

# Johan Rothman

## List of Publications by Year in descending order

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45  
papers

970  
citations

430874

18  
h-index

454955

30  
g-index

46  
all docs

46  
docs citations

46  
times ranked

669  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optically pumped GeSn micro-disks with 16% Sn lasing at 3.1 $\mu\text{m}$ up to 180 K. Applied Physics Letters, 2017, 111, .	3.3	156
2	Short-Wave Infrared HgCdTe Avalanche Photodiodes. Journal of Electronic Materials, 2012, 41, 2928-2936.	2.2	104
3	Gain and Dark Current Characteristics of Planar HgCdTe Avalanche Photo Diodes. Journal of Electronic Materials, 2007, 36, 963-970.	2.2	63
4	HgCdTe Detectors for Space and Science Imaging: General Issues and Latest Achievements. Journal of Electronic Materials, 2016, 45, 4532-4541.	2.2	46
5	Study of the Transit-Time Limitations of the Impulse Response in Mid-Wave Infrared HgCdTe Avalanche Photodiodes. Journal of Electronic Materials, 2009, 38, 1790-1799.	2.2	44
6	Impulse Response Time Measurements in Hg <sub>0.7</sub> Cd <sub>0.3</sub> Te MWIR Avalanche Photodiodes. Journal of Electronic Materials, 2008, 37, 1261-1273.	2.2	41
7	History-Dependent Impact Ionization Theory Applied to HgCdTe e-APDs. Journal of Electronic Materials, 2011, 40, 1757-1768.	2.2	37
8	Latest Developments of HgCdTe e-APDs at CEA LETI-Minatec. Journal of Electronic Materials, 2008, 37, 1303-1310.	2.2	31
9	Physics and Limitations of HgCdTe APDs: A Review. Journal of Electronic Materials, 2018, 47, 5657-5665.	2.2	31
10	Issues in HgCdTe Research and Expected Progress in Infrared Detector Fabrication. Journal of Electronic Materials, 2013, 42, 3349-3358.	2.2	30
11	Gamma bandgap determination in pseudomorphic GeSn layers grown on Ge with up to 15% Sn content. Applied Physics Letters, 2016, 109, .	3.3	30
12	Characterization of midwave infrared InSb avalanche photodiode. Journal of Applied Physics, 2015, 117, .	2.5	29
13	Performance of Mid-Wave Infrared HgCdTe e-Avalanche Photodiodes. Journal of Electronic Materials, 2012, 41, 2943-2948.	2.2	28
14	Electrical modeling of InSb PiN photodiode for avalanche operation. Journal of Applied Physics, 2013, 113, .	2.5	28
15	A Monte Carlo Study of $\text{Hg}_{0.7}\text{Cd}_{0.3}\text{Te}$ e-APD. IEEE Transactions on Electron Devices, 2009, 56, 569-577.	3.0	25
16	High performance characteristics in pin MW HgCdTe e-APDs. , 2007, , .		24
17	Evaluation of a HgCdTe e-APD based detector for 2 $\mu\text{m}$ CO <sub>2</sub> DIAL application. Applied Optics, 2017, 56, 7577.	1.8	22
18	Modeling of Dark Current in HgCdTe Infrared Detectors. Journal of Electronic Materials, 2013, 42, 3303-3308.	2.2	20

#	ARTICLE	IF	CITATIONS
19	Response Time Measurements in Short-Wave Infrared HgCdTe e-APDs. Journal of Electronic Materials, 2014, 43, 2947-2954.	2.2	20
20	High-Operating-Temperature HgCdTe Avalanche Photodiodes. Journal of Electronic Materials, 2009, 38, 1707-1716.	2.2	13
21	Linear photon-counting with HgCdTe APDs. , 2012, , .		13
22	Experimental Performance and Monte Carlo Modeling of Long Wavelength Infrared Mercury Cadmium Telluride Avalanche Photodiodes. Journal of Electronic Materials, 2009, 38, 1628-1636.	2.2	12
23	Shockleyâ€“Readâ€“Hall Lifetime Study and Implication in HgCdTe Photodiodes for IR Detection. Journal of Electronic Materials, 2018, 47, 5680-5690.	2.2	12
24	HgCdTe APD- focal plane array development at CEA Leti-Minatec. Proceedings of SPIE, 2008, , .	0.8	10
25	HgCdTe APD-focal plane array development at DEFIR. Proceedings of SPIE, 2010, , .	0.8	10
26	HgCdTe Quantum Detection: from Long-Wave IR down to UV. Journal of Electronic Materials, 2011, 40, 1781-1784.	2.2	10
27	A 320x256 HgCdTe avalanche photodiode focal plane array for passive and active 2D and 3D imaging. , 2011, , .		9
28	Characterization of Plasma Etching Process Damage in HgCdTe. Journal of Electronic Materials, 2013, 42, 3006-3014.	2.2	9
29	HgCdTe APDs for time-resolved space applications. CEAS Space Journal, 2017, 9, 507-516.	2.3	9
30	HgCdTe APD-focal plane array performance at DEFIR. Proceedings of SPIE, 2009, , .	0.8	8
31	HgCdTe APDs for free space optical communications. Proceedings of SPIE, 2015, , .	0.8	8
32	Temperature and Injection Dependence of Photoluminescence Decay in Midwave Infrared HgCdTe. Journal of Electronic Materials, 2017, 46, 6817-6828.	2.2	8
33	Meso-photon Detection with HgCdTe APDs at High Count Rates. Journal of Electronic Materials, 2020, 49, 6881-6892.	2.2	8
34	Performances of a HGCDTE APD based direct detection lidar at 2 Î¼m. Application to dial measurements. EPJ Web of Conferences, 2018, 176, 01001.	0.3	4
35	A Monte Carlo study of multiplication and noise in HgCdTe avalanche photodiodes. , 2008, , .		3
36	New high-gain detectors for active imaging. , 2009, , .		3

#	ARTICLE	IF	CITATIONS
37	Shockleyâ€“Haynes Characterization of Minority-Carrier Drift Velocity, Diffusion Coefficient, and Lifetime in HgCdTe Avalanche Photodiodes. Journal of Electronic Materials, 2010, 39, 837-845.	2.2	3
38	MCT APD focal plane arrays for astronomy at CEA-LETI. , 2016, , .		3
39	Sub electron readout noise & photon counting devices. EAS Publications Series, 2009, 37, 255-270.	0.3	2
40	Latest achievements on MCT IR detectors for space and science imaging. Proceedings of SPIE, 2016, , .	0.8	2
41	HgCdTe APDs for low-photon number IR detection. Proceedings of SPIE, 2017, , .	0.8	1
42	HgCdTe APDs for free space optical communications. , 2018, , .		1
43	Small pixel pitch solutions for active and passive imaging. Proceedings of SPIE, 2012, , .	0.8	0
44	A novel 0.5GHz real time asynchronous photon detection and counting technique: ROIC design for cooled SWIR HgCdTe infrared detector. , 2013, , .		0
45	Design, fabrication, and characterization of InSb avalanche photodiode. Proceedings of SPIE, 2013, , .	0.8	0