Anna V Rodina

List of Publications by Year
in descending order

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84 papers	5,015 citations	159585 30 h-index	88630 70 g-index
85 all docs	85 docs citations	85 times ranked	4545 citing authors

#	Article	IF	Citations
1	General Expression for the Size-Dependent Optical Properties of Quantum Dots. Nano Letters, 2022, 22, 1778-1785.	9.1	30
2	Comment on â€œSize Dependent Optical Properties and Structure of ZnS Nanocrystals Prepared from a Library of Thioureasâ€• Chemistry of Materials, 2022, 34, 6182-6184.	6.7	1
3	Polarized emission of CdSe nanocrystals in magnetic field: the role of phonon-assisted recombination of the dark exciton. Nanoscale, 2021, 13, 790-800.	5.6	10
4	Influence of the spin-orbit split-off valence band on the hole <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>g</mml:mi></mml:math> factor in semiconductor nanocrystals. Physical Review B, 2021, 104, .	3.2	11
5	Mid-infrared irradiation keeps nanocrystals bright. Nature Nanotechnology, 2021, 16, 1304-1305.	31.5	0
6	Single and Double Electron Spin-Flip Raman Scattering in CdSe Colloidal Nanoplatelets. Nano Letters, 2020, 20, 517-525.	9.1	21
7	Temperature activation of indirect exciton in nanostructures based on MoS₂. Journal of Physics: Conference Series, 2020, 1482, 012038.	0.4	6
8	Surface spin magnetism controls the polarized exciton emission from CdSe nanoplatelets. Nature Nanotechnology, 2020, 15, 277-282.	31.5	32
9	Theory of single and double electron spin-flip Raman scattering in semiconductor nanoplatelets. Physical Review B, 2020, 102, .	3.2	6
10	Magnetic circular polarization of photoluminescence of an inhomogeneous ensemble of colloidal nanocrystals. Journal of Physics: Conference Series, 2020, 1697, 012204.	0.4	0
11	Localization of Carriers in Quantum Dots with Uniaxial Anisotropy of Shape and Composition. Physics of the Solid State, 2019, 61, 506-514.	0.6	0
12	Electronic energy band parameters of CuInSe2 : Landau levels in magnetotransmission spectra. Physical Review B, 2019, 100, .	3.2	1
13	Dangling Bond Spins Controlling Recombination Dynamics of Excitons in Colloidal Nanocrystals and Nanoplatelets. Semiconductors, 2018, 52, 572-574.	0.5	6
14	Biexciton Binding Energy in Spherical Quantum Dots with Î“8 Valence Band. Semiconductors, 2018, 52, 554-557.	0.5	0
15	Effect of Dangling Bond Spins on the Dark Exciton Recombination and Spin Polarization in CdSe Colloidal Nanostructures. Journal of Electronic Materials, 2018, 47, 4338-4344.	2.2	5
16	Photocharging Dynamics in Colloidal CdS Quantum Dots Visualized by Electron Spin Coherence. Semiconductors, 2018, 52, 548-550.	0.5	0
17	Spin Dynamics of Charged and Neutral Excitons in Colloidal Nanocrystals. Journal of Electronic Materials, 2018, 47, 4260-4271.	2.2	3
18	Addressing the exciton fine structure in colloidal nanocrystals: the case of CdSe nanoplatelets. Nanoscale, 2018, 10, 646-656.	5.6	89

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19	Electron and Hole g-Factors and Spin Dynamics of Negatively Charged Excitons in CdSe/CdS Colloidal Nanoplatelets with Thick Shells. Nano Letters, 2018, 18, 373-380.	9.1	50
20	FÃ¶rster Energy Transfer in Arrays of Epitaxial CdSe/ZnSe Quantum Dots Involving Bright and Dark Excitons. Physics of the Solid State, 2018, 60, 1590-1594.	0.6	3
21	Spin Physics of Excitons in Colloidal Nanocrystals. Physics of the Solid State, 2018, 60, 1537-1553.	0.6	10
22	Excitons and Biexcitons in Spheroidal Quantum Dots A2B6. Physics of the Solid State, 2018, 60, 1510-1513.	0.6	2
23	Third harmonic generation on exciton-polaritons in bulk semiconductors subject to a magnetic field. Physical Review B, 2018, 98, .	3.2	9
24	Exciton Spectroscopy of Semiconductors by the Method of Optical Harmonics Generation (Review). Physics of the Solid State, 2018, 60, 1471-1486.	0.6	17
25	Biexciton in IIâ€“VI quantum dots with different localization potentials. Physics of the Solid State, 2017, 59, 1215-1224.	0.6	3
26	Dynamic Evolution from Negative to Positive Photocharging in Colloidal CdS Quantum Dots. Nano Letters, 2017, 17, 2844-2851.	9.1	32
27	Magnetic polaron on dangling-bond spins in CdSe colloidal nanocrystals. Nature Nanotechnology, 2017, 12, 569-574.	31.5	44
28	Suppression of slow decaying emission in II-VI quantum dots with FÃ¶rster resonance energy transfer. Journal of Physics: Conference Series, 2017, 917, 062048.	0.4	1
29	FÃ¶rster Resonance Energy Transfer and Harvesting in IIâ€“VI Fractional Monolayer Structures. Journal of Electronic Materials, 2017, 46, 3922-3926.	2.2	4
30	Switching of resonance energy transfer mechanism in a dense array of II-VI quantum dots. Journal of Physics: Conference Series, 2016, 741, 012155.	0.4	1
31	Resonance energy transfer in a dense array of IIâ€“VI quantum dots. Physics of the Solid State, 2016, 58, 2256-2260.	0.6	2
32	Effect of dielectric confinement on optical properties of colloidal nanostructures. Journal of Experimental and Theoretical Physics, 2016, 122, 554-566.	0.9	40
33	Ground state of the holes localized in II-VI quantum dots with Gaussian potential profiles. Physical Review B, 2016, 93, .	3.2	22
34	Radiative recombination from dark excitons in nanocrystals: Activation mechanisms and polarization properties. Physical Review B, 2016, 93, .	3.2	32
35	Nonradiative and radiative FÃ¶rster energy transfer between quantum dots. Journal of Experimental and Theoretical Physics, 2016, 122, 531-538.	0.9	22
36	Spectral selection of excitonic transitions in a dense array of CdSe/ZnSe quantum dots. Physica Status Solidi (B): Basic Research, 2016, 253, 1485-1489.	1.5	12

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37	Biexciton Auger Recombination in CdSe/CdS Core/Shell Semiconductor Nanocrystals. Nano Letters, 2016, 16, 2503-2511.	9.1	71
38	Density of States and Photoluminescence Spectra in the Dense Arrays of Epitaxial CdSe/ZnSe Quantum Dots with Gaussian Potential Profile. Acta Physica Polonica A, 2016, 129, A-107-A-110.	0.5	8
39	FÃ¶rster energy transfer of dark excitons enhanced by a magnetic field in an ensemble of CdTe colloidal nanocrystals. Physical Review B, 2015, 92, .	3.2	16
40	Electric field effect on optical harmonic generation at the exciton resonances in GaAs. Physical Review B, 2015, 92, .	3.2	23
41	Exciton spin dynamics and photoluminescence polarization of CdSe/CdS dot-in-rod nanocrystals in high magnetic fields. Physical Review B, 2015, 91, .	3.2	29
42	Nonradiative Auger Recombination in Semiconductor Nanocrystals. Nano Letters, 2015, 15, 2092-2098.	9.1	62
43	Novel mechanisms of optical harmonic generation on excitons in semiconductors. , 2015, , .		1
44	Magnetic Properties of Nonmagnetic Nanostructures: Dangling Bond Magnetic Polaron in CdSe Nanocrystals. Nano Letters, 2015, 15, 4214-4222.	9.1	36
45	Dynamics of Intraband and Interband Auger Processes in Colloidal Coreâ€“Shell Quantum Dots. ACS Nano, 2015, 9, 10366-10376.	14.6	52
46	Suris Tetrons: Possible Spectroscopic Evidence for Four-Particle Optical Excitations of a Two-Dimensional Electron Gas. Physical Review Letters, 2014, 112, 147402.	7.8	22
47	Landau levels of the C-exciton in CuInSe2 studied by magneto-transmission. Applied Physics Letters, 2014, 105, .	3.3	4
48	Exciton spin dynamics of colloidal CdTe nanocrystals in magnetic fields. Physical Review B, 2014, 89, .	3.2	15
49	Effects of strain on the valence band structure and exciton-polariton energies in ZnO. Physical Review B, 2013, 88, .	3.2	42
50	Second-harmonic generation spectroscopy of excitons in ZnO. Physical Review B, 2013, 88, .	3.2	58
51	The role of polarization fields in Auger-induced efficiency droop in nitride-based light-emitting diodes. Applied Physics Letters, 2013, 103, .	3.3	46
52	Spin dynamics of negatively charged excitons in CdSe/CdS colloidal nanocrystals. Physical Review B, 2013, 88, .	3.2	64
53	Magneto-Stark Effect of Excitons as the Origin of Second Harmonic Generation in ZnO. Physical Review Letters, 2013, 110, 116402.	7.8	27
54	Thermal activation of non-radiative Auger recombination in charged colloidal nanocrystals. Nature Nanotechnology, 2013, 8, 206-212.	31.5	219

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55	Fine structure of the band-edge excitons and trions in CdSe/CdS core/shell nanocrystals. Physical Review B, 2012, 86, .	3.2	45
56	Anisotropy of effective masses in CuInSe2. Applied Physics Letters, 2012, 101, .	3.3	14
57	Bound excitons in ZnO: Structural defect complexes versus shallow impurity centers. Physical Review B, 2011, 84, .	3.2	157
58	Exchange Interaction Between Carriers and Magnetic Ions in Quantum Size Heterostructures. Springer Series in Materials Science, 2010, , 65-101.	0.6	5
59	Band-edge biexciton in nanocrystals of semiconductors with a degenerate valence band. Physical Review B, 2010, 82, .	3.2	30
60	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi>Î“</mml:mi><mml:mn>7</mml:mn></mml:msub></mml:mrow></mml:math>valen band symmetry related hole fine splitting of bound excitons in ZnO observed in magneto-optical studies. Physical Review B, 2009, 80, .	3.2	36
61	Theory of intrinsic electric polarization and spin Hall current in spin-orbit-coupled semiconductor heterostructures. Physical Review B, 2008, 78, .	3.2	5
62	Least-action principle for envelope functions in abrupt heterostructures. Physical Review B, 2006, 73, .	3.2	12
63	Field-enhanced ionization of deep-level centers as a triggering mechanism for superfast impact ionization fronts in Si structures. Journal of Applied Physics, 2005, 98, 094506.	2.5	35
64	Bound exciton and donorâ€“acceptor pair recombinations in ZnO. Physica Status Solidi (B): Basic Research, 2004, 241, 231-260.	1.5	1,499
65	Identification of bound exciton complexes in ZnO. Physica Status Solidi (B): Basic Research, 2004, 241, 607-611.	1.5	41
66	Magneto-optical properties of bound excitons in ZnO. Physical Review B, 2004, 69, .	3.2	61
67	Effect of the surface on the electron quantum size levels and electrongfactor in spherical semiconductor nanocrystals. Physical Review B, 2003, 67, .	3.2	51
68	Valence-band ordering and magneto-optic exciton fine structure in ZnO. Physical Review B, 2002, 65, .	3.2	241
69	General boundary conditions for the envelope function in the multibandkâ‹…pmodel. Physical Review B, 2002, 65, .	3.2	61
70	Theory of the Zeeman effect in semiconductor nanocrystals. Materials Science and Engineering C, 2002, 19, 435-438.	7.3	21
71	Spin dynamics in semiconductor nanocrystals. Physical Review B, 2002, 66, .	3.2	149
72	Free excitons in wurtzite GaN. Physical Review B, 2001, 64, .	3.2	161

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73	Anisotropy of conduction bandgvalues and interband momentum matrix elements in wurtzite GaN. Physical Review B, 2001, 64, .	3.2	26
74	Weak- and strong-field magnetooptics of wurtzite CdSe: parameters of quasi-cubic approximation. Journal of Crystal Growth, 2000, 214-215, 899-903.	1.5	5
75	Magnetic absorption of hexagonal crystals CdSe in strong and weak fields: Quasi-cubic approximation. Physics of the Solid State, 2000, 42, 1242-1252.	0.6	8
76	Exciton Energy Structure in Wurtzite GaN. Physica Status Solidi (B): Basic Research, 1999, 216, 21-26.	1.5	14
77	Ground-state characteristics of an acceptor center in wide-gap semiconductors with a weak spin-orbit coupling. Physics of the Solid State, 1998, 40, 917-923.	0.6	22
78	Effective Mass Calculation of the Shallow Acceptor Ground State g-Factor for A3B5 Semiconductors. Physica Status Solidi (B): Basic Research, 1998, 210, 865-868.	1.5	7
79	Theory of acceptor-ground-state description and hot photoluminescence in cubic semiconductors. Physical Review B, 1997, 55, 4388-4399.	3.2	8
80	Absorption and intensity-dependent photoluminescence measurements on CdSe quantum dots: assignment of the first electronic transitions: erratum. Journal of the Optical Society of America B: Optical Physics, 1994, 11, 524.	2.1	7
81	A+â€" center and exciton bound to neutral acceptor in diamond-like semiconductors. Solid State Communications, 1993, 85, 23-28.	1.9	5
82	Absorption and intensity-dependent photoluminescence measurements on CdSe quantum dots: assignment of the first electronic transitions. Journal of the Optical Society of America B: Optical Physics, 1993, 10, 100.	2.1	723
83	Band-edge absorption and luminescence of nonspherical nanometer-size crystals. Physical Review B, 1993, 47, 10005-10007.	3.2	128
84	Confined excitons, trions and biexcitons in semiconductor microcrystals. Solid State Communications, 1989, 72, 645-649.	1.9	104