

Maciej Sakowicz

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5940409/publications.pdf>

Version: 2024-02-01

67
papers

1,471
citations

623734

14
h-index

330143

37
g-index

68
all docs

68
docs citations

68
times ranked

1620
citing authors

#	ARTICLE	IF	CITATIONS
1	Broadband terahertz imaging with highly sensitive silicon CMOS detectors. Optics Express, 2011, 19, 7827.	3.4	421
2	Field Effect Transistors for Terahertz Detection: Physics and First Imaging Applications. Journal of Infrared, Millimeter, and Terahertz Waves, 2009, 30, 1319.	2.2	199
3	Terahertz responsivity of field effect transistors versus their static channel conductivity and loading effects. Journal of Applied Physics, 2011, 110, .	2.5	142
4	Charge Separation in Semicrystalline Polymeric Semiconductors by Photoexcitation: Is the Mechanism Intrinsic or Extrinsic?. Physical Review Letters, 2011, 106, 197401.	7.8	118
5	Two-dimensional spatial coherence of excitons in semicrystalline polymeric semiconductors: Effect of molecular weight. Physical Review B, 2013, 88, .	3.2	96
6	A broadband THz imager in a low-cost CMOS technology. , 2011, , .		66
7	Polarization sensitive detection of 100 GHz radiation by high mobility field-effect transistors. Journal of Applied Physics, 2008, 104, .	2.5	44
8	Field Effect Transistors for Terahertz Detection and Emission. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 618-628.	2.2	40
9	Room temperature imaging at 1.63 and 2.54 THz with field effect transistor detectors. Journal of Applied Physics, 2010, 108, .	2.5	34
10	Low frequency noise and trap density in GaN/AlGaN field effect transistors. Applied Physics Letters, 2019, 115, .	3.3	27
11	Terahertz radiation detection by field effect transistor in magnetic field. Applied Physics Letters, 2009, 95, .	3.3	25
12	The effect of phase morphology on the nature of long-lived charges in semiconductor polymer:fullerene systems. Journal of Materials Chemistry C, 2015, 3, 3722-3729.	5.5	22
13	Quantum and transport lifetimes of two-dimensional electrons gas in AlGaN/GaN heterostructures. Applied Physics Letters, 2005, 87, 232107.	3.3	19
14	AlGaN/GaN on SiC Devices without a GaN Buffer Layer: Electrical and Noise Characteristics. Micromachines, 2020, 11, 1131.	2.9	19
15	AlGaN/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
16	Graphene as a Schottky Barrier Contact to AlGaN/GaN Heterostructures. Materials, 2020, 13, 4140.	2.9	13
17	Terahertz detection by two dimensional plasma field effect transistors in quantizing magnetic fields. Applied Physics Letters, 2008, 92, .	3.3	12
18	Slow geminate charge pair recombination dynamics at polymer: Fullerene heterojunctions in efficient organic solar cells. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 1395-1404.	2.1	12

#	ARTICLE	IF	CITATIONS
19	Optical Performance of Two Dimensional Electron Gas and GaN:C Buffer Layers in AlGaIn/AlN/GaN Heterostructures on SiC Substrate. Applied Sciences (Switzerland), 2021, 11, 6053.	2.5	12
20	Low electron mobility of field-effect transistor determined by modulated magnetoresistance. Journal of Applied Physics, 2007, 102, 103701.	2.5	11
21	Recombination dynamics in InGaIn/GaN nanowire heterostructures on Si(111). Nanotechnology, 2013, 24, 045702.	2.6	11
22	Low temperature electron mobility and concentration under the gate of AlGaIn/GaN field effect transistors. Journal of Applied Physics, 2006, 100, 113726.	2.5	10
23	Silicon MOSFETs as room temperature terahertz detectors. Journal of Physics: Conference Series, 2009, 193, 012095.	0.4	9
24	Imaging above 1 THz limit with Si-MOSFET detectors. , 2010, , .		9
25	A High Mobility Field-Effect Transistor as an Antenna for sub-THz Radiation. AIP Conference Proceedings, 2010, , .	0.4	9
26	Transport and quantum scattering time in field-effect transistors. Applied Physics Letters, 2007, 90, 172104.	3.3	8
27	Terahertz imaging using high electron mobility transistors as plasma wave detectors. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2855-2857.	0.8	8
28	Processing of AlGaIn/GaAs quantum-cascade structures for terahertz laser. Journal of Nanophotonics, 2015, 9, 093079.	1.0	6
29	Mechanism of Radiation Coupling to Plasma Wave Field Effect Transistor Sub-THz Detectors. Acta Physica Polonica A, 2008, 114, 1337-1342.	0.5	6
30	THz DETECTION BY FIELD-EFFECT TRANSISTORS IN MAGNETIC FIELDS: SHALLOW WATER VS DEEP WATER MECHANISM OF ELECTRON PLASMA INSTABILITY. International Journal of High Speed Electronics and Systems, 2008, 18, 949-958.	0.7	5
31	Efficient Three-Dimensional Electromagnetic Modeling of Metal Waveguides Employed for Quantum Cascade Lasers Operating in the THz Band. Journal of Lightwave Technology, 2018, 36, 1721-1729.	4.6	5
32	Optimization of Cavity Designs of Tapered AlInAs/InGaAs/InP Quantum Cascade Lasers Emitting at 4.5 μm . IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-9.	2.9	5
33	Interband polarization spectroscopy to test the spherical model of a shallow acceptor in δ -doped heterostructures. Journal of Physics Condensed Matter, 2007, 19, 236205.	1.8	4
34	Mid-Infrared Quantum Cascade Lasers With Nonuniformly Tapered Waveguides. Journal of Lightwave Technology, 2019, 37, 2324-2327.	4.6	4
35	Room temperature AlInAs/InGaAs/InP quantum cascade lasers. Photonics Letters of Poland, 2014, 6, .	0.4	4
36	Detection of terahertz radiation by AlGaIn/GaN field-effect transistors. , 2009, , .		3

#	ARTICLE	IF	CITATIONS
37	THz imaging with low-cost 130 nm CMOS transistors. , 2010, , .		3
38	Electrical and Noise Characteristics of Fin-Shaped GaN/AlGaN Devices for High Frequency Operation. , 2019, , .		3
39	HIGH MAGNETIC FIELD IN THz PLASMA WAVE DETECTION BY HIGH ELECTRON MOBILITY TRANSISTORS. International Journal of Modern Physics B, 2009, 23, 3029-3034.	2.0	2
40	AlGaAs/GaAs Terahertz Quantum Cascade Laser with Gold-Based Metal “Metal Waveguide. NATO Science for Peace and Security Series B: Physics and Biophysics, 2017, , 145-149.	0.3	2
41	AlGaN/GaN HEMTs for THz Plasma Wave Detection and Emission. , 2020, , .		2
42	The Role of Gated and Ungated Plasma in THz Detection by Field Effect Transistors. , 2010, , .		1
43	AlGaN/GaN based field effect transistors for terahertz detection and imaging. , 2012, , .		1
44	Processing of AlGaAs/GaAs QC structures for terahertz laser. , 2014, , .		1
45	Double-Quantum-Well AlGaN/GaN Field Effect Transistors with Top and Back Gates: Electrical and Noise Characteristics. Micromachines, 2021, 12, 721.	2.9	1
46	Mid-infrared quantum cascade laser waveguides with non-vertical sidewalls. Infrared Physics and Technology, 2021, 118, 103902.	2.9	1
47	Terahertz Detection by the Entire Channel of High Electron Mobility Transistors. Acta Physica Polonica A, 2008, 114, 1343-1348.	0.5	1
48	Electron Mobility and Concentration on Submicrometer Scale “Investigation of Si and AlGaN/GaN Field Effect Transistors by AC Magnetoresistance Method. AIP Conference Proceedings, 2007, , .	0.4	0
49	Magnetotransport characterization of AlGaN/GaN interfaces. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 586-590.	1.8	0
50	THz detection by field effect transistors: Antenna and high magnetic field effects. , 2008, , .		0
51	THz DETECTION BY FIELD-EFFECT TRANSISTORS IN MAGNETIC FIELDS: SHALLOW WATER VS DEEP WATER MECHANISM OF ELECTRON PLASMA INSTABILITY. Selected Topics in Electronics and Systems, 2009, , 191-200.	0.2	0
52	Room temperature imaging above one terahertz by field effect transistor as detector. , 2010, , .		0
53	Charge-transfer excitons at semiconductor polymer heterojunctions in efficient organic photovoltaic diodes. , 2011, , .		0
54	Terahertz detection by field effect transistors security imaging. Proceedings of SPIE, 2011, , .	0.8	0

#	ARTICLE	IF	CITATIONS
55	Optical signatures of the interplay between intermolecular and intramolecular coupling in plastic semiconductors. Proceedings of SPIE, 2012, , .	0.8	0
56	Plasma nonlinearities and terahertz detection by Field Effect Transistors. , 2012, , .		0
57	Long-lived photoexcitations in intercalated, partially and predominantly non-intercalated polymer:fullerene blends. , 2013, , .		0
58	Transverse Mode Propagation in Folded Waveguides of Quantum Cascade Lasers. , 2018, , .		0
59	Utilization of Methane/Hydrogen/Chlorine-Based Plasma Etching for Production of 4.7 μ m Wavelength QCLs with Taper-Type Ridge Waveguides. , 2018, , .		0
60	Crucial Aspects of the Device Processing of Quantum Cascade Lasers. NATO Science for Peace and Security Series B: Physics and Biophysics, 2021, , 45-60.	0.3	0
61	AlGaIn/GaN heterostructures for plasma wave detection and emission in THz regime. , 2021, , .		0
62	Modified bow-tie antennas AlGaIn/GaN FinFETs for sub-THz detection. , 2021, , .		0
63	Spectroscopy of Be Acceptor Ground State in GaAs/AlGaAs Heterostructure. Acta Physica Polonica A, 2007, 112, 209-213.	0.5	0
64	Technologia wytwarzania terahercowych laserów kaskadowych. Przegląd Elektrotechniczny, 2017, 1, 52-55.	0.2	0
65	AlGaAs/GaAs terahertz quantum cascade lasers with copper waveguides (Conference Presentation). , 2019, , .		0
66	Sub-terahertz detection by fin-shaped GaN/AlGaIn transistors. , 2020, , .		0
67	Anomalous sub-THz detection by GaN/AlGaIn FinFETs. , 2020, , .		0