Alexander I Tartakovskii

List of Publications by Year in Descending Order

120 papers	6,334 citations	40 h-index	78 g-index
140 ext. papers	7,326 ext. citations	8.4 avg, IF	5.52 L-index

#	Paper	IF	Citations
120	Strong exciton-photon coupling in large area MoSe2 and WSe2 heterostructures fabricated from two-dimensional materials grown by chemical vapor deposition. *2D Materials*, **2021**, 8, 011002	5.9	4
119	Bright single photon emitters with enhanced quantum efficiency in a two-dimensional semiconductor coupled with dielectric nano-antennas. *Nature Communications*, **2021**, 12, 6063	17.4	5
118	Spin□alley dynamics in alloy-based transition metal dichalcogenide heterobilayers. *2D Materials*, **2021**, 8, 025011	5.9	3
117	Interplay between spin proximity effect and charge-dependent exciton dynamics in MoSe/CrBr van der Waals heterostructures. *Nature Communications*, **2020**, 11, 6021	17.4	22
116	Large area chemical vapour deposition grown transition metal dichalcogenide monolayers automatically characterized through photoluminescence imaging. *Npj 2D Materials and Applications* , **2020**, 4,	8.8	11
115	Moir□or not. *Nature Materials*, **2020**, 19, 581-582	27	7
114	Electrically pumped WSe2-based light-emitting van der Waals heterostructures embedded in monolithic dielectric microcavities. *2D Materials*, **2020**, 7, 031006	5.9	8
113	Manipulating molecules with strong coupling: harvesting triplet excitons in organic exciton microcavities. *Chemical Science*, **2020**, 11, 343-354	9.4	55
112	Excitons in 2D heterostructures. *Nature Reviews Physics*, **2020**, 2, 8-9	23.6	30
111	Highly nonlinear trion-polaritons in a monolayer semiconductor. *Nature Communications*, **2020**, 11, 3589	17.4	38
110	Dielectric Nanoantennas for Strain Engineering in Atomically Thin Two-Dimensional Semiconductors. *ACS Photonics*, **2020**, 7, 2413-2422	6.3	11
109	Emergence of Highly Linearly Polarized Interlayer Exciton Emission in MoSe/WSe Heterobilayers with Transfer-Induced Layer Corrugation. *ACS Nano*, **2020**, 14, 11110-11119	16.7	12
108	Nonlinear polaritons in a monolayer semiconductor coupled to optical bound states in the continuum. *Light: Science and Applications*, **2020**, 9, 56	16.7	55
107	The valley Zeeman effect in inter- and intra-valley trions in monolayer WSe. *Nature Communications* , **2019**, 10, 2330	17.4	29
106	Resonantly hybridized excitons in moir□superlattices in van der Waals heterostructures. *Nature*, **2019**, 567, 81-86	50.4	367
105	Low-dimensional emissive states in non-stoichiometric methylammonium lead halide perovskites. *Journal of Materials Chemistry A*, **2019**, 7, 11104-11116	13	4
104	Enhanced light-matter interaction in an atomically thin semiconductor coupled with dielectric nano-antennas. *Nature Communications*, **2019**, 10, 5119	17.4	42

103	Measurement of local optomechanical properties of a direct bandgap 2D semiconductor. *APL Materials*, **2019**, 7, 101126	5.7	10
102	Valley coherent exciton-polaritons in a monolayer semiconductor. *Nature Communications*, **2018**, 9, 4797	17.4	37
101	Single-photon emitters in GaSe. *2D Materials*, **2017**, 4, 021010	5.9	52
100	Valley-addressable polaritons in atomically thin semiconductors. *Nature Photonics*, **2017**, 11, 497-501	33.9	127
99	Imaging of Interlayer Coupling in van der Waals Heterostructures Using a Bright-Field Optical Microscope. *Nano Letters*, **2017**, 17, 5342-5349	11.5	57
98	On-Chip Waveguide Coupling of a Layered Semiconductor Single-Photon Source. *Nano Letters*, **2017**, 17, 5446-5451	11.5	52
97	Strong-coupling of WSe in ultra-compact plasmonic nanocavities at room temperature. *Nature Communications*, **2017**, 8, 1296	17.4	196
96	Resonantly excited exciton dynamics in two-dimensional MoSe2 monolayers. *Physical Review B*, **2017**, 96,	3.3	11
95	Metalorganic vapor phase epitaxy growth, transmission electron microscopy, and magneto-optical spectroscopy of individual InAsxP1−x/Ga0.5In0.5P quantum dots. *Physical Review Materials*, **2017**, 1,	3.2	1
94	Vanishing electron g factor and long-lived nuclear spin polarization in weakly strained nanohole-filled GaAs/AlGaAs quantum dots. *Physical Review B*, **2016**, 93,	3.3	18
93	Electrically pumped single-defect light emitters in WSe 2. *2D Materials*, **2016**, 3, 025038	5.9	56
92	Few-second-long correlation times in a quantum dot nuclear spin bath probed by frequency-comb nuclear magnetic resonance spectroscopy. *Nature Physics*, **2016**, 12, 688-693	16.2	12
91	Exciton and trion dynamics in atomically thin MoSe2 and WSe2: Effect of localization. *Physical Review B*, **2016**, 94,	3.3	88
90	Suppression of nuclear spin bath fluctuations in self-assembled quantum dots induced by inhomogeneous strain. *Nature Communications*, **2015**, 6, 6348	17.4	36
89	Photoluminescence of two-dimensional GaTe and GaSe films. *2D Materials*, **2015**, 2, 035010	5.9	51
88	Exciton-polaritons in van der Waals heterostructures embedded in tunable microcavities. *Nature Communications*, **2015**, 6, 8579	17.4	275
87	Cross sectional STEM imaging and analysis of multilayered two dimensional crystal heterostructure devices. *Microscopy and Microanalysis*, **2015**, 21, 107-108	0.5	1
86	WSe Light-Emitting Tunneling Transistors with Enhanced Brightness at Room Temperature. *Nano Letters*, **2015**, 15, 8223-8	11.5	183

85	Light-emitting diodes by band-structure engineering in van der Waals heterostructures. *Nature Materials*, **2015**, 14, 301-6	27	1116
84	Two-dimensional metal-chalcogenide films in tunable optical microcavities. *Nano Letters*, **2014**, 14, 7003-8	11.5	109
83	Nuclear magnetic resonance inverse spectra of InGaAs quantum dots: Atomistic level structural information. *Physical Review B*, **2014**, 90,	3.3	13
82	All-optical formation of coherent dark states of silicon-vacancy spins in diamond. *Physical Review Letters*, **2014**, 113, 263601	7.4	91
81	Element-sensitive measurement of the hole–nuclear spin interaction in quantum dots. *Nature Physics*, **2013**, 9, 74-78	16.2	61
80	Nuclear spin effects in semiconductor quantum dots. *Nature Materials*, **2013**, 12, 494-504	27	162
79	Optical investigation of the natural electron doping in thin MoS2 films deposited on dielectric substrates. *Scientific Reports*, **2013**, 3, 3489	4.9	131
78	III-V quantum light source and cavity-QED on silicon. *Scientific Reports*, **2013**, 3, 1239	4.9	27
77	Dynamic nuclear polarization in InGaAs/GaAs and GaAs/AlGaAs quantum dots under nonresonant ultralow-power optical excitation. *Physical Review B*, **2013**, 88,	3.3	12
76	Structural analysis of strained quantum dots using nuclear magnetic resonance. *Nature Nanotechnology*, **2012**, 7, 646-50	28.7	52
75	Effect of a GaAsP shell on the optical properties of self-catalyzed GaAs nanowires grown on silicon. *Nano Letters*, **2012**, 12, 5269-74	11.5	28
74	Restoring mode degeneracy in H1 photonic crystal cavities by uniaxial strain tuning. *Applied Physics Letters*, **2012**, 100, 121116	3.4	37
73	Laser location and manipulation of a single quantum tunneling channel in an InAs quantum dot. *Physical Review Letters*, **2012**, 108, 117402	7.4	10
72	Direct measurement of the hole-nuclear spin interaction in single InP/GaInP quantum dots using photoluminescence spectroscopy. *Physical Review Letters*, **2011**, 106, 027402	7.4	84
71	Charge control in InP/(Ga,In)P single quantum dots embedded in Schottky diodes. *Physical Review B* , **2011**, 84,	3.3	8
70	Fast control of nuclear spin polarization in an optically pumped single quantum dot. *Nature Materials*, **2011**, 10, 844-8	27	27
69	Light-polarization-independent nuclear spin alignment in a quantum dot. *Physical Review B*, **2011**, 83,	3.3	11
68	Stark spectroscopy and radiative lifetimes in single self-assembled CdTe quantum dots. *Physical Review B*, **2011**, 83,	3.3	15

67	Pumping of nuclear spins by optical excitation of spin-forbidden transitions in a quantum dot. *Physical Review Letters*, **2010**, 104, 066804	7.4	53
66	Control of spontaneous emission from InP single quantum dots in GaInP photonic crystal nanocavities. *Applied Physics Letters*, **2010**, 97, 181104	3.4	13
65	Dynamics of optically induced nuclear spin polarization in individual InP/GaxIn1−xP quantum dots. *Physical Review B*, **2010**, 81,	3.3	26
64	Optically tunable nuclear magnetic resonance in a single quantum dot. *Physical Review B*, **2010**, 82,	3.3	19
63	Growth of low density InP/GaInP quantum dots. *Journal of Physics: Conference Series*, **2010**, 245, 012061	0.3	3
62	Optimization of low density InP/GaInP quantum dots for single-dot studies. *Journal of Physics: Conference Series*, **2010**, 245, 012093	0.3	1
61	Voltage-controlled nuclear polarization switching in a single InxGa1−xAs quantum dot. *Physical Review B*, **2009**, 79,	3.3	5
60	Suppression of nuclear spin diffusion at a GaAs/AlxGa1−xAs interface measured with a single quantum-dot nanoprobe. *Physical Review B*, **2009**, 79,	3.3	24
59	Voltage-controlled motional narrowing in a semiconductor quantum dot. *New Journal of Physics*, **2009**, 11, 093032	2.9	2
58	Long nuclear spin polarization decay times controlled by optical pumping in individual quantum dots. *Physical Review B*, **2008**, 77,	3.3	23
57	Nuclear spin pumping under resonant optical excitation in a quantum dot. *Applied Physics Letters*, **2008**, 93, 073113	3.4	13
56	Overhauser effect in individual InP–GaxIn1−xP dots. *Physical Review B*, **2008**, 77,	3.3	26
55	Spin Phenomena in Self-assembled Quantum Dots **2008**, 165-215		
54	Bistability of optically induced nuclear spin orientation in quantum dots. *Physical Review B*, **2007**, 76,	3.3	7
53	Nuclear spin switch in semiconductor quantum dots. *Physical Review Letters*, **2007**, 98, 026806	7.4	117
52	Bipolar charging in quantum dots array. *AIP Conference Proceedings*, **2007**,	0	3
51	Charging and spin-polarization effects in InAs quantum dots under bipolar carrier injection. *Applied Physics Letters*, **2006**, 88, 111104	3.4	5
50	The dynamics of amplified spontaneous emission in CdSe–ZnSe quantum dots. *Journal of Applied Physics*, **2006**, 100, 123510	2.5	3

49	Exciton fine structure splitting in dot-in-a-well structures. *Applied Physics Letters*, **2006**, 88, 131115	3.4	5
48	Inversion of exciton level splitting in quantum dots. *Physical Review B*, **2005**, 72,	3.3	157
47	Energy relaxation of excitonlike polaritons in semiconductor microcavities: Effect on the parametric scattering of polaritons. *Journal of Experimental and Theoretical Physics*, **2005**, 100, 126-138	1	1
46	Instability effects in cw FWM of cavity polaritons in planar microcavities. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2005**, 2, 751-754		1
45	Tuning of electronic coupling between self-assembled quantum dots. *Applied Physics Letters*, **2005**, 87, 033104	3.4	3
44	Optical orientation and control of spin memory in individual InGaAs quantum dots. *Physical Review B*, **2005**, 72,	3.3	42
43	Individual neutral and charged InxGa1−xAs/GaAs quantum dots with strong in-plane optical anisotropy. *Physical Review B*, **2005**, 72,	3.3	52
42	Influence of nonstimulated polariton relaxation on parametric scattering of microcavity polaritons. *Physical Review B*, **2004**, 70,	3.3	7
41	Temperature-induced carrier escape processes studied in absorption of individual InxGa1−xAs quantum dots. *Physical Review B*, **2004**, 69,	3.3	17
40	Precise measurement of the fraction of charged dots in self-assembled quantum dot ensembles using ultrafast pump-probe techniques. *Applied Physics Letters*, **2004**, 85, 2226-2228	3.4	6
39	Dynamics of coherent and incoherent spin polarizations in ensembles of quantum dots. *Physical Review Letters*, **2004**, 93, 057401	7.4	66
38	Nonlinear dynamics of polariton scattering in semiconductor microcavity: Bistability vs. stimulated scattering. *Europhysics Letters*, **2004**, 67, 997-1003	1.6	102
37	High pressure as a tool to tune electronic coupling in self-assembled quantum dot nanostructures. *Physica Status Solidi (B): Basic Research*, **2004**, 241, 3257-3262	1.3	2
36	Effect of thermal annealing and strain engineering on the fine structure of quantum dot excitons. *Physical Review B*, **2004**, 70,	3.3	73
35	Quantum-confined Stark shifts of charged exciton complexes in quantum dots. *Physical Review B*, **2004**, 70,	3.3	99
34	Polariton–polariton scattering and the nonequilibrium condensation of exciton polaritons in semiconductor microcavities. *Physics-Uspekhi*, **2003**, 46, 967-971	2.8	9
33	Continuum transitions and phonon coupling in single self-assembled Stranski-Krastanow quantum dots. *Physical Review B*, **2003**, 68,	3.3	57
32	Giant enhancement of polariton relaxation in semiconductor microcavities by polariton-free carrier interaction: Experimental evidence and theory. *Physical Review B*, **2003**, 67,	3.3	32

31	Photoluminescence emission and Raman scattering polarization in birefringent organic microcavities in the strong coupling regime. *Journal of Applied Physics*, **2003**, 93, 5003-5007	2.5	10
30	Continuous wave stimulation in semiconductor microcavities in the strong coupling limit. *Semiconductor Science and Technology*, **2003**, 18, S301-S310	1.8	1
29	Comparative study of InGaAs quantum dot lasers with different degrees of dot layer confinement. *Applied Physics Letters*, **2002**, 81, 1-3	3.4	64
28	Polariton parametric scattering processes in semiconductor microcavities observed in continuous wave experiments. *Physical Review B*, **2002**, 65,	3.3	38
27	Threshold power and internal loss in the stimulated scattering of microcavity polaritons. *Physical Review B*, **2002**, 66,	3.3	8
26	Dynamics of stimulated emission in InAs quantum-dot laser structures measured in pump-probe experiments. *Applied Physics Letters*, **2002**, 81, 4118-4120	3.4	2
25	Transition from strong to weak coupling and the onset of lasing in semiconductor microcavities. *Physical Review B*, **2002**, 65,	3.3	83
24	High Occupancy Effects and Condensation Phenomena in Semiconductor Microcavities and Bulk Semiconductors. *Nanoscience and Technology*, **2002**, 273-296	0.6	
23	Nonlinear effects in a dense two-dimensional exciton-polariton system in semiconductor microcavities. *Nanotechnology*, **2001**, 12, 475-479	3.4	22
22	Raman scattering in strongly coupled organic semiconductor microcavities. *Physical Review B*, **2001**, 63,	3.3	48
21	Observation of multicharged excitons and biexcitons in a single InGaAs quantum dot. *Physical Review B*, **2001**, 63,	3.3	132
20	Magnetophonon resonance in photoluminescence excitation spectra of magnetoexcitons in GaAs/Al0.3Ga0.7As superlattice. *Physical Review B*, **2000**, 62, 2743-2750	3.3	4
19	Parametric oscillation in a vertical microcavity: A polariton condensate or micro-optical parametric oscillation. *Physical Review B*, **2000**, 62, R16247-R16250	3.3	204
18	Polariton-polariton scattering in semiconductor microcavities: Distinctive features and similarities to the three-dimensional case. *Physical Review B*, **2000**, 62, R13298-R13301	3.3	71
17	Relaxation bottleneck and its suppression in semiconductor microcavities. *Physical Review B*, **2000**, 62, R2283-R2286	3.3	131
16	Continuous wave observation of massive polariton redistribution by stimulated scattering in semiconductor microcavities. *Physical Review Letters*, **2000**, 85, 3680-3	7.4	363
15	Nonlinearities in emission from the lower polariton branch of semiconductor microcavities. *Physical Review B*, **1999**, 60, R11293-R11296	3.3	35
14	Far-field emission pattern and photonic band structure in one-dimensional photonic crystals made from semiconductor microcavities. *Physical Review B*, **1999**, 59, 10251-10254	3.3	9

13	Direct and spatially indirect excitons in GaAs/AlGaAs superlattices in strong magnetic fields. *Physics of the Solid State*, **1998**, 40, 767-769	0.8	2
12	Exciton-photon interaction in low-dimensional semiconductor microcavities. *Journal of Experimental and Theoretical Physics*, **1998**, 87, 723-730	1	3
11	Exciton-photon coupling in photonic wires. *Physical Review B*, **1998**, 57, R6807-R6810	3.3	33
10	Effect of interparticle interactions on radiative lifetime of photoexcited electron-hole system in GaAs quantum wells. *Journal of Experimental and Theoretical Physics*, **1997**, 85, 195-199	1	5
9	Direct and spatially indirect excitons in GaAs/AlGaAs superlattices in strong magnetic fields. *Journal of Experimental and Theoretical Physics*, **1997**, 85, 601-608	1	5
8	Exciton Spin-Splitting in InxGa1−xAs Quantum Wires and Dots. *Physica Status Solidi A*, **1997**, 164, 409-412		
7	Interwell and Intrawell Magnetoexcitons in GaAs/AlGaAs Superlattices. *Physica Status Solidi A*, **1997**, 164, 595-599		
6	Angle Resolved Photoluminescence Excitation Spectroscopy of Exciton-Photon Modes in a Microcavity: K-Dependence and Relaxation. *Physica Status Solidi A*, **1997**, 164, 81-84		1
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