Olivier Krebs

List of Publications by Year
in descending order

108	3,853	136885	123376
papers	citations	32 h-index	61 g-index

110	110	110	2515
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Photon-number entanglement generated by sequential excitation of a two-level atom. Nature Photonics, 2022, 16, 374-379.	15.6	17
2	Hong-Ou-Mandel Interference with Imperfect Single Photon Sources. Physical Review Letters, 2021, 126, 063602.	2.9	32
3	Bright Polarized Single-Photon Source Based on a Linear Dipole. Physical Review Letters, 2021, 126, 233601.	2.9	65
4	Deterministic assembly of a charged-quantum-dotâ€“micropillar cavity device. Physical Review B, 2020, 102, .	1.1	7
5	Reproducibility of High-Performance Quantum Dot Single-Photon Sources. ACS Photonics, 2020, 7, 1050-1059.	3.2	44
6	Generation of non-classical light in a photon-number superposition. Nature Photonics, 2019, 13, 803-808.	15.6	39
7	Brillouin scattering in hybrid optophononic Bragg micropillar resonators at 300â€‰â€‰GHz. Optica, 2019, 6, 854.	4.8	15
8	Generation of quantum light in a photon-number superposition. , 2019, , .		0
9	Topological nanophononic states by band inversion. Physical Review B, 2018, 97, .	1.1	41
10	Nanomechanical resonators based on adiabatic periodicity-breaking in a superlattice. Applied Physics Letters, 2017, 111, 173107.	1.5	7
11	Exciton Spin Dynamics in Semiconductor Quantum Dots. Springer Series in Solid-state Sciences, 2017, , 105-129.	0.3	0
12	Tomography of the optical polarization rotation induced by a single quantum dot in a cavity. Optica, 2017, 4, 1326.	4.8	12
13	Exchange interaction-driven dynamic nuclear polarization in Mn-doped InGaAs/GaAs quantum dots. Physical Review B, 2016, 94, .	1.1	1
14	Coherent manipulation of a solid-state artificial atom with few photons. Nature Communications, 2016, 7, 11986.	5.8	55
15	Nonequilibrium polariton condensate in a magnetic field. Physical Review B, 2015, 91, .	1.1	29
16	Macroscopic rotation of photon polarization induced by a single spin. Nature Communications, 2015, 6, 6236.	5.8	73
17	Fine structure and real space analysis of neutral acceptor states in GaAs. Semiconductor Science and Technology, 2015, 30, 035019.	1.0	2
18	Giant Polarization Rotation Induced by a Single Spin: a Cavity-Based Spin-Photon Interface. , 2015, , .		0

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19	Cavity-Enhanced Real-Time Monitoring of Single-Charge Jumps at the Microsecond Time Scale. Physical Review X, 2014, 4, .	2.8	16
20	Nuclear magnetization in gallium arsenide quantum dots at zero magnetic field. Nature Communications, 2014, 5, 3268.	5.8	37
21	Nuclear spin physics in quantum dots: An optical investigation. Reviews of Modern Physics, 2013, 85, 79-133.	16.4	298
22	Optically Induced Coupling of Two Magnetic Dopant Spins by a Photoexcited Hole in a Mn-DopedInAs/GaAsQuantum Dot. Physical Review Letters, 2013, 111, 187401.	2.9	25
23	Optical nonlinearity with few-photon pulses using a quantum dot-pillar cavity device. , 2013, , .		0
24	Anisotropic magneto-resistance in a GaMnAs-based single impurity tunnel diode: A tight binding approach. Applied Physics Letters, 2012, 100, 062403.	1.5	5
25	Optical bistability in a quantum dots/micropillar device with a quality factor exceeding 200 000. Applied Physics Letters, 2012, 100, 111111.	1.5	38
26	Optical Nonlinearity for Few-Photon Pulses on a Quantum Dot-Pillar Cavity Device. Physical Review Letters, 2012, 109, 166806.	2.9	77
27	A solid state ultrabright source of entangled photon pairs. Proceedings of SPIE, 2011, , .	0.8	0
28	Robust Quantum Dot Exciton Generation via Adiabatic Passage with Frequency-Swept Optical Pulses. Physical Review Letters, 2011, 106, 166801.	2.9	105
29	Single-shot initialization of electron spin in a quantum dot using a short optical pulse. Physical Review B, 2011, 83, .	1.1	22
30	Optical Pumping and a Nondestructive Readout of a Single Magnetic Impurity Spin in an<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>InAs</mml:mi><mml:mo>/</mml:mo><mml:mi>GaAs</mml:mi></mml:math>Quantum Dot. Physical Review Letters, 2011, 107, 197402.	2.9	29
31	Stark spectroscopy and radiative lifetimes in single self-assembled CdTe quantum dots. Physical Review B, 2011, 83, .	1.1	17
32	Robust quantum dot exciton preparation via adiabatic passage with frequency-swept laser pulses. , 2011, , .		0
33	Electron Spin Dynamics in Semiconductor Quantum Dots. , 2011, , .		0
34	Ultrabright source of entangled photon pairs. Nature, 2010, 466, 217-220.	13.7	501
35	Quantum Confined Stark Effect in Single Self-Assembled CdTe Quantum Dots. , 2010, , .		0
36	CdTe Quantum Dots in a Field Effect Structure: Photoluminescence Lineshape Analysis. , 2010, , .		0

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37	A quantum dot based bright source of entangled photon pairs operating at 53 K. Applied Physics Letters, 2010, 97, .	1.5	21
38	Quantum dot-cavity strong-coupling regime measured through coherent reflection spectroscopy in a very high-Q micropillar. Applied Physics Letters, 2010, 97, .	1.5	65
39	Anomalous Hanle Effect due to Optically Created Transverse Overhauser Field in Single<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>InAs</mml:mi><mml:mo>/</mml:mo><mml:mi>GaAs</mml:mi></mml:math>Quantum Dots. Physical Review Letters, 2010, 104, 056603.	2.9	42
40	Magnetic anisotropy of singly Mn-doped InAs/GaAs quantum dots. Physical Review B, 2009, 80, .	1.1	34
41	Controlling the Polarization Eigenstate of a Quantum Dot Exciton with Light. Physical Review Letters, 2009, 103, 086601.	2.9	38
42	Spin state of a single Mn atom embedded in an InAs quantum dot. Proceedings of SPIE, 2009, , .	0.8	1
43	Electrical and optical charging of CdTe quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2516-2519.	0.8	1
44	Hyperfine interaction in InAs/GaAs self-assembled quantum dots: dynamical nuclear polarization versus spin relaxation. Comptes Rendus Physique, 2008, 9, 874-884.	0.3	21
45	Optical alignment and polarization conversion of the neutral exciton spin in individual<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">In</mml:mi><mml:mi mathvariant="normal">As</mml:mi><mml:mo>âˆ•</mml:mo><mml:mi mathvariant="normal">Ga</mml:mi><mml:mi mathvariant="normal">As</mml:mi></mml:mrow></mml:math>quantum dots. Physical Review B, 2008, .	1.1	34
46	Optical initialisation and control of carrier and nuclear spins in individual semiconductor quantum dots. , 2008, , .		0
47	Exciton Spin Dynamics in Semiconductor Quantum Dots. Springer Series in Solid-state Sciences, 2008, , 91-113.	0.3	7
48	Efficient dynamical nuclear polarization in quantum dots: Temperature dependence. Physical Review B, 2007, 76, .	1.1	50
49	Manipulating the exciton fine structure of singleCdTeâˆ•ZnTequantum dots by an in-plane magnetic field. Physical Review B, 2007, 75, .	1.1	35
50	Monitoring electrically driven cancellation of exciton fine structure in a semiconductor quantum dot by optical orientation. Applied Physics Letters, 2007, 91, .	1.5	30
51	Diamagnetic contribution to the effect of in-plane magnetic field on a quantum-dot exciton fine structure. Physical Review B, 2007, 76, .	1.1	13
52	Manipulating exciton fine structure in quantum dots with a lateral electric field. Applied Physics Letters, 2007, 90, 041101.	1.5	186
53	Electron spin quantum beats in positively charged quantum dots: Nuclear field effects. Physical Review B, 2007, 75, .	1.1	15
54	Optically Probing the Fine Structure of a Single Mn Atom in an InAs Quantum Dot. Physical Review Letters, 2007, 99, 247209.	2.9	133

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55	Dynamic nuclear polarization of a single InAs/GaAs quantum dot : positive versus negative trions. AIP Conference Proceedings, 2007, , .	0.3	0
56	Electron spin quantum beats in positively charged quantum dots. AIP Conference Proceedings, 2007, , .	0.3	0
57	Semiconductor heterostructures for spintronics and quantum information. Comptes Rendus Physique, 2007, 8, 243-252.	0.3	5
58	Role of hyperfine interaction on electron spin optical orientation in charge-controlled InAs-GaAs single quantum dots. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 202-207.	0.8	10
59	Self-quenching of hyperfine-induced electron spin relaxation in InAs/GaAs quantum dots due to dynamic nuclear polarization. AIP Conference Proceedings, 2007, , .	0.3	0
60	Negative circular polarization as a general property ofn-doped self-assembledInAsâˆ•GaAsquantum dots under nonresonant optical excitation. Physical Review B, 2006, 73, .	1.1	44
61	Bistability of the nuclear polarization created through optical pumping inIn1âˆ’xGaxAsquantum dots. Physical Review B, 2006, 74, .	1.1	99
62	Dynamic nuclear polarization of a single charge-tunableInAsâˆ•GaAsquantum dot. Physical Review B, 2006, 74, .	1.1	107
63	Spin dynamics of electrons and holes in p-doped InAs/GaAs quantum dots. Brazilian Journal of Physics, 2006, 36, 482-487.	0.7	2
64	Direct observation of the electron spin relaxation induced by nuclei in quantum dots. , 2006, , .		2
65	Influence of electric field on fine structure of exciton complexes in CdTe/ZnTe self-assembled quantum dot. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 865-869.	0.8	4
66	Charge-controlled nuclear polarization of a single InAs/GaAs quantum dot under optical pumping. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 3752-3756.	0.8	0
67	Stark spectroscopy of Coulomb interactions in individual InAs/GaAs self-assembled quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 3890-3894.	0.8	12
68	Optical probing of spin-dependent interactions in IIâ€“VI semiconductor structures. Physica Status Solidi (B): Basic Research, 2006, 243, 906-913.	0.7	0
69	Spin dynamics and hyperfine interaction in InAs semiconductor quantum dots. Physica Status Solidi (B): Basic Research, 2006, 243, 2266-2273.	0.7	3
70	Spin relaxation of positive trions in InAs/GaAs quantum dots: the role of hyperfine interaction. Physica Status Solidi (B): Basic Research, 2006, 243, 3917-3921.	0.7	3
71	Strong linear polarization induced by a longitudinal magnetic field in II-VI semimagnetic semiconductor layers. Physical Review B, 2006, 74, .	1.1	0
72	Coherent spin dynamics in semiconductor quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3157-3162.	0.8	0

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73	Spin dynamics in p-doped InAs/GaAs quantum dots. Physica Status Solidi (B): Basic Research, 2005, 242, 1233-1236.	0.7	4
74	Control Of The Anisotropic Exchange Splitting Of Individual InAs/GaAs Quantum Dots With An In-Plane Electric Field. AIP Conference Proceedings, 2005, , .	0.3	0
75	Controlling hole spin relaxation in charge tunable InAs/GaAs quantum dots. AIP Conference Proceedings, 2005, , .	0.3	2
76	Influence of an in-plane electric field on exciton fine structure in InAs-GaAs self-assembled quantum dots. Applied Physics Letters, 2005, 86, 041907.	1.5	134
77	Electrical Control of Hole Spin Relaxation in Charge TunableInAs/GaAsQuantum Dots. Physical Review Letters, 2005, 94, 147401.	2.9	76
78	Direct Observation of the Electron Spin Relaxation Induced by Nuclei in Quantum Dots. Physical Review Letters, 2005, 94, 116601.	2.9	225
79	Counter polarized photoluminescence of trions in n-doped selfassembled InAs/GaAs quantumdots. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 430-433.	0.8	2
80	Optical orientation and spin relaxation of resident electrons in n-doped InAs/GaAs self-assembled quantum dots. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 20, 404-411.	1.3	6
81	Influence of an Electric Field on Fine Properties of III-V and II-VI Quantum Dots Systems. Acta Physica Polonica A, 2004, 106, 177-184.	0.2	3
82	Optical Orientation of Trions in Charge-Tunable InAs/GaAs Quantum Dots. Acta Physica Polonica A, 2004, 106, 185-192.	0.2	2
83	Normal-incidence intersubband absorption in AlGaSb quantum wells: enhanced oscillator strength and new functionalities using asymmetry. IEE Proceedings: Optoelectronics, 2003, 150, 381.	0.8	0
84	In-plane optical anisotropy of parabolic and half-parabolic Cd1â^'xMnxTe quantum wells. Solid State Communications, 2003, 126, 467-471.	0.9	7
85	Optically Driven Spin Memory inn-Doped InAs-GaAs Quantum Dots. Physical Review Letters, 2002, 89, 207401.	2.9	234
86	Polarization of the interband optical dipole in InAs/GaAs self-organized quantum dots. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 13, 220-223.	1.3	4
87	Spin polarization dynamics in n-doped InAs/GaAs quantum dots. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 13, 508-511.	1.3	4
88	Spin dynamics of neutral and charged excitons in InAs/GaAs quantum dots: towards Q-bit implementation?. Superlattices and Microstructures, 2002, 32, 157-170.	1.4	5
89	Breakdown of rotational symmetry at semiconductor interfaces: a microscopic description of valence subband mixing. European Physical Journal B, 2001, 21, 241-250.	0.6	17
90	Polarization of the interband optical dipole in InAs/GaAs self-organized quantum dots. Physical Review B, 2001, 63, .	1.1	63

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91	Interface profiles and in-plane anisotropy in common anion type-ICd1â^'xMgxTe/CdTe/Cd1â^'xMnxTeheterostructures studied by reflectivity. Physical Review B, 2001, 64, .	1.1	30
92	Field-induced optical anisotropy in semiconductor superlattices: the Wannier-Pockels effect. Springer Proceedings in Physics, 2001, , 535-536.	0.1	0
93	In-plane optical anisotropy of quantum well structures: From fundamental considerations to interface characterization and optoelectronic engineering. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 2232.	1.6	18
94	Light-heavy hole mixing and in-plane optical anisotropy ofInPâ^'AlxIn1â^'xAstype-II multiquantum wells. Physical Review B, 2000, 61, 7265-7268.	1.1	12
95	Excitonic contributions to the quantum-confined Pockels effect. Physical Review B, 2000, 63, .	1.1	25
96	Breakdown of Rotational Symmetry at Semiconductor Interfaces: a Microscopic Description of Valence Subband Mixing. Acta Physica Polonica A, 2000, 98, 303-323.	0.2	0
97	Krebs and Voisin Reply:. Physical Review Letters, 1999, 82, 1340-1340.	2.9	8
98	Anisotropic propagation of light in planar waveguides containing InGaAsâ€"InP quantum wells. Applied Physics Letters, 1999, 75, 1890-1892.	1.5	2
99	The quantum confined Pockels effect in GaAs-based multi-quantum wells. European Physical Journal Special Topics, 1999, 09, Pr2-37.	0.2	1
100	Giant optical anisotropy in semiconductor heterostructures with no-common atom. Physica E: Low-Dimensional Systems and Nanostructures, 1998, 2, 59-64.	1.3	3
101	Inversion Asymmetry in Heterostructures of Zinc-Blende Semiconductors: Interface and External Potential versus Bulk Effects. Physical Review Letters, 1998, 80, 5770-5773.	2.9	77
102	Potential-inserted InGaAs - AlGaInAs shallow quantum wells for electro-optical modulation at. Semiconductor Science and Technology, 1997, 12, 729-732.	1.0	5
103	Band discontinuities inInxGa1â^'xAs-InP and InP-AlyIn1â^'yAs heterostructures:Evidence of noncommutativity. Physical Review B, 1997, 55, 2274-2279.	1.1	18
104	High power saturation, polarisation insensitive electroabsorption modulator with spiked shallow wells. Electronics Letters, 1997, 33, 161.	0.5	12
105	Investigations of giant `forbidden' optical anisotropy in GaInAs - InP quantum well structures. Semiconductor Science and Technology, 1997, 12, 938-942.	1.0	45
106	Giant Optical Anisotropy of Semiconductor Heterostructures with No Common Atom and the Quantum-Confined Pockels Effect. Physical Review Letters, 1996, 77, 1829-1832.	2.9	183
107	Optical spectroscopy of InAs/GaAs quantum dots doped with a single Mn atom. , 0, , 221-236.		0
108	Spin Quantum-bits and Decoherence in InAs/GaAs Quantum Dots. , 0, , 201-227.		0