Jesus A Del Alamo

List of Publications by Year
in descending order

223	8,186	87888	62596
papers	citations	38 h-index	80 g-index

253	253	253	5836
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nanometre-scale electronics with IIIâ€“V compound semiconductors. Nature, 2011, 479, 317-323.	27.8	1,515
2	GaN HEMT reliability. Microelectronics Reliability, 2009, 49, 1200-1206.	1.7	408
3	A Current-Transient Methodology for Trap Analysis for GaN High Electron Mobility Transistors. IEEE Transactions on Electron Devices, 2011, 58, 132-140.	3.0	394
4	IIIâ€“V compound semiconductor transistorsâ€”from planar to nanowire structures. MRS Bulletin, 2014, 39, 668-677.	3.5	251
5	Critical Voltage for Electrical Degradation of GaN High-Electron Mobility Transistors. IEEE Electron Device Letters, 2008, 29, 287-289.	3.9	220
6	Quantum fieldâ€effect directional coupler. Applied Physics Letters, 1990, 56, 78-80.	3.3	201
7	Evolution of structural defects associated with electrical degradation in AlGaN/GaN high electron mobility transistors. Applied Physics Letters, 2010, 96, .	3.3	146
8	30-nm InAs Pseudomorphic HEMTs on an InP Substrate With a Current-Gain Cutoff Frequency of 628 GHz. IEEE Electron Device Letters, 2008, 29, 830-833.	3.9	145
9	Measurement of Channel Temperature in GaN High-Electron Mobility Transistors. IEEE Transactions on Electron Devices, 2009, 56, 2895-2901.	3.0	141
10	Bandâ€gap narrowing in heavily doped silicon: A comparison of optical and electrical data. Journal of Applied Physics, 1988, 63, 425-429.	2.5	138
11	30-nm InAs PHEMTs With $f_{T} = hbox{644} hbox{GHz}$ and $f_{max} = hbox{681} hbox{GHz}$. IEEE Electron Device Letters, 2010, 31, 806-808.	3.9	137
12	Mechanisms for Electrical Degradation of GaN High-Electron Mobility Transistors. , 2006, , .		134
13	Modelling of minority-carrier transport in heavily doped silicon emitters. Solid-State Electronics, 1987, 30, 1127-1136.	1.4	128
14	TEM Observation of Crack- and Pit-Shaped Defects in Electrically Degraded GaN HEMTs. IEEE Electron Device Letters, 2008, 29, 1098-1100.	3.9	128
15	Tunneling spectroscopy of an electron waveguide. Physical Review Letters, 1991, 67, 3586-3589.	7.8	112
16	Methodology for the Study of Dynamic ON-Resistance in High-Voltage GaN Field-Effect Transistors. IEEE Transactions on Electron Devices, 2013, 60, 3190-3196.	3.0	111
17	A Simple Current Collapse Measurement Technique for GaN High-Electron Mobility Transistors. IEEE Electron Device Letters, 2008, 29, 665-667.	3.9	93
18	A model for the critical voltage for electrical degradation of GaN high electron mobility transistors. Microelectronics Reliability, 2010, 50, 767-773.	1.7	89

#	Article	IF	Citations
19	Protonic solid-state electrochemical synapse for physical neural networks. Nature Communications, 2020, 11, 3134.	12.8	82
20	Logic Suitability of 50-nm $hbox{In}_{0.7} hbox{Ga}_{0.3}hbox{As}$ HEMTs for Beyond-CMOS Applications. IEEE Transactions on Electron Devices, 2007, 54, 2606-2613.	3.0	76
21	Stability and Reliability of Lateral GaN Power Field-Effect Transistors. IEEE Transactions on Electron Devices, 2019, 66, 4578-4590.	3.0	75
22	Mechanisms responsible for dynamic ON-resistance in GaN high-voltage HEMTs. , 2012, , .		74
23	Lateral and Vertical Scaling of <formula formulatype="inline"><tex Notation="TeX">$hbox{In}_{0.7} hbox{Ga}_{0.3}hbox{As}$</tex></formula> HEMTs for Post-Si-CMOS Logic Applications. IEEE Transactions on Electron Devices, 2008, 55, 2546-2553.	3.0	69
24	Nanometer-Scale Vertical-Sidewall Reactive Ion Etching of InGaAs for 3-D III-V MOSFETs. IEEE Electron Device Letters, 2014, 35, 521-523.	3.9	66
25	Farâ€infrared photonâ€induced current in a quantum point contact. Applied Physics Letters, 1993, 63, 1522-1524.	3.3	64
26	Nanometer-Scale III-V MOSFETs. IEEE Journal of the Electron Devices Society, 2016, 4, 205-214.	2.1	59
27	Gate Current Degradation Mechanisms of GaN High Electron Mobility Transistors. , 2007, , .		58
28	Impact of Water-Assisted Electrochemical Reactions on the OFF-State Degradation of AlGaN/GaN HEMTs. IEEE Transactions on Electron Devices, 2014, 61, 437-444.	3.0	58
29	A Self-Aligned InGaAs HEMT Architecture for Logic Applications. IEEE Transactions on Electron Devices, 2010, 57, 297-304.	3.0	54
30	Scalability of Sub-100 nm InAs HEMTs on InP Substrate for Future Logic Applications. IEEE Transactions on Electron Devices, 2010, 57, 1504-1511.	3.0	54
31	A Novel Digital Etch Technique for Deeply Scaled III-V MOSFETs. IEEE Electron Device Letters, 2014, 35, 440-442.	3.9	54
32	Record Maximum Transconductance of 3.45 mS/ for III-V FETs. IEEE Electron Device Letters, 2016, 37, 381-384.	3.9	54
33	Splitâ€gate dualâ€electron waveguide device. Applied Physics Letters, 1992, 60, 642-644.	3.3	50
34	Oneâ€dimensional to oneâ€dimensional tunnelling between electron waveguides. Applied Physics Letters, 1994, 64, 3157-3159.	3.3	49
35	30 nm E-mode InAs PHEMTs for THz and future logic applications. , 2008, , .		47
36	Unified Mechanism for Positive- and Negative-Bias Temperature Instability in GaN MOSFETs. IEEE Transactions on Electron Devices, 2017, 64, 2142-2147.	3.0	46

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37	Extraction of virtual-source injection velocity in sub-100 nm III–V HFETs. , 2009, , .		44
38	Off-State Leakage Induced by Band-to-Band Tunneling and Floating-Body Bipolar Effect in InGaAs Quantum-Well MOSFETs. IEEE Electron Device Letters, 2014, 35, 1203-1205.	3.9	43
39	A Test Structure to Characterize Nano-Scale Ohmic Contacts in III-V MOSFETs. IEEE Electron Device Letters, 2014, 35, 178-180.	3.9	43
40	Sub-Thermal Subthreshold Characteristics in Topâ€“Down InGaAs/InAs Heterojunction Vertical Nanowire Tunnel FETs. IEEE Electron Device Letters, 2017, 38, 855-858.	3.9	43
41	Role of stress voltage on structural degradation of GaN high-electron-mobility transistors. Microelectronics Reliability, 2011, 51, 201-206.	1.7	42
42	Enhanced transport in transistor by tuning transition-metal oxide electronic states interfaced with diamond. Science Advances, 2018, 4, eaau0480.	10.3	42
43	Orthorhombic distortion of mismatched In X Ga1â^'X As/InP heterostructures. Journal of Electronic Materials, 1991, 20, 1075-1079.	2.2	41
44	A new self-aligned quantum-well MOSFET architecture fabricated by a scalable tight-pitch process. , 2013, , .		41
45	Sub-10-nm Fin-Width Self-Aligned InGaAs FinFETs. IEEE Electron Device Letters, 2016, 37, 1104-1107.	3.9	41
46	A Self-Aligned InGaAs Quantum-Well Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistor Fabricated through a Lift-Off-Free Front-End Process. Applied Physics Express, 2012, 5, 064002.	2.4	38
47	High voltage degradation of GaN High Electron Mobility Transistors on silicon substrate. Microelectronics Reliability, 2010, 50, 758-762.	1.7	37
48	Vertical nanowire InGaAs MOSFETs fabricated by a top-down approach. , 2013, , .		36
49	A Diamond:H/MoO₃ MOSFET. IEEE Electron Device Letters, 2014, 35, 1320-1322.	3.9	36
50	Impact of Intrinsic Channel Scaling on InGaAs Quantum-Well MOSFETs. IEEE Transactions on Electron Devices, 2015, 62, 3470-3476.	3.0	35
51	Electrical and structural degradation of GaN high electron mobility transistors under high-power and high-temperature Direct Current stress. Journal of Applied Physics, 2015, 117, .	2.5	33
52	Positive-bias temperature instability (PBTI) of GaN MOSFETs. , 2015, , .		33
53	Impact of electrical degradation on trapping characteristics of GaN high electron mobility transistors. , 2008, , .		32
54	InGaAs MOSFETs for CMOS: Recent advances in process technology. , 2013, , .		32

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55	In Situ Thermal Atomic Layer Etching for Sub-5 nm InGaAs Multigate MOSFETs. Nano Letters, 2019, 19, 5159-5166.	9.1	32
56	AuGeNi ohmic contacts to n-InP for FET applications. Solid-State Electronics, 1988, 31, 1635-1639.	1.4	31
57	Farâ€infrared radiationâ€induced thermopower in a quantum point contact. Applied Physics Letters, 1995, 66, 1144-1146.	3.3	29
58	InGaAs/InAs heterojunction vertical nanowire tunnel fets fabricated by a top-down approach. , 2014, , .		29
59	Novel intrinsic and extrinsic engineering for high-performance high-density self-aligned InGaAs MOSFETs: Precise channel thickness control and sub-40-nm metal contacts. , 2014, , .		29
60	Negative-bias temperature instability of GaN MOSFETs. , 2016, , .		28
61	A Diamond:H/WO₃ Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistor. IEEE Electron Device Letters, 2018, 39, 540-543.	3.9	27
62	Hole mobility enhancement in In0.41Ga0.59Sb quantum-well field-effect transistors. Applied Physics Letters, 2011, 98, 053505.	3.3	26
63	Lgâ€‰=â€‰60â€‰nm recessed In0.7Ga0.3As metal-oxide-semiconductor field-effect transistors with Al2O3 insulator. Applied Physics Letters, 2012, 101, .	3.3	26
64	Spatial distribution of structural degradation under high-power stress in AlGaN/GaN high electron mobility transistors. Applied Physics Letters, 2012, 100, 172109.	3.3	26
65	Logic Performance of 40 nm InAs HEMTs. , 2007, , .		25
66	Nanoscale mapping of temperature and defect evolution inside operating AlGaN/GaN high electron mobility transistors. Applied Physics Letters, 2009, 95, .	3.3	25
67	RF power degradation of GaN High Electron Mobility Transistors. , 2010, , .		25
68	Alcohol-Based Digital Etch for IIIâ€“V Vertical Nanowires With Sub-10 nm Diameter. IEEE Electron Device Letters, 2017, 38, 548-551.	3.9	25
69	CMOS-Compatible Protonic Programmable Resistor Based on Phosphosilicate Glass Electrolyte for Analog Deep Learning. Nano Letters, 2021, 21, 6111-6116.	9.1	25
70	Split-gate electron waveguide fabrication using multilayer poly(methylmethacrylate). Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1991, 9, 2856.	1.6	24
71	f<inf>T</inf> = 688 GHz and f<inf>max</inf> = 800 GHz in L<inf>g</inf> = 40 nm In<inf>0.7</inf>Ga<inf>0.3</inf>As MHEMTs with g<inf>m_max</inf> > 2.7 mS/µm. , 2011, , .		24
72	Impact of high-power stress on dynamic ON-resistance of high-voltage GaN HEMTs. Microelectronics Reliability, 2012, 52, 2875-2879.	1.7	24

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73	First Transistor Demonstration of Thermal Atomic Layer Etching: InGaAs FinFETs with sub-5 nm Fin-width Featuring in situ ALE-ALD. , 2018, , .		24
74	Fundamental Power and Frequency Limits of Deeply-Scaled CMOS for RF Power Applications. , 2006, , .		23
75	Photovoltaic measurement of bandgap narrowing in moderately doped silicon. Solid-State Electronics, 1983, 26, 483-489.	1.4	22
76	RF power potential of 45 nm CMOS technology. , 2010, , .		22
77	ETB-QW InAs MOSFET with scaled body for improved electrostatics. , 2012, , .		22
78	Analysis of Resistance and Mobility in InGaAs Quantum-Well MOSFETs From Ballistic to Diffusive Regimes. IEEE Transactions on Electron Devices, 2016, 63, 1464-1470.	3.0	22
79	Mismatched InGaAs/InP and InAlAs/InP heterostructures with high crystalline quality. Journal of Applied Physics, 1993, 73, 3195-3202.	2.5	21
80	1D-to-2D tunneling in electron waveguides. Physical Review B, 1993, 48, 15057-15067.	3.2	21
81	Optical anisotropy in mismatched InGaAs/InP heterostructures. Applied Physics Letters, 1991, 58, 2978-2980.	3.3	20
82	Effects of single scatterers on transport and tunneling in a dual-electron-waveguide device. Physical Review B, 1992, 46, 10146-10151.	3.2	20
83	60 nm self-aligned-gate InGaAs HEMTs with record high-frequency characteristics. , 2010, , .		20
84	Single-Event Transient Response of InGaAs MOSFETs. IEEE Transactions on Nuclear Science, 2014, 61, 3550-3556.	2.0	20
85	Physics and Mitigation of Excess OFF-State Current in InGaAs Quantum-Well MOSFETs. IEEE Transactions on Electron Devices, 2015, 62, 1448-1455.	3.0	20
86	Optimized Toroidal Inductors Versus Planar Spiral Inductors in Multilayered Technologies. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 423-431.	4.6	20
87	Measurement of Hall scattering factor in phosphorusâ€doped silicon. Journal of Applied Physics, 1985, 57, 2314-2317.	2.5	19
88	90 nm Self-aligned Enhancement-mode InGaAs HEMT for Logic Applications. , 2007, , .		19
89	Performance analysis of ultra-scaled InAs HEMTs. , 2009, , .		19
90	Fabrication and Characterization of Through-Substrate Interconnects. IEEE Transactions on Electron Devices, 2010, 57, 1261-1268.	3.0	19

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91	Time evolution of electrical degradation under high-voltage stress in GaN high electron mobility transistors. , 2011, , .		19
92	Evaluation and Reliability Assessment of GaN-on-Si MIS-HEMT for Power Switching Applications. Energies, 2017, 10, 233.	3.1	19
93	Asymmetric gating for reducing leakage current in carbon nanotube field-effect transistors. Applied Physics Letters, 2019, 115, .	3.3	19
94	Sub-30 nm InAs Quantum-Well MOSFETs with self-aligned metal contacts and Sub-1 nm EOT HfO<inf>2</inf> insulator. , 2012, , .		18
95	Total current collapse in high-voltage GaN MIS-HEMTs induced by Zener trapping. , 2013, , .		18
96	Scaling Effects on Single-Event Transients in InGaAs FinFETs. IEEE Transactions on Nuclear Science, 2018, 65, 296-303.	2.0	18
97	Gate Bias and Geometry Dependence of Total-Ionizing-Dose Effects in InGaAs Quantum-Well MOSFETs. IEEE Transactions on Nuclear Science, 2017, 64, 239-244.	2.0	17
98	Multiscale Metrology and Optimization of Ultra-Scaled InAs Quantum Well FETs. IEEE Transactions on Electron Devices, 2011, 58, 1963-1971.	3.0	16
99	Traps and defects in preâ€•and postâ€•stressed AlGaNâ€“GaN high electron mobility transistors. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1611-1613.	1.8	16
100	High-Speed E-Mode InAs QW MOSFETs With $hbox{Al}_{2} hbox{O}_{3}$ Insulator for Future RF Applications. IEEE Electron Device Letters, 2013, 34, 196-198.	3.9	16
101	Quantum-size effects in sub 10-nm fin width InGaAs FinFETs. , 2015, , .		16
102	Gate dielectric reliability and instability in GaN metal-insulator-semiconductor high-electron-mobility transistors for power electronics. Journal of Materials Research, 2017, 32, 3458-3468.	2.6	16
103	Rapid thermal annealing of InP using GaAs and InP proximity caps. Journal of Applied Physics, 1987, 62, 3456-3458.	2.5	15
104	Scaling Behavior of In0.7Ga0.3As HEMTs for Logic. , 2006, , .		15
105	Quantum capacitance in scaled down IIIâ€“V FETs. , 2009, , .		15
106	Effect of Substrate Contact Shape and Placement on RF Characteristics of 45 nm Low Power CMOS Devices. IEEE Journal of Solid-State Circuits, 2010, 45, 998-1006.	5.4	15
107	Progressive breakdown in high-voltage GaN MIS-HEMTs. , 2016, , .		15
108	10-nm Fin-width InGaSb p-channel self-aligned FinFETs using antimonide-compatible digital etch. , 2017, , .		15

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109	Sub-10 nm diameter InGaAs vertical nanowire MOSFETs. , 2017, , .		15
110	Excess Off-State Current in InGaAs FinFETs. IEEE Electron Device Letters, 2018, 39, 476-479.	3.9	15
111	Sub-10-nm Diameter Vertical Nanowire p-Type GaSb/InAsSb Tunnel FETs. IEEE Electron Device Letters, 2022, 43, 846-849.	3.9	15
112	Charge neutrality in heavily doped emitters. Applied Physics Letters, 1981, 39, 435-436.	3.3	14
113	Orientation dependence of mismatched InxAl1â^'xAs/In0.53Ga0.47As HFETs. Journal of Crystal Growth, 1991, 111, 479-483.	1.5	14
114	Logic characteristics of 40 nm thin-channel InAs HEMTs. , 2010, , .		14
115	Strain and Temperature Dependence of Defect Formation at AlGaN/GaN High-Electron-Mobility Transistors on a Nanometer Scale. IEEE Transactions on Electron Devices, 2012, 59, 2667-2674.	3.0	14
116	Activation energy of drain-current degradation in GaN HEMTs under high-power DC stress. Microelectronics Reliability, 2014, 54, 2668-2674.	1.7	14
117	An InGaSb p-channel FinFET. , 2015, , .		14
118	Ultralow Resistance Ohmic Contacts for p-Channel InGaSb Field-Effect Transistors. IEEE Electron Device Letters, 2015, 36, 546-548.	3.9	14
119	Self-aligned InGaAs FinFETs with 5-nm fin-width and 5-nm gate-contact separation. , 2017, , .		14
120	Transport in Novel Gated Quantum Wires: The Impact of Wire Length. Japanese Journal of Applied Physics, 1990, 29, L2257-L2260.	1.5	13
121	Thermal stability of strained InxGa1â^'xAs/InyAl1â^'yAs/InP heterostructures. Applied Physics Letters, 1993, 63, 1122-1124.	3.3	13
122	Optimal epilayer thickness for InxGa1â^'xAs and InyAl1â^'yAs composition measurement by highâ€resolution xâ€ray diffraction. Journal of Applied Physics, 1993, 73, 8304-8308.	2.5	13
123	Temperature and carrier density dependence of mobility in a heavily doped quantum well. Applied Physics Letters, 1994, 64, 3276-3278.	3.3	13
124	Scheme for the fabrication of ultrashort channel metal-oxide-semiconductor field-effect transistors. Applied Physics Letters, 2000, 77, 298-300.	3.3	13
125	Degradation Uniformity of RF-Power GaAs PHEMTs Under Electrical Stress. IEEE Transactions on Device and Materials Reliability, 2008, 8, 283-288.	2.0	13
126	50-nm E-mode In<inf>0.7</inf>Ga<inf>0.3</inf>As PHEMTs on 100-mm InP substrate with f<inf>max</inf> > 1 THz. , 2010, , .		13

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127	III-V MOSFETs for Future CMOS. , 2015, , .		13
128	OFF-state TDDB in high-voltage GaN MIS-HEMTs. , 2017, , .		13
129	A Versatile Internet-Accessible Electronics Workbench with Troubleshooting Capabilities. International Journal of Online and Biomedical Engineering, 2009, 5, 72.	1.4	13
130	Impact of âŸ¨110âŸ© uniaxial strain on n-channel In0.15Ga0.85As high electron mobility transistors. Applied Physics Letters, 2009, 95, 243504.	3.3	12
131	Effect of trapping on the critical voltage for degradation in GaN high electron mobility transistors. , 2010, , .		12
132	Enhancing p-channel InGaSb QW-FETs via Process-Induced Compressive Uniaxial Strain. IEEE Electron Device Letters, 2014, 35, 1088-1090.	3.9	12
133	InGaAs Quantum-Well MOSFET Arrays for Nanometer-Scale Ohmic Contact Characterization. IEEE Transactions on Electron Devices, 2016, 63, 1020-1026.	3.0	12
134	Time-Dependent Dielectric Breakdown in High-Voltage GaN MIS-HEMTs: The Role of Temperature. IEEE Transactions on Electron Devices, 2017, 64, 3132-3138.	3.0	12
135	Fabrication and Characterization of Epitaxial Heavily Phosphorusâ€Doped Silicon. Journal of the Electrochemical Society, 1985, 132, 3011-3016.	2.9	11
136	Through-Substrate Interconnects for 3-D ICs, RF Systems, and MEMS. , 2007, , .		11
137	Correlation between RF and DC reliability in GaN high electron mobility transistors. , 2008, , .		11
138	Nanoscale Mo Ohmic Contacts to IIIâ€“V Fins. IEEE Electron Device Letters, 2015, 36, 126-128.	3.9	11
139	Electrical Degradation of InAlN/GaN HEMTs Operating Under ON Conditions. IEEE Transactions on Electron Devices, 2016, 63, 3487-3492.	3.0	11
140	Comprehensive dynamic on-resistance assessments in GaN-on-Si MIS-HEMTs for power switching applications. Semiconductor Science and Technology, 2018, 33, 055012.	2.0	11
141	Sub-10-nm-Diameter InGaAs Vertical Nanowire MOSFETs: Ni Versus Mo Contacts. IEEE Transactions on Electron Devices, 2018, 65, 3762-3768.	3.0	11
142	Dynamics of HfZrO₂ Ferroelectric Structures: Experiments and Models. , 2020, , .		11
143	Impact of gate placement on RF power degradation in GaN high electron mobility transistors. Microelectronics Reliability, 2012, 52, 33-38.	1.7	10
144	Source/Drain Asymmetry in InGaAs Vertical Nanowire MOSFETs. IEEE Transactions on Electron Devices, 2017, 64, 2161-2165.	3.0	10

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145	The impact of electron transport regimes on the linearity of AlGaAs/n+-InGaAs HFETs. Solid-State Electronics, 1993, 36, 53-60.	1.4	9
146	Origin of optical anisotropy in strained InxGa1â^'xAs/InP and InyAl1â^'yAs/InP heterostructures. Journal of Electronic Materials, 1994, 23, 423-429.	2.2	9
147	Corrosion-induced degradation of GaAs PHEMTs under operation in high humidity conditions. Microelectronics Reliability, 2009, 49, 1515-1519.	1.7	9
148	Scalability of sub-100 nm thin-channel InAs PHEMTs. , 2009, , .		9
149	High aspect ratio InGaAs FinFETs with sub-20 nm fin width. , 2016, , .		9
150	A Si-Compatible Fabrication Process for Scaled Self-Aligned InGaAs FinFETs. IEEE Transactions on Semiconductor Manufacturing, 2017, 30, 468-474.	1.7	9
151	A New Technique for Mobility Extraction in MOSFETs in the Presence of Prominent Gate Oxide Trapping: Application to InGaAs MOSFETs. IEEE Transactions on Electron Devices, 2020, 67, 3075-3081.	3.0	9
152	Neural Network Training With Asymmetric Crosspoint Elements. Frontiers in Artificial Intelligence, 2022, 5, .	3.4	9
153	Surface photovoltage spectroscopy of InxAl1â^'xAs epilayers. Journal of Applied Physics, 1995, 78, 7163-7169.	2.5	8
154	A Nonlinear Drain Resistance Model for a High Power Millimeter-wave PHEMT. , 2006, , .		7
155	InAs quantum-well MOSFET (L<inf>g</inf> = 100 nm) with record high g<inf>m</inf>, f<inf>T</inf> and f<inf>max</inf>. , 2012, , .		7
156	Reassessing InGaAs for Logic: Mobility Extraction in sub-10nm Fin-Width FinFETs. , 2019, , .		7
157	Device Physics and Performance Potential of III-V Field-Effect Transistors. , 2010, , 31-50.		7
158	Measurement of electron mobility in epitaxial heavilyâ€phosphorusâ€doped silicon. Journal of Applied Physics, 1984, 56, 2250-2252.	2.5	6
159	Criteria for the observation of oneâ€dimensional transport in splitâ€gate fieldâ€effect quantum wires. Applied Physics Letters, 1991, 58, 2966-2968.	3.3	6
160	Characterization of surface roughness anisotropy on mismatched InAlAs/InP heterostructures. Journal of Electronic Materials, 1996, 25, 313-319.	2.2	6
161	Technology for the fabrication of ultrashort channel metalâ€“oxideâ€“semiconductor field-effect transistors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 1737-1741.	2.1	6
162	Analysis of Gate Delay Scaling in In0.7Ga0.3As-Channel High Electron Mobility Transistors. Japanese Journal of Applied Physics, 2009, 48, 04C086.	1.5	6

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163	Experimental Study of $langle hbox{110}angle$ Uniaxial Stress Effects on p-Channel GaAs Quantum-Well FETs. IEEE Transactions on Electron Devices, 2011, 58, 2597-2603.	3.0	6
164	Design and modeling of Faraday cages for substrate noise isolation. Solid-State Electronics, 2013, 85, 6-11.	1.4	6
165	Experiment lab server architecture: A web services approach to supporting interactive LabVIEW-based remote experiments under MIT's iLab shared architecture. , 2016, , .		6
166	A Scaling Study of Excess OFF-State Current in InGaAs Quantum-Well MOSFETs. IEEE Transactions on Electron Devices, 2019, 66, 1208-1212.	3.0	6
167	X3D: Heterogeneous Monolithic 3D Integration of â€œXâ€•(Arbitrary) Nanowires: Silicon, IIIâ€“V, and Carbon Nanotubes. IEEE Nanotechnology Magazine, 2019, 18, 270-273.	2.0	6
168	Refractory W Ohmic Contacts to H-Terminated Diamond. IEEE Transactions on Electron Devices, 2020, 67, 3516-3521.	3.0	6
169	Nucleation-Limited Switching Dynamics Model for Efficient Ferroelectrics Circuit Simulation. IEEE Transactions on Electron Devices, 2022, 69, 395-399.	3.0	6
170	Scaling of GaSb/InAs Vertical Nanowire Esaki Diodes Down to Sub-10-nm Diameter. IEEE Transactions on Electron Devices, 2022, 69, 2188-2195.	3.0	6
171	Conductance quantization in a GaAs electron waveguide device fabricated by x-ray lithography. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1992, 10, 2966.	1.6	5
172	Quantum-corrected Monte Carlo analysis of scaling behavior of nano-scale InGaAs high electron mobility transistors. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2795-2798.	0.8	5
173	30 nm In<inf>0.7</inf>Ga<inf>0.3</inf>As Inverted-Type HEMTs with reduced gate leakage current for logic applications. , 2009, , .		5
174	Performance enhancement of p-channel InGaAs quantum-well FETs by superposition of process-induced uniaxial strain and epitaxially-grown biaxial strain. , 2011, , .		5
175	InGaAs Double-gate fin-sidewall MOSFET. , 2014, , .		5
176	Ultrathin Body InGaAs MOSFETs on III-V-On-Insulator Integrated With Silicon Active Substrate (III-V-OIAS). IEEE Transactions on Electron Devices, 2016, , 1-8.	3.0	5
177	Neutral beam etching for device isolation in AlGaN/GaN HEMTs. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600617.	1.8	5
178	CMOS beyond Si: Nanometer-Scale III-V MOSFETs. , 2017, , .		5
179	Enabling Remote Design and Troubleshooting Experiments Using the iLab Shared Architecture. , 2010, , .		4
180	Issues Faced in a Remote Instrumentation Laboratory. , 2012, , .		4

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181	Nanometer-scale InGaAs field-effect transistors for THz and CMOS technologies. , 2013, , .		4
182	Anomalous Source-Side Degradation of InAlN/GaN HEMTs Under High-Power Electrical Stress. IEEE Transactions on Electron Devices, 2017, 64, 4435-4441.	3.0	4
183	Time-Dependent Dielectric Breakdown Under AC Stress in GaN MIS-HEMTs. , 2019, , .		4
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