John P R David

List of Publications by Year
in descending order

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54	1,192	394421	395702
papers	citations	19	33
		h-index	g-index

54	54	54	909
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An Enhanced Color Shift Keying Modulation Scheme for High-Speed Wireless Visible Light Communications. Journal of Lightwave Technology, 2014, 32, 2582-2592.	4.6	172
2	High speed InAs electron avalanche photodiodes overcome the conventional gain-bandwidth product limit. Optics Express, 2011, 19, 23341.	3.4	95
3	Avalanche Multiplication and Excess Noise in InAs Electron Avalanche Photodiodes at 77 K. IEEE Journal of Quantum Electronics, 2011, 47, 858-864.	1.9	92
4	Extremely low excess noise and high sensitivity AlAs0.56Sb0.44 avalanche photodiodes. Nature Photonics, 2019, 13, 683-686.	31.4	62
5	InAs Diodes Fabricated Using Be Ion Implantation. IEEE Transactions on Electron Devices, 2015, 62, 2928-2932.	3.0	60
6	Absorption Characteristics of ${m GaAs}_{1-x}{m Bi}_{x}/{m GaAs}$ Diodes in the Near-Infrared. IEEE Photonics Technology Letters, 2012, 24, 2191-2194.	2.5	59
7	Bismuth incorporation and the role of ordering in GaAsBi/GaAs structures. Nanoscale Research Letters, 2014, 9, 23.	5.7	56
8	Extremely Low Excess Noise in InAs Electron Avalanche Photodiodes. IEEE Photonics Technology Letters, 2009, 21, 866-868.	2.5	52
9	Impact Ionization in InAs Electron Avalanche Photodiodes. IEEE Transactions on Electron Devices, 2010, 57, 2631-2638.	3.0	47
10	Temperature Dependence of Leakage Current in InAs Avalanche Photodiodes. IEEE Journal of Quantum Electronics, 2011, 47, 1123-1128.	1.9	43
11	Performance evaluation of IEEE 802.15.7 CSK physical layer. , 2013, , .		37
12	Assessing the Nature of the Distribution of Localised States in Bulk GaAsBi. Scientific Reports, 2018, 8, 6457.	3.3	28
13	Short-Wave Infrared GaInAsSb Photodiodes Grown on GaAs Substrate by Interfacial Misfit Array Technique. IEEE Photonics Technology Letters, 2012, 24, 218-220.	2.5	27
14	InAlAs Avalanche Photodiode With Type-II Superlattice Absorber for Detection Beyond 2 $muhbox{m}$. IEEE Transactions on Electron Devices, 2011, 58, 486-489.	3.0	24
15	Relating the Experimental Ionization Coefficients in Semiconductors to the Nonlocal Ionization Coefficients. IEEE Transactions on Electron Devices, 2015, 62, 1946-1952.	3.0	23
16	Low noise high responsivity InAs electron avalanche photodiodes for infrared sensing. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 310-313.	0.8	22
17	Demonstration of large ionization coefficient ratio in AlAs0.56Sb0.44 lattice matched to InP. Scientific Reports, 2018, 8, 9107.	3.3	22
18	Sensitivity of High-Speed Lightwave System Receivers Using InAlAs Avalanche Photodiodes. IEEE Photonics Technology Letters, 2011, 23, 233-235.	2.5	20

#	Article	IF	Citations
19	Al<inline-formula><tex-math>$_{f 0.52}$</tex-math></inline-formula>In<inline-formula><tex-math>$_{f 0.48}$</tex-math></inline-formula>P SAM-APD as a Blue-Green Detector. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 142-146.	2.9	20
20	Valence band engineering of GaAsBi for low noise avalanche photodiodes. Nature Communications, 2021, 12, 4784.	12.8	20
21	Optimization of InP APDs for High-Speed Lightwave Systems. Journal of Lightwave Technology, 2009, 27, 3294-3302.	4.6	19
22	A Theoretical Comparison of the Breakdown Behavior of $hbox{In}_{0.52}hbox{Al}_{0.48}hbox{As}$ and InP Near-Infrared Single-Photon Avalanche Photodiodes. IEEE Journal of Quantum Electronics, 2009, 45, 566-571.	1.9	16
23	Versatile Spectral Imaging With an Algorithm-Based Spectrometer Using Highly Tuneable Quantum Dot Infrared Photodetectors. IEEE Journal of Quantum Electronics, 2011, 47, 190-197.	1.9	16
24	Impact Ionization Coefficients in $hbox{Al}_{0.52} hbox{In}_{0.48}hbox{P}$. IEEE Electron Device Letters, 2011, 32, 1528-1530.	3.9	14
25	Low-Noise Speed-Optimized Large Area CMOS Avalanche Photodetector for Visible Light Communication. Journal of Lightwave Technology, 2017, 35, 2315-2324.	4.6	13
26	Impact Ionization Coefficients in 4H-SiC by Ultralow Excess Noise Measurement. IEEE Transactions on Electron Devices, 2012, 59, 1030-1036.	3.0	12
27	Effects of Dead Space on Avalanche Gain Distribution of X-Ray Avalanche Photodiodes. IEEE Transactions on Electron Devices, 2012, 59, 1063-1067.	3.0	11
28	The staircase photodiode. Nature Photonics, 2016, 10, 364-366.	31.4	11
29	Temperature Dependence of the Impact Ionization Coefficients in AlAsSb Lattice Matched to InP. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-8.	2.9	11
30	Dependence of the Electroluminescence on the Spacer Layer Growth Temperature of Multilayer Quantum-Dot Laser Structures. IEEE Journal of Quantum Electronics, 2009, 45, 79-85.	1.9	9
31	Temperature dependence of avalanche multiplication and breakdown voltage in Al0.52In0.48P. Journal of Applied Physics, 2014, 115, .	2.5	9
32	Dark Current Mechanism in Bulk GaInNAs Lattice Matched to GaAs. IEEE Transactions on Electron Devices, 2011, 58, 103-106.	3.0	8
33	High-Gain InAs Planar Avalanche Photodiodes. Journal of Lightwave Technology, 2016, 34, 2639-2644.	4.6	8
34	White Light Constrained Multi-Primary Modulation for Visible Light Communication. , 2017, , .		7
35	Effects of Ionization Velocity and Dead Space on Avalanche Photodiode Bit Error Rate. IEEE Transactions on Communications, 2007, 55, 2152-2158.	7.8	6
36	InAs/GaSb Type-II Superlattice for Radiation Thermometry. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 502-508.	4.7	6

#	Article	IF	Citations
37	Weibull-FrÃ©chet random path length model for avalanche gain and noise in photodiodes. Journal Physics D: Applied Physics, 2022, 55, 065105.	2.8	6
38	Noise, Gain, and Responsivity in Low-Strain Quantum Dot Infrared Photodetectors With up to 80 Dot-in-a-Well Periods. IEEE Journal of Quantum Electronics, 2011, 47, 607-613.	1.9	5
39	Low breakdown voltage CMOS compatible p-n junction avalanche photodiode. , 2014, , .		5
40	Exact Analytical Formula for the Excess Noise Factor for Mixed Carrier Injection Avalanche Photodiodes. Journal of Lightwave Technology, 2019, 37, 3315-3323.	4.6	4
41	High speed low noise InAs electron avalanche photodiodes for telecommunication and infrared sensing applications. , 2013, , .		3
42	Impact Ionization Coefficients in (Al_xGa_{1-x}) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 547 Td (</sub>)<su Lattice-Matched to GaAs. IEEE Transactions on Electron Devices, 2021, 68, 4045-4050.	3.0	3
43	GaInNAsSb/GaAs Photodiodes for Long-Wavelength Applications. IEEE Electron Device Letters, 2011, 32, 919-921.	3.9	2
44	InAs electron avalanche photodiodes with 580 GHz gain-bandwidth product. , 2012, , .		2
45	Electroluminescence Studies of Modulation p-Doped Quantum Dot Laser Structures. IEEE Journal of Quantum Electronics, 2010, 46, 1847-1853.	1.9	1
46	Surface passivation of InAs avalanche photodiodes for low-noise infrared imaging. , 2016, , .		1
47	An excess noise measurement system for weak responsivity avalanche photodiodes. Measurement Science and Technology, 2018, 29, 065015.	2.6	1
48	Theoretical Analysis of AlAsâ,€.â,…â,†Sbâ,€.â,„â,„ Single Photon Avalanche Diodes With High Breakdown Probability. IEEE Journal of Quantum Electronics, 2021, 57, 1-6.	1.9	1
49	Extremely low-noise avalanche photodiodes based on AlAs0.56Sb0.44. , 2020, , .		1
50	Sensitivity of high-speed receivers using InAlAs avalanche photodiodes. , 2010, , .		0
51	Reverse leakage current mechanisms in quantum dot laser structures. , 2011, , .		0
52	Development of AlGaAs avalanche diodes for soft X-ray photon counting. , 2011, , .		0
53	GaAs p-i-n diodes for room temperature soft X-ray photon counting. , 2011, , .		0
54	Comparison of the temperature dependence of impact ionization coefficients in AlAsSb, InAlAs, and InP. , 2022, , .		0