

Dmytro B But

List of Publications by Year in descending order

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91
docs citations

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797
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of ultraviolet light on 1/f noise in carbon nanotube networks. Materials Research Bulletin, 2021, 134, 111093.	5.2	6
2	Homodyne Spectroscopy with Broadband Terahertz Power Detector Based on 90-nm Silicon CMOS Transistor. Applied Sciences (Switzerland), 2021, 11, 412.	2.5	11
3	AlGaIn/GaN heterostructures for plasma wave detection and emission in THz regime. , 2021, , .		0
4	Sensitivity of Field-Effect Transistor-Based Terahertz Detectors. Sensors, 2021, 21, 2909.	3.8	54
5	Double-Quantum-Well AlGaIn/GaN Field Effect Transistors with Top and Back Gates: Electrical and Noise Characteristics. Micromachines, 2021, 12, 721.	2.9	1
6	All-Electronic Emitter-Detector Pairs for 250 GHz in Silicon. Sensors, 2021, 21, 5795.	3.8	14
7	Modified bow-tie antennas AlGaIn/GaN FinFETs for sub-THz detection. , 2021, , .		0
8	Terahertz magnetospectroscopy of pseudo-relativistic fermions in HgCdTe alloys under hydrostatic pressure. , 2021, , .		0
9	Review of methods for performance evaluation of antenna-coupled THz detectors. , 2021, , .		0
10	252-GHz Compact All-Electronic CMOS Optopair with SNR of 62 dB. , 2021, , .		0
11	Characterization of Silver Nanowire Layers in the Terahertz Frequency Range. Materials, 2021, 14, 7399.	2.9	1
12	Graphene as a Schottky Barrier Contact to AlGaIn/GaN Heterostructures. Materials, 2020, 13, 4140.	2.9	13
13	Enhanced Sub-wavelength Focusing by Double-Sided Lens with Phase Correction in THz Range. Journal of Infrared, Millimeter, and Terahertz Waves, 2020, 41, 685-696.	2.2	3
14	Symmetry breaking and circular photogalvanic effect in epitaxial CdTe films. Physical Review Materials, 2020, 4, .	2.4	21
15	Room-Temperature Amplification of Terahertz Radiation by Grating-Gate Graphene Structures. Physical Review X, 2020, 10, .	8.9	43
16	Silicon based resonant power detector for 620 GHz. , 2020, , .		4
17	Sub-terahertz detection by fin-shaped GaN/AlGaIn transistors. , 2020, , .		0
18	Anomalous sub-THz detection by GaN/AlGaIn FinFETs. , 2020, , .		0

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19	AlGaIn/GaN HEMTs for THz Plasma Wave Detection and Emission. , 2020, , .		2
20	Suppressed Auger scattering and tunable light emission of Landau-quantized massless Kane electrons. Nature Photonics, 2019, 13, 783-787.	31.4	23
21	Magneto-transport in inverted HgTe quantum wells. Npj Quantum Materials, 2019, 4, .	5.2	16
22	Time Resolution and Dynamic Range of Field-Effect Transistor-Based Terahertz Detectors. Journal of Infrared, Millimeter, and Terahertz Waves, 2019, 40, 703-719.	2.2	11
23	Terahertz Digital Holography Using Field-Effect Transistor Detectors. , 2019, , .		1
24	Time Resolution and Power Dependence of Transistor Based Terahertz Detectors. , 2019, , .		0
25	Low frequency noise and trap density in GaN/AlGaIn field effect transistors. Applied Physics Letters, 2019, 115, .	3.3	27
26	Electrical and Noise Characteristics of Fin-Shaped GaN/AlGaIn Devices for High Frequency Operation. , 2019, , .		3
27	AlGaIn/GaN field effect transistor with two lateral Schottky barrier gates towards resonant detection in sub-mm range. Semiconductor Science and Technology, 2019, 34, 024002.	2.0	15
28	Features of the Formation of Ohmic Contacts to n ⁺ -InN. Ukrainian Journal of Physics, 2019, 64, 56.	0.2	0
29	Field Effect Transistors Based Terahertz Detectors 25 Years History, State of the Art and Future Directions. , 2018, , .		1
30	AlGaIn/GaN Field Effect Transistors Based on Lateral Schottky Barrier Gates as Millimeter Wave Detectors. , 2018, , .		1
31	Graphene ballistic rectifiers for THz detection and imaging. , 2018, , .		1
32	Millimetre band detectors based on GaN/AlGaIn HEMT. , 2018, , .		2
33	Terahertz vision using field effect transistors detectors arrays. , 2018, , .		7
34	Millimeter and submillimeter range detector based on graphene ballistic rectifiers. , 2018, , .		3
35	Magnetoconductivity of a Mercury Cadmium Telluride Resonant THz Detector. Acta Physica Polonica A, 2018, 134, 973-977.	0.5	1
36	HgCdTe-based heterostructures for terahertz photonics. APL Materials, 2017, 5, .	5.1	49

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37	Terahertz Detection and Imaging Using Graphene Ballistic Rectifiers. Nano Letters, 2017, 17, 7015-7020.	9.1	100
38	THz Beam Shaper Realizing Fan-Out Patterns. Journal of Infrared, Millimeter, and Terahertz Waves, 2017, 38, 1019-1030.	2.2	11
39	Temperature-driven single-valley Dirac fermions in HgTe quantum wells. Physical Review B, 2017, 96, .	3.2	38
40	Detection of high intensity THz radiation by InP double heterojunction bipolar transistors. , 2017, , .		1
41	Reducing noise equivalent power in InP DHBT terahertz detector by biasing the collector. , 2017, , .		1
42	Imaging and Gas Spectroscopy for Health Protection in Sub-THz Frequency Range. , 2017, , .		0
43	Noise limitations of GaN lateral Schottky diodes for THz applications. , 2017, , .		0
44	Terahertz 3D printed diffractive lens matrices for field-effect transistor detector focal plane arrays. Optics Express, 2016, 24, 20119.	3.4	22
45	GaN/AlGaIn based transistors for terahertz emitters and detectors. , 2016, , .		2
46	Pressure- and temperature-driven phase transitions in HgTe quantum wells. Physical Review B, 2016, 94, .	3.2	57
47	Terahertz imaging with arrays of plasma field effect transistors detectors. , 2016, , .		2
48	Two-dimensional plasmons in lateral carbon nanotube network structures and their effect on the terahertz radiation detection. Journal of Applied Physics, 2016, 120, 044501.	2.5	18
49	High-Speed Room Temperature Terahertz Detectors Based on InP Double Heterojunction Bipolar Transistors. International Journal of High Speed Electronics and Systems, 2016, 25, 1640011.	0.7	13
50	Imaging and Gas Spectroscopy for Health Protection in Sub-THz Frequency Range. International Journal of High Speed Electronics and Systems, 2016, 25, 1640017.	0.7	3
51	Terahertz cyclotron emission from HgCdTe bulk films. , 2016, , .		0
52	Asymmetric devices based on carbon nanotubes as detectors of sub-THz radiation. Journal of Physics: Conference Series, 2016, 741, 012143.	0.4	2
53	A 220 V/W, 25 pW/ã~šHz NEP bow-tie antenna-coupled pHEMT detector at 250 GHz. , 2016, , .		1
54	THz magnetospectroscopy of double HgTe quantum well. , 2016, , .		0

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55	Terahertz imaging of Landau levels in HgTe-based topological insulators. Applied Physics Letters, 2016, 108, .	3.3	13
56	Saturation of photoresponse to intense THz radiation in AlGaIn/GaN HEMT detector. Journal of Applied Physics, 2016, 120, 164507.	2.5	14
57	GaN/AlGaIn lateral Schottky barrier diodes for high frequency applications. , 2016, , .		0
58	Substrate optimization for a planar antenna of terahertz Si field effect transistor detectors. , 2016, , .		1
59	Terahertz imaging by field effect transistors. , 2016, , .		0
60	Terahertz imaging with GaAs and GaN plasma field effect transistors detectors. , 2016, , .		4
61	Lateral Schottky barrier diodes based on GaN/AlGaIn 2DEG for sub-THz detection. , 2016, , .		3
62	Terahertz detection by AlGaIn/GaN HEMTs at high intensity. , 2016, , .		1
63	Temperature-driven massless Kane fermions in HgCdTe crystals. Nature Communications, 2016, 7, 12576.	12.8	73
64	Diffraction optics for GaN terahertz detectors arrays. , 2016, , .		1
65	Performance evaluation of active sub-Terahertz systems in Degraded Visual Environments (DVE). Proceedings of SPIE, 2016, , .	0.8	6
66	Experimental and theoretical investigations of the responsivity of field effect transistors based Terahertz detectors versus substrate thickness. , 2015, , .		1
67	AlGaIn/GaN HEMT's photoresponse to high intensity THz radiation. Opto-electronics Review, 2015, 23, .	2.4	8
68	Application of plasma-wave detectors for ultra-short pulse terahertz radiation. , 2014, , .		0
69	Nonlinear photoresponse of field effect transistors terahertz detectors at high irradiation intensities. Journal of Applied Physics, 2014, 115, .	2.5	36
70	Detection of high intensity thz radiation by field effect transistors. , 2014, , .		0
71	Terahertz Plasma Field Effect Transistors. Springer Series in Optical Sciences, 2014, , 77-100.	0.7	4
72	Field effect transistor as detector of THz radiation helicity. , 2013, , .		0

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73	The dynamic range of THz broadband FET detectors. , 2013, , .		5
74	Nanotransistor based THz plasma detectors: low temperatures, graphene, linearity, and circular polarization studies. , 2013, , .		2
75	Temperature, back gate and polarization studies in nanotransistor based THz plasma detectors. , 2013, , .		0
76	Signal-to-noise ratio in terahertz wireless communication using field-effect-transistors as detectors. , 2013, , .		1
77	Magneto spectroscopy of HgTe based topological insulators. , 2013, , .		0
78	Nonlinear photoresponse of FET THz broadband detectors at high power irradiation. , 2013, , .		3
79	Contribution of the gate leakage current to terahertz detection by asymmetric dual-grating gate HEMT structures. , 2013, , .		0
80	A Terahertz plasma oscillations in nanometer field effect transistors for Terahertz radiation rectification. , 2013, , .		0
81	Terahertz Detectors Based on Silicon Technology Field Effect Transistors. Materials Research Society Symposia Proceedings, 2012, 1437, 48.	0.1	1
82	Terahertz rectification by graphene field effect transistors. , 2012, , .		0
83	Plasma nonlinearities and terahertz detection by Field Effect Transistors. , 2012, , .		0
84	Terahertz radiation detection by double grating-gate transistors in high magnetic fields. , 2012, , .		0
85	Terahertz detection and emission by field-effect transistors. , 2012, , .		2
86	Temperature enhancement of terahertz responsivity of plasma field effect transistors. Journal of Applied Physics, 2012, 112, .	2.5	32
87	Sub-THz radiation room temperature sensitivity of long-channel silicon field effect transistors. Opto-electronics Review, 2012, 20, .	2.4	10
88	Silicon field-effect transistors as radiation detectors for the Sub-THz range. Semiconductors, 2012, 46, 678-683.	0.5	2
89	THz Double-Grating Gate Transistor Detectors in High Magnetic Fields. Acta Physica Polonica A, 2012, 122, 1080-1082.	0.5	0
90	Terahertz Response of a Point Contact Based on CdTe/CdMgTe Quantum Well in Magnetic Field. Acta Physica Polonica A, 2012, 122, 1069-1072.	0.5	1