

Marcin Syperek

List of Publications by Year in descending order

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84
papers

1,130
citations

361296
20
h-index

454834
30
g-index

85
all docs

85
docs citations

85
times ranked

1351
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin Coherence of Holes in $\text{GaAs}/\text{AlGaAs}$ Quantum Wells. <i>Physical Review Letters</i> , 2007, 89, 107401.	1.7	314
2	Controlled Synthesis of Tuned Bandgap Nanodimensional Alloys of PbS/Se . <i>Journal of the American Chemical Society</i> , 2011, 133, 5602-5609.	6.6	59
3	Carrier localization in GaBiAs probed by photomodulated transmittance and photoluminescence. <i>Journal of Applied Physics</i> , 2009, 106, 023518.	1.1	55
4	Photoluminescence from GaN nanopowder: The size effect associated with the surface-to-volume ratio. <i>Applied Physics Letters</i> , 2006, 88, 181916.	1.5	46
5	Optically pumped 500 nm InGaN green lasers grown by plasma-assisted molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	44
6	Single photon emission at $1.55\ \mu\text{m}$ from charged and neutral exciton confined in a single quantum dash. <i>Applied Physics Letters</i> , 2014, 105, 021909.	1.5	43
7	Contactless electromodulation spectroscopy of $\text{AlGaAs}/\text{GaAs}$ heterostructures with a two-dimensional electron gas: A comparison of photorefectance and contactless electroreflectance. <i>Journal of Applied Physics</i> , 2006, 100, 013501.	1.1	38
8	Single-photon emission of InAs/InP quantum dashes at $1.55\ \mu\text{m}$ and temperatures up to $80\ \text{K}$. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	38
9	Long-lived electron spin coherence in CdSe/Zn(S,Se) self-assembled quantum dots. <i>Physical Review B</i> , 2011, 84, .	1.1	35
10	High-Purity Triggered Single-Photon Emission from Symmetric Single InAs/InP Quantum Dots around the Telecom C-Band Window. <i>Advanced Quantum Technologies</i> , 2020, 3, 1900082.	1.8	35
11	Exciton and biexciton dynamics in single self-assembled InAs/InGaAlAs/InP quantum dash emitting near $1.55\ \mu\text{m}$. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	33
12	Exciton lifetime and emission polarization dispersion in strongly in-plane asymmetric nanostructures. <i>Physical Review B</i> , 2017, 96, .	1.1	28
13	Ghost Branch Photoluminescence From a Polariton Fluid Under Nonresonant Excitation. <i>Physical Review Letters</i> , 2015, 115, 186401.	2.9	26
14	Room temperature free carrier tunneling in dilute nitride based quantum well - quantum dot tunnel injection system for $1.3\ \mu\text{m}$. <i>Applied Physics Letters</i> , 2009, 94, 171906.	1.5	25
15	Influence of electronic coupling on the radiative lifetime in the (In,Ga)As/GaAs quantum dot "quantum well system. <i>Physical Review B</i> , 2012, 85, .	1.1	25
16	Carrier dynamics between delocalized and localized states in type-II GaAsSb/GaAs quantum wells. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	24
17	Carrier relaxation dynamics in InAs/GaInAsP/InP(001) quantum dashes emitting near $1.55\ \mu\text{m}$. <i>Applied Physics Letters</i> , 2013, 103, 083104.	1.5	24
18	Influence of Pressure-Induced Transition from Nanocrystals to Nanoceramic Form on Optical Properties of $\text{Ce}-\text{Doped Y}_3\text{Al}_5\text{O}_{12}$. <i>Journal of the American Ceramic Society</i> , 2011, 94, 2135-2140.	1.9	21

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19	Impact of wetting-layer density of states on the carrier relaxation process in low indium content self-assembled (In,Ga)As/GaAs quantum dots. Physical Review B, 2013, 87, .	1.1	21
20	Magnetic field control of the neutral and charged exciton fine structure in single quantum dashes emitting at 1.55 μm . Applied Physics Letters, 2015, 106, 053114.	1.5	21
21	Optical and electronic properties of low-density InAs/InP quantum-dot-like structures designed for single-photon emitters at telecom wavelengths. Physical Review B, 2020, 101, .	1.1	20
22	Investigations of GaN surface quantum well in AlGaIn δ -GaN transistor heterostructures by contactless electroreflectance spectroscopy. Applied Physics Letters, 2006, 89, 231912.	1.5	18
23	Dynamics of localized excitons in Ga _{0.69} In _{0.31} N _{0.015} As _{0.985} /GaAs quantum well: Experimental studies and Monte-Carlo simulations. Applied Physics Letters, 2012, 100, 202105.	1.5	17
24	Bright Quantum Dot Single-Photon Emitters at Telecom Bands Heterogeneously Integrated on Si. ACS Photonics, 2022, 9, 2273-2279.	3.2	17
25	Screening effect in contactless electroreflectance spectroscopy observed for AlGaIn/GaN heterostructures with two dimensional electron gas. Thin Solid Films, 2007, 515, 4662-4665.	0.8	15
26	Time-resolved photoluminescence studies of annealed 1.3- μm GaInNAsSb quantum wells. Nanoscale Research Letters, 2014, 9, 81.	3.1	15
27	Photorefectance investigations of a donor-related transition in AlGaIn δ -GaN transistor structures. Applied Physics Letters, 2005, 87, 153502.	1.5	14
28	Time-resolved photoluminescence spectroscopy of an InGaAs/GaAs quantum well-quantum dots tunnel injection structure. Applied Physics Letters, 2010, 96, .	1.5	14
29	Growth and characterization of InGaN for photovoltaic devices. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2460-2462.	0.8	13
30	Influence of non-radiative recombination on photoluminescence decay time in GaInNAs quantum wells with Ga- and In-rich environments of nitrogen atoms. Journal of Applied Physics, 2012, 111, 063514.	1.1	13
31	Droplet epitaxy symmetric InAs/InP quantum dots for quantum emission in the third telecom window: morphology, optical and electronic properties. Nanophotonics, 2022, 11, 1515-1526.	2.9	13
32	Photorefectance investigations of AlGaIn/GaN heterostructures with a two dimensional electron gas. Superlattices and Microstructures, 2004, 36, 633-641.	1.4	11
33	Collective Excitations of Exciton-Polariton Condensates in a Synthetic Gauge Field. Physical Review Letters, 2021, 127, 185301.	2.9	11
34	Exciton kinetics and few particle effects in self-assembled GaAs-based quantum dashes. Journal of Applied Physics, 2010, 107, 096106.	1.1	10
35	Electron and hole spins in InP/(Ga,In)P self-assembled quantum dots. Physical Review B, 2012, 86, .	1.1	10
36	Carrier delocalization in InAs/InGaAlAs/InP quantum-dash-based tunnel injection system for 1.55 μm emission. AIP Advances, 2017, 7, 015117.	0.6	10

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37	Confinement regime in self-assembled InAs/InAlGaAs/InP quantum dashes determined from exciton and biexciton recombination kinetics. Applied Physics Letters, 2017, 111, 253106.	1.5	10
38	Optical and Electronic Properties of Symmetric $\text{In}_{1-x}\text{Ga}_x\text{As}/\text{InP}/\text{In}_{1-x}\text{Ga}_x\text{As}$ Quantum Well Structures. Journal of Physics Condensed Matter, 2012, 24, 185801.	0.7	9
39	Carrier dynamics in type-II GaAsSb/GaAs quantum wells. Journal of Physics Condensed Matter, 2012, 24, 185801.	0.7	9
40	Exciton spin relaxation in InAs/InGaAlAs/InP(001) quantum dashes emitting near 1.55 μm . Applied Physics Letters, 2016, 109, 193108.	1.5	9
41	Single photon emission in the red spectral range from a GaAs-based self-assembled quantum dot. Applied Physics Letters, 2012, 101, 103108.	1.5	8
42	Control of Dynamic Properties of InAs/InAlGaAs/InP Hybrid Quantum Well-Quantum Dot Structures Designed as Active Parts of 1.55 μm Emitting Lasers. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700455.	0.8	8
43	Carrier relaxation bottleneck in type-II InAs/InGaAlAs/InP(001) coupled quantum dots-quantum well structure emitting at 1.55 μm . Applied Physics Letters, 2018, 112, 221901.	1.5	8
44	Single photon emission up to liquid nitrogen temperature from charged excitons confined in GaAs-based epitaxial nanostructures. Applied Physics Letters, 2015, 106, .	1.5	7
45	Lateral carrier diffusion in InGaAs/GaAs coupled quantum dot-quantum well system. Applied Physics Letters, 2017, 110, .	1.5	7
46	Relaxation Oscillations and Ultrafast Emission Pulses in a Disordered Expanding Polariton Condensate. Scientific Reports, 2017, 7, 7094.	1.6	7
47	Investigations of AlGaIn/GaN field-effect transistor structures by photorefectance spectroscopy. Microelectronics Journal, 2005, 36, 442-445.	1.1	6
48	Influence of quantum well inhomogeneities on absorption, spontaneous emission, photoluminescence decay time, and lasing in polar InGaIn quantum wells emitting in the blue-green spectral region. Applied Physics A: Materials Science and Processing, 2014, 115, 1015-1023.	1.1	6
49	Carrier transfer efficiency and its influence on emission properties of telecom wavelength InP-based quantum dot "quantum well" structures. Scientific Reports, 2018, 8, 12317.	1.6	6
50	Observation of gain-pinned dissipative solitons in a microcavity laser. APL Photonics, 2020, 5, 086103.	3.0	6
51	Carrier Dynamics in Thin Germanium-Tin Epilayers. ACS Applied Electronic Materials, 2021, 3, 344-352.	2.0	6
52	Room Temperature Carrier Kinetics in the W-type GaInAsSb/InAs/AlSb Quantum Well Structure Emitting in Mid-Infrared Spectral Range. Acta Physica Polonica A, 2016, 130, 1224-1228.	0.2	6
53	Time resolved photoluminescence of In(N)As quantum dots embedded in GaIn(N)As/GaAs quantum well. Applied Physics Letters, 2010, 96, .	1.5	5
54	Time-resolved photoluminescence studies of the optical quality of InGaIn/GaN multi-quantum well grown by MOCVD-antimony surfactant effect. Semiconductor Science and Technology, 2012, 27, 105027.	1.0	5

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55	Multiphoton fluorescence excitation and detection with a single negative curvature hollow core fibre. <i>Laser Physics Letters</i> , 2019, 16, 015103.	0.6	5
56	Optical investigations of two dimensional electron gas in the AlGaIn/GaN heterostructures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004, 1, 378-381.	0.8	4
57	Contactless electroreflectance, photoluminescence and time-resolved photoluminescence of GaInNAs quantum wells obtained by the MBE method with N-irradiation. <i>Semiconductor Science and Technology</i> , 2011, 26, 045012.	1.0	4
58	Enhancement of photoluminescence from GaInNAsSb quantum wells upon annealing: improvement of material quality and carrier collection by the quantum well. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 065801.	0.7	4
59	Synthesis and systematic optical investigation of selective area droplet epitaxy of InAs/InP quantum dots assisted by block copolymer lithography. <i>Optical Materials Express</i> , 2019, 9, 1738.	1.6	4
60	Crossover from exciton-polariton condensation to photon lasing in an optical trap. <i>Optics Express</i> , 2022, 30, 17070.	1.7	4
61	Excitonic complexes in InGaAs/GaAs quantum dash structures. <i>Journal of Physics: Conference Series</i> , 2010, 245, 012054.	0.3	3
62	Theoretical simulations of radiative recombination time in polar InGaN quantum wells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011, 8, 2273-2275.	0.8	3
63	Optical properties and dynamics of excitons in Ga(Sb, Bi)/GaSb quantum wells: evidence for a regular alloy behavior. <i>Semiconductor Science and Technology</i> , 2020, 35, 025024.	1.0	3
64	Optical Properties of Site-Selectively Grown InAs/InP Quantum Dots with Predefined Positioning by Block Copolymer Lithography. <i>Materials</i> , 2021, 14, 391.	1.3	3
65	Monte Carlo Simulations of the Influence of Localization Centres on Carrier Dynamics in GaInNAs Quantum Wells. <i>Acta Physica Polonica A</i> , 2012, 122, 1022-1025.	0.2	3
66	Photoreflectance study of p-type GaN layers. <i>Superlattices and Microstructures</i> , 2004, 36, 643-649.	1.4	2
67	Below bandgap transitions in an AlGaIn/GaN transistor heterostructure observed by photoreflectance spectroscopy. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2006, 3, 2117-2120.	0.8	2
68	Spin Coherence of Holes in GaAs/AlGaAs Quantum Wells. <i>AIP Conference Proceedings</i> , 2007, , .	0.3	2
69	Optical properties and energy transfer in InGaAsN quantum well "InAs quantum dots tunnel injection structures for 1.3 μm emission. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2009, 206, 826-829.	0.8	2
70	Growth and characterization of ingan for photovoltaic devices. , 2010, , .		2
71	Impact of the localized wetting layer states on carrier relaxation processes in GaAs-based quantum dash structures. <i>AIP Conference Proceedings</i> , 2011, , .	0.3	2
72	Photoreflectance Studies of Undoped and Si-doped AlGaIn/GaN Heterostructures with a Two Dimensional Electron Gas. <i>AIP Conference Proceedings</i> , 2005, , .	0.3	1

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73	Carrier Dynamics and Dynamic Band-Bending in Type-II ZnTe/ZnSe Quantum Dots. Acta Physica Polonica A, 2013, 124, 821-823.	0.2	1
74	Lateral interdot coupling among dense ensemble of InAs quantum dots grown on InP substrate observed at cryogenic temperatures. Journal of Physics: Conference Series, 2017, 906, 012008.	0.3	1
75	The issue of OD-like ground state isolation in GaAs- and InP-based coupled quantum dots-quantum well systems. Journal of Physics: Conference Series, 2017, 906, 012019.	0.3	1
76	Bright Quantum Dot Single-Photon Source at 1.55 μm Heterogeneously Integrated on Si. , 2021, , .		1
77	Interdash Coupling within Dense Ensembles of Quantum Dashes: Comparison of $\langle \text{mml:math display=$ $\text{overflow="scroll"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{In} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \text{As} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$		