

Evgeny A Chekhovich

List of Publications by Year in descending order

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39
papers

1,329
citations

394421

19
h-index

361022

35
g-index

39
all docs

39
docs citations

39
times ranked

1991
citing authors

#	ARTICLE	IF	CITATIONS
1	Harnessing many-body spin environment for long coherence storage and high-fidelity single-shot qubit readout. <i>Nature Communications</i> , 2022, 13, .	12.8	7
2	Fundamental limits of electron and nuclear spin qubit lifetimes in an isolated self-assembled quantum dot. <i>Npj Quantum Information</i> , 2021, 7, .	6.7	17
3	Keyhole Resonators for Subwavelength Focusing of Microwave Magnetic Fields in Optically Detected Electron Spin Resonance. <i>Physical Review Applied</i> , 2021, 15, .	3.8	0
4	Nuclear spin quantum register in an optically active semiconductor quantum dot. <i>Nature Nanotechnology</i> , 2020, 15, 999-1004.	31.5	39
5	Pulse control protocols for preserving coherence in dipolar-coupled nuclear spin baths. <i>Nature Communications</i> , 2019, 10, 3157.	12.8	15
6	Complete characterization of GaAs gradient-elastic tensors and reconstruction of internal strain in GaAs/AlGaAs quantum dots using nuclear magnetic resonance. <i>Physical Review B</i> , 2019, 99, .	3.2	5
7	Direct Measurement of Hyperfine Shifts and Radio Frequency Manipulation of Nuclear Spins in Individual CdTe/ZnTe Quantum Dots. <i>Physical Review Letters</i> , 2019, 122, 096801.	7.8	6
8	Cross calibration of deformation potentials and gradient-elastic tensors of GaAs using photoluminescence and nuclear magnetic resonance spectroscopy in GaAs/AlGaAs quantum dot structures. <i>Physical Review B</i> , 2018, 97, .	3.2	11
9	Measurement of the spin temperature of optically cooled nuclei and GaAs hyperfine constants in GaAs/AlGaAs quantum dots. <i>Nature Materials</i> , 2017, 16, 982-986.	27.5	41
10	Decoherence and fluctuation dynamics of the quantum dot nuclear spin bath probed by nuclear magnetic resonance. <i>Journal of Physics: Conference Series</i> , 2017, 864, 012080.	0.4	0
11	Metalorganic vapor phase epitaxy growth, transmission electron microscopy, and magneto-optical spectroscopy of individual $\text{InAs}_{x_1}\text{P}_{1-x_1}/\text{Ga}_{0.5}\text{In}_{0.5}\text{P}$ quantum dots. <i>Physical Review Materials</i> , 2017, 1, .	2.4	1
12	Vanishing electron g-factor and long-lived nuclear spin polarization in weakly strained nanohole-filled GaAs/AlGaAs quantum dots. <i>Physical Review B</i> , 2016, 93, .	3.2	22
13	Non-invasive structural analysis of InP quantum dots and other nanostructures using nuclear magnetic resonance. , 2016, , .		0
14	Few-second-long correlation times in a quantum dot nuclear spin bath probed by frequency-comb nuclear magnetic resonance spectroscopy. <i>Nature Physics</i> , 2016, 12, 688-693.	16.7	16
15	Suppression of nuclear spin bath fluctuations in self-assembled quantum dots induced by inhomogeneous strain. <i>Nature Communications</i> , 2015, 6, 6348.	12.8	54
16	Photoluminescence of two-dimensional GaTe and GaSe films. <i>2D Materials</i> , 2015, 2, 035010.	4.4	76
17	Nuclear magnetic resonance inverse spectra of InGaAs quantum dots: Atomistic level structural information. <i>Physical Review B</i> , 2014, 90, .	3.2	21
18	Two-Dimensional Metal-Chalcogenide Films in Tunable Optical Microcavities. <i>Nano Letters</i> , 2014, 14, 7003-7008.	9.1	129

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19	Element-sensitive measurement of the holeâ€™nuclear spin interaction in quantum dots. Nature Physics, 2013, 9, 74-78.	16.7	70
20	Nuclear spin effects in semiconductor quantum dots. Nature Materials, 2013, 12, 494-504.	27.5	195
21	Optical investigation of the natural electron doping in thin MoS2 films deposited on dielectric substrates. Scientific Reports, 2013, 3, 3489.	3.3	144
22	IIIâ€™V quantum light source and cavity-QED on Silicon. Scientific Reports, 2013, 3, 1239.	3.3	33
23	Dynamic nuclear polarization in InGaAs/GaAs and GaAs/AlGaAs quantum dots under nonresonant ultralow-power optical excitation. Physical Review B, 2013, 88, .	3.2	16
24	Structural analysis of strained quantum dots using nuclear magnetic resonance. Nature Nanotechnology, 2012, 7, 646-650.	31.5	65
25	Effect of a GaAsP Shell on the Optical Properties of Self-Catalyzed GaAs Nanowires Grown on Silicon. Nano Letters, 2012, 12, 5269-5274.	9.1	31
26	Direct Measurement of the Hole-Nuclear Spin Interaction in SingleInP Quantum Dots Using Photoluminescence Spectroscopy. Physical Review Letters, 2011, 106, 027402.	7.8	93
27	Charge control in InP/(Ga,In)P single quantum dots embedded in Schottky diodes. Physical Review B, 2011, 84, .	3.2	13
28	Light-polarization-independent nuclear spin alignment in a quantum dot. Physical Review B, 2011, 83, .	3.2	11
29	Growth of low density InP/GaInP quantum dots. Journal of Physics: Conference Series, 2010, 245, 012061.	0.4	3
30	Optimization of low density InP/GaInP quantum dots for single-dot studies. Journal of Physics: Conference Series, 2010, 245, 012093.	0.4	2
31	Fine structure of emission lines from charged CdSe/ZnSe/ZnMnSe quantum dots. Physica Status Solidi (B): Basic Research, 2010, 247, 1535-1538.	1.5	2
32	Pumping of Nuclear Spins by Optical Excitation of Spin-Forbidden Transitions in a Quantum Dot. Physical Review Letters, 2010, 104, 066804.	7.8	61
33	Dynamics of optically induced nuclear spin polarization in individualInP quantum dots. Physical Review B, 2010, 81, .	3.2	28
34	Optically tunable nuclear magnetic resonance in a single quantum dot. Physical Review B, 2010, 82, .	3.2	21
35	Suppression of nuclear spin diffusion at a$GaAs$ measured with a single quantum-dot nanoprobe. Physical Review B, 2009, 79, .	3.2	27
36	Overhauser effect in individualInP quantum dots. Physical Review B, 2008, 77, .	3.2	27

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37	Effect of s - p interaction on excitonic states in CdSe/ZnSe/ZnMnSe quantum dots. <i>Physical Review B</i> , 2007, 76, .	3.2	22
38	Negatively charged excitons in semimagnetic CdSe/ZnSe/ZnMnSe quantum dots. <i>Journal of Experimental and Theoretical Physics</i> , 2007, 105, 379-387.	0.9	5
39	Fine structure of electron-hole complexes in single semimagnetic quantum dots. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	0