

Dmitry Krizhanovskii

List of Publications by Year in descending order

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59
papers

3,787
citations

117625

34
h-index

161849

54
g-index

60
all docs

60
docs citations

60
times ranked

2598
citing authors

#	ARTICLE	IF	CITATIONS
1	Collective fluid dynamics of a polariton condensate in a semiconductor microcavity. <i>Nature</i> , 2009, 457, 291-295.	27.8	494
2	Exciton-polaritons in van der Waals heterostructures embedded in tunable microcavities. <i>Nature Communications</i> , 2015, 6, 8579.	12.8	377
3	Persistent currents and quantized vortices in a polariton superfluid. <i>Nature Physics</i> , 2010, 6, 527-533.	16.7	282
4	Observation of bright polariton solitons in a semiconductor microcavity. <i>Nature Photonics</i> , 2012, 6, 50-55.	31.4	237
5	Polariton Condensation in Dynamic Acoustic Lattices. <i>Physical Review Letters</i> , 2010, 105, 116402.	7.8	173
6	Valley-addressable polaritons in atomically thin semiconductors. <i>Nature Photonics</i> , 2017, 11, 497-501.	31.4	169
7	Intrinsic Decoherence Mechanisms in the Microcavity Polariton Condensate. <i>Physical Review Letters</i> , 2008, 101, 067404.	7.8	146
8	Exciton-Polariton Gap Solitons in Two-Dimensional Lattices. <i>Physical Review Letters</i> , 2013, 111, 146401.	7.8	124
9	Exciton Polaritons in a Two-Dimensional Lieb Lattice with Spin-Orbit Coupling. <i>Physical Review Letters</i> , 2018, 120, 097401.	7.8	120
10	Highly nonlinear trion-polaritons in a monolayer semiconductor. <i>Nature Communications</i> , 2020, 11, 3589.	12.8	83
11	Spin Textures of Exciton-Polaritons in a Tunable Microcavity with Large TE-TM Splitting. <i>Physical Review Letters</i> , 2015, 115, 246401.	7.8	82
12	Polariton-polariton scattering in semiconductor microcavities: Distinctive features and similarities to the three-dimensional case. <i>Physical Review B</i> , 2000, 62, R13298-R13301.	3.2	80
13	Rotation of the plane of polarization of light in a semiconductor microcavity. <i>Physical Review B</i> , 2006, 73, .	3.2	79
14	Polarization Bistability and Resultant Spin Rings in Semiconductor Microcavities. <i>Physical Review Letters</i> , 2010, 105, 216402.	7.8	77
15	Ultra-low-power hybrid light-matter solitons. <i>Nature Communications</i> , 2015, 6, 8317.	12.8	74
16	Coexisting nonequilibrium condensates with long-range spatial coherence in semiconductor microcavities. <i>Physical Review B</i> , 2009, 80, .	3.2	67
17	Electroluminescence emission from polariton states in GaAs-based semiconductor microcavities. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	66
18	Valley coherent exciton-polaritons in a monolayer semiconductor. <i>Nature Communications</i> , 2018, 9, 4797.	12.8	66

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19	Individual neutral and charged $\text{In}_x\text{Ga}_{1-x}\text{As}$ quantum dots with strong in-plane optical anisotropy. <i>Physical Review B</i> , 2005, 72, .	3.2	61
20	Dark Solitons in High Velocity Waveguide Polariton Fluids. <i>Physical Review Letters</i> , 2017, 119, 097403.	7.8	61
21	Effect of Interactions on Vortices in a Nonequilibrium Polariton Condensate. <i>Physical Review Letters</i> , 2010, 104, 126402.	7.8	58
22	Suppression of Zeeman Splitting of the Energy Levels of Exciton-Polariton Condensates in Semiconductor Microcavities in an External Magnetic Field. <i>Physical Review Letters</i> , 2011, 106, 257401.	7.8	57
23	Self-organization of multiple polariton-polariton scattering in semiconductor microcavities. <i>Physical Review B</i> , 2008, 77, .	3.2	55
24	Exciton polaritons in semiconductor waveguides. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	54
25	Strong exciton-photon coupling in open semiconductor microcavities. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	48
26	Effects of Spin-Dependent Interactions on Polarization of Bright Polariton Solitons. <i>Physical Review Letters</i> , 2014, 112, 046403.	7.8	47
27	Nonlinear Quantum Optics with Trion Polaritons in 2D Monolayers: Conventional and Unconventional Photon Blockade. <i>Physical Review Letters</i> , 2020, 125, 197402.	7.8	47
28	Dominant Effect of Polariton-Polariton Interactions on the Coherence of the Microcavity Optical Parametric Oscillator. <i>Physical Review Letters</i> , 2006, 97, 097402.	7.8	46
29	Optical orientation and control of spin memory in individual InGaAs quantum dots. <i>Physical Review B</i> , 2005, 72, .	3.2	43
30	Experimental observation of topological Z_2 exciton-polaritons in transition metal dichalcogenide monolayers. <i>Nature Communications</i> , 2021, 12, 4425.	12.8	42
31	Nonlinearities in emission from the lower polariton branch of semiconductor microcavities. <i>Physical Review B</i> , 1999, 60, R11293-R11296.	3.2	38
32	Giant enhancement of polariton relaxation in semiconductor microcavities by polariton-free carrier interaction: Experimental evidence and theory. <i>Physical Review B</i> , 2003, 67, .	3.2	36
33	Spatial structure and stability of the macroscopically occupied polariton state in the microcavity optical parametric oscillator. <i>Physical Review B</i> , 2006, 73, .	3.2	36
34	Optical analogue of Dresselhaus spin-orbit interaction in photonic graphene. <i>Nature Photonics</i> , 2021, 15, 193-196.	31.4	35
35	Effect of photonic spin-orbit coupling on the topological edge modes of a Su-Schrieffer-Heeger chain. <i>Physical Review B</i> , 2019, 99, .	3.2	34
36	Effect of polariton-polariton interactions on the excitation spectrum of a nonequilibrium condensate in a periodic potential. <i>Physical Review B</i> , 2013, 87, .	3.2	29

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37	Backward Cherenkov radiation emitted by polariton solitons in a microcavity wire. Nature Communications, 2017, 8, 1554.	12.8	23
38	Spatial Patterns of Dissipative Polariton Solitons in Semiconductor Microcavities. Physical Review Letters, 2015, 115, 256401.	7.8	21
39	Tunable polaritonic molecules in an open microcavity system. Applied Physics Letters, 2015, 107, .	3.3	19
40	Measurement of local optomechanical properties of a direct bandgap 2D semiconductor. APL Materials, 2019, 7, .	5.1	18
41	Ultrafast-nonlinear ultraviolet pulse modulation in an AlInGaN polariton waveguide operating up to room temperature. Nature Communications, 2021, 12, 3504.	12.8	15
42	Transition from Propagating Polariton Solitons to a Standing Wave Condensate Induced by Interactions. Physical Review Letters, 2018, 120, 167402.	7.8	12
43	Interaction between a high-density polariton phase and the exciton environment in semiconductor microcavities. Physical Review B, 2007, 75, .	3.2	11
44	Spontaneous vortices in optically shaped potential profiles in semiconductor microcavities. Physical Review B, 2013, 87, .	3.2	10
45	Design and characterization of high optical quality InGaAs/GaAs/AlGaAs-based polariton microcavities. Applied Physics Letters, 2015, 106, .	3.3	8
46	Full Stark control of polariton states on a spin-orbit hypersphere. Physical Review B, 2016, 94, .	3.2	7
47	Quantum fluids of light in acoustic lattices. Journal Physics D: Applied Physics, 2018, 51, 033001.	2.8	4
48	Solitons in semiconductor microcavities. Nature Photonics, 2012, 6, 204-204.	31.4	3
49	Formation of a macroscopically occupied polariton state in a tunable open-access microcavity under resonant excitation. Journal of Applied Physics, 2018, 124, .	2.5	3
50	Exciton-polaritons in GaAs-based slab waveguide photonic crystals. Applied Physics Letters, 2021, 119, 181101.	3.3	3
51	Condensation of 2D exciton-polaritons in an open-access microcavity. Journal of Applied Physics, 2022, 131, 093101.	2.5	3
52	Polarisation properties of optical parametric oscillator emission in a semiconductor microcavity. Physica Status Solidi A, 2005, 202, 2621-2625.	1.7	2
53	Spatial properties and coherence of the high density phase in the microcavity optical parametric oscillator. Physica Status Solidi (B): Basic Research, 2006, 243, 3741-3753.	1.5	1
54	Optical and magnetic control of orbital flat bands in a polariton Lieb lattice. Physical Review A, 2021, 104, .	2.5	1

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55	Polariton Condensation In One- And Two- Dimensional Acoustic Lattices. AIP Conference Proceedings, 2011, , .	0.4	0
56	Effect of the modulation of the polariton potential on the polarization instability of stimulated polariton-polariton scattering in planar gaas microcavities. JETP Letters, 2015, 101, 334-340.	1.4	0
57	Ultra-low-power polariton solitons in semiconductor waveguides and microcavities. , 2016, , .		0
58	Electrically tunable trion-polaritons in MoSe2/hBN heterostructure integrated with a photonic crystal slab. AIP Conference Proceedings, 2020, , .	0.4	0
59	Probing guided monolayer semiconductor polaritons below the light line. Journal of Physics: Conference Series, 2021, 2015, 012069.	0.4	0