

Jerzy Lusakowski

List of Publications by Year in descending order

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116
papers

1,175
citations

471371

17
h-index

395590

33
g-index

117
all docs

117
docs citations

117
times ranked

942
citing authors

#	ARTICLE	IF	CITATIONS
1	Room-temperature terahertz emission from nanometer field-effect transistors. Applied Physics Letters, 2006, 88, 141906.	1.5	122
2	Asymmetric transmission of terahertz radiation through a double grating. Optics Letters, 2013, 38, 839.	1.7	97
3	Magnetic field effect on the terahertz emission from nanometer InGaAs/AlInAs high electron mobility transistors. Journal of Applied Physics, 2005, 97, 114313.	1.1	73
4	Plasmonic terahertz detectors based on a high-electron mobility GaAs/AlGaAs heterostructure. Journal of Applied Physics, 2014, 115, 214503.	1.1	72
5	Magnetoresistance characterization of nanometer Si metal-oxide-semiconductor transistors. Journal of Applied Physics, 2004, 96, 5761-5765.	1.1	64
6	Plasma wave oscillations in nanometer field effect transistors for terahertz detection and emission. Journal of Physics Condensed Matter, 2008, 20, 384205.	0.7	59
7	High mobility two-dimensional electron gas in AlGaN/GaN heterostructures grown on bulk GaN by plasma assisted molecular beam epitaxy. Applied Physics Letters, 2005, 86, 102106.	1.5	56
8	Symmetry of excitons in GaN. Physical Review B, 1999, 60, 4438-4441.	1.1	45
9	Ballistic and pocket limitations of mobility in nanometer Si metal-oxide semiconductor field-effect transistors. Applied Physics Letters, 2005, 87, 053507.	1.5	44
10	Polarization sensitive detection of 100 GHz radiation by high mobility field-effect transistors. Journal of Applied Physics, 2008, 104, .	1.1	44
11	Magnetic field tuning of exciton-polaritons in a semiconductor microcavity. Physical Review B, 2015, 91, .	1.1	41
12	Field Effect Transistors for Terahertz Detection and Emission. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 618-628.	1.2	40
13	Terahertz radiation detection by field effect transistor in magnetic field. Applied Physics Letters, 2009, 95, .	1.5	25
14	Electron mobility in quasi-ballistic Si MOSFETs. Solid-State Electronics, 2006, 50, 632-636.	0.8	24
15	Quasiballistic transport in nanometer Si metal-oxide-semiconductor field-effect transistors: Experimental and Monte Carlo analysis. Journal of Applied Physics, 2007, 101, 114511.	1.1	24
16	Plasmon-terahertz photon interaction in high-electron-mobility heterostructures. Semiconductor Science and Technology, 2017, 32, 013004.	1.0	22
17	Plasmon dispersions in high electron mobility terahertz detectors. Applied Physics Letters, 2014, 104, .	1.5	19
18	Parasitic Effects Affecting Responsivity of Sub-THz Radiation Detector Built of a MOSFET. Journal of Infrared, Millimeter, and Terahertz Waves, 2015, 36, 1059-1075.	1.2	17

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19	Photoresponse of a two-dimensional electron gas at the second harmonic of the cyclotron resonance. <i>Physical Review B</i> , 2015, 91, .	1.1	15
20	Localized and collective magnetoplasmon excitations in AlGaIn/GaN-based grating-gate terahertz modulators. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	14
21	Analysis of sub-THz radiation detector built of planar antenna integrated with MOSFET. <i>Microelectronics Journal</i> , 2014, 45, 1168-1176.	1.1	14
22	Terahertz detection by two dimensional plasma field effect transistors in quantizing magnetic fields. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	12
23	Plasma excitations in field effect transistors for terahertz detection and emission. <i>Comptes Rendus Physique</i> , 2010, 11, 433-443.	0.3	12
24	Magnetoplasmons in high electron mobility CdTe/CdMgTe quantum wells. <i>Physical Review B</i> , 2015, 91, .	1.1	12
25	Effective g^* factor in the diluted nitrides $\text{Ga}_{1-y}\text{In}_y\text{N}_x\text{As}_{1-x}$. <i>Physical Review B</i> , 2005, 71, .	1.1	11
26	Low electron mobility of field-effect transistor determined by modulated magnetoresistance. <i>Journal of Applied Physics</i> , 2007, 102, 103701.	1.1	11
27	Low temperature electron mobility and concentration under the gate of AlGaIn/GaN field effect transistors. <i>Journal of Applied Physics</i> , 2006, 100, 113726.	1.1	10
28	Field effect transistors for terahertz detection - silicon versus III-V material issue. <i>Opto-electronics Review</i> , 2010, 18, .	2.4	10
29	Indium antimonide detector for spectral characterization of terahertz sources. <i>Journal of Applied Physics</i> , 2018, 123, .	1.1	10
30	Beatings of ratchet current magneto-oscillations in GaN-based grating gate structures: Manifestation of spin-orbit band splitting. <i>Physical Review B</i> , 2021, 104, .	1.1	10
31	Reconstruction of traveling waves in semi-insulating GaAs. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1991, 152, 356-360.	0.9	9
32	Influence of dislocation and ionized impurity scattering on the electron mobility in GaN/AlGaIn heterostructures. <i>Journal of Crystal Growth</i> , 2005, 281, 194-201.	0.7	9
33	A High Mobility Field-Effect Transistor as an Antenna for sub-THz Radiation. <i>AIP Conference Proceedings</i> , 2010, , .	0.3	9
34	Transport and quantum scattering time in field-effect transistors. <i>Applied Physics Letters</i> , 2007, 90, 172104.	1.5	8
35	Terahertz generation by plasma waves in nanometer gate high electron mobility transistors. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2005, 202, 656-659.	0.8	7
36	Occupation of electron subbands in optically excited GaAs/Al -acceptor-doped GaAs/Al	1.1	6

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37	Mechanism of Radiation Coupling to Plasma Wave Field Effect Transistor Sub-THz Detectors. Acta Physica Polonica A, 2008, 114, 1337-1342.	0.2	6
38	Autocorrelation Function and Mutual Information from Short Experimental Time Series. Acta Physica Polonica A, 1995, 87, 257-260.	0.2	6
39	Contact-related current oscillations in semi-insulating GaAs. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1990, 6, 1-4.	1.7	5
40	Nanometer transistors for emission and detection of THz radiation. Thin Solid Films, 2007, 515, 4327-4332.	0.8	5
41	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.	0.3	5
42	Interband polarization spectroscopy to test the spherical model of a shallow acceptor in $\hat{\Gamma}$ -doped heterostructures. Journal of Physics Condensed Matter, 2007, 19, 236205.	0.7	4
43	Asymmetric transmission of radially polarized THz radiation through a double circular grating. Optics Express, 2014, 22, 30547.	1.7	4
44	Terahertz magneto-spectroscopy of a point contact based on CdTe/CdMgTe quantum well. Journal of Nanophotonics, 2015, 9, 093082.	0.4	4
45	Magnetoconductivity and Terahertz Response of a HgCdTe Epitaxial Layer. Sensors, 2018, 18, 4341.	2.1	4
46	A fluctuating potential and localization in semiinsulating GaAs. Solid State Communications, 1992, 84, 231-233.	0.9	3
47	High magnetic field studies of AlGaIn/GaN heterostructures grown on bulk GaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 1355-1359.	0.8	3
48	TeraHertz detectors based on plasma oscillations in nanometric Silicon Field Effect Transistors. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 1413-1417.	0.8	3
49	The Stark effect on a bound hole in α -acceptor doped GaAs/ Al _x Ga _{1-x} As heterostructures. Solid State Communications, 2007, 142, 299-301.	0.9	3
50	Planar antennas for detection of 340 GHz band with single Si metal-oxide-semiconductor field-effect transistors. , 2011, , .		3
51	Optical $\hat{\Gamma}$ -to- $\hat{\Gamma}$ Free-to-Bound Transitions in Acceptor $\hat{\Gamma}$ -Doped Single Heterostructure - Theoretical Analysis. Acta Physica Polonica A, 2008, 114, 1079-1083.	0.2	3
52	Influence of Interface-Induced Disorder on Classical and Quantum Conductivity of CdTe:IN Epitaxial Layers. Acta Physica Polonica A, 1997, 92, 911-914.	0.2	3
53	Physics of THz Field-Effect Transistors. Acta Physica Polonica A, 2011, 119, 114-116.	0.2	3
54	Shallow donors and a fluctuating potential. Physica B: Condensed Matter, 1993, 184, 403-408.	1.3	2

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55	TeraHertz Emission and Noise Spectra in HEMTs. AIP Conference Proceedings, 2005, , .	0.3	2
56	Onset of quasi-ballistic transport and mobility degradation in ultra scaled MOSFETs: a Monte Carlo study. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 123-126.	0.8	2
57	Potential fluctuations in CdTe epitaxial layers studied by shallow donor spectroscopy in the far infrared. Journal of Physics Condensed Matter, 2008, 20, 195217.	0.7	2
58	HIGH MAGNETIC FIELD IN THz PLASMA WAVE DETECTION BY HIGH ELECTRON MOBILITY TRANSISTORS. International Journal of Modern Physics B, 2009, 23, 3029-3034.	1.0	2
59	Terahertz magnetospectroscopy of a point contact based on CdTe/CdMgTe quantum well. Proceedings of SPIE, 2014, , .	0.8	2
60	Nonlinear Coupling of Oscillatory Modes in Current Flow in Semi-Insulating GaAs. Acta Physica Polonica A, 1991, 80, 425-428.	0.2	2
61	Magnetic Field Induced Localization in Semiinsulating GaAs. Acta Physica Polonica A, 1992, 82, 551-560.	0.2	2
62	Sub-Terahertz Emission from Field-Effect Transistors. Acta Physica Polonica A, 2017, 132, 335-337.	0.2	2
63	Influence of Shubnikov de Haas and cyclotron resonance effect on terahertz detection by field effect transistors. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2858-2860.	0.8	1
64	The Role of Gated and Ungated Plasma in THz Detection by Field Effect Transistors. , 2010, , .		1
65	Magnetotransport properties of grating-gate THz detectors based on high electron mobility GaN/AlGaN heterostructures, 2011, .		1
66	Terahertz Sources Based on Emission from a $\langle \text{mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML" overflow="scroll" \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Ga} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \text{As} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$		

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73	Terahertz Response of a Point Contact Based on CdTe/CdMgTe Quantum Well in Magnetic Field. Acta Physica Polonica A, 2012, 122, 1069-1072.	0.2	1
74	Non-Ohmic Conductivity of High Resistivity CdTe. Acta Physica Polonica A, 1995, 88, 803-806.	0.2	1
75	Magnetoconductivity of a Mercury Cadmium Telluride Resonant THz Detector. Acta Physica Polonica A, 2018, 134, 973-977.	0.2	1
76	Mixing of impurity levels by a built-in electric field in a CdMgTe/CdZnTe heterostructure. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 605-608.	0.8	0
77	Terahertz Emission and Detection by Plasma Waves in Nanoscale Transistors. AIP Conference Proceedings, 2005, , .	0.3	0
78	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
79	Optical $\Gamma_6 \rightarrow \Gamma_8$ Free-to-Bound Transition in Acceptor Γ -doped Single Heterostructure—Theoretical Analysis. , 2010, , .		0
80	Magneto-optical studies of resonant plasma excitations in grating-gate GaN/AlGaN-based field-effect transistors. , 2011, , .		0
81	Tunable Resonant Detection of sub-THz Radiation with GaAs/AlGaAs High Electron Mobility Transistors at Magnetic Fields. , 2011, , .		0
82	Terahertz properties of metallic layers and grids. , 2012, , .		0
83	Broadband asymmetric transmission of THz radiation through double metallic gratings. , 2013, , .		0
84	Terahertz detectors based on a gated two-dimensional electron plasma in CdMnTe/CdMgTe quantum wells. , 2014, , .		0
85	Imaging of a THz beam with Si-MOSFET detectors. , 2014, , .		0
86	Magnetic-field tunable THz detectors based on GaAs/AlGaAs and CdTe/CdMgTe quantum wells. , 2014, , .		0
87	Visible-light controlled plasma excitations in high electron mobility GaAs/AlGaAs heterostructure. Proceedings of SPIE, 2014, , .	0.8	0
88	Plasma excitations in a high electron mobility GaAs/AlGaAs heterostructure controlled by a visible light. Optical Engineering, 2015, 54, 017101.	0.5	0
89	Asymmetric transmission of transverse magnetic or radially polarized THz waves through sub-wavelength gratings. , 2015, , .		0
90	Toggling plasmon cavities with the gate bias. , 2016, , .		0

#	ARTICLE	IF	CITATIONS
91	Field-effect transistors as sources of electromagnetic radiation. , 2017, , .		0
92	Plasmon-photon Coupling in High-electron-mobility Heterostructures: Tutorial on Magnetoplasmon Spectroscopy. , 2018, , .		0
93	Terahertz Detectors Based on Plasmonic Excitations in Double CdTe/CdMgTe Quantum Wells. , 2019, , .		0
94	Terahertz magnetospectroscopy of pseudo-relativistic fermions in HgCdTe alloys under hydrostatic pressure. , 2021, , .		0
95	THz photocurrent magneto-oscillations in GaN-based asymmetric grating gate structures. , 2021, , .		0
96	Magnetoconductivity of GaAs Transistors as Detectors of THz Radiation. Acta Physica Polonica A, 2003, 103, 545-551.	0.2	0
97	Terahertz Generation and Detection by Plasma Waves in Nanometer Gate High Electron Mobility Transistors. Acta Physica Polonica A, 2005, 107, 82-91.	0.2	0
98	Spectroscopy of Be Acceptor Ground State in GaAs/AlGaAs Heterostructure. Acta Physica Polonica A, 2007, 112, 209-213.	0.2	0
99	Local Electric In-Plane Potential Fluctuations in the CdTe/CdMgTe Based Multiple Quantum Wells. Acta Physica Polonica A, 2008, 114, 1259-1265.	0.2	0
100	Terahertz Photovoltaic Response of Si-MOSFETs: Spin Related Effect. Acta Physica Polonica A, 2011, 120, 927-929.	0.2	0
101	Mobility of Holes in Nanometer Ge-on-Si p-Type Metal-Oxide-Semiconductor Field-Effect Transistors at Low Temperatures. Acta Physica Polonica A, 2011, 120, 933-935.	0.2	0
102	Magnetic Field Induced Redistribution of Exciton-Polariton Density on Confined Modes. Acta Physica Polonica A, 2012, 122, 1093-1095.	0.2	0
103	Resonant Plasmon Response of a Periodically Modulated Two-Dimensional Electron Gas. Acta Physica Polonica A, 2012, 122, 1090-1092.	0.2	0
104	Current-Voltage Characteristic of Semi-Insulating GaAs, with Trap-Filling Effect. Acta Physica Polonica A, 1991, 79, 281-285.	0.2	0
105	Influence of Impact Ionization of Shallow Donors on Luminescence in GaAs. Acta Physica Polonica A, 1995, 87, 261-264.	0.2	0
106	Conductivity of Optically Excited Electrons in GaAs in Quantizing Magnetic Fields. Acta Physica Polonica A, 1995, 87, 482-486.	0.2	0
107	Electrical and Structural Properties of Ohmic Contacts to n-Type and High Resistivity CdTe. Acta Physica Polonica A, 1995, 87, 411-414.	0.2	0
108	Exciton Binding Energy and Oscillator Strength in a Shallow Quantum Well in an External Magnetic Field. Acta Physica Polonica A, 2015, 128, 237-239.	0.2	0

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109	Exciton Binding Energy and Oscillator Strength in a Shallow Quantum Well in an External Magnetic Field. Acta Physica Polonica A, 2015, 128, 236-239.	0.2	0
110	Surface Metallic Pattern for Enhancement of a THz Field in a Two-Dimensional Electron Plasma. Acta Physica Polonica A, 2017, 132, 332-334.	0.2	0
111	Response of Indium Antimonide at Sub-Terahertz and Terahertz Frequencies. Acta Physica Polonica A, 2017, 132, 338-339.	0.2	0
112	Photoluminescence of CdTe/CdMgTe Double Quantum Wells with a Two-Dimensional Electron Gas. Acta Physica Polonica A, 2017, 132, 390-392.	0.2	0
113	Subterahertz Emission from a Grid-Gated GaAs/AlGaAs Heterostructure. Acta Physica Polonica A, 2018, 134, 978-980.	0.2	0
114	An Influence of X-Ray Irradiation on Mid-Bandgap Luminescence of Boron Nitride Epitaxial Layers. Acta Physica Polonica A, 2019, 136, 620-623.	0.2	0
115	Terahertz Spectroscopy of Double CdTe/CdMgTe Quantum Wells. Acta Physica Polonica A, 2019, 136, 617-619.	0.2	0
116	Terahertz Plasma Oscillations in Nanotransistors. , 2006, , 63-71.		0