 2009, , .		2
135	Current oscillations excited by optical phonon emission in GaN <sup>n</sup> /In <sup>n</sup> diodes: Monte Carlo simulations. Journal of Physics: Conference Series, 2009, 193, 012023.	0.3	0
136	Monte Carlo analysis of Gunn oscillations in narrow and wide band-gap asymmetric nanodiodes. Journal of Physics: Conference Series, 2009, 193, 012018.	0.3	10
137	RF doubling and rectification in three-terminal junctions: experimental characterization and Monte Carlo analysis. Journal of Physics: Conference Series, 2009, 193, 012021.	0.3	1
138	Terahertz tunable detection in self-switching diodes based on high mobility semiconductors: InGaAs, InAs and InSb. Journal of Physics: Conference Series, 2009, 193, 012082.	0.3	11
139	On the geometrical tunability of THz Gunn-like oscillations in InGaAs/InAlAs slot diodes. Journal of Physics: Conference Series, 2009, 193, 012090.	0.3	2
140	Plasmonic noise in Si and InGaAs semiconductor nanolayers. Journal of Physics: Conference Series, 2009, 193, 012091.	0.3	1
141	A Monte Carlo investigation of plasmonic noise in nanometric n-In <sub>0.53</sub> Ga <sub>0.47</sub> As channels. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P01040.	0.9	5
142	Monte Carlo simulation of ballistic transport in high-mobility channels. Journal of Physics: Conference Series, 2009, 193, 012035.	0.3	4
143	Monte Carlo simulation of surface charge effects in T-shaped nanojunctions. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 94-97.	0.8	3
144	Monte Carlo analysis of memory effects in nano-scale rectifying diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 82-85.	0.8	1

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145	Monte Carlo simulation of plasma oscillations in ultra-thin layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 249-252.	0.8	1
146	Excitation of millimeter-wave oscillations in InAlAs/InGaAs heterostructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 146-149.	0.8	1
147	Comparison Between the Noise Performance of Double- and Single-Gate InP-Based HEMTs. IEEE Transactions on Electron Devices, 2008, 55, 1535-1540.	1.6	25
148	Monte Carlo investigation of terahertz plasma oscillations in ultrathin layers of n-type In <sub>0.53</sub> Ga <sub>0.47</sub> As. Applied Physics Letters, 2008, 92, 042113.	1.5	21
149	Terahertz Gunn-like oscillations in InGaAs/InAlAs planar diodes. Journal of Applied Physics, 2008, 103, 094516.	1.1	52
150	Monte Carlo comparison of the noise performance of InAlAs/InGaAs Double-Gate and Standard HEMTs. , 2008, , .		0
151	Terahertz oscillations in ultra-thin In <sub>0.53</sub> Ga <sub>0.47</sub> As ungated channels. Journal of Physics Condensed Matter, 2008, 20, 384210.	0.7	4
152	Monte Carlo analysis of noise spectra in self-switching nanodiodes. Journal of Applied Physics, 2008, 103, 024502.	1.1	24
153	Ballistic nanodevices for high frequency applications. International Journal of Nanotechnology, 2008, 5, 796.	0.1	5
154	Monte Carlo Investigation of THz Oscillations in InAlAs/InGaAs Heterostructures by Means of Current and Voltage Noise Spectra. AIP Conference Proceedings, 2007, , .	0.3	1
155	Microscopic Analysis of Noise in Self-Switching Diodes. AIP Conference Proceedings, 2007, , .	0.3	0
156	Kinetic and Partial-Differential Equation Modeling of Noise in Schottky Barrier Diodes: a Comparison. AIP Conference Proceedings, 2007, , .	0.3	0
157	Noise Behavior of InP-Based Double-Gate and Standard HEMTs: a Comparison. AIP Conference Proceedings, 2007, , .	0.3	0
158	Noise analysis of plasma wave oscillations in InGaAs channels. AIP Conference Proceedings, 2007, , .	0.3	1
159	Influence of the surface charge on the operation of ballistic T-branch junctions: a self-consistent model for Monte Carlo simulations. Semiconductor Science and Technology, 2007, 22, 663-670.	1.0	51
160	Hysteresis phenomena in nanoscale rectifying diodes: A Monte Carlo interpretation in terms of surface effects. Applied Physics Letters, 2007, 91, .	1.5	13
161	Monte Carlo simulation of AlGaIn/GaN heterostructures. , 2007, , .		1
162	InAlAs/InGaAs heterostructures for THz generation. , 2007, , .		0

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163	Monte Carlo Comparison Between InAlAs/InGaAs Double-Gate and Standard HEMTs. , 2007, , .		0
164	Surface Charge Effects in Ballistic T-Branch Nanojunctions. , 2007, , .		0
165	Ballistic nano-devices for high frequency applications. Thin Solid Films, 2007, 515, 4321-4326.	0.8	13
166	Comparison Between the Dynamic Performance of Double- and Single-Gate AlInAs/InGaAs HEMTs. IEEE Transactions on Electron Devices, 2007, 54, 2815-2822.	1.6	66
167	Negative Differential Transconductance and Nonreciprocal Effects in a Y-Branch Nanojunction: High-Frequency Analysis. IEEE Nanotechnology Magazine, 2006, 5, 750-757.	1.1	17
168	Monte Carlo Comparison Between InP-Based Double-Gate and Standard HEMTs. , 2006, , .		7
169	Numerical modeling of TeraHertz electronic devices. Journal of Computational Electronics, 2006, 5, 71-77.	1.3	8
170	A microscopic interpretation of the RF noise performance of fabricated FDSOI MOSFETs. IEEE Transactions on Electron Devices, 2006, 53, 523-532.	1.6	17
171	Transport and Noise in Ultrafast Unipolar Nanodiodes and Nanotransistors. , 2006, , 109-113.		1
172	THz operation of self-switching nano-diodes and nano-transistors. , 2005, , .		24
173	TeraHertz emission from nanometric HEMTs analyzed by noise spectra. AIP Conference Proceedings, 2005, , .	0.3	0
174	Investigation of longitudinal velocity fluctuations in MOSFETs by means of ensemble Monte Carlo simulation. AIP Conference Proceedings, 2005, , .	0.3	0
175	Influence of the kink effect on the dynamic performance of short-channel InAlAs/InGaAs high electron mobility transistors. Semiconductor Science and Technology, 2005, 20, 956-960.	1.0	1
176	TeraHertz Emission and Noise Spectra in HEMTs. AIP Conference Proceedings, 2005, , .	0.3	2
177	Operation and high-frequency performance of nanoscale unipolar rectifying diodes. Applied Physics Letters, 2005, 86, 212103.	1.5	82
178	Microwave Detection at 110 GHz by Nanowires with Broken Symmetry. Nano Letters, 2005, 5, 1423-1427.	4.5	99
179	Voltage tuneable terahertz emission from a ballistic nanometer InGaAs <sup>+</sup> InAlAs transistor. Journal of Applied Physics, 2005, 97, 064307.	1.1	133
180	Monte Carlo analysis of four-terminal ballistic rectifiers. Nanotechnology, 2004, 15, S250-S253.	1.3	15

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181	Kink-effect related noise in short-channel InAlAs/InGaAs high electron mobility transistors. Journal of Applied Physics, 2004, 95, 8271-8274.	1.1	23
182	Design Optimization of AlInAs/GaNAs HEMTs for High-Frequency Applications. IEEE Transactions on Electron Devices, 2004, 51, 521-528.	1.6	34
183	Design Optimization of AlInAs/GaNAs HEMTs for Low-Noise Applications. IEEE Transactions on Electron Devices, 2004, 51, 1228-1233.	1.6	22
184	Nonlinear Effects in T-Branch Junctions. IEEE Electron Device Letters, 2004, 25, 235-237.	2.2	48
185	Quantum transport under high-frequency conditions: application to bound state resonant tunnelling transistors. Semiconductor Science and Technology, 2004, 19, L69-L73.	1.0	0
186	Room temperature nonlinear transport in ballistic nanodevices. Semiconductor Science and Technology, 2004, 19, S125-S127.	1.0	20
187	Nonlocal effects and transfer fields for electronic noise in small devices. , 2004, , .		0
188	Microscopic modeling of nonlinear transport in ballistic nanodevices. IEEE Transactions on Electron Devices, 2003, 50, 1897-1905.	1.6	81
189	Role of energy correlations on Coulomb suppression of shot noise in ballistic conductors contacted to degenerate reservoirs. Physical Review B, 2003, 68, .	1.1	1
190	Monte Carlo study of kink effect in short-channel InAlAs/InGaAs high electron mobility transistors. Journal of Applied Physics, 2003, 94, 4096-4101.	1.1	23
191	Ballistic nanodevices for terahertz data processing: Monte Carlo simulations. Nanotechnology, 2003, 14, 117-122.	1.3	88
192	Kink-effect-related noise in InAlAs/InGaAs short-channel HEMTs. , 2003, , .		0
193	III-V HEMTs: low-noise devices for high-frequency applications. , 2003, , .		0
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