Paulina Plochocka

List of Publications by Year
in descending order

116 papers	6,821 citations	101543 36 h-index	60623 81 g-index
116 all docs	116 docs citations	116 times ranked	10205 citing authors

#	Article	IF	Citations
1	Direct measurement of the exciton binding energy and effective masses for charge carriers in organicâ€“inorganic tri-halide perovskites. Nature Physics, 2015, 11, 582-587.	16.7	1,651
2	Determination of the exciton binding energy and effective masses for methylammonium and formamidinium lead tri-halide perovskite semiconductors. Energy and Environmental Science, 2016, 9, 962-970.	30.8	603
3	Approaching the Dirac Point in High-Mobility Multilayer Epitaxial Graphene. Physical Review Letters, 2008, 101, 267601.	7.8	560
4	Collective vibrational modes in biological molecules investigated by terahertz time-domain spectroscopy. Biopolymers, 2002, 67, 310-313.	2.4	287
5	Carrier Relaxation in Epitaxial Graphene Photoexcited Near the Dirac Point. Physical Review Letters, 2011, 107, 237401.	7.8	269
6	Excitons in Metalâ€Halide Perovskites. Advanced Energy Materials, 2020, 10, 1903659.	19.5	240
7	Impact of the Halide Cage on the Electronic Properties of Fully Inorganic Cesium Lead Halide Perovskites. ACS Energy Letters, 2017, 2, 1621-1627.	17.4	215
8	Optical manipulation of the exciton charge state in single-layer tungsten disulfide. Physical Review B, 2013, 88, .	3.2	174
9	Unraveling the Exciton Binding Energy and the Dielectric Constant in Single-Crystal Methylammonium Lead Triiodide Perovskite. Journal of Physical Chemistry Letters, 2017, 8, 1851-1855.	4.6	152
10	Revealing the nature of photoluminescence emission in the metal-halide double perovskite Cs₂AgBiBr₆. Journal of Materials Chemistry C, 2019, 7, 8350-8356.	5.5	149
11	Probing the Interlayer Exciton Physics in a MoS₂/MoSe₂/MoS₂ van der Waals Heterostructure. Nano Letters, 2017, 17, 6360-6365.	9.1	118
12	The influence of the Rashba effect. Nature Materials, 2018, 17, 381-382.	27.5	116
13	MoirÃ© Intralayer Excitons in a MoSe₂/MoS₂ Heterostructure. Nano Letters, 2018, 18, 7651-7657.	9.1	113
14	High-Energy Limit of Massless Dirac Fermions in Multilayer Graphene using Magneto-Optical Transmission Spectroscopy. Physical Review Letters, 2008, 100, 087401.	7.8	111
15	Optical Investigation of Monolayer and Bulk Tungsten Diselenide (WSe₂) in High Magnetic Fields. Nano Letters, 2015, 15, 4387-4392.	9.1	106
16	Slowing hot-carrier relaxation in graphene using a magnetic field. Physical Review B, 2009, 80, .	3.2	94
17	Excitons in atomically thin black phosphorus. Physical Review B, 2016, 93, .	3.2	83
18	Dark excitons and the elusive valley polarization in transition metal dichalcogenides. 2D Materials, 2017, 4, 025016.	4.4	71

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19	Magnetoexcitons in large area CVD-grown monolayer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoSe</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> sapphire. Physical Review B, 2016, 93, .	3.2	66
20	Second-order resonant Raman scattering in single-layer tungsten disulfide<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">WS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2014, 89, .	3.2	65
21	The Impact of Phase Retention on the Structural and Optoelectronic Properties of Metal Halide Perovskites. Advanced Materials, 2016, 28, 10757-10763.	21.0	65
22	NMR Probing of the Spin Polarization of theÎ½=5/2Quantum Hall State. Physical Review Letters, 2012, 108, 066810.	7.8	64
23	Highly Oriented Atomically Thin Ambipolar MoSe₂ Grown by Molecular Beam Epitaxy. ACS Nano, 2017, 11, 6355-6361.	14.6	64
24	Optical Probing of the Spin Polarization of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î½</mml:mi><mml:mo>=</mml:mo><mml:mn>5</mml:mn><mml:mo>/</mml:mo><mml:mn>2</mml:mn></mml:math> Hall State. Physical Review Letters, 2010, 105, 096801.	7.8	59
25	Defect Healing and Charge Transfer-Mediated Valley Polarization in MoS₂/MoSe₂/MoS₂ Trilayer van der Waals Heterostructures. Nano Letters, 2017, 17, 4130-4136.	9.1	56
26	Broad Tunability of Carrier Effective Masses in Two-Dimensional Halide Perovskites. ACS Energy Letters, 2020, 5, 3609-3616.	17.4	54
27	Excitonic Properties of Low-Band-Gap Leadâ€“Tin Halide Perovskites. ACS Energy Letters, 2019, 4, 615-621.	17.4	51
28	Tuning the Excitonic Properties of the 2D (PEA)₂(MA)_{nâ^'1}Pb_nI_{3n+1} Perovskite Family via Quantum Confinement. Journal of Physical Chemistry Letters, 2021, 12, 1638-1643.	4.6	49
29	Brightening of dark excitons in a single CdTe quantum dot containing a single<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mtext>Mn</mml:mtext></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msup></mml:mrow></mml:math> Physical Review B, 2010, 82, .	3.2	48
30	Revealing Excitonic Phonon Coupling in (PEA)₂(MA)_{nâ^'1}Pb_nI_{3n+1} 2D Layered Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 5830-5835.	4.6	47
31	Onset of exciton-exciton annihilation in single-layer black phosphorus. Physical Review B, 2016, 94, .	3.2	45
32	Spatially resolved studies of the phases and morphology of methylammonium and formamidinium lead tri-halide perovskites. Nanoscale, 2017, 9, 3222-3230.	5.6	44
33	Unintentional High-Density p-Type Modulation Doping of a GaAs/AlAs Coreâ€“Multishell Nanowire. Nano Letters, 2014, 14, 2807-2814.	9.1	43
34	Exciton binding energy and effective mass of CsPbCl₃: a magneto-optical study. Photonics Research, 2020, 8, A50.	7.0	43
35	Giant Fine Structure Splitting of the Bright Exciton in a Bulk MAPbBr₃ Single Crystal. Nano Letters, 2019, 19, 7054-7061.	9.1	41
36	Photophysics of Twoâ€Dimensional Perovskitesâ€”Learning from Metal Halide Substitution. Advanced Functional Materials, 2021, 31, 2103778.	14.9	41

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37	Phase-Transition-Induced Carrier Mass Enhancement in 2D Ruddlesdenâ€“Popper Perovskites. ACS Energy Letters, 2019, 4, 2386-2392.	17.4	38
38	Manganese doping for enhanced magnetic brightening and circular polarization control of dark excitons in paramagnetic layered hybrid metal-halide perovskites. Nature Communications, 2021, 12, 3489.	12.8	38
39	Optical Absorption to Probe the Quantum Hall Ferromagnet at Filling Factor<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î½</mml:mi><mml:mo>=</mml:mo><mml:mn>1</mml:mn></mml:math>. Physical Review Letters, 2009, 102, 126806.	7.8	37
40	Impact of microstructure on the electronâ€“hole interaction in lead halide perovskites. Energy and Environmental Science, 2017, 10, 1358-1366.	30.8	36
41	Determining Interaction Enhanced Valley Susceptibility in Spin-Valley-Locked MoS₂. Nano Letters, 2019, 19, 1736-1742.	9.1	35
42	Brightening of dark excitons in 2D perovskites. Science Advances, 2021, 7, eabk0904.	10.3	34
43	Influence of Grain Size on Phase Transitions in Halide Perovskite Films. Advanced Energy Materials, 2019, 9, 1901883.	19.5	30
44	Femtosecond Study of the Interplay between Excitons, Trions, and Carriers in (Cd,Mn)Te Quantum Wells. Physical Review Letters, 2004, 92, 177402.	7.8	29
45	Intervalley Scattering of Interlayer Excitons in a MoS₂/MoSe₂/MoS₂ Heterostructure in High Magnetic Field. Nano Letters, 2018, 18, 3994-4000.	9.1	27
46	Symmetry Breakdown in Franckeite: Spontaneous Strain, Rippling, and Interlayer MoirÃ©. Nano Letters, 2020, 20, 1141-1147.	9.1	25
47	Absorption in the Fractional Quantum Hall Regime: Trion Dichroism and Spin Polarization. Physical Review Letters, 2007, 98, 156803.	7.8	24
48	Non equilibrium anisotropic excitons in atomically thin ReS ₂. 2D Materials, 2019, 6, 015012.	4.4	23
49	Static and Dynamic Disorder in Triple-Cation Hybrid Perovskites. Journal of Physical Chemistry C, 2018, 122, 17473-17480.	3.1	21
50	Quantification of Exciton Fine Structure Splitting in a Two-Dimensional Perovskite Compound. Journal of Physical Chemistry Letters, 2022, 13, 4463-4469.	4.6	20
51	High Magnetic Field Reveals the Nature of Excitons in a Single GaAs/AlAs Core/Shell Nanowire. Nano Letters, 2013, 13, 2442-2447.	9.1	19
52	Revealing Large-Scale Homogeneity and Trace Impurity Sensitivity of GaAs Nanoscale Membranes. Nano Letters, 2017, 17, 2979-2984.	9.1	18
53	The impact of hexagonal boron nitride encapsulation on the structural and vibrational properties of few layer black phosphorus. Nanotechnology, 2019, 30, 195201.	2.6	18
54	Perspective on the physics of two-dimensional perovskites in high magnetic field. Applied Physics Letters, 2021, 118, .	3.3	18

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55	Negative Thermal Quenching of Efficient Whiteâ€Light Emission in a 1D Ladderâ€Like Organic/Inorganic Hybrid Material. Advanced Optical Materials, 2019, 7, 1900763.	7.3	17
56	Graphene in high magnetic fields. Comptes Rendus Physique, 2013, 14, 78-93.	0.9	16
57	Microscopic Picture of Electronâ€“Phonon Interaction in Two-Dimensional Halide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 9975-9982.	4.6	16
58	Excitation efficiency determines the upconversion luminescence intensity of Î²-NaYF₄:Er³⁺,Yb³⁺ nanoparticles in magnetic fields up to 70 T. Nanoscale, 2020, 12, 20300-20307.	5.6	15
59	Revealing the nature of excitons in liquid exfoliated monolayer tungsten disulphide. Nanotechnology, 2016, 27, 425701.	2.6	13
60	Electronic properties of epitaxial graphene. International Journal of Nanotechnology, 2010, 7, 383.	0.2	12
61	Impact of photodoping on inter- and intralayer exciton emission in a MoS2/MoSe2/MoS2 heterostructure. Applied Physics Letters, 2018, 113, 062107.	3.3	12
62	Does Ignorance of the Whole Imply Ignorance of the Parts? Large Violations of Noncontextuality in Quantum Theory. Physical Review Letters, 2011, 107, 030402.	7.8	11
63	High-field magnetotransmission investigation of natural graphite. Physical Review B, 2011, 83, .	3.2	11
64	Spin-lattice relaxation of an individual<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow><mml:mi>Mn</mml:mi></mml:mrow><mml:mrow><m in a CdTe/ZnTe quantum dot. Physical Review B, 2015, 92, .	3.2	11
65	Interlayer excitons in MoSe₂/2D perovskite hybrid heterostructures â€“ the interplay between charge and energy transfer. Nanoscale, 2022, 14, 8085-8095.	5.6	11
66	Exciton-exciton interaction and biexcitons in the presence of spin-polarized carriers. Physical Review B, 2005, 72, .	3.2	10
67	Nonradiative Energy Transfer and Selective Charge Transfer in a WS₂/(PEA)₂PbI₄ Heterostructure. ACS Applied Materials & Interfaces, 2021, 13, 33677-33684.	8.0	10
68	Origin of electron-hole asymmetry in graphite and graphene. Physical Review B, 2012, 85, .	3.2	9
69	Site-selective luminescence spectroscopy of bound excitons and local band structure of chlorine intercalated 2H- and 3R-MoS 2 polytypes. Journal of Luminescence, 2016, 177, 331-336.	3.1	9
70	Observation of A1g Raman mode splitting in few layer black phosphorus encapsulated with hexagonal boron nitride. Nanoscale, 2017, 9, 19298-19303.	5.6	9
71	Enhancement of the spin gap in fully occupied two-dimensional Landau levels. Physical Review B, 2010, 82, .	3.2	8
72	Microphotoluminescence study of p-type (Cd,Mn)Te quantum wells. Applied Physics Letters, 2006, 89, 052104.	3.3	7

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73	Fermi-Edge Singularity of Spin-Polarized Electrons. Physical Review Letters, 2007, 98, 186810.	7.8	7
74	Cyclotron-resonant exciton transfer between the nearly free and strongly localized radiative states of a two-dimensional hole gas in a high magnetic field. Physical Review B, 2012, 85, .	3.2	7
75	Beyond 100 Tesla: Scientific experiments using single-turn coils. Comptes Rendus Physique, 2013, 14, 115-120.	0.9	6
76	Semiconductor heterostructures for spintronics and quantum information. Comptes Rendus Physique, 2007, 8, 243-252.	0.9	5
77	Ultrahigh magnetic field spectroscopy reveals the band structure of the three-dimensional topological insulator <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review B, 2017, 96, .	3.2	5
78	High-field magnetospectroscopy to probe the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1.4</mml:mn></mml:mrow></mml:math>-eV Ni color center in diamond. Physical Review B, 2012, 86, .	3.2	4
79	Exciton and carrier dynamics in ZnTe-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Zn</mml:mi><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> nanowires. Physical Review B, 2016, 93, .	3.2	4
80	Femtosecond Dynamics of Neutral and Charged Exciton Absorption in Cd_{1-x}Mn_xTe Quantum Well. Acta Physica Polonica A, 2002, 102, 679-686.	0.5	4
81	Two Dimensional Perovskites/Transition Metal Dichalcogenides Heterostructures: Puzzles and Challenges. Israel Journal of Chemistry, 2022, 62, .	2.3	4
82	Strain induced lifting of the charged exciton degeneracy in monolayer MoS₂ on a GaAs nanomembrane. 2D Materials, 2022, 9, 045006.	4.4	4
83	Long-lived photoluminescence polarization of localized excitons in liquid exfoliated monolayer enriched WS₂. Nanotechnology, 2018, 29, 335703.	2.6	3
84	Excitons in a twisted world. Nature Nanotechnology, 2020, 15, 727-729.	31.5	3
85	Spatial Modulation of Vibrational and Luminescence Properties of Monolayer MoSâ‚‚ Using a GaAs Nanowire Array. IEEE Journal of Quantum Electronics, 2022, 58, 1-8.	1.9	3
86	Magneto-transport properties of a random distribution of few-layer graphene patches. Journal of Applied Physics, 2014, 116, 193705.	2.5	2
87	Microscopic model for the magnetic-field-driven breakdown of the dissipationless state in the integer and fractional quantum Hall effect. Physical Review B, 2016, 94, .	3.2	2
88	Dynamics of neutral and charged exciton line intensities. Semiconductor Science and Technology, 2004, 19, S296-S298.	2.0	1
89	Femtosecond study of interplay between excitons, trions, and carriers in (Cd,Mn)Te quantum wells (Invited Paper). , 2005, , .		1
90	The observation of exciton-cyclotron resonance in photoluminescence spectra of a two dimensional hole gas. Journal of Physics: Conference Series, 2010, 210, 012043.	0.4	1

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91	Influence of oversized cations on electronic dimensionality of d-MAPbI₃ crystals. Journal of Materials Chemistry C, 2020, 8, 7928-7934.	5.5	1
92	Neutral and charged excitons in a CdTe-based quantum well. Low Temperature Physics, 2004, 30, 848-852.	0.6	0
93	Interplay of excitons, biexcitons, and charged excitons in pump-probe absorption experiments on a (Cd,Mn)Te quantum well. AIP Conference Proceedings, 2005, , .	0.4	0
94	Microphotoluminescence study of disorder in a ferromagnetic (Cd,Mn)Te quantum well. AIP Conference Proceedings, 2005, , .	0.4	0
95	Optical probing of spin-dependent interactions in IIâ€“VI semiconductor structures. Physica Status Solidi (B): Basic Research, 2006, 243, 906-913.	1.5	0
96	Optical emission and Rayleigh scattering in semiconductor superlattices in magnetic fields. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1374-1376.	2.7	0
97	Energy and recombination spectra of free and impurity-bound positive trions in high magnetic fields. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1386-1388.	2.7	0
98	PHOTOLUMINESCENCE STUDIES OF POSITIVELY CHARGED EXCITONS IN ASYMMETRIC GaAs/Ga1-xAlxAs QUANTUM WELLS WITH A TWO-DIMENSIONAL HOLE GAS. International Journal of Modern Physics B, 2009, 23, 2718-2722.	2.0	0
99	Exchange driven spin splitting of fully occupied Landau levels measured using polarization resolved photoluminescence spectroscopy. , 2010, , .		0
100	Signature of Singlet-Triplet Crossing in PL in GaAs QWâ€™s. , 2010, , .		0
101	Nonlinear transmission dynamics in graphene close to the Dirac point. , 2011, , .		0
102	Cyclotron-Assisted Resonant Exciton Exchange Between Nearly-Free and Acceptor-Bound States of a Positive Trion. , 2011, , .		0
103	Strong temperature destabilization of free exciton recombination in a two-dimensional structures with hole gas. Journal of Physics: Conference Series, 2011, 334, 012050.	0.4	0
104	Time resolved spectroscopy on quantum dots and graphene at the FELBE free-electron laser. Proceedings of SPIE, 2011, , .	0.8	0
105	Optical properties of GaAsSb nanowire networks and GaAs nanomembranes. , 2016, , .		0
106	Giant enhancement of second harmonic light intensity in waveguiding core/shell ZnTe/ZnMgTe nanowires. Applied Physics Letters, 2021, 118, 192106.	3.3	0
107	Excitons and Phonons in 2D perovskites. , 0, , .		0
108	LOW-FREQUNENCY MOLECULAR VIBRATIONS IN ORGANIC MOLECULES STUDIED BY THZ-TDS. , 2002, , .		0

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109	Many-Body Interactions in the CdTe-Based Quantum Well under Strong Optical Excitation. Acta Physica Polonica A, 2004, 106, 413-422.	0.5	0
110	Evidence of Singlet-Triplet Crossing in Photoluminescence of Positively Charged Excitons in GaAs Quantum Wells. Acta Physica Polonica A, 2008, 114, 1073-1077.	0.5	0
111	Combined Exciton-Cyclotron Resonance in Photoluminescence of a Two-Dimensional Hole Gas. Acta Physica Polonica A, 2009, 116, 852-853.	0.5	0
112	Exciton Exchange between Nearly-Free and Acceptor-Bound States of a Positive Trion Assisted by Cyclotron Excitation. Acta Physica Polonica A, 2011, 119, 600-601.	0.5	0
113	Excitons and Phonons in 2D perovskites. , 0, , .		0
114	Brightening of dark excitons in 2D perovskites. , 0, , .		0
115	Excitons and Phonons in 2D perovskites. , 0, , .		0
116	Excitons and Phonons in 2D perovskites. , 0, , .		0