Tetsuya Suemitsu

List of Publications by Year in Descending Order

Source: https://exaly.com/author-pdf/7946819/tetsuya-suemitsu-publications-by-year.pdf
Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

121	1,263	18	30
papers	citations	h-index	g-index
166	1,637	2.1	3.98
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
121	Graphene-based plasmonic metamaterial for terahertz laser transistors. *Nanophotonics*, **2022**,	6.3	3
120	Unitraveling-Carrier-Photodiode-Integrated High-Electron-Mobility Transistor for Photonic Double-Mixing. *Journal of Lightwave Technology*, **2021**, 39, 3341-3349	4	1
119	Effective Schottky Barrier Height Model for N-Polar and Ga-Polar GaN by Polarization-Induced Surface Charges with Finite Thickness. *Physica Status Solidi (B): Basic Research*, **2020**, 257, 1900528	1.3	7
118	Mapping of damage induced by neutral beam etching on GaN surfaces using scanning internal photoemission microscopy. *Japanese Journal of Applied Physics*, **2019**, 58, SCCD13	1.4	2
117	Electrical Characteristic of AlGaN/GaN High-Electron-Mobility Transistors With Recess Gate Structure. *IEEE Transactions on Electron Devices*, **2019**, 66, 1694-1698	2.9	12
116	Graphene-based 2D-heterostructures for terahertz lasers and amplifiers **2019**,		1
115	N-polar GaN/AlGaN/GaN metal-insulator-semiconductor high-electron-mobility transistor formed on sapphire substrate with minimal step bunching. *Applied Physics Express*, **2018**, 11, 015503	2.4	10
114	Coupling of 2D Plasmons in Grating-Gate Plasmonic THz Detector to THz Wave with Lateral Polarization **2018**,		2
113	Neutral beam process in AlGaN/GaN HEMTs: Impact on current collapse. *Solid-State Electronics*, **2017**, 137, 1-5	1.7	6
112	Neutral beam etching for device isolation in AlGaN/GaN HEMTs. *Physica Status Solidi (A) Applications and Materials Science*, **2017**, 214, 1600617	1.6	4
111	Solution-based formation of high-quality gate dielectrics on epitaxial graphene by microwave-assisted annealing. *Japanese Journal of Applied Physics*, **2017**, 56, 06GF09	1.4	1
110	A new process approach for slant field plates in GaN-based high-electron-mobility transistors. *Japanese Journal of Applied Physics*, **2016**, 55, 01AD02	1.4	8
109	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	5
108	Achievement of balanced high frequency and high breakdown by InGaAs-based high-electron-mobility transistors with slant field plates. *Applied Physics Express*, **2016**, 9, 114101	2.4	1
107	Solution-processed Al2O3gate dielectrics for graphene field-effect transistors. *Japanese Journal of Applied Physics*, **2016**, 55, 091502	1.4	3
106	High-performance self-aligned graphene transistors fabricated using contamination- and defect-free process. *Japanese Journal of Applied Physics*, **2016**, 55, 06GF11	1.4	1
105	Array configuration and silicon-lens integration of asymmetric dual-grating-gate plasmonic THz detectors **2016**,		2

104	InGaAs channel HEMTs for photonic frequency double mixing conversion over the sub-THz band **2015**,		1
103	Graphene-channel FETs for photonic frequency double-mixing conversion over the sub-THz band. *Solid-State Electronics*, **2015**, 103, 216-221	1.7	26
102	InP and GaN high electron mobility transistors for millimeter-wave applications. *IEICE Electronics Express*, **2015**, 12, 20152005-20152005	0.5	9
101	Impact of T-gate stem height on parasitic gate delay time in InGaAs-HEMTs. *Solid-State Electronics*, **2014**, 102, 93-97	1.7	21
100	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, 251114	3.4	84
99	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	1.7	10
98	Current-driven detection of terahertz radiation using a dual-grating-gate plasmonic detector. *Applied Physics Letters*, **2014**, 104, 262104	3.4	28
97	Improved breakdown voltage and RF characteristics in AlGaN/GaN high-electron-mobility transistors achieved by slant field plates. *Applied Physics Express*, **2014**, 7, 096501	2.4	4
96	Detection of terahertz and mid-infrared radiations by InP-based asymmetric dual-grating-gate HEMTs **2014**,		1
95	Site-Selective Epitaxy of Graphene on Si Wafers. *Proceedings of the IEEE*, **2013**, 101, 1557-1566	14.3	13
94	Graphene-channel FETs for photonic frequency double-mixing conversion over the sub-THz band **2013**,		1
93	AlGaN/GaN MIS-gate HEMTs with SiCN gate stacks. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2013**, 10, 790-793		1
92	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	14.3	13
91	InGaAs HEMTs with T-gate electrodes formed by multi-layer SiCN molds. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2013**, 10, 773-776		3
90	Plasmonic terahertz monochromatic coherent emission from an asymmetric chirped dual-grating-gate InP-HEMT with a photonic vertical cavity **2013**,		1
89	Plasmonic Terahertz Monochromatic Coherent Emission from an Asymmetric Chirped Dual-Grating-Gate InP-HEMT with a Photonic Vertical Cavity **2013**,		2
88	Carbonaceous field effect transistor with graphene and diamondlike carbon. *Diamond and Related Materials*, **2012**, 22, 118-123	3.5	18
87	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, 6737-40	1.3	5

86	InGaAs HEMTs with T-gate electrodes fabricated using HMDS SiN mold. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2012**, 9, 354-356		2
85	Dielectric-Tuned Diamondlike Carbon Materials for an Ultrahigh-Speed Self-Aligned Graphene Channel Field Effect Transistor. *Advances in Science and Technology*, **2012**, 77, 270-275	0.1	
84	Asymmetric dual-grating gate InGaAs/InAlAs/InP HEMTs for ultrafast and ultrahigh sensitive terahertz detection **2012**,		1
83	Polymer Material as a Gate Dielectric for Graphene Field-Effect-Transistor Applications. *Japanese Journal of Applied Physics*, **2011**, 50, 070107	1.4	1
82	Investigation of Graphene Field Effect Transistors with Al2O3Gate Dielectrics Formed by Metal Oxidation. *Japanese Journal of Applied Physics*, **2011**, 50, 070111	1.4	3
81	Room Temperature Logic Inverter on Epitaxial Graphene-on-Silicon Device. *Japanese Journal of Applied Physics*, **2011**, 50, 070113	1.4	16
80	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	19
79	Impact of T-gate electrode on gate capacitance in In0.7Ga0.3As HEMTs. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2011**, 8, 300-302		5
78	Device loading effect on nonresonant detection of terahertz radiation in dual grating gate plasmon-resonant structure using InGaP/InGaAs/GaAs material systems. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2011**, 8, 346-348		11
77	Control of epitaxy of graphene by crystallographic orientation of a Si substrate toward device applications. *Journal of Materials Chemistry*, **2011**, 21, 17242		33
76	Graphene/SiC/Si FETs with SiCN Gate Stack. *ECS Transactions*, **2011**, 41, 249-254	1	6
75	GaAs- and InP-Based High-Electron-Mobility Transistors **2011**, 84-113		
74	Room Temperature Logic Inverter on Epitaxial Graphene-on-Silicon Device. *Japanese Journal of Applied Physics*, **2011**, 50, 070113	1.4	3
73	Room temperature terahertz detection in high-electron-mobility transistor structure using InAlAs/InGaAs/InP material systems **2010**,		4
72	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	1.4	14
71	Ambipolar Behavior in Epitaxial Graphene-Based Field-Effect Transistors on Si Substrate. *Japanese Journal of Applied Physics*, **2010**, 49, 06GG01	1.4	11
70	Optoelectronic application of multi-layer epitaxial graphene on a Si substrate **2010**,		1
69	Plasmon-resonant microchip emitters and detectors for terahertz sensing and spectroscopic applications **2010**,		3

68	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	0.4	8
67	Epitaxial graphene field-effect transistors on silicon substrates. *Solid-State Electronics*, **2010**, 54, 1010-1014	1.7	11
66	Epitaxial graphene top-gate FETs on silicon substrates. *Solid-State Electronics*, **2010**, 54, 1071-1075	1.7	13
65	Emission of terahertz radiation from two-dimensional electron systems in semiconductor nano-heterostructures. *Comptes Rendus Physique*, **2010**, 11, 421-432	1.4	7
64	Epitaxial graphene top-gate FETs on silicon substrates **2009**,		4
63	Efficiency enhancement of emission of terahertz radiation by optical excitation from dual grating gate HEMT. *Journal of Nanophotonics*, **2009**, 3, 031980	1.1	
62	Analysis of Gate Delay Scaling in In0.7Ga0.3As-Channel High Electron Mobility Transistors. *Japanese Journal of Applied Physics*, **2009**, 48, 04C086	1.4	3
61	Analysis of Fringing Effect on Resonant Plasma Frequency in Plasma Wave Devices. *Japanese Journal of Applied Physics*, **2009**, 48, 04C096	1.4	8
60	Analysis of Intrinsic and Parasitic Gate Delay of InGaAs HEMTs. *ECS Transactions*, **2009**, 16, 65-72	1	2
59	EMISSION AND INTENSITY MODULATION OF TERAHERTZ ELECTROMAGNETIC RADIATION UTILIZING 2-DIMENSIONAL PLASMONS IN DUAL-GRATING-GATE HEMTS. *International Journal of High Speed Electronics and Systems*, **2009**, 19, 33-53	0.5	5
58	Terahertz plasmon-resonant microship emitters and their possible sensing and spectroscopic applications **2009**,		1
57	Application of plasmon-resonant microchip emitters to broadband terahertz spectroscopic measurement. *Journal of the Optical Society of America B: Optical Physics*, **2009**, 26, A52	1.7	12
56	Epitaxial graphene field effect transistors on silicon substrates **2009**,		1
55	Spectral narrowing of terahertz emission from super-grating dual-gate plasmon-resonant high-electron mobility transistors. *Journal of Physics: Conference Series*, **2009**, 193, 012068	0.3	7
54	Enhancement of terahertz radiation by CW infrared laser excitation in a doubly interdigitated grating gates transistors. *Journal of Physics: Conference Series*, **2009**, 193, 012071	0.3	
53	Tunable room temperature terahertz sources based on two dimensional plasma instability in GaN HEMTs. *Journal of Physics: Conference Series*, **2009**, 193, 012072	0.3	
52	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	42
51	An Optically Clocked Transistor Array for High-Speed Asynchronous Label Swapping: 40 Gb/s and Beyond. *Journal of Lightwave Technology*, **2008**, 26, 692-703	4	14

50	A 40-Gb/s Self-Clocked Bidirectional Serial/Parallel Converter for Asynchronous Label Swapping. *IEEE Photonics Technology Letters*, **2007**, 19, 294-296	2.2	2
49	Recent achievements in the reliability of InP-based HEMTs. *Thin Solid Films*, **2007**, 515, 4378-4383	2.2	6
48	Error-free label swapping of asynchronous optical packets with multifunctional optically clocked transistor array. *Electronics Letters*, **2007**, 43, 359	1.1	1
47	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	20
46	SAW Filters Composed of Interdigital Schottky and Ohmic Contacts on AlGaN/GaN Heterostructures. *IEEE Electron Device Letters*, **2007**, 28, 90-92	4.4	9
45	Novel Plasmon-Resonant Terahertz-Wave Emitter Using a Double-Decked HEMT Structure. *Device Research Conference, IEEE Annual*, **2007**,		3
44	Enhanced Gate Swing in InP HEMTs With High Threshold Voltage by Means of InAlAsSb Barrier. *IEEE Electron Device Letters*, **2007**, 28, 669-671	4.4	2
43	InP HEMT Technology for High-Speed Logic and Communications. *IEICE Transactions on Electronics*, **2007**, E90-C, 917-922	0.4	5
42	Interdigital transducers with control gates on AlGaN□GaN heterostructures. *Applied Physics Letters*, **2006**, 89, 033501	3.4	8
41	AlGaN/GaN Dual-Gate HEMT Mixers for 24 GHz Pulse-Modulation **2006**,		2
40	AlGaN/GaN Field-Effect Surface Acoustic Wave Filters with >40-dB Isolation for Monolithic Integration with HEMTs **2006**,		1
39	An optically clocked transistor array (OCTA) for 40-Gb/s, bidirectional serial-to-parallel conversion of asynchronous burst optical packets. *IEICE Electronics Express*, **2006**, 3, 129-135	0.5	3
38	Improved stability in wide-recess InP HEMTs by means of a fully passivated two-step-recess gate. *IEICE Electronics Express*, **2006**, 3, 310-315	0.5	2
37	Dual-gate AlGaN/GaN high-electron-mobility transistors with short gate length for high-power mixers. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2006**, 3, 469-472		
36	Effect of epitaxial layer crystal quality on DC and RF characteristics of AlGaN/GaN short-gate HEMTs. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2006**, 3, 2360-2363		5
35	Growth of InP high electron mobility transistor structures with Te doping. *Journal of Crystal Growth* , **2005**, 278, 596-599	1.6	2
34	Hydrogen sensitivity of InP HEMTs with WSiN-based gate stack. *IEEE Transactions on Electron Devices*, **2005**, 52, 305-310	2.9	2
33	Effect of Epitaxial Layer Crystal Quality on DC and RF Characteristics of AlGaN/GaN Short-Gate High-Electron-Mobility Transistors on Sapphire Substrates. *Japanese Journal of Applied Physics*, **2005**, 44, 8435-8440	1.4	7

32	Intrinsic Transit Delay and Effective Electron Velocity of AlGaN/GaN High Electron Mobility Transistors. *Japanese Journal of Applied Physics*, **2005**, 44, L211-L213	1.4	14
31	An intrinsic delay extraction method for Schottky gate field effect transistors. *IEEE Electron Device Letters*, **2004**, 25, 669-671	4.4	13
30	Correlation between current�oltage characteristics and dislocations evaluated with submicrometer Schottky contacts on n-GaN grown by metalorganic chemical vapor deposition. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2003**, 21, 698		22
29	. *IEEE Transactions on Electron Devices*, **2002**, 49, 1694-1700	2.9	56
28	Bias-stress-induced increase in parasitic resistance of InP-based InAlAs/InGaAs HEMTs. *Microelectronics Reliability*, **2002**, 42, 47-52	1.2	8
27	Optical study of high-biased AlGaN/GaN high-electron-mobility transistors. *Journal of Applied Physics*, **2002**, 92, 531-535	2.5	66
26	Influence of Hole Accumulation on Source Resistance, Kink Effect and On-State Breakdown of InP-Based High Electron Mobility Transistors: Light Irradiation Study. *Japanese Journal of Applied Physics*, **2002**, 41, 1104-1107	1.4	3
25	Frequency Dispersion in Drain Conductance of InAlAs/InGaAs Hight-Electron Mobility Transisters (HEMTs) and Its Relationship with Impact Ionization. *Japanese Journal of Applied Physics*, **2001**, 40, 2725-2727	1.4	4
24	Correlation between current�oltage characteristics and dislocations for n-GaN Schottky contacts. *Applied Physics Letters*, **2001**, 78, 3636-3638	3.4	37
23	Electroluminescence characterization of AlGaN/GaN high-electron-mobility transistors. *Applied Physics Letters*, **2001**, 79, 1196-1198	3.4	46
22	Parasitic effects and long term stability of InP-based HEMTs. *Microelectronics Reliability*, **2000**, 40, 1715-1720	1.2	6
21	. *IEEE Transactions on Electron Devices*, **2000**, 47, 33-43	2.9	8
20	Optical Characterization of Impact Ionization in Flip-Chip-Bonded InP-Based High Electron Mobility Transistors. *Japanese Journal of Applied Physics*, **1999**, 38, 5823-5828	1.4	3
19	Highly Stable Device Characteristics of InP-Based Enhancement-Mode High Electron Mobility Transistors with Two-Step-Recessed Gates. *Japanese Journal of Applied Physics*, **1999**, 38, 1174-1177	1.4	2
18	30-nm-Gate InP-Based Lattice-Matched High Electron Mobility Transistors with 350 GHz Cutoff Frequency. *Japanese Journal of Applied Physics*, **1999**, 38, L154-L156	1.4	43
17	Short gate-length InAlAs/InGaAs MODFETs with asymmetry gate-recess grooves: electrochemical fabrication and performance. *Solid-State Electronics*, **1999**, 43, 1527-1533	1.7	1
16	Impact-ionization-induced noise in InGaAs-based 0.1-�m-gate HEMTs. *Physica B: Condensed Matter*, **1999**, 272, 562-564	2.8	2
15	High-performance 0.1-/spl mu/m gate enhancement-mode InAlAs/InGaAs HEMT�s using two-step recessed gate technology. *IEEE Transactions on Electron Devices*, **1999**, 46, 1074-1080	2.9	43

14	An 0.03 �m gate-length enhancement-mode InAlAs/InGaAs/InP MODFET�s with 300 GHz fT and 2 S/mm extrinsic transconductance. *IEEE Electron Device Letters*, **1999**, 20, 206-208	4.4	16
13	Modulation-doped field-effect transistors with an 8-nm InGaAs/InAs/InGaAs quantum well. *IEEE Electron Device Letters*, **1999**, 20, 109-112	4.4	6
12	Impact of nonlinear drain resistance in bias-stressed InAlAs/InGaAs HEMTs. *Electronics Letters*, **1999**, 35, 2141	1.1	3
11	An analysis of the kink phenomena in InAlAs/InGaAs HEMT�s using two-dimensional device simulation. *IEEE Transactions on Electron Devices*, **1998**, 45, 2390-2399	2.9	75
10	Electrochemically induced asymmetrical etching in InAlAs/InGaAs heterostructures for MODFET gate-groove fabrication. *Journal of Electronic Materials*, **1998**, 27, L51-L53	1.9	1
9	Impact of subchannel design on DC and RF performance of 0.1 [micro sign]m MODFETs with InAs-inserted channel. *Electronics Letters*, **1998**, 34, 1976	1.1	2
8	Self-compensation of short-channel effects in sub-0.1-�m InAlAs/InGaAs MODFETs by electrochemical etching. *IEEE Electron Device Letters*, **1998**, 19, 484-486	4.4	5
7	Impact of two-step-recessed gate structure on RF performance of InP-based HEMTs. *Electronics Letters*, **1998**, 34, 220	1.1	10
6	Improved Recessed-Gate Structure for Sub-0.1-�m-Gate InP-Based High Electron Mobility Transistors. *Japanese Journal of Applied Physics*, **1998**, 37, 1365-1372	1.4	45
5	Improving threshold-voltage uniformity of 0.1 [micro sign]m InP-based MODFETs with different gate layouts. *Electronics Letters*, **1998**, 34, 1614	1.1	2
4	Kink modification using body contact bias in InP based InAlAs/InGaAs HEMTs. *Electronics Letters*, **1996**, 32, 1143	1.1	7
3	Body contacts in InP-based InAlAs/InGaAs HEMTs and their effects on breakdown voltage and kink suppression. *Electronics Letters*, **1995**, 31, 758	1.1	17
2	Mechanism and structural dependence of kink phenomena in InAlAs/InGaAs HEMTs		8
1	30-nm-gate InAlAs/InGaAs HEMTs lattice-matched to InP substrates		18