Patrick Carey

List of Publications by Year in Descending Order

33 papers	1,565 citations	15 h-index	34 g-index
34 ext. papers	1,992 ext. citations	3.2 avg, IF	4.92 L-index

#	Paper	IF	Citations
33	Digital biosensor for human cerebrospinal fluid detection with single-use sensing strips. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2022**, 40, 023202	1.3	1
32	Vertical Ga2O3 Schottky rectifiers with 750 V reverse breakdown voltage at 600 K. *Journal Physics D: Applied Physics*, **2021**, 54, 305103	3	4
31	Fast SARS-CoV-2 virus detection using disposable cartridge strips and a semiconductor-based biosensor platform. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2021**, 39, 033202	1.3	6
30	Hydroxyapatite Formation on Coated Titanium Implants Submerged in Simulated Body Fluid. *Materials*, **2020**, 13,	3.5	3
29	Alpha Particle Irradiation of High Aluminum Content AlGan Polarization Doped Field Effect Transistors. *ECS Journal of Solid State Science and Technology*, **2020**, 9, 035008	2	2
28	Novel Coatings to Minimize Bacterial Adhesion and Promote Osteoblast Activity for Titanium Implants. *Journal of Functional Biomaterials*, **2020**, 11,	4.8	7
27	Proton Irradiation of High Aluminum Content AlGaN Polarization Doped Field Effect Transistors. *ECS Journal of Solid State Science and Technology*, **2020**, 9, 025003	2	2
26	Nanosensor networks for health-care applications **2020**, 405-417		2
25	Neutron Irradiation of AlGaN Polarization Doped Field Effect Transistors. *ECS Journal of Solid State Science and Technology*, **2020**, 9, 065007	2	1
24	Review Opportunities for Rapid, Sensitive Detection of Troponin and Cerebral Spinal Fluid Using Semiconductor Sensors. *Journal of the Electrochemical Society*, **2020**, 167, 037507	3.9	4
23	A Two-Electrode, Double-Pulsed Sensor Readout Circuit for Cardiac Troponin I Measurement. *IEEE Transactions on Biomedical Circuits and Systems*, **2020**, 14, 1362-1370	5.1	3
22	Rapid Electrochemical Detection for SARS-CoV-2 and Cardiac Troponin I Using Low-Cost, Disposable and Modular Biosensor System **2020**,		4
21	High temperature operation to 500 C of AlGaN graded polarization-doped field-effect transistors. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2020**, 38, 033202	1.3	1
20	Antibacterial Properties of Charged TiN Surfaces for Dental Implant Application. *ChemistrySelect*, **2019**, 4, 9185-9189	1.8	6
19	Fast Cerebrospinal Fluid Detection Using Inexpensive Modular Packaging with Disposable Testing Strips. *Journal of the Electrochemical Society*, **2019**, 166, B708-B712	3.9	5
18	Vertical geometry 33.2 A, 4.8 MW cm2 Ga2O3 field-plated Schottky rectifier arrays. *Applied Physics Letters*, **2019**, 114, 232106	3.4	26
17	Defects at the surface of Ga2O3 produced by Ar plasma exposure. *APL Materials*, **2019**, 7, 061102	5.7	25

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16	Comparison of Dual-Stack Dielectric Field Plates on Ga2O3 Schottky Rectifiers. *ECS Journal of Solid State Science and Technology*, **2019**, 8, Q3221-Q3225	2	16
15	Operation Up to 500 C of Al0.85Ga0.15N/Al0.7Ga0.3N High Electron Mobility Transistors. *IEEE Journal of the Electron Devices Society*, **2019**, 7, 444-452	2.3	27
14	Extreme Temperature Operation of Ultra-Wide Bandgap AlGaN High Electron Mobility Transistors. *IEEE Transactions on Semiconductor Manufacturing*, **2019**, 32, 473-477	2.6	13
13	Hydrogen plasma treatment of Ga2O3: Changes in electrical properties and deep trap spectra. *Applied Physics Letters*, **2019**, 115, 032101	3.4	29
12	Effects of Hydrogen Plasma Treatment Condition on Electrical Properties of Ga2O3. *ECS Journal of Solid State Science and Technology*, **2019**, 8, P661-P666	2	4
11	Band alignments of dielectrics on (201) Ga2O3 **2019**, 287-311		2
10	A review of Ga2O3 materials, processing, and devices. *Applied Physics Reviews*, **2018**, 5, 011301	17.3	1114
9	Zika virus detection using antibody-immobilized disposable cover glass and AlGaN/GaN high electron mobility transistors. *Applied Physics Letters*, **2018**, 113, 032101	3.4	18
8	Band alignment of Al2O3 with (201) Ga2O3. *Vacuum*, **2017**, 142, 52-57	3.7	47
7	Band offsets in ITO/Ga2O3 heterostructures. *Applied Surface Science*, **2017**, 422, 179-183	6.7	35
6	Conduction and valence band offsets of LaAl2O3 with (201) Ga2O3. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2017**, 35, 041201	1.3	24
5	Valence and conduction band offsets in AZO/Ga2O3 heterostructures. *Vacuum*, **2017**, 141, 103-108	3.7	29
4	Improvement of Ohmic contacts on Ga2O3 through use of ITO-interlayers. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2017**, 35, 061201	1.3	27
3	Ohmic contacts on n-type Ga2O3 using AZO/Ti/Au. *AIP Advances*, **2017**, 7, 095313	1.5	32
2	Band alignment of atomic layer deposited SiO2and HfSiO4with $(bar{2}01)$ Ga2O3. *Japanese Journal of Applied Physics*, **2017**, 56, 071101	1.4	27
1	Rapid detection of cardiac troponin I using antibody-immobilized gate-pulsed AlGaN/GaN high electron mobility transistor structures. *Applied Physics Letters*, **2017**, 111, 202104	3.4	19