Beata Kardynal

List of Publications by Year
in descending order

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82 papers	3,079 citations	236612 25 h-index	155451 55 g-index
82 all docs	82 docs citations	82 times ranked	3585 citing authors

#	Article	IF	Citations
1	Electrically Driven Single-Photon Source. Science, 2002, 295, 102-105.	6.0	1,069
2	High speed single photon detection in the near infrared. Applied Physics Letters, 2007, 91, .	1.5	259
3	An avalancheâ€photodiode-based photon-number-resolving detector. Nature Photonics, 2008, 2, 425-428.	15.6	213
4	Efficient Single Photon Detection by Quantum Dot Resonant Tunneling Diodes. Physical Review Letters, 2005, 94, 067401.	2.9	145
5	Quantum dots as a photon source for passive quantum key encoding. Physical Review B, 2002, 66, .	1.1	124
6	Magnetic interactions within patterned cobalt nanostructures using off-axis electron holography. Journal of Applied Physics, 1998, 84, 374-378.	1.1	90
7	Engineering of optical and electronic band gaps in transition metal dichalcogenide monolayers through external dielectric screening. Physical Review Materials, 2017, 1, .	0.9	83
8	Off-axis electron holography of patterned magnetic nanostructures. Journal of Microscopy, 2000, 200, 187-205.	0.8	68
9	Switching asymmetries in closely coupled magnetic nanostructure arrays. Applied Physics Letters, 1999, 75, 2641-2643.	1.5	61
10	In situtransmission electron microscopy of light-induced photocatalytic reactions. Nanotechnology, 2012, 23, 075705.	1.3	53
11	Quantum dot resonant tunneling diode for telecommunication wavelength single photon detection. Applied Physics Letters, 2007, 91, 073516.	1.5	52
12	Photon number resolving detector based on a quantum dot field effect transistor. Applied Physics Letters, 2007, 90, 181114.	1.5	46
13	Quasi 2D electronic states with high spin-polarization in centrosymmetric MoS2 bulk crystals. Scientific Reports, 2016, 6, 26197.	1.6	41
14	Understanding the Effect of Surface Chemistry on Charge Generation and Transport in Poly (3-hexylthiophene)/CdSe Hybrid Solar Cells. ACS Applied Materials & Interfaces, 2011, 3, 287-292.	4.0	39
15	Magnetotunneling spectroscopy of one-dimensional wires. Physical Review B, 1997, 55, R1966-R1969.	1.1	37
16	Site-Controlled Quantum Emitters in Monolayer MoSe₂. Nano Letters, 2021, 21, 2376-2381.	4.5	37
17	Effect of Zinc Incorporation on the Performance of Red Light Emitting InP Core Nanocrystals. Inorganic Chemistry, 2016, 55, 8381-8386.	1.9	31
18	Resonant Rayleigh scattering by excitonic states laterally confined in the interface roughnessof GaAs/AlxGa1â^'xAs single quantum wells. Physical Review B, 1997, 55, 13752-13760.	1.1	30

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19	Low-noise photon counting with a radio-frequency quantum-dot field-effect transistor. Applied Physics Letters, 2004, 84, 419-421.	1.5	30
20	Photon absorption and photocurrent in solar cells below semiconductor bandgap due to electron photoemission from plasmonic nanoantennas. Progress in Photovoltaics: Research and Applications, 2014, 22, 422-426.	4.4	30
21	Interlayer coupling within individual submicron magnetic elements. Journal of Applied Physics, 2000, 87, 7400-7404.	1.1	27
22	Ion-beam modification of 2-D materials - single implant atom analysis via annular dark-field electron microscopy. Ultramicroscopy, 2017, 176, 31-36.	0.8	27
23	Metal-Insulator Oscillations in a Two-Dimensional Electron-Hole System. Physical Review Letters, 2000, 85, 2364-2367.	2.9	26
24	Understanding the Role of Single Molecular ZnS Precursors in the Synthesis of In(Zn)P/ZnS Nanocrystals. ACS Applied Materials & Interfaces, 2014, 6, 18233-18242.	4.0	26
25	Facile in situ synthesis of stable luminescent organicâ€“inorganic lead halide perovskite nanoparticles in a polymer matrix. Journal of Materials Chemistry C, 2017, 5, 7207-7214.	2.7	26
26	Excitons in InGaAs quantum dots without electron wetting layer states. Communications Physics, 2019, 2, .	2.0	25
27	Effect of InAs dots on noise of quantum dot resonant tunneling single-photon detectors. Applied Physics Letters, 2006, 89, 153510.	1.5	23
28	Quantitative measurement of mean inner potential and specimen thickness from high-resolution off-axis electron holograms of ultra-thin layered WSe2. Ultramicroscopy, 2017, 178, 38-47.	0.8	23
29	Quantum dot resonant tunneling diode single photon detector with aluminum oxide aperture defined tunneling area. Applied Physics Letters, 2008, 93, 153503.	1.5	22
30	Finite element simulations of electrostatic dopant potentials in thin semiconductor specimens for electron holography. Ultramicroscopy, 2013, 134, 160-166.	0.8	21
31	Visibility of two-dimensional layered materials on various substrates. Journal of Applied Physics, 2015, 118, .	1.1	21
32	Off-axis electron holography of exchange-biased CoFe/FeMn patterned nanostructures. Journal of Applied Physics, 2001, 90, 2899-2902.	1.1	20
33	Absolute Scale Quantitative Off-Axis Electron Holography at Atomic Resolution. Physical Review Letters, 2018, 120, 156101.	2.9	18
34	Direct Measurement of the Band Structure of a One-Dimensional Surface Superlattice. Physical Review Letters, 1996, 76, 3802-3805.	2.9	17
35	Equivalent Circuit Modeling of the Agâ€‰|â€‰Asâ€‰0.24â€‰Sâ€‰0.36Ag0.40â€‰|â€‰Ag System Prepared by Photodissolution of Ag. Journal of the Electrochemical Society, 1998, 145, 2971-2974.	1.3	15
36	Quantitative Agreement between Electron-Optical Phase Images of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>WSe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Simulations Based on Electrostatic Potentials that Include Bonding Effects. Physical Review Letters, 2017, 118, 086101.	2.9	15

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37	Vapor transport growth of MoS2 nucleated on SiO2 patterns and graphene flakes. Nano Research, 2016, 9, 3504-3514.	5.8	14
38	Transfer of a quantum state from a photonic qubit to a gate-defined quantum dot. Physical Review B, 2019, 99, .	1.1	12
39	Experimental observation of a negative grey trion in an electron-rich WSe₂ monolayer. Journal of Physics Condensed Matter, 2019, 31, 415701.	0.7	12
40	Interplay of excitonic complexes in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math> -doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>WSe</mml:mi><mml:mn>2</mml:mn></mml:msub></mr monolayers. Physical Review B, 2020, 101, .	1.1	12
41	Insulating states of a broken-gap two-dimensional electron-hole system. Physical Review B, 2003, 68, .	1.1	11
42	Temperature dependent recombination dynamics in InP/ZnS colloidal nanocrystals. Applied Physics Letters, 2012, 101, 091910.	1.5	10
43	Evolution and characteristics of GaN nanowires produced via maskless reactive ion etching. Nanotechnology, 2014, 25, 255301.	1.3	10
44	The role of ion exchange in the passivation of In(Zn)P nanocrystals with ZnS. Scientific Reports, 2016, 6, 22818.	1.6	10
45	Generation of single photons using semiconductor quantum dots. , 2002, , 111-146.		9
46	Breakdown of the quantum Hall effect in an electronâ€“hole system. Physica B: Condensed Matter, 2001, 298, 8-12.	1.3	8
47	Detection of single photons using a field effect transistor with a layer of quantum dots. Measurement Science and Technology, 2002, 13, 1721-1726.	1.4	8
48	Equilibrium tunneling between twoâ€dimensional and quasiâ€oneâ€dimensional electron gases in devices fabricated by in situ focused ion beam lithography. Applied Physics Letters, 1996, 68, 826-828.	1.5	7
49	Origin of low quantum efficiency of photoluminescence of InP/ZnS nanocrystals. Journal of Luminescence, 2014, 145, 936-939.	1.5	7
50	Broadband infrared absorption enhancement by electroless-deposited silver nanoparticles. Nanophotonics, 2017, 6, 289-297.	2.9	6
51	Self-assembled quantum dots as a source of single photons and photon pairs. Physica Status Solidi (B): Basic Research, 2003, 238, 353-359.	0.7	5
52	Capture dynamics of hot electrons on quantum dots in RTDs studied by noise measurement. New Journal of Physics, 2008, 10, 013027.	1.2	5
53	Photon-induced conductance steps andin situmodulation of disorder in mesoscopic electron systems. Physical Review B, 2004, 70, .	1.1	4
54	Single-photon detection mechanism in a quantum dot transistor. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 26, 356-360.	1.3	4

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55	MOCVD growth and characterization of nearâ€surface InGaN/GaN single quantum wells for nonâ€radiative coupling of optical excitations. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1667-1669.	0.8	4
56	Tunneling Spectroscopy of a Two-Dimensionally Periodic Electron System. Physical Review Letters, 2002, 89, 146803.	2.9	3
57	Single electron dynamics in a quantum dot field effect transistor. Applied Physics Letters, 2006, 89, 113503.	1.5	3
58	The investigation of 1D and 2D phenomena using double-layer electron systems. Physica E: Low-Dimensional Systems and Nanostructures, 1998, 3, 52-57.	1.3	2
59	In Situ Transmission Electron Microscopy Observations of Silicidation Processes for Cobalt Thin Films Deposited on Silicon. Microscopy and Microanalysis, 1998, 4, 317-324.	0.2	2
60	Edge effects in an insulating state of an electronâ€“hole system in magnetic field. Physica B: Condensed Matter, 2001, 298, 28-32.	1.3	2
61	Optimisation of quantum dot resonant tunnelling diodes for fibre wavelength detection. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4035-4038.	0.8	2
62	Quantum dot resonant tunneling diodes for telecom wavelength single-photon detection. Proceedings of SPIE, 2007, , .	0.8	2
63	Effect of GaN cap thickness on carrier dynamics in InGaN quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 727-729.	0.8	2
64	Resonance Energy Transfer in Hybrid Devices in the Presence of a Surface. Journal of Physical Chemistry C, 2014, 118, 16284-16289.	1.5	2
65	Dense, Regular GaAs Nanowire Arrays by Catalyst-Free Vapor Phase Epitaxy for Light Harvesting. ACS Applied Materials & Interfaces, 2016, 8, 22484-22492.	4.0	2
66	New Single Photon Sources by Optoelectronic Tailoring of 2D Materials Using Low Energy Ion Implantation. Microscopy and Microanalysis, 2020, 26, 2832-2833.	0.2	2
67	Introduction to the Physics of Quantum Dots. Acta Physica Polonica A, 2001, 100, 275-286.	0.2	2
68	Experimental determination of spectral densities in quasi-one-dimensional electron systems. Physica B: Condensed Matter, 1998, 249-251, 175-179.	1.3	1
69	A digital quantum Hall effect. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 6, 836-839.	1.3	1
70	The quantum Hall effect in an InAs/GaSb based electronâ€“hole system and its current-driven breakdown. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 12, 161-164.	1.3	1
71	Current-driven breakdown of the quantized Hall states of a broken-gap 2D electronâ€“hole system. Semiconductor Science and Technology, 2006, 21, 1758-1763.	1.0	1
72	Design and geometry of hybrid white light-emitted diodes for efficient energy transfer from the quantum well to the nanocrystals. Proceedings of SPIE, 2013, , .	0.8	1

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73	Application of chemically enhanced vapour etching in the fabrication on nanostructures. Semiconductor Science and Technology, 1998, 13, A63-A66.	1.0	0
74	A novel nanoscale resist using 10-undecanoic acid monolayers on silicon dioxide. Microelectronic Engineering, 1999, 47, 239-241.	1.1	0
75	Single photon emitting diode. , 2002, , .		0
76	Magnetotransport studies of antidot superlattices in coupled two-dimensional electronâ€“hole gases. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 12, 293-295.	1.3	0
77	Novel Resonant-Tunnelling Quantum Dot Photon Detectors For Quantum Information Technology. AIP Conference Proceedings, 2005, , .	0.3	0
78	Real Time Read-Out of Single Photon Absorption by a Field Effect Transistor with a Layer of Quantum Dots. AIP Conference Proceedings, 2005, , .	0.3	0
79	Absorption enhancement in metal nanoparticles for photoemission current for solar cells. , 2012, , .		0
80	Exciton dynamics in near-surface InGaN quantum wells coupled to colloidal nanocrystals. , 2013, , .		0
81	Controlled Functionalisation of 2-D Materials for Quantum Device Development: assessment of Single Atom Behaviour via Atomic Resolution Electron Microscopy and Spectroscopy. Microscopy and Microanalysis, 2020, 26, 2558-2559.	0.2	0
82	Converting single photons from an InAs/GaAs quantum dot into the ultraviolet: preservation of second-order correlations. Optics Letters, 2022, 47, 1778.	1.7	0