Marcin Syperek

List of Publications by Citations

73 papers	898 citations	18 h-index	26 g-index
85 ext. papers	1,017 ext. citations	3.2 avg, IF	3.55 L-index

#	Paper	IF	Citations
73	Spin coherence of holes in GaAs/(Al,Ga)As quantum wells. *Physical Review Letters*, **2007**, 99, 187401	7.4	63
72	Controlled synthesis of tuned bandgap nanodimensional alloys of PbS(x)Se(1-x). *Journal of the American Chemical Society*, **2011**, 133, 5602-9	16.4	54
71	Carrier localization in GaBiAs probed by photomodulated transmittance and photoluminescence. *Journal of Applied Physics*, **2009**, 106, 023518	2.5	54
70	Photoluminescence from GaN nanopowder: The size effect associated with the surface-to-volume ratio. *Applied Physics Letters*, **2006**, 88, 181916	3.4	41
69	Optically pumped 500 nm InGaN green lasers grown by plasma-assisted molecular beam epitaxy. *Journal of Applied Physics*, **2011**, 110, 063110	2.5	39
68	Contactless electromodulation spectroscopy of AlGaN□GaN heterostructures with a two-dimensional electron gas: A comparison of photoreflectance and contactless electroreflectance. *Journal of Applied Physics*, **2006**, 100, 013501	2.5	36
67	Single photon emission at 1.55 □m from charged and neutral exciton confined in a single quantum dash. *Applied Physics Letters*, **2014**, 105, 021909	3.4	33
66	Long-lived electron spin coherence in CdSe/Zn(S,Se) self-assembled quantum dots. *Physical Review B*, **2011**, 84,	3.3	32
65	Exciton and biexciton dynamics in single self-assembled InAs/InGaAlAs/InP quantum dash emitting near 1.55 □m. *Applied Physics Letters*, **2013**, 103, 253113	3.4	26
64	Single-photon emission of InAs/InP quantum dashes at 1.55 □m and temperatures up to 80 K. *Applied Physics Letters*, **2016**, 108, 163108	3.4	26
63	Influence of electronic coupling on the radiative lifetime in the (In,Ga)As/GaAs quantum dot□quantum well system. *Physical Review B*, **2012**, 85,	3.3	25
62	Room temperature free carrier tunneling in dilute nitride based quantum well - quantum dot tunnel injection system for 1.3 □m. *Applied Physics Letters*, **2009**, 94, 171906	3.4	23
61	Carrier dynamics between delocalized and localized states in type-II GaAsSb/GaAs quantum wells. *Applied Physics Letters*, **2011**, 98, 061910	3.4	22
60	Carrier relaxation dynamics in InAs/GaInAsP/InP(001) quantum dashes emitting near 1.55 □m. *Applied Physics Letters*, **2013**, 103, 083104	3.4	21
59	Magnetic field control of the neutral and charged exciton fine structure in single quantum dashes emitting at 1.55 □m. *Applied Physics Letters*, **2015**, 106, 053114	3.4	20
58	Influence of Pressure-Induced Transition from Nanocrystals to Nanoceramic Form on Optical Properties of Ce-Doped Y3Al5O12. *Journal of the American Ceramic Society*, **2011**, 94, 2135-2140	3.8	19
57	Exciton lifetime and emission polarization dispersion in strongly in-plane asymmetric nanostructures. *Physical Review B*, **2017**, 96,	3.3	18

56	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,	3.3	18
55	Investigations of GaN surface quantum well in AlGaN□GaN transistor heterostructures by contactless electroreflectance spectroscopy. *Applied Physics Letters*, **2006**, 89, 231912	3.4	18
54	Ghost Branch Photoluminescence From a Polariton Fluid Under Nonresonant Excitation. *Physical Review Letters*, **2015**, 115, 186401	7.4	17
53	Dynamics of localized excitons in Ga0.69In0.31N0.015As0.985/GaAs quantum well: Experimental studies and Monte-Carlo simulations. *Applied Physics Letters*, **2012**, 100, 202105	3.4	16
52	High-Purity Triggered Single-Photon Emission from Symmetric Single InAs/InP Quantum Dots around the Telecom C-Band Window. *Advanced Quantum Technologies*, **2020**, 3, 1900082	4.3	16
51	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	2.5	13
50	Screening effect in contactless electroreflectance spectroscopy observed for AlGaN/GaN heterostructures with two dimensional electron gas. *Thin Solid Films*, **2007**, 515, 4662-4665	2.2	13
49	Photoreflectance investigations of a donor-related transition in AlGaN□GaN transistor structures. *Applied Physics Letters*, **2005**, 87, 153502	3.4	13
48	Time-resolved photoluminescence spectroscopy of an InGaAs/GaAs quantum well-quantum dots tunnel injection structure. *Applied Physics Letters*, **2010**, 96, 011901	3.4	12
47	Time-resolved photoluminescence studies of annealed 1.3-□m GaInNAsSb quantum wells. *Nanoscale Research Letters*, **2014**, 9, 81	5	11
46	Growth and characterization of InGaN for photovoltaic devices. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2011**, 8, 2460-2462		11
45	Carrier delocalization in InAs/InGaAlAs/InP quantum-dash-based tunnel injection system for 1.55 □m emission. *AIP Advances*, **2017**, 7, 015117	1.5	10
44	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,	3.3	9
43	Electron and hole spins in InP/(Ga,In)P self-assembled quantum dots. *Physical Review B*, **2012**, 86,	3.3	9
42	Confinement regime in self-assembled InAs/InAlGaAs/InP quantum dashes determined from exciton and biexciton recombination kinetics. *Applied Physics Letters*, **2017**, 111, 253106	3.4	8
41	Single photon emission in the red spectral range from a GaAs-based self-assembled quantum dot. *Applied Physics Letters*, **2012**, 101, 103108	3.4	8
40	Exciton spin relaxation in InAs/InGaAlAs/InP(001) quantum dashes emitting near 1.55□m. *Applied Physics Letters*, **2016**, 109, 193108	3.4	8
39	Carrier dynamics in type-II GaAsSb/GaAs quantum wells. *Journal of Physics Condensed Matter*, **2012**, 24, 185801	1.8	7

38	Photoreflectance investigations of AlGaN/GaN heterostructures with a two dimensional electron gas. *Superlattices and Microstructures*, **2004**, 36, 633-641	2.8	7
37	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	1.6	7
36	Lateral carrier diffusion in InGaAs/GaAs coupled quantum dot-quantum well system. *Applied Physics Letters*, **2017**, 110, 221104	3.4	6
35	Influence of quantum well inhomogeneities on absorption, spontaneous emission, photoluminescence decay time, and lasing in polar InGaN quantum wells emitting in the blue-green spectral region. *Applied Physics A: Materials Science and Processing*, **2014**, 115, 1015-1023	2.6	6
34	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	3.4	6
33	Single photon emission up to liquid nitrogen temperature from charged excitons confined in GaAs-based epitaxial nanostructures. *Applied Physics Letters*, **2015**, 106, 233107	3.4	5
32	Carrier transfer efficiency and its influence on emission properties of telecom wavelength InP-based quantum dot - quantum well structures. *Scientific Reports*, **2018**, 8, 12317	4.9	5
31	Relaxation Oscillations and Ultrafast Emission Pulses in a Disordered Expanding Polariton Condensate. *Scientific Reports*, **2017**, 7, 7094	4.9	5
30	Time-resolved photoluminescence studies of the optical quality of InGaN/GaN multi-quantum well grown by MOCVD□ntimony surfactant effect. *Semiconductor Science and Technology*, **2012**, 27, 105027	1.8	5
29	Optical and Electronic Properties of Symmetric InAs/(In,Al,Ga)As/InP Quantum Dots Formed by Ripening in Molecular Beam Epitaxy: A Potential System for Broad-Range Single-Photon Telecom Emitters. *Physical Review Applied*, **2020**, 14,	4.3	4
28	Enhancement of photoluminescence from GaInNAsSb quantum wells upon annealing: improvement of material quality and carrier collection by the quantum well. *Journal of Physics Condensed Matter*, **2013**, 25, 065801	1.8	4
27	Time resolved photoluminescence of In(N)As quantum dots embedded in GaIn(N)As/GaAs quantum well. *Applied Physics Letters*, **2010**, 96, 041911	3.4	4
26	Contactless electroreflectance, photoluminescence and time-resolved photoluminescence of GaInNAs quantum wells obtained by the MBE method with N-irradiation. *Semiconductor Science and Technology*, **2011**, 26, 045012	1.8	4
25	Optical investigations of two dimensional electron gas in the AlGaN/GaN heterostructures. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2004**, 1, 378-381		4
24	Investigations of AlGaN/GaN field-effect transistor structures by photoreflectance spectroscopy. *Microelectronics Journal*, **2005**, 36, 442-445	1.8	4
23	Theoretical simulations of radiative recombination time in polar InGaN quantum wells. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2011**, 8, 2273-2275		3
22	Monte Carlo Simulations of the Influence of Localization Centres on Carrier Dynamics in GaInNAs Quantum Wells. *Acta Physica Polonica A*, **2012**, 122, 1022-1025	0.6	3
21	Synthesis and systematic optical investigation of selective area droplet epitaxy of InAs/InP quantum dots assisted by block copolymer lithography. *Optical Materials Express*, **2019**, 9, 1738	2.6	3

20	Collective Excitations of Exciton-Polariton Condensates in a Synthetic Gauge Field. *Physical Review Letters*, **2021**, 127, 185301	7.4	3
19	Optical properties and energy transfer in InGaAsN quantum well InAs quantum dots tunnel injection structures for 1.3 h emission. *Physica Status Solidi (A) Applications and Materials Science*, **2009**, 206, 826-829	1.6	2
18	Excitonic complexes in InGaAs/GaAs quantum dash structures. *Journal of Physics: Conference Series*, **2010**, 245, 012054	0.3	2
17	Spin Coherence of Holes in GaAs/AlGaAs Quantum Wells. *AIP Conference Proceedings*, **2007**,	0	2
16	Photoreflectance study of p-type GaN layers. *Superlattices and Microstructures*, **2004**, 36, 643-649	2.8	2
15	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	0.6	2
14	Observation of gain-pinned dissipative solitons in a microcavity laser. *APL Photonics*, **2020**, 5, 086103	5.2	2
13	Multiphoton fluorescence excitation and detection with a single negative curvature hollow core fibre. *Laser Physics Letters*, **2019**, 16, 015103	1.5	2
12	Optical Properties of Site-Selectively Grown InAs/InP Quantum Dots with Predefined Positioning by Block Copolymer Lithography. *Materials*, **2021**, 14,	3.5	2
11	The issue of 0D-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
10	Carrier Dynamics and Dynamic Band-Bending in Type-II ZnTe/ZnSe Quantum Dots. *Acta Physica Polonica A*, **2013**, 124, 821-823	0.6	1
9	Growth and characterization of ingan for photovoltaic devices **2010**,		1
8	Optical properties and dynamics of excitons in Ga(Sb, Bi)/GaSb quantum wells: evidence for a regular alloy behavior. *Semiconductor Science and Technology*, **2020**, 35, 025024	1.8	1
7	Carrier Dynamics in Thin Germanium in Epilayers. *ACS Applied Electronic Materials*, **2021**, 3, 344-352	4	1
6	Below bandgap transitions in an AlGaN/GaN transistor heterostructure observed by photoreflectance spectroscopy. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2006**, 3, 2117-2120	0	
5	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	
4	Time Resolved Photoluminescence Study of the Wide (Cd,Mn)Te/(Cd,Mg)Te Quantum Well. *Acta Physica Polonica A*, **2013**, 124, 895-897	0.6	
3	Tunnel injection structures based on InGaAs/GaAs quantum dots: optical properties and energy structure. *Journal of Physics: Conference Series*, **2010**, 245, 012047	0.3	

2 Investigation of built-in electric fields in AlGaN/GaN heterostructures grown on misoriented 4H-SiC substrate by contactless electroreflectance. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2007**, 4, 366-368

1 Study of the activation process of Mg dopant in GaN:Mg layers. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2006**, 3, 579-584