Moritz Cygorek

List of Publications by Year
in descending order

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46	546	623734	713466
papers	citations	14 h-index	21 g-index

51	51	51	327
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Deterministic Photon Storage and Readout in a Semimagnetic QuantumÂDotâ€“CavityÂSystem Doped with a Single Mn Ion. Advanced Quantum Technologies, 2022, 5, .	3.9	1
2	Coherence in cooperative photon emission from indistinguishable quantum emitters. Science Advances, 2022, 8, eabm8171.	10.3	13
3	Simulation of open quantum systems by automated compression of arbitrary environments. Nature Physics, 2022, 18, 662-668.	16.7	35
4	Dynamics of the angular momentum in narrow quantum rings with Rashba and Dresselhaus spin-orbit interactions. Physical Review B, 2022, 105, .	3.2	1
5	Quantum simulator of extended bipartite Hubbard model with broken sublattice symmetry: Magnetism, correlations, and phase transitions. Physical Review B, 2022, 105, .	3.2	4
6	Coherent Dynamics in Quantum Emitters under Dichromatic Excitation. Physical Review Letters, 2021, 126, 047403.	7.8	25
7	Time-dependent switching of the photon entanglement type using a driven quantum emitterâ€“cavity system. Applied Physics Letters, 2021, 118, 164001.	3.3	3
8	Systematic study of the emission spectra of nanowire quantum dots. Applied Physics Letters, 2021, 118, .	3.3	9
9	SchrÃ¶dinger cat states in quantum-dot-cavity systems. Physical Review Research, 2021, 3, .	3.6	5
10	Accuracy of the Quantum Regression Theorem for Photon Emission from a Quantum Dot. Physical Review Letters, 2021, 127, 100402.	7.8	15
11	Electronic and magnetic properties of many-electron complexes in charged <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>In</mml:mi><mml:msub><mml:mi>As</mml:mi><mml:mi mathvariant="normal">P</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:mrow></mml:math> quantum dots in InP nanowires. Physical Review B, 2021, 104, .	3.2	2
12	Different Types of Photon Entanglement from a Constantly Driven Quantum Emitter Inside a Cavity. Advanced Quantum Technologies, 2021, 4, 2000108.	3.9	6
13	Swing-Up of Quantum Emitter Population Using Detuned Pulses. PRX Quantum, 2021, 2, .	9.2	24
14	Accurate and efficient description of interacting carriers in quantum nanostructures by selected configuration interaction and perturbation theory. Physical Review B, 2020, 101, .	3.2	3
15	Transiently changing shape of the photon number distribution in a quantum-dotâ€“cavity system driven by chirped laser pulses. Physical Review B, 2020, 101, .	3.2	1
16	Atomistic theory of electronic and optical properties of InAsP/InP nanowire quantum dots. Physical Review B, 2020, 101, .	3.2	26
17	Valley- and spin-polarized broken-symmetry states of interacting electrons in gated MoS2 quantum dots. Physical Review B, 2020, 102, .	3.2	8
18	Bright trion emission from semiconductor nanoplatelets. Physical Review Materials, 2020, 4, .	2.4	24

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19	On-demand generation of higher-order Fock states in quantum-dotâ€“cavity systems. Physical Review Research, 2020, 2, .	3.6	14
20	Uniaxial transition dipole moments in semiconductor quantum rings caused by broken rotational symmetry. Nature Communications, 2019, 10, 3253.	12.8	19
21	Emission-Frequency Separated High Quality Single-Photon Sources Enabled by Phonons. Physical Review Letters, 2019, 123, 017403.	7.8	31
22	Phonon-Induced Enhancement of Photon Entanglement in Quantum Dot-Cavity Systems. Physical Review Letters, 2019, 123, 137401.	7.8	24
23	Role of excited states in the dynamics of excitons and their spins in diluted magnetic semiconductors. Physical Review B, 2019, 99, .	3.2	1
24	Origins of overshoots in the exciton spin dynamics in semiconductors. Physical Review B, 2019, 99, .	3.2	0
25	Phonon impact on the dynamics of resonantly excited and hot excitons in diluted magnetic semiconductors. Physical Review B, 2019, 99, .	3.2	3
26	Phonon-induced quantum ratchet in the exciton spin dynamics in diluted magnetic semiconductors in a magnetic field. Physical Review B, 2019, 99, .	3.2	4
27	From strong to weak temperature dependence of the two-photon entanglement resulting from the biexciton cascade inside a cavity. Physical Review B, 2019, 99, .	3.2	17
28	Trend reversal in the magnetic-field dependence of exciton spin-transfer rates in diluted magnetic semiconductors due to non-Markovian dynamics. Physical Review B, 2018, 97, .	3.2	9
29	Many-body correlations brought to light in absorption spectra of diluted magnetic semiconductors. Physical Review B, 2018, 98, .	3.2	6
30	Path-integral approach for nonequilibrium multitime correlation functions of open quantum systems coupled to Markovian and non-Markovian environments. Physical Review B, 2018, 98, .	3.2	26
31	Comparison of different concurrences characterizing photon pairs generated in the biexciton cascade in quantum dots coupled to microcavities. Physical Review B, 2018, 98, .	3.2	22
32	Influence of nonmagnetic impurity scattering on spin dynamics in diluted magnetic semiconductors. Physical Review B, 2017, 95, .	3.2	15
33	Nonexponential spin decay in a quantum kinetic description of the D'yakonov-Perel' mechanism mediated by impurity scattering. Physical Review B, 2017, 95, .	3.2	4
34	Nonlinear cavity feeding and unconventional photon statistics in solid-state cavity QED revealed by many-level real-time path-integral calculations. Physical Review B, 2017, 96, .	3.2	32
35	Quantum kinetic equations for the ultrafast spin dynamics of excitons in diluted magnetic semiconductor quantum wells after optical excitation. Physical Review B, 2017, 95, .	3.2	11
36	Carrier-impurity spin transfer dynamics in paramagnetic II-VI diluted magnetic semiconductors in the presence of a wave-vector-dependent magnetic field. Physical Review B, 2016, 93, .	3.2	9

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37	Nonperturbative correlation effects in diluted magnetic semiconductors. Physical Review B, 2016, 93, .	3.2	7
38	Dependence of quantum kinetic effects in the spin dynamics of diluted magnetic semiconductors on the excitation conditions. Proceedings of SPIE, 2016, , .	0.8	3
39	Insensitivity of spin dynamics to the orbital angular momentum transferred from twisted light to extended semiconductors. Physical Review B, 2015, 92, .	3.2	7
40	Ultrafast spin dynamics in II-VI diluted magnetic semiconductors with spin-orbit interaction. Physical Review B, 2015, 91, .	3.2	14
41	Non-Markovian Effects in the Spin Transfer Dynamics in Diluted Magnetic Semiconductors due to Excitation in Proximity to the Band Edge. Journal of Physics: Conference Series, 2015, 647, 012042.	0.4	9
42	Relaxation and coherent oscillations in the spin dynamics of II-VI diluted magnetic quantum wells. Journal of Physics: Conference Series, 2015, 647, 012010.	0.4	2
43	Effective equations for the precession dynamics of electron spins and electronâ€“impurity correlations in diluted magnetic semiconductors. Semiconductor Science and Technology, 2015, 30, 085011.	2.0	8
44	Comparison between a quantum kinetic theory of spin transfer dynamics in Mn-doped bulk semiconductors and its Markov limit for nonzero Mn magnetization. Physical Review B, 2014, 90, .	3.2	14
45	Coherent spin-transfer dynamics in diluted magnetic semiconductor quantum wells even after optical excitation with zero net angular momentum. Physical Review B, 2013, 88, .	3.2	10
46	Non-Markovian spin transfer dynamics in magnetic semiconductors despite short memory times. Physical Review B, 2013, 87, .	3.2	18