Noel Rodriguez

List of Publications by Year
in descending order

113	1,519	361413	395702
papers	citations	20 h-index	33 g-index

116	116	116	1371
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Flexible and robust laser-induced graphene heaters photothermally scribed on bare polyimide substrates. Carbon, 2019, 144, 116-126.	10.3	144
2	Combined Floating Offshore Wind and Solar PV. Journal of Marine Science and Engineering, 2020, 8, 576.	2.6	70
3	In-Depth Study of Laser Diode Ablation of Kapton Polyimide for Flexible Conductive Substrates. Nanomaterials, 2018, 8, 517.	4.1	53
4	Laser-Fabricated Reduced Graphene Oxide Memristors. Nanomaterials, 2019, 9, 897.	4.1	52
5	Experimental Demonstration of Capacitorless A2RAM Cells on Silicon-on-Insulator. IEEE Electron Device Letters, 2012, 33, 1717-1719.	3.9	48
6	Novel Capacitorless 1T-DRAM Cell for 22-nm Node Compatible With Bulk and SOI Substrates. IEEE Transactions on Electron Devices, 2011, 58, 2371-2377.	3.0	46
7	Design, fabrication and characterization of capacitive humidity sensors based on emerging flexible technologies. Sensors and Actuators B: Chemical, 2019, 287, 459-467.	7.8	46
8	A-RAM Memory Cell: Concept and Operation. IEEE Electron Device Letters, 2010, 31, 972-974.	3.9	42
9	Resistive Switching in Graphene Oxide. Frontiers in Materials, 2020, 7, .	2.4	39
10	Influence of acoustic phonon confinement on electron mobility in ultrathin silicon on insulator layers. Applied Physics Letters, 2006, 88, 122108.	3.3	36
11	Revisited Pseudo-MOSFET Models for the Characterization of Ultrathin SOI Wafers. IEEE Transactions on Electron Devices, 2009, 56, 1507-1515.	3.0	36
12	Design guidelines of laser reduced graphene oxide conformal thermistor for IoT applications. Sensors and Actuators A: Physical, 2018, 274, 148-154.	4.1	35
13	Inexpensive and flexible nanographene-based electrodes for ubiquitous electrocardiogram monitoring. Npj Flexible Electronics, 2019, 3, .	10.7	35
14	Extended Analysis of the Z^{2} -FET: Operation as Capacitorless eDRAM. IEEE Transactions on Electron Devices, 2017, 64, 4486-4491.	3.0	34
15	Fabrication and Characterization of Humidity Sensors Based on Graphene Oxideâ€“PEDOT:PSS Composites on a Flexible Substrate. Micromachines, 2020, 11, 148.	2.9	34
16	Why the Universal Mobility Is Not. IEEE Transactions on Electron Devices, 2010, 57, 1327-1333.	3.0	33
17	An Analytical Iâ€“ V Model for Surrounding-Gate Transistors That Includes Quantum and Velocity Overshoot Effects. IEEE Transactions on Electron Devices, 2010, 57, 2925-2933.	3.0	30
18	Identification and Visualization of the Intellectual Structure in Graphene Research. Frontiers in Research Metrics and Analytics, 2017, 2, .	1.9	28

#	Article	IF	Citations
19	Voltammetric determination of Imatinib (Gleevec) and its main metabolite using square-wave and adsorptive stripping square-wave techniques in urine samples. Talanta, 2005, 66, 202-209.	5.5	24
20	Evidence for mobility enhancement in double-gate silicon-on-insulator metal-oxide-semiconductor field-effect transistors. Journal of Applied Physics, 2007, 102, 083712.	2.5	23
21	Modulation Scheme for the Bidirectional Operation of the Phase-Shift Full-Bridge Power Converter. IEEE Transactions on Power Electronics, 2020, 35, 1377-1391.	7.9	23
22	Memcapacitor and Meminductor Circuit Emulators: A Review. Electronics (Switzerland), 2021, 10, 1225.	3.1	22
23	Modeling of Inversion Layer Centroid and Polysilicon Depletion Effects on Ultrathin-Gate-Oxide MOSFET Behavior: The Influence of Crystallographic Orientation. IEEE Transactions on Electron Devices, 2007, 54, 723-732.	3.0	21
24	Hole Mobility in Ultrathin Double-Gate SOI Devices: The Effect of Acoustic Phonon Confinement. IEEE Electron Device Letters, 2009, 30, 1338-1340.	3.9	20
25	Simulation of hole mobility in two-dimensional systems. Semiconductor Science and Technology, 2009, 24, 035016.	2.0	20
26	Meminductor Emulator Based on a Modified Antoniouâ€™s Gyrator Circuit. Electronics (Switzerland), 2020, 9, 1407.	3.1	20
27	Memcapacitor emulator based on the Miller effect. International Journal of Circuit Theory and Applications, 2019, 47, 572-579.	2.0	19
28	Hole transport in DGSOI devices: Orientation and silicon thickness effects. Solid-State Electronics, 2010, 54, 191-195.	1.4	18
29	Multi-Subband Ensemble Monte Carlo simulation of bulk MOSFETs for the 32nm-node and beyond. Solid-State Electronics, 2011, 65-66, 88-93.	1.4	18
30	Experimental developments of A2RAM memory cells on SOI and bulk substrates. Solid-State Electronics, 2015, 103, 7-14.	1.4	18
31	In situ synthesis of fluorescent silicon nanodots for determination of total carbohydrates in a paper microfluidic device combined with laser prepared graphene heater. Sensors and Actuators B: Chemical, 2021, 332, 129506.	7.8	18
32	Electrical characterization of Random Telegraph Noise in Fully-Depleted Silicon-On-Insulator MOSFETs under extended temperature range and back-bias operation. Solid-State Electronics, 2016, 117, 60-65.	1.4	17
33	Multibranch Mobility Analysis for the Characterization of FDSOI Transistors. IEEE Electron Device Letters, 2012, 33, 1102-1104.	3.9	16
34	Electrical characterization and conductivity optimization of laser reduced graphene oxide on insulator using point-contact methods. RSC Advances, 2016, 6, 46231-46237.	3.6	16
35	Inexpensive Graphene Oxide Heaters Lithographed by Laser. Nanomaterials, 2019, 9, 1184.	4.1	16
36	A new characterization technique for SOI wafers: Split C(V) in pseudo-MOSFET configuration. Solid-State Electronics, 2013, 90, 127-133.	1.4	15

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37	Camera-LiDAR Multi-Level Sensor Fusion for Target Detection at the Network Edge. Sensors, 2021, 21, 3992.	3.8	15
38	Bias-Engineered Mobility in Advanced FD-SOI MOSFETs. IEEE Electron Device Letters, 2013, 34, 840-842.	3.9	14
39	Synchronous Rectifiers Drain Voltage Overshoot Reduction in PSFB Converters. IEEE Transactions on Power Electronics, 2020, 35, 7419-7433.	7.9	14
40	Resonant Hybrid Flyback, a New Topology for High Density Power Adaptors. Electronics (Switzerland), 2018, 7, 363.	3.1	13
41	A Practical Approach to the Design of a Highly Efficient PSFB DC-DC Converter for Server Applications. Energies, 2019, 12, 3723.	3.1	13
42	Self-heating effects in ultrathin FD SOI transistors. , 2011, , .		12
43	Cost-Effective Printed Electrodes Based on Emerging Materials Applied to Biosignal Acquisition. IEEE Access, 2020, 8, 127789-127800.	4.2	12
44	Capacitor-less A-RAM SOI memory: Principles, scaling and expected performance. Solid-State Electronics, 2011, 59, 44-49.	1.4	11
45	Impact of back-gate biasing on effective field and mobility in ultrathin silicon-on-insulator metal-oxide-semiconductor field-effect-transistors. Journal of Applied Physics, 2013, 113, .	2.5	11
46	Resistive Switching and Charge Transport in Laser-Fabricated Graphene Oxide Memristors: A Time Series and Quantum Point Contact Modeling Approach. Materials, 2019, 12, 3734.	2.9	11
47	Anisotropy of electron mobility in arbitrarily oriented FinFETs. , 2007, , .		10
48	Reconfigurable electronics: Addressing the uncontrolled increase of waste electrical and electronic equipment. Resources, Conservation and Recycling, 2018, 138, 47-48.	10.8	10
49	Carbon Dots as Sensing Layer for Printed Humidity and Temperature Sensors. Nanomaterials, 2020, 10, 2446.	4.1	10
50	Design and implementation of a floating meminductor emulator upon Riordan gyrator. AEU - International Journal of Electronics and Communications, 2021, 133, 153671.	2.9	10
51	Three-interface pseudo-MOSFET models for the characterization of SOI wafers with ultrathin film and BOX. Microelectronic Engineering, 2011, 88, 1236-1239.	2.4	9
52	Highly Reliable Quadruple-Node Upset-Tolerant D-Latch. IEEE Access, 2022, 10, 31836-31850.	4.2	9
53	An electron mobility model for ultra-thin gate-oxide MOSFETs including the contribution of remote scattering mechanisms. Semiconductor Science and Technology, 2007, 22, 348-353.	2.0	8
54	On the effective mobility extraction by point-contact techniques on silicon-on-insulator substrates. Journal of Applied Physics, 2015, 117, 035707.	2.5	8

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55	Printed and Flexible Microheaters Based on Carbon Nanotubes. Nanomaterials, 2020, 10, 1879.	4.1	8
56	The effect of surface roughness scattering on hole mobility in double gate silicon-on-insulator devices. Journal of Applied Physics, 2009, 106, 023705.	2.5	7
57	On the Practical Evaluation of the Switching Loss in the Secondary Side Rectifiers of LLC Converters. Energies, 2021, 14, 5915.	3.1	7
58	Advanced Control Methods for Asymmetrical Half-Bridge Flyback. IEEE Transactions on Power Electronics, 2021, 36, 13139-13148.	7.9	7
59	Phonon scattering in Si-based nanodevices. Solid-State Electronics, 2007, 51, 593-597.	1.4	6
60	Monte Carlo simulation of nanoelectronic devices. Journal of Computational Electronics, 2009, 8, 174-191.	2.5	6
61	Laser-Fabricated Antennas for RFID Applications. , 2021, , .		6
62	Energy Harvesting and Energy Storage Systems. Electronics (Switzerland), 2022, 11, 984.	3.1	6
63	Determination of ad hoc deposited charge on bare SOI wafers. , 2015, , .		5
64	Systematic method for electrical characterization of random telegraph noise in MOSFETs. Solid-State Electronics, 2017, 128, 115-120.	1.4	5
65	Assessment of three electrolyteâ€“molecule electrostatic interaction models for 2D material based BioFETs. Nanoscale Advances, 2019, 1, 1077-1085.	4.6	5
66	Comparison of Laser-Synthetized Nanographene-Based Electrodes for Flexible Supercapacitors. Micromachines, 2020, 11, 555.	2.9	5
67	Mobility issues in double-gate SOI MOSFETs: Characterization and analysis. , 2007, , .		4
68	The Quantization Impact of Accumulated Carriers in Silicide-Gated MOSFETs. IEEE Electron Device Letters, 2008, 29, 628-631.	3.9	4
69	A-RAM: Novel capacitor-less DRAM memory. , 2009, , .		4
70	Properties of 22nm node extremely-thin-SOI MOSFETs. , 2011, , .		4
71	Determination of Effective Capacitance Area for Pseudo-MOSFET Based Characterization of Bare SOI Wafers by Split-C(V) Measurements. ECS Transactions, 2013, 53, 209-217.	0.5	4
72	Acoustic characterization of laser-induced graphene film thermoacoustic loudspeakers. , 2019, , .		4

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73	Unveiling the impact of the bias-dependent charge neutrality point on graphene based multi-transistor applications. Nano Express, 2021, 2, 036001.	2.4	4
74	Fully self-consistent k · p solver and Monte Carlo simulator for hole inversion layers. , 2008, , .		3
75	New concepts for IT-DRAMs: Overcoming the scaling limits. , 2011, , .		3
76	Non-Linear Capacitance of Si SJ MOSFETs in Resonant Zero Voltage Switching Applications. IEEE Access, 2020, 8, 116117-116131.	4.2	3
77	Low-Cost Soft Error Robust Hardened D-Latch for CMOS Technology Circuit. Electronics (Switzerland), 2021, 10, 1256.	3.1	3
78	Monte Carlo simulation of low-field mobility in strained double gate SOI transistors. Journal of Computational Electronics, 2008, 7, 205-208.	2.5	2
79	Impact of effective capacitance area on the characterization of SOI Wafers by Split-C(V) in Pseudo-MOSFET configuration. , 2012, , .		2
80	A 20nm low-power triple-gate multibody 1T-DRAM cell. , 2012, , .		2
81	In Situ Characterization of Bias Instability in Bare SOI Wafers by Pseudo-MOSFET Technique. IEEE Transactions on Device and Materials Reliability, 2014, 14, 878-883.	2.0	2
82	Direct Characterization of Impact Ionization Current in Silicon-on-Insulator Body-Contacted MOSFETs. ECS Transactions, 2015, 66, 93-99.	0.5	2
83	Geometric Magnetoresistance and Mobility Behavior in Single-Gate and Double-Gate SOI Devices. SOI Conference, Proceedings of the IEEE International, 2007, , .	0.0	1
84	A revisited pseudo-MOSFET model for ultrathin SOI films. , 2008, , .		1
85	Origins of universal mobility violation in SOI MOSFETs. , 2010, , .		1
86	Multibranch mobility characterization: Evidence of carrier mobility enhancement by back-gate biasing in FD-SOI MOSFET. , 2012, , .		1
87	Innovative capacitorless SOI DRAMs. , 2012, , .		1
88	Experimental demonstration of A2RAM memory cell on SOI. , 2012, , .		1
89	Direct point-contact characterization of Bias instability on bare SOI wafers. , 2013, , .		1
90	Notice of Removal: Fabrication and validation of A2RAM memory cells on SOI and bulk substrates - Withdrawn. , 2013, , .		1

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91	Electrical characterization of Random Telegraph Noise in back-biased Ultrathin Silicon-On-Insulator MOSFETs. , 2016, , .		1
92	Temperature sensing by Laser Reduced Graphene Oxide at different Laser Power Levels. , 2020, , .		1
93	Characterization of electron transport at high fields in silicon-on-insulator devices: a Monte Carlo study. Semiconductor Science and Technology, 2006, 21, 81-86.	2.0	0
94	Enhanced electron transport by carrier overshoot in ultrascaled Double Gate MOSFETs. , 2008, , .		0
95	Simulation of Hole Mobility in DGSOI Transistors. ECS Transactions, 2009, 19, 235-240.	0.5	0
96	Ultrathin Body Effects in Multiple Gate SOI Transistors. ECS Transactions, 2009, 25, 91-98.	0.5	0
97	Characterization, modelling and simulation of Sub-45nm SOI devices. , 2009, , .		0
98	Non-metallic effects in silicided gate MOSFETs. Solid-State Electronics, 2009, 53, 1313-1317.	1.4	0
99	Quantization effects in silicided and metal gate MOSFETs. , 2009, , .		0
100	An undergraduate microwave and RF low-profile laboratory. , 2010, , .		0
101	Multi-Subband Monte Carlo simulation of bulk MOSFETs for the 32nm-node and beyond. , 2010, , .		0
102	Ultrathin n-Channel and p-Channel SOI MOSFETs. Engineering Materials, 2011, , 169-185.	0.6	0
103	New Capacitorless Dynamic Memory Compatible with SOI and Bulk CMOS. ECS Transactions, 2011, 35, 195-200.	0.5	0
104	ADVANCED CONCEPTS FOR FLOATING-BODY MEMORIES. International Journal of High Speed Electronics and Systems, 2012, 21, 1250002.	0.7	0
105	3D Trigate 1T-DRAM Memory Cell for 2x nm Nodes. , 2012, , .		0
106	Combined effect of mechanical stressors and channel orientation on mobility in FDSOI n and p MOSFETs. , 2012, , .		0
107	Effective Capacitance Area for Pseudo-MOSFET Characterization of Bare SOI Wafers by Split-C(V) Measurements. ECS Journal of Solid State Science and Technology, 2013, 2, P529-P533.	1.8	0
108	A2RAM: Low-power 1T-DRAM memory cells compatible with planar and 3D SOI substrates. , 2014, , .		0

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109	Tri-Dimensional A2-RAM Cell: Entering the Third Dimension. Engineering Materials, 2014, , 105-124.	0.6	0
110	(Invited) Special Memory Mechanisms in SOI Devices. ECS Transactions, 2015, 66, 201-210.	0.5	0
111	Insights on the Body Charging and Noise Generation by Impact Ionization in Fully Depleted SOI MOSFETs. IEEE Transactions on Electron Devices, 2017, 64, 5093-5098.	3.0	0
112	Laser-fabricated flexible nanographene-based sensor for pH detection in saliva. , 2020, , .		0
113	Reconfigurable Electronic Platforms: A Top-Down Approach to Learn about Design and Integration of Electronic Systems. Micromachines, 2022, 13, 442.	2.9	0