Taichi Otsuji

List of Publications by Year
in descending order

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434 papers	8,683 citations	50276 46 h-index	74163 75 g-index
437 all docs	437 docs citations	437 times ranked	3735 citing authors

#	Article	IF	Citations
1	Negative dynamic conductivity of graphene with optical pumping. Journal of Applied Physics, 2007, 101, 083114.	2.5	331
2	Graphene-based devices in terahertz science and technology. Journal Physics D: Applied Physics, 2012, 45, 303001.	2.8	234
3	Plasma waves in two-dimensional electron-hole system in gated graphene heterostructures. Journal of Applied Physics, 2007, 101, 024509.	2.5	213
4	Field Effect Transistors for Terahertz Detection: Physics and First Imaging Applications. Journal of Infrared, Millimeter, and Terahertz Waves, 2009, 30, 1319.	2.2	199
5	Ultrafast carrier dynamics and terahertz emission in optically pumped graphene at room temperature. Physical Review B, 2012, 85, .	3.2	169
6	Terahertz surface plasmons in optically pumped graphene structures. Journal of Physics Condensed Matter, 2011, 23, 145302.	1.8	168
7	Ultrahigh sensitive sub-terahertz detection by InP-based asymmetric dual-grating-gate high-electron-mobility transistors and their broadband characteristics. Applied Physics Letters, 2014, 104, .	3.3	158
8	Terahertz plasma wave resonance of two-dimensional electrons in InGaPâˆ•InGaAsâˆ•GaAs high-electron-mobility transistors. Applied Physics Letters, 2004, 85, 2119-2121.	3.3	150
9	Plasmonic terahertz detection by a double-grating-gate field-effect transistor structure with an asymmetric unit cell. Applied Physics Letters, 2011, 99, .	3.3	143
10	Toward the creation of terahertz graphene injection laser. Journal of Applied Physics, 2011, 110, .	2.5	141
11	Terahertz lasers based on optically pumped multiple graphene structures with slot-line and dielectric waveguides. Journal of Applied Physics, 2010, 107, .	2.5	134
12	AlGaN/GaN high electron mobility transistors as a voltage-tunable room temperature terahertz sources. Journal of Applied Physics, 2010, 107, .	2.5	133
13	Hydrodynamic model for electron-hole plasma in graphene. Journal of Applied Physics, 2012, 111, .	2.5	132
14	Feasibility of terahertz lasing in optically pumped epitaxial multiple graphene layer structures. Journal of Applied Physics, 2009, 106, .	2.5	125
15	High-speed and low-power operation of a resonant tunneling logic gate MOBILE. IEEE Electron Device Letters, 1998, 19, 80-82.	3.9	113
16	Plasmonic terahertz lasing in an array of graphene nanocavities. Physical Review B, 2012, 86, .	3.2	101
17	Active graphene plasmonics for terahertz device applications. Journal Physics D: Applied Physics, 2014, 47, 094006.	2.8	101
18	Emission and Detection of Terahertz Radiation Using Two-Dimensional Electrons in IIIâ€“V Semiconductors and Graphene. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 63-71.	3.1	98

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19	Terahertz Plasmonics: Good Results and Great Expectations. IEEE Microwave Magazine, 2014, 15, 43-50.	0.8	96
20	The gain enhancement effect of surface plasmon polaritons on terahertz stimulated emission in optically pumped monolayer graphene. New Journal of Physics, 2013, 15, 075003.	2.9	94
21	Ultrahigh-Speed Integrated Circuits Using InP-Based HEMTs. Japanese Journal of Applied Physics, 1998, 37, 1359-1364.	1.5	86
22	A grating-bicoupled plasma-wave photomixer with resonant-cavity enhanced structure. Optics Express, 2006, 14, 4815.	3.4	83
23	Terahertz Laser with Optically Pumped Graphene Layers and Fabriâ€“Perot Resonator. Applied Physics Express, 2009, 2, 092301.	2.4	77
24	Device Model for Graphene Nanoribbon Phototransistor. Applied Physics Express, 0, 1, 063002.	2.4	76
25	Double graphene-layer plasma resonances terahertz detector. Journal Physics D: Applied Physics, 2012, 45, 302001.	2.8	76
26	Oblique terahertz plasmons in graphene nanoribbon arrays. Physical Review B, 2010, 81, .	3.2	74
27	Terahertz and infrared photodetection using p-i-n multiple-graphene-layer structures. Journal of Applied Physics, 2010, 107, .	2.5	73
28	Ultrahigh sensitive plasmonic terahertz detector based on an asymmetric dual-grating gate HEMT structure. Solid-State Electronics, 2012, 78, 109-114.	1.4	71
29	InP- and GaAs-Based Plasmonic High-Electron-Mobility Transistors for Room-Temperature Ultrahigh-Sensitive Terahertz Sensing and Imaging. IEEE Sensors Journal, 2013, 13, 89-99.	4.7	69
30	Terahertz-Wave Generation Using Graphene: Toward New Types of Terahertz Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 8400209-8400209.	2.9	68
31	Hydrodynamic electron transport and nonlinear waves in graphene. Physical Review B, 2013, 88, .	3.2	66
32	Graphene-channel FETs for photonic frequency double-mixing conversion over the sub-THz band. Solid-State Electronics, 2015, 103, 216-221.	1.4	62
33	Metallic and dielectric metasurfaces in photoconductive terahertz devices: a review. Optical Engineering, 2019, 59, 1.	1.0	61
34	Voltage-controlled surface plasmon-polaritons in double graphene layer structures. Journal of Applied Physics, 2013, 113, .	2.5	60
35	10-80-Gb/s highly extinctive electrooptic pulse pattern generation. IEEE Journal of Selected Topics in Quantum Electronics, 1996, 2, 643-649.	2.9	59
36	Very high-speed light-source module up to 40 Gb/s containing an MQW electroabsorption modulator integrated with a DFB laser. IEEE Journal of Selected Topics in Quantum Electronics, 1997, 3, 336-343.	2.9	58

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37	Terahertz light-emitting graphene-channel transistor toward single-mode lasing. Nanophotonics, 2018, 7, 741-752.	6.0	57
38	Terahertz wave generation and detection in double-graphene layered van der Waals heterostructures. 2D Materials, 2016, 3, 045009.	4.4	56
39	Room temperature terahertz emission from grating coupled two-dimensional plasmons. Applied Physics Letters, 2008, 92, .	3.3	55
40	An 80-Gbit/s multiplexer IC using InAlAs/InGaAs/InP HEMTs. IEEE Journal of Solid-State Circuits, 1998, 33, 1321-1327.	5.4	53
41	Grating-bicoupled plasmon-resonant terahertz emitter fabricated with GaAs-based heterostructure material systems. Applied Physics Letters, 2006, 89, 263502.	3.3	53
42	Emission of terahertz radiation from dual grating gate plasmon-resonant emitters fabricated with InGaP/InGaAs/GaAs material systems. Journal of Physics Condensed Matter, 2008, 20, 384206.	1.8	53
43	Terahertz and infrared photodetectors based on multiple graphene layer and nanoribbon structures. Opto-electronics Review, 2012, 20, .	2.4	53
44	Room temperature detection of sub-terahertz radiation in double-grating-gate transistors. Optics Express, 2010, 18, 6024.	3.4	51
45	Impact of T-gate stem height on parasitic gate delay time in InGaAs-HEMTs. Solid-State Electronics, 2014, 102, 93-97.	1.4	51
46	Effect of plasma resonances on dynamic characteristics of double graphene-layer optical modulator. Journal of Applied Physics, 2012, 112, .	2.5	50
47	Graphene based plasma-wave devices for terahertz applications. Applied Physics Letters, 2020, 116, .	3.3	48
48	Injection terahertz laser using the resonant inter-layer radiative transitions in double-graphene-layer structure. Applied Physics Letters, 2013, 103, .	3.3	47
49	Terahertz photomixing using plasma resonances in double-graphene layer structures. Journal of Applied Physics, 2013, 113, .	2.5	47
50	Optical repeater circuit design based on InAlAs/InGaAs HEMT digital IC technology. IEEE Transactions on Microwave Theory and Techniques, 1997, 45, 2274-2282.	4.6	46
51	Dynamic effects in double graphene-layer structures with inter-layer resonant-tunnelling negative conductivity. Journal Physics D: Applied Physics, 2013, 46, 315107.	2.8	46
52	Threshold of terahertz population inversion and negative dynamic conductivity in graphene under pulse photoexcitation. Journal of Applied Physics, 2013, 113, .	2.5	45
53	Amplification and lasing of terahertz radiation by plasmons in graphene with a planar distributed Bragg resonator. Journal of Optics (United Kingdom), 2013, 15, 114009.	2.2	44
54	Current-driven detection of terahertz radiation using a dual-grating-gate plasmonic detector. Applied Physics Letters, 2014, 104, .	3.3	43

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55	Terahertz photoconductive emitter with dielectric-embedded high-aspect-ratio plasmonic grating for operation with low-power optical pumps. AIP Advances, 2019, 9, .	1.3	43
56	Room-Temperature Amplification of Terahertz Radiation by Grating-Gate Graphene Structures. Physical Review X, 2020, 10, .	8.9	43
57	A super-dynamic flip-flop circuit for broad-band applications up to 24 Gb/s utilizing production-level 0.2-Î¼m GaAs MESFETs. IEEE Journal of Solid-State Circuits, 1997, 32, 1357-1362.	5.4	42
58	Current-voltage characteristics of a graphene-nanoribbon field-effect transistor. Journal of Applied Physics, 2008, 103, .	2.5	42
59	Giant plasmon instability in a dual-grating-gate graphene field-effect transistor. Physical Review B, 2016, 93, .	3.2	42
60	Observation of Amplified Stimulated Terahertz Emission from Optically Pumped Heteroepitaxial Graphene-on-Silicon Materials. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 655-665.	2.2	41
61	NRZ operation at 40 Gb/s of a compact module containing an MQW electroabsorption modulator integrated with a DFB laser. IEEE Photonics Technology Letters, 1997, 9, 572-574.	2.5	40
62	An 80-Gb/s optoelectronic delayed flip-flop IC using resonant tunneling diodes and uni-traveling-carrier photodiode. IEEE Journal of Solid-State Circuits, 2001, 36, 281-289.	5.4	40
63	Device model for graphene bilayer field-effect transistor. Journal of Applied Physics, 2009, 105, 104510.	2.5	40
64	Field Effect Transistors for Terahertz Detection and Emission. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 618-628.	2.2	40
65	Graphene surface emitting terahertz laser: Diffusion pumping concept. Applied Physics Letters, 2013, 103, 251102.	3.3	40
66	A novel high-speed latching operation flip-flop (HLO-FF) circuit and its application to a 19-Gb/s decision circuit using a 0.2-Î¼m GaAs MESFET. IEEE Journal of Solid-State Circuits, 1995, 30, 1101-1108.	5.4	39
67	40-Gb/s ICs for future lightwave communications systems. IEEE Journal of Solid-State Circuits, 1997, 32, 1363-1370.	5.4	39
68	46 Gbit/s multiplexer and 40 Gbit/s demultiplexer IC modules using InAlAs/InGaAs/InP HEMTs. Electronics Letters, 1996, 32, 685.	1.0	38
69	Graphene terahertz uncooled bolometers. Journal Physics D: Applied Physics, 2013, 46, 065102.	2.8	38
70	Control of epitaxy of graphene by crystallographic orientation of a Si substrate toward device applications. Journal of Materials Chemistry, 2011, 21, 17242.	6.7	37
71	Effect of Heating and Cooling of Photogenerated Electronâ€“Hole Plasma in Optically Pumped Graphene on Population Inversion. Japanese Journal of Applied Physics, 2011, 50, 094001.	1.5	37
72	40-Gbit/s TDM transmission technologies based on ultra-high-speed ICs. IEEE Journal of Solid-State Circuits, 1999, 34, 1246-1253.	5.4	36

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73	Asymmetric dual-grating gates graphene FET for detection of terahertz radiations. APL Photonics, 2020, 5, 066102.	5.7	36
74	64 Gbit/s multiplexer IC using InAlAs/InGaAs/InP HEMTs. Electronics Letters, 1997, 33, 1488.	1.0	35
75	Effect of Heating and Cooling of Photogenerated Electronâ€“Hole Plasma in Optically Pumped Graphene on Population Inversion. Japanese Journal of Applied Physics, 2011, 50, 094001.	1.5	35
76	Graphene Nanoribbon Phototransistor: Proposal and Analysis. Japanese Journal of Applied Physics, 2009, 48, 04C144.	1.5	34
77	Double-graphene-layer terahertz laser: concept, characteristics, and comparison. Optics Express, 2013, 21, 31567.	3.4	34
78	Gain enhancement in graphene terahertz amplifiers with resonant structures. Journal of Applied Physics, 2012, 112, .	2.5	33
79	Carrier-carrier scattering and negative dynamic conductivity in pumped graphene. Optics Express, 2014, 22, 19873.	3.4	33
80	Fully electrical 40-Gb/s TDM system prototype based on InP HEMT digital IC technologies. Journal of Lightwave Technology, 2000, 18, 34-43.	4.6	32
81	Terahertz and infrared detectors based on graphene structures. Infrared Physics and Technology, 2011, 54, 302-305.	2.9	32
82	Double injection in graphene p-i-n structures. Journal of Applied Physics, 2013, 113, 244505.	2.5	32
83	Voltage-tunable terahertz and infrared photodetectors based on double-graphene-layer structures. Applied Physics Letters, 2014, 104, .	3.3	32
84	Plasmons in tunnel-coupled graphene layers: Backward waves with quantum cascade gain. Physical Review B, 2016, 94, .	3.2	32
85	Room temperature generation of terahertz radiation from a grating-bicoupled plasmon-resonant emitter: Size effect. Applied Physics Letters, 2007, 90, 061105.	3.3	31
86	Room temperature coherent and voltage tunable terahertz emission from nanometer-sized field effect transistors. Applied Physics Letters, 2010, 97, .	3.3	31
87	Room Temperature Logic Inverter on Epitaxial Graphene-on-Silicon Device. Japanese Journal of Applied Physics, 2011, 50, 070113.	1.5	31
88	Mechanism of self-excitation of terahertz plasma oscillations in periodically double-gated electron channels. Journal of Physics Condensed Matter, 2008, 20, 384207.	1.8	30
89	Graphene materials and devices in terahertz science and technology. MRS Bulletin, 2012, 37, 1235-1243.	3.5	30
90	Modulation Effects of Photocarriers on the Terahertz Plasma-Wave Resonance in High-Electron-Mobility Transistors under Interband Photoexcitation. Japanese Journal of Applied Physics, 2005, 44, 3842-3847.	1.5	29

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91	Enhanced responsivity in a novel AlGaN / GaN plasmon-resonant terahertz detector using gate-dipole antenna with parasitic elements. , 2010, , .		29
92	Emission and detection of terahertz radiation using two-dimensional plasmons in semiconductor nanoheterostructures for nondestructive evaluations. Optical Engineering, 2013, 53, 031206.	1.0	29
93	Ultra-fast optoelectronic circuit using resonant tunnelling diodes and uni-travelling-carrier photodiode. Electronics Letters, 1998, 34, 215.	1.0	27
94	Resonant plasmonic terahertz detection in graphene split-gate field-effect transistors with lateral pâ€“n junctions. Journal Physics D: Applied Physics, 2016, 49, 315103.	2.8	27
95	Plasmonic amplification of terahertz radiation in a periodic graphene structure with the carrier injection. Applied Physics Letters, 2017, 111, .	3.3	27
96	Far-infrared photodetectors based on graphene/black-AsP heterostructures. Optics Express, 2020, 28, 2480.	3.4	27
97	Electrically induced<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>n</mml:mi><mml:mtext>â^’</mml:mtext><mml:mi>i</mml:mi><mml:mtext>â^’</mml:mtext> in multiple graphene layer structures. Physical Review B, 2010, 82, .		26
98	Emission of Terahertz Radiation from Two-Dimensional Electron Systems in Semiconductor Nano- and Hetero-Structures. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 629-645.	2.2	26
99	Ultra-high speed, low power monolithic photoreceiver using InP/InGaAs double-heterojunction bipolar transistors. Electronics Letters, 1997, 33, 1047.	1.0	24
100	Tunneling Currentâ€“Voltage Characteristics of Graphene Field-Effect Transistor. Applied Physics Express, 2008, 1, 013001.	2.4	24
101	Negative and positive terahertz and infrared photoconductivity in uncooled graphene. Optical Materials Express, 2019, 9, 585.	3.0	24
102	45 Gbit/s decision IC module using InAlAs/InGaAs/InP HEMTs. Electronics Letters, 1999, 35, 1379.	1.0	23
103	Development of solitons in composite right- and left-handed transmission lines periodically loaded with Schottky varactors. Journal of Applied Physics, 2007, 102, 024501.	2.5	23
104	Plasma mechanisms of resonant terahertz detection in a two-dimensional electron channel with split gates. Journal of Applied Physics, 2008, 103, .	2.5	23
105	Relationship between the structure and electrical characteristics of diamond-like carbon films. Journal of Applied Physics, 2014, 116, .	2.5	23
106	Helicity sensitive terahertz radiation detection by dual-grating-gate high electron mobility transistors. Journal of Applied Physics, 2015, 118, .	2.5	23
107	High-speed operation of static binary frequency divider using resonant tunnelling diodes and HEMTs. Electronics Letters, 1998, 34, 70.	1.0	22
108	Thermionic and tunneling transport mechanisms in graphene fieldâ€effect transistors. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 1527-1533.	1.8	22

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109	Active guiding of Dirac plasmons in graphene. Applied Physics Letters, 2015, 106, 061105.	3.3	22
110	Application of plasmon-resonant microchip emitters to broadband terahertz spectroscopic measurement. Journal of the Optical Society of America B: Optical Physics, 2009, 26, A52.	2.1	21
111	Carbonaceous field effect transistor with graphene and diamondlike carbon. Diamond and Related Materials, 2012, 22, 118-123.	3.9	21
112	Surface-plasmons lasing in double-graphene-layer structures. Journal of Applied Physics, 2014, 115, 044511.	2.5	21
113	Negative terahertz conductivity and amplification of surface plasmons in grapheneâ€“black phosphorus injection laser heterostructures. Physical Review B, 2019, 100, .	3.2	21
114	40 Gbit/s optical repeater circuit using InAlAs/InGaAs HEMT digital IC modules. Electronics Letters, 1997, 33, 1977.	1.0	20
115	Bandgap Engineering of Bilayer Graphene for Field-Effect Transistor Channels. Japanese Journal of Applied Physics, 2009, 48, 091605.	1.5	20
116	Extraction of Drain Current and Effective Mobility in Epitaxial Graphene Channel Field-Effect Transistors on SiC Layer Grown on Silicon Substrates. Japanese Journal of Applied Physics, 2010, 49, 04DF17.	1.5	20
117	Theoretical Study of Population Inversion in Graphene under Pulse Excitation. Japanese Journal of Applied Physics, 2011, 50, 070116.	1.5	20
118	Device loading effect on nonresonant detection of terahertz radiation in dual grating gate plasmonâ€resonant structure using InGaP/InGaAs/GaAs material systems. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 346-348.	0.8	20
119	Interplay of intra- and interband absorption in a disordered graphene. Physical Review B, 2012, 86, .	3.2	20
120	Graphene vertical cascade interband terahertz and infrared photodetectors. 2D Materials, 2015, 2, 025002.	4.4	20
121	Plasmonic Field-Effect Transistors (TeraFETs) for 6G Communications. Sensors, 2021, 21, 7907.	3.8	20
122	Electrical modulation of terahertz radiation using graphene-phosphorene heterostructures. Semiconductor Science and Technology, 2018, 33, 124010.	2.0	19
123	Theoretical Study of Population Inversion in Graphene under Pulse Excitation. Japanese Journal of Applied Physics, 2011, 50, 070116.	1.5	19
124	A 3-ns range, 8-ps resolution, timing generator LSI utilizing Si bipolar gate array. IEEE Journal of Solid-State Circuits, 1991, 26, 806-811.	5.4	18
125	A picosecond-accuracy, 700-MHz range, Si bipolar time interval counter LSI. IEEE Journal of Solid-State Circuits, 1993, 28, 941-947.	5.4	18
126	Emission of terahertz radiation from InGaP/InGaAs/GaAs grating-bicoupled plasmon-resonant emitter. Solid-State Electronics, 2007, 51, 1319-1327.	1.4	18

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127	Population inversion of photoexcited electrons and holes in graphene and its negative terahertz conductivity. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 261-264.	0.8	18
128	Spectral narrowing of terahertz emission from super-grating dual-gate plasmon-resonant high-electron mobility transistors. Journal of Physics: Conference Series, 2009, 193, 012068.	0.4	18
129	Epitaxial graphene top-gate FETs on silicon substrates. Solid-State Electronics, 2010, 54, 1071-1075.	1.4	18
130	Graphene vertical hot-electron terahertz detectors. Journal of Applied Physics, 2014, 116, 114504.	2.5	18
131	Double injection, resonant-tunneling recombination, and current-voltage characteristics in double-graphene-layer structures. Journal of Applied Physics, 2014, 115, .	2.5	18
132	Electron Capture in van der Waals Graphene-Based Heterostructures with WS₂ Barrier Layers. Journal of the Physical Society of Japan, 2015, 84, 094703.	1.6	18
133	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
134	Nonlinear response of infrared photodetectors based on van der Waals heterostructures with graphene layers. Optics Express, 2017, 25, 5536.	3.4	18
135	Manifestation of plasmonic response in the detection of sub-terahertz radiation by graphene-based devices. Nanotechnology, 2018, 29, 245204.	2.6	18
136	S-Shaped Current-Voltage Characteristics of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msup><mml:mi>n</mml:mi><mml:mo>+</mml:mo></mml:msup></mml:math> - <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>i</mml:mi></mml:math> - <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>n</m	3.8	18
137	High-speed operation of resonant tunnelling flip-flop circuit employing MOBILE (monostable-bistable) Tj ETQq1 1 0.784314 rgBT /Ove	1.0	17
138	A 40-Gbit/s superdynamic decision IC fabricated with 0.12-Î¼m GaAs MESFET's. IEEE Journal of Solid-State Circuits, 1998, 33, 1527-1535.	5.4	17
139	Infrared photodetectors based on graphene van der Waals heterostructures. Infrared Physics and Technology, 2017, 84, 72-81.	2.9	17
140	Lateral terahertz hot-electron bolometer based on an array of Sn nanothreads in GaAs. Journal Physics D: Applied Physics, 2018, 51, 135101.	2.8	17
141	Exclusive OR/NOR IC for > 40 Gbit/s optical transmission systems. Electronics Letters, 1998, 34, 764.	1.0	17
142	Enhanced terahertz detection of multigate graphene nanostructures. Nanophotonics, 2022, 11, 519-529.	6.0	17
143	Static frequency divider featuring reduced circuit complexity by utilizing resonant tunneling diodes in combination with HEMTs. IEEE Electron Device Letters, 1997, 18, 544-546.	3.9	16
144	Room Temperature Intense Terahertz Emission from a Dual Grating Gate Plasmon-Resonant Emitter Using InAlAs/InGaAs/InP Material Systems. IEICE Transactions on Electronics, 2010, E93-C, 1286-1289.	0.6	16

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145	Strained silicon modulation field-effect transistor as a new sensor of terahertz radiation. Semiconductor Science and Technology, 2011, 26, 105006.	2.0	16
146	Nonresonant Detection of Terahertz Radiation in High-Electron-Mobility Transistor Structure Using InAlAs/InGaAs/InP Material Systems at Room Temperature. Journal of Nanoscience and Nanotechnology, 2012, 12, 6737-6740.	0.9	16
147	Resonant plasmonic terahertz detection in vertical graphene-base hot-electron transistors. Journal of Applied Physics, 2015, 118, .	2.5	16
148	Negative terahertz conductivity in disordered graphene bilayers with population inversion. Applied Physics Letters, 2015, 106, 113501.	3.3	16
149	40-Gbit/s ICs for future lightwave communications systems. , 0, , .		15
150	A novel clock recovery circuit for fully monolithic integration. IEEE Transactions on Microwave Theory and Techniques, 1999, 47, 2528-2533.	4.6	15
151	Analysis of resonant detection of terahertz radiation in high-electron mobility transistor with a nanostring/carbon nanotube as the mechanically floating gate. Journal of Applied Physics, 2008, 104, .	2.5	15
152	High-frequency properties of a graphene nanoribbon field-effect transistor. Journal of Applied Physics, 2008, 104, 114505.	2.5	15
153	High-Performance Graphene Field-Effect Transistors With Extremely Small Access Length Using Self-Aligned Source and Drain Technique. Proceedings of the IEEE, 2013, 101, 1603-1608.	21.3	15
154	Real-space-transfer mechanism of negative differential conductivity in gated graphene-phosphorene hybrid structures: Phenomenological heating model. Journal of Applied Physics, 2018, 124, 114501.	2.5	15
155	A graphene-based magnetoplasmonic metasurface for actively tunable transmission and polarization rotation at terahertz frequencies. Applied Physics Letters, 2020, 116, 221107.	3.3	15
156	Graphene-based plasmonic metamaterial for terahertz laser transistors. Nanophotonics, 2022, 11, 1677-1696.	6.0	15
157	Analysis of Fringing Effect on Resonant Plasma Frequency in Plasma Wave Devices. Japanese Journal of Applied Physics, 2009, 48, 04C096.	1.5	14
158	Photonic Frequency Double-Mixing Conversion Over the 120-GHz Band Using InP- and Graphene-Based Transistors. Journal of Lightwave Technology, 2016, 34, 2011-2019.	4.6	14
159	Analysis and application of a novel model for estimating power dissipation of optical interconnections as a function of transmission bit error rate. Journal of Lightwave Technology, 1996, 14, 13-22.	4.6	13
160	Plasma effects in lateral Schottky junction tunneling transit-time terahertz oscillator. Journal of Physics: Conference Series, 2006, 38, 228-233.	0.4	13
161	Plasma oscillations in nanotransistors for room temperature detection and emission of terahertz radiation. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 244-248.	0.8	13
162	Theoretical Evaluation of Channel Structure in Graphene Field-Effect Transistors. Japanese Journal of Applied Physics, 2009, 48, 041202.	1.5	13

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163	Ambipolar Behavior in Epitaxial Graphene-Based Field-Effect Transistors on Si Substrate. Japanese Journal of Applied Physics, 2010, 49, 06GG01.	1.5	13
164	Site-Selective Epitaxy of Graphene on Si Wafers. Proceedings of the IEEE, 2013, 101, 1557-1566.	21.3	13
165	Current collapse suppression in AlGaN/GaN HEMTs by means of slant field plates fabricated by multi-layer SiCN. Solid-State Electronics, 2014, 101, 63-69.	1.4	13
166	Interband infrared photodetectors based on HgTeâ€“CdHgTe quantum-well heterostructures. Optical Materials Express, 2018, 8, 1349.	3.0	13
167	Coulomb electron drag mechanism of terahertz plasma instability in n+-i-n-n+ graphene FETs with ballistic injection. Applied Physics Letters, 2021, 119, .	3.3	13
168	2â€“46.5 GHz quasi-static 2:1 frequency divider IC using InAlAs/InGaAs/InP HEMTs. Electronics Letters, 1997, 33, 1376.	1.0	12
169	Threshold Behavior of Photoinduced Plasmon-Resonant Self-Oscillation in a New Interdigitated Grating Gates Device. Japanese Journal of Applied Physics, 2007, 46, 2409-2412.	1.5	12
170	Epitaxial graphene field-effect transistors on silicon substrates. Solid-State Electronics, 2010, 54, 1010-1014.	1.4	12
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