

# Marcin Syperek

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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 | Collective Excitations of Exciton-Polariton Condensates in a Synthetic Gauge Field. <i>Physical Review Letters</i> , <b>2021</b> , 127, 185301                                                                                                                 | 7.4 | 3         |
| 72 | Optical Properties of Site-Selectively Grown InAs/InP Quantum Dots with Predefined Positioning by Block Copolymer Lithography. <i>Materials</i> , <b>2021</b> , 14,                                                                                            | 3.5 | 2         |
| 71 | Carrier Dynamics in Thin Germanium in Epilayers. <i>ACS Applied Electronic Materials</i> , <b>2021</b> , 3, 344-352                                                                                                                                            | 4   | 1         |
| 70 | 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. <i>Physical Review Applied</i> , <b>2020</b> , 14,          | 4.3 | 4         |
| 69 | Optical and electronic properties of low-density InAs/InP quantum-dot-like structures designed for single-photon emitters at telecom wavelengths. <i>Physical Review B</i> , <b>2020</b> , 101,                                                                | 3.3 | 9         |
| 68 | High-Purity Triggered Single-Photon Emission from Symmetric Single InAs/InP Quantum Dots around the Telecom C-Band Window. <i>Advanced Quantum Technologies</i> , <b>2020</b> , 3, 1900082                                                                     | 4.3 | 16        |
| 67 | 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> , <b>2020</b> , 35, 025024                                                                    | 1.8 | 1         |
| 66 | Observation of gain-pinned dissipative solitons in a microcavity laser. <i>APL Photonics</i> , <b>2020</b> , 5, 086103                                                                                                                                         | 5.2 | 2         |
| 65 | 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> , <b>2019</b> , 9, 1738                                                    | 2.6 | 3         |
| 64 | Multiphoton fluorescence excitation and detection with a single negative curvature hollow core fibre. <i>Laser Physics Letters</i> , <b>2019</b> , 16, 015103                                                                                                  | 1.5 | 2         |
| 63 | Carrier transfer efficiency and its influence on emission properties of telecom wavelength InP-based quantum dot - quantum well structures. <i>Scientific Reports</i> , <b>2018</b> , 8, 12317                                                                 | 4.9 | 5         |
| 62 | Control of Dynamic Properties of InAs/InAlGaAs/InP Hybrid Quantum Well-Quantum Dot Structures Designed as Active Parts of 1.55 $\mu\text{m}$ Emitting Lasers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2018</b> , 215, 1700455 | 1.6 | 7         |
| 61 | Carrier relaxation bottleneck in type-II InAs/InGaAlAs/InP(001) coupled quantum dots-quantum well structure emitting at 1.55 $\mu\text{m}$ . <i>Applied Physics Letters</i> , <b>2018</b> , 112, 221901                                                        | 3.4 | 6         |
| 60 | Carrier delocalization in InAs/InGaAlAs/InP quantum-dot-based tunnel injection system for 1.55 $\mu\text{m}$ emission. <i>AIP Advances</i> , <b>2017</b> , 7, 015117                                                                                           | 1.5 | 10        |
| 59 | Lateral carrier diffusion in InGaAs/GaAs coupled quantum dot-quantum well system. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 221104                                                                                                                   | 3.4 | 6         |
| 58 | Lateral interdot coupling among dense ensemble of InAs quantum dots grown on InP substrate observed at cryogenic temperatures. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 906, 012008                                                        | 0.3 |           |
| 57 | The issue of 0D-like ground state isolation in GaAs- and InP-based coupled quantum dots-quantum well systems. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 906, 012019                                                                         | 0.3 | 1         |

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|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|
| 56 | Relaxation Oscillations and Ultrafast Emission Pulses in a Disordered Expanding Polariton Condensate. <i>Scientific Reports</i> , <b>2017</b> , 7, 7094                                                                                                                                    | 4.9 | 5  |
| 55 | Exciton lifetime and emission polarization dispersion in strongly in-plane asymmetric nanostructures. <i>Physical Review B</i> , <b>2017</b> , 96,                                                                                                                                         | 3.3 | 18 |
| 54 | Confinement regime in self-assembled InAs/InAlGaAs/InP quantum dashes determined from exciton and biexciton recombination kinetics. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 253106                                                                                             | 3.4 | 8  |
| 53 | Room Temperature Carrier Kinetics in the W-type GaInAsSb/InAs/AlSb Quantum Well Structure Emitting in Mid-Infrared Spectral Range. <i>Acta Physica Polonica A</i> , <b>2016</b> , 130, 1224-1228                                                                                           | 0.6 | 2  |
| 52 | Exciton spin relaxation in InAs/InGaAlAs/InP(001) quantum dashes emitting near 1.55 eV. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 193108                                                                                                                                         | 3.4 | 8  |
| 51 | Single-photon emission of InAs/InP quantum dashes at 1.55 eV and temperatures up to 80 K. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 163108                                                                                                                                       | 3.4 | 26 |
| 50 | Single photon emission up to liquid nitrogen temperature from charged excitons confined in GaAs-based epitaxial nanostructures. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 233107                                                                                                 | 3.4 | 5  |
| 49 | Magnetic field control of the neutral and charged exciton fine structure in single quantum dashes emitting at 1.55 eV. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 053114                                                                                                          | 3.4 | 20 |
| 48 | Ghost Branch Photoluminescence From a Polariton Fluid Under Nonresonant Excitation. <i>Physical Review Letters</i> , <b>2015</b> , 115, 186401                                                                                                                                             | 7.4 | 17 |
| 47 | 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. <i>Applied Physics A: Materials Science and Processing</i> , <b>2014</b> , 115, 1015-1023 | 2.6 | 6  |
| 46 | Time-resolved photoluminescence studies of annealed 1.3-eV GaInNAsSb quantum wells. <i>Nanoscale Research Letters</i> , <b>2014</b> , 9, 81                                                                                                                                                | 5   | 11 |
| 45 | Single photon emission at 1.55 eV from charged and neutral exciton confined in a single quantum dash. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 021909                                                                                                                           | 3.4 | 33 |
| 44 | Carrier relaxation dynamics in InAs/GaInAsP/InP(001) quantum dashes emitting near 1.55 eV. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 083104                                                                                                                                      | 3.4 | 21 |
| 43 | 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> , <b>2013</b> , 25, 065801                                                            | 1.8 | 4  |
| 42 | Time Resolved Photoluminescence Study of the Wide (Cd,Mn)Te/(Cd,Mg)Te Quantum Well. <i>Acta Physica Polonica A</i> , <b>2013</b> , 124, 895-897                                                                                                                                            | 0.6 |    |
| 41 | Carrier Dynamics and Dynamic Band-Bending in Type-II ZnTe/ZnSe Quantum Dots. <i>Acta Physica Polonica A</i> , <b>2013</b> , 124, 821-823                                                                                                                                                   | 0.6 | 1  |
| 40 | Exciton and biexciton dynamics in single self-assembled InAs/InGaAlAs/InP quantum dash emitting near 1.55 eV. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 253113                                                                                                                   | 3.4 | 26 |
| 39 | Impact of wetting-layer density of states on the carrier relaxation process in low indium content self-assembled (In,Ga)As/GaAs quantum dots. <i>Physical Review B</i> , <b>2013</b> , 87,                                                                                                 | 3.3 | 18 |

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|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|
| 38 | Carrier dynamics in type-II GaAsSb/GaAs quantum wells. <i>Journal of Physics Condensed Matter</i> , <b>2012</b> , 24, 185801                                                                                                                    | 1.8  | 7  |
| 37 | Dynamics of localized excitons in Ga <sub>0.69</sub> In <sub>0.31</sub> N <sub>0.015</sub> As <sub>0.985</sub> /GaAs quantum well: Experimental studies and Monte-Carlo simulations. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 202105 | 3.4  | 16 |
| 36 | Single photon emission in the red spectral range from a GaAs-based self-assembled quantum dot. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 103108                                                                                       | 3.4  | 8  |
| 35 | Influence of electronic coupling on the radiative lifetime in the (In,Ga)As/GaAs quantum dot-quantum well system. <i>Physical Review B</i> , <b>2012</b> , 85,                                                                                  | 3.3  | 25 |
| 34 | Influence of non-radiative recombination on photoluminescence decay time in GaInNAs quantum wells with Ga- and In-rich environments of nitrogen atoms. <i>Journal of Applied Physics</i> , <b>2012</b> , 111, 063514                            | 2.5  | 13 |
| 33 | Electron and hole spins in InP/(Ga,In)P self-assembled quantum dots. <i>Physical Review B</i> , <b>2012</b> , 86,                                                                                                                               | 3.3  | 9  |
| 32 | Time-resolved photoluminescence studies of the optical quality of InGaN/GaN multi-quantum well grown by MOCVD-antimony surfactant effect. <i>Semiconductor Science and Technology</i> , <b>2012</b> , 27, 105027                                | 1.8  | 5  |
| 31 | Monte Carlo Simulations of the Influence of Localization Centres on Carrier Dynamics in GaInNAs Quantum Wells. <i>Acta Physica Polonica A</i> , <b>2012</b> , 122, 1022-1025                                                                    | 0.6  | 3  |
| 30 | Optically pumped 500 nm InGaN green lasers grown by plasma-assisted molecular beam epitaxy. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 063110                                                                                       | 2.5  | 39 |
| 29 | Influence of Pressure-Induced Transition from Nanocrystals to Nanoceramic Form on Optical Properties of Ce-Doped Y <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> . <i>Journal of the American Ceramic Society</i> , <b>2011</b> , 94, 2135-2140  | 3.8  | 19 |
| 28 | Growth and characterization of InGaN for photovoltaic devices. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2011</b> , 8, 2460-2462                                                                               |      | 11 |
| 27 | Theoretical simulations of radiative recombination time in polar InGaN quantum wells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2011</b> , 8, 2273-2275                                                        |      | 3  |
| 26 | Controlled synthesis of tuned bandgap nanodimensional alloys of PbS(x)Se(1-x). <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 5602-9                                                                                      | 16.4 | 54 |
| 25 | Carrier dynamics between delocalized and localized states in type-II GaAsSb/GaAs quantum wells. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 061910                                                                                       | 3.4  | 22 |
| 24 | Long-lived electron spin coherence in CdSe/Zn(S,Se) self-assembled quantum dots. <i>Physical Review B</i> , <b>2011</b> , 84,                                                                                                                   | 3.3  | 32 |
| 23 | 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> , <b>2011</b> , 26, 045012            | 1.8  | 4  |
| 22 | Time-resolved photoluminescence spectroscopy of an InGaAs/GaAs quantum well-quantum dots tunnel injection structure. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 011901                                                                  | 3.4  | 12 |
| 21 | Growth and characterization of InGaN for photovoltaic devices <b>2010</b> ,                                                                                                                                                                     |      | 1  |

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|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|
| 20 | Time resolved photoluminescence of In(N)As quantum dots embedded in GaIn(N)As/GaAs quantum well. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 041911                                                                                         | 3.4 | 4  |
| 19 | Excitonic complexes in InGaAs/GaAs quantum dash structures. <i>Journal of Physics: Conference Series</i> , <b>2010</b> , 245, 012054                                                                                                               | 0.3 | 2  |
| 18 | Tunnel injection structures based on InGaAs/GaAs quantum dots: optical properties and energy structure. <i>Journal of Physics: Conference Series</i> , <b>2010</b> , 245, 012047                                                                   | 0.3 |    |
| 17 | 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> , <b>2009</b> , 94, 171906                                               | 3.4 | 23 |
| 16 | Optical properties and energy transfer in InGaAsN quantum well InAs quantum dots tunnel injection structures for 1.3 $\mu\text{m}$ emission. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2009</b> , 206, 826-829      | 1.6 | 2  |
| 15 | Carrier localization in GaBiAs probed by photomodulated transmittance and photoluminescence. <i>Journal of Applied Physics</i> , <b>2009</b> , 106, 023518                                                                                         | 2.5 | 54 |
| 14 | Screening effect in contactless electroreflectance spectroscopy observed for AlGaIn/GaN heterostructures with two dimensional electron gas. <i>Thin Solid Films</i> , <b>2007</b> , 515, 4662-4665                                                 | 2.2 | 13 |
| 13 | Investigation of built-in electric fields in AlGaIn/GaN heterostructures grown on misoriented 4H-SiC substrate by contactless electroreflectance. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2007</b> , 4, 366-368 |     |    |
| 12 | Spin coherence of holes in GaAs/(Al,Ga)As quantum wells. <i>Physical Review Letters</i> , <b>2007</b> , 99, 187401                                                                                                                                 | 7.4 | 63 |
| 11 | Spin Coherence of Holes in GaAs/AlGaAs Quantum Wells. <i>AIP Conference Proceedings</i> , <b>2007</b> ,                                                                                                                                            | 0   | 2  |
| 10 | Photoluminescence from GaN nanopowder: The size effect associated with the surface-to-volume ratio. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 181916                                                                                      | 3.4 | 41 |
| 9  | Investigations of GaN surface quantum well in AlGaIn/GaN transistor heterostructures by contactless electroreflectance spectroscopy. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 231912                                                     | 3.4 | 18 |
| 8  | Contactless electromodulation spectroscopy of AlGaIn/GaN heterostructures with a two-dimensional electron gas: A comparison of photoreflectance and contactless electroreflectance. <i>Journal of Applied Physics</i> , <b>2006</b> , 100, 013501  | 2.5 | 36 |
| 7  | Study of the activation process of Mg dopant in GaN:Mg layers. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2006</b> , 3, 579-584                                                                                    |     |    |
| 6  | 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> , <b>2006</b> , 3, 2117-2120 <sup>o</sup>                   |     |    |
| 5  | Investigations of AlGaIn/GaN field-effect transistor structures by photoreflectance spectroscopy. <i>Microelectronics Journal</i> , <b>2005</b> , 36, 442-445                                                                                      | 1.8 | 4  |
| 4  | Photoreflectance investigations of a donor-related transition in AlGaIn/GaN transistor structures. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 153502                                                                                       | 3.4 | 13 |
| 3  | Photoreflectance investigations of AlGaIn/GaN heterostructures with a two dimensional electron gas. <i>Superlattices and Microstructures</i> , <b>2004</b> , 36, 633-641                                                                           | 2.8 | 7  |

2 Photoreflectance study of p-type GaN layers. *Superlattices and Microstructures*, **2004**, 36, 643-649 2.8 2

1 Optical investigations of two dimensional electron gas in the AlGa<sub>N</sub>/Ga<sub>N</sub> heterostructures. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2004**, 1, 378-381 4