

Eli Kapon

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117
papers

2,171
citations

22
h-index

41
g-index

156
ext. papers

2,473
ext. citations

4.5
avg, IF

4.38
L-index

#	Paper	IF	Citations
117	Few-particle effects in semiconductor quantum dots: observation of multicharged excitons. <i>Physical Review Letters</i> , 2000 , 84, 5648-51	7.4	214
116	Polarization-entangled photons produced with high-symmetry site-controlled quantum dots. <i>Nature Photonics</i> , 2010 , 4, 302-306	33.9	145
115	Fine structure of exciton complexes in high-symmetry quantum dots: Effects of symmetry breaking and symmetry elevation. <i>Physical Review B</i> , 2010 , 81,	3.3	81
114	Integration of site-controlled pyramidal quantum dots and photonic crystal membrane cavities. <i>Applied Physics Letters</i> , 2008 , 92, 263101	3.4	79
113	High uniformity of site-controlled pyramidal quantum dots grown on prepatterned substrates. <i>Applied Physics Letters</i> , 2004 , 84, 1943-1945	3.4	73
112	Phonon-mediated coupling of InGaAs/GaAs quantum-dot excitons to photonic crystal cavities. <i>Physical Review Letters</i> , 2011 , 106, 227402	7.4	72
111	Record-low inhomogeneous broadening of site-controlled quantum dots for nanophotonics. <i>Small</i> , 2010 , 6, 1268-72	11	67
110	Site-controlled InGaAs quantum dots with tunable emission energy. <i>Small</i> , 2009 , 5, 938-43	11	59
109	Dense uniform arrays of site-controlled quantum dots grown in inverted pyramids. <i>Applied Physics Letters</i> , 2004 , 84, 2907-2909	3.4	47
108	Optical polarization anisotropy and hole states in pyramidal quantum dots. <i>Applied Physics Letters</i> , 2006 , 89, 251113	3.4	41
107	Structure and photoluminescence of single AlGaAs/GaAs quantum dots grown in inverted tetrahedral pyramids. <i>Applied Physics Letters</i> , 1998 , 73, 2322-2324	3.4	39
106	Broadband MEMS-Tunable High-Index-Contrast Subwavelength Grating Long-Wavelength VCSEL. <i>IEEE Journal of Quantum Electronics</i> , 2010 , 46, 1245-1253	2	33
105	Cavity Mode Gain Peak Tradeoff for 1320-nm Wafer-Fused VCSELs With 3-mW Single-Mode Emission Power and 10-Gb/s Modulation Speed Up to 70 μC . <i>IEEE Photonics Technology Letters</i> , 2007 , 19, 121-123	2.2	32
104	Continuous-wave operation of phase-coupled vertical-cavity surface-emitting laser arrays. <i>Applied Physics Letters</i> , 2000 , 77, 2283-2285	3.4	31
103	ELECTRONIC AND OPTICAL PROPERTIES OF QUASI-ONE-DIMENSIONAL CARRIERS IN QUANTUM WIRES. <i>Journal of Nonlinear Optical Physics and Materials</i> , 1995 , 04, 99-140	0.8	30
102	Strain effects and phase transitions in photonic resonator crystals. <i>Nature</i> , 2000 , 407, 880-3	50.4	29
101	Theory and experiment of step bunching on misoriented GaAs(001) during metalorganic vapor-phase epitaxy. <i>Applied Physics Letters</i> , 2008 , 92, 013117	3.4	27

100	Electroluminescence from a single pyramidal quantum dot in a light-emitting diode. <i>Applied Physics Letters</i> , 2004 , 84, 1967-1969	3-4	27
99	Self-ordering and confinement in strained InGaAs/AlGaAs V-groove quantum wires grown by low-pressure organometallic chemical vapor deposition. <i>Applied Physics Letters</i> , 1998 , 72, 701-703	3-4	27
98	High-quality In _x Ga _{1-x} As/Al _{0.30} Ga _{0.70} As quantum dots grown in inverted pyramids. <i>Physica Status Solidi (B): Basic Research</i> , 2003 , 238, 233-236	1-3	26
97	Narrow (meV) inhomogeneous broadening and its correlation with confinement potential of pyramidal quantum dot arrays. <i>Applied Physics Letters</i> , 2007 , 91, 081106	3-4	22
96	Effect of sidewall passivation in BCl ₃ /H ₂ inductively coupled plasma etching of two-dimensional GaAs photonic crystals. <i>Journal of Vacuum Science & Technology B</i> , 2009 , 27, L21		21
95	High internal quantum efficiency, narrow linewidth InGaAs/GaAs/AlGaAs quantum wire light-emitting diodes. <i>Applied Physics Letters</i> , 2002 , 81, 2839-2841	3-4	21
94	Coupled islands of photonic crystal heterostructures implemented with vertical-cavity surface-emitting lasers. <i>Applied Physics Letters</i> , 2005 , 87, 241120	3-4	20
93	Carrier transport and luminescence in inverted-pyramid quantum structures. <i>Applied Physics Letters</i> , 2000 , 77, 3923-3925	3-4	20
92	Reliability of 1310 nm Wafer Fused VCSELs. <i>IEEE Photonics Technology Letters</i> , 2013 , 25, 1555-1558	2-2	19
91	Site-controlled single quantum wire integrated into a photonic-crystal membrane microcavity. <i>Applied Physics Letters</i> , 2007 , 90, 153107	3-4	19
90	Excited excitonic states observed in semiconductor quantum dots using polarization resolved optical spectroscopy. <i>Journal of Applied Physics</i> , 2007 , 101, 081703	2-5	19
89	Effect of Pure Dephasing and Phonon Scattering on the Coupling of Semiconductor Quantum Dots to Optical Cavities. <i>Physical Review Letters</i> , 2016 , 117, 076801	7-4	18
88	Bound and anti-bound biexciton in site-controlled pyramidal GaInAs/GaAs quantum dots. <i>Applied Physics Letters</i> , 2012 , 101, 191101	3-4	18
87	High-Power 1.48- μ m Wafer-Fused Optically Pumped Semiconductor Disk Laser. <i>IEEE Photonics Technology Letters</i> , 2011 , 23, 917-919	2-2	18
86	Dilute nitride InGaAsN/GaAs V-groove quantum wires emitting at 1.3 μ m wavelength at room temperature. <i>Applied Physics Letters</i> , 2011 , 99, 101107	3-4	17
85	Spatial coherence measurements in arrays of coupled vertical cavity surface emitting lasers. <i>Applied Physics Letters</i> , 2007 , 90, 021103	3-4	17
84	Effects of the one-dimensional quantum barriers in pyramidal quantum dots. <i>Applied Physics Letters</i> , 2004 , 84, 4086-4088	3-4	17
83	Two-dimensional quantum-confined Stark effect in V-groove quantum wires: Excited state spectroscopy and theory. <i>Applied Physics Letters</i> , 1999 , 74, 2334-2336	3-4	17

82	Site-controlled quantum dots coupled to a photonic crystal molecule. <i>Applied Physics Letters</i> , 2015 , 107, 141103	3.4	16
81	Electrical Modeling of Long-Wavelength VCSELs for Intrinsic Parameters Extraction. <i>IEEE Journal of Quantum Electronics</i> , 2010 , 46, 313-322	2	16
80	Influence of strain and quantum confinement on the optical properties of InGaAs/GaAs V-groove quantum wires. <i>Journal of Applied Physics</i> , 2000 , 88, 141-147	2.5	16
79	Non-centrosymmetric plasmonic crystals for second-harmonic generation with controlled anisotropy and enhancement. <i>Laser and Photonics Reviews</i> , 2016 , 10, 287-298	8.3	16
78	Deterministic radiative coupling of two semiconductor quantum dots to the optical mode of a photonic crystal nanocavity. <i>Scientific Reports</i> , 2017 , 7, 4100	4.9	15
77	Experimental evidence for Luttinger liquid behavior in sufficiently long GaAs V-groove quantum wires. <i>Physical Review B</i> , 2012 , 85,	3.3	15
76	Long Wavelength VCSEL-by-VCSEL Optical Injection Locking. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2009 , 57, 1850-1858	4.1	15
75	A terahertz quantum cascade laser grown by low-pressure metalorganic vapor phase epitaxy. <i>Applied Physics Letters</i> , 2008 , 92, 181111	3.4	15
74	Correlation between optical properties and interface morphology of GaAs/AlGaAs quantum wells. <i>Applied Physics Letters</i> , 2006 , 88, 141917	3.4	15
73	Effect of Cavity Lifetime Variation on the Static and Dynamic Properties of 1.3- μm Wafer-Fused VCSELs. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2015 , 21, 414-422	3.8	14
72	Exciton dynamics in a site-controlled quantum dot coupled to a photonic crystal cavity. <i>Applied Physics Letters</i> , 2015 , 107, 191101	3.4	14
71	Wafer-Fused Optically Pumped VCSELs Emitting in the 1310-nm and 1550-nm Wavebands. <i>Advances in Optical Technologies</i> , 2011 , 2011, 1-8		14
70	Pyramidal GaAs/AlzGa1 \bar{z} As quantum wire/dot systems with controlled heterostructure potential. <i>Physical Review B</i> , 2010 , 82,	3.3	14
69	Thermoelectrical model for vertical cavity surface emitting lasers and arrays. <i>Journal of Applied Physics</i> , 2006 , 100, 103102	2.5	14
68	1.3- μm Mode-Locked Disk Laser With Wafer Fused Gain and SESAM Structures. <i>IEEE Photonics Technology Letters</i> , 2010 , 22, 748-750	2.2	13
67	Optimization of the efficiency of single-photon sources based on quantum dots under optical excitation. <i>Applied Physics Letters</i> , 2006 , 88, 081905	3.4	13
66	Control of valence band states in pyramidal quantum dot-in-dot semiconductor heterostructures. <i>Applied Physics Letters</i> , 2007 , 91, 241909	3.4	13
65	Effect of indium segregation on optical properties of V-groove InGaAs/GaAs strained quantum wires. <i>Applied Physics Letters</i> , 1999 , 75, 3300-3302	3.4	13

64	Integration of multiple site-controlled pyramidal quantum dot systems with photonic-crystal membrane cavities. <i>Journal of Crystal Growth</i> , 2015 , 414, 192-195	1.6	12
63	10 Gbps VCSELs with High Single Mode Output in 1310nm and 1550 nm Wavelength Bands 2008 ,		12
62	Efficient, narrow linewidth excitonic emission at room temperature from GaAs/AlGaAs V-groove quantum wire light-emitting diodes. <i>Applied Physics Letters</i> , 2001 , 79, 4-6	3.4	12
61	Strain relaxation at cleaved surfaces studied by atomic force microscopy. <i>Applied Physics A: Materials Science and Processing</i> , 1999 , 69, 347-351	2.6	12
60	High-quality 1.3 μ m-wavelength GaInAsN/GaAs quantum wells grown by metalorganic vapor phase epitaxy on vicinal substrates. <i>Applied Physics Letters</i> , 2011 , 99, 072116	3.4	11
59	Nonorthogonal theory of polarons and application to pyramidal quantum dots. <i>Physical Review B</i> , 2007 , 76,	3.3	11
58	Self-formation of hexagonal nanotemplates for growth of pyramidal quantum dots by metalorganic vapor phase epitaxy on patterned substrates. <i>Nano Research</i> , 2016 , 9, 3279-3290	10	10
57	Patterning of confined-state energies in site-controlled semiconductor quantum dots. <i>Applied Physics Letters</i> , 2005 , 86, 243105	3.4	10
56	InAs/InP quantum dot VCSEL emitting at 1.5 μ m. <i>Applied Physics Letters</i> , 2019 , 115, 171105	3.4	9
55	Investigation of coherent acoustic phonons in terahertz quantum cascade laser structures using femtosecond pump-probe spectroscopy. <i>Journal of Applied Physics</i> , 2012 , 112, 033517	2.5	9
54	Extension of Coupled Mode Analysis to Periodic Large Arrays of Identical Waveguides for Photonic Crystals Applications. <i>IEEE Journal of Quantum Electronics</i> , 2007 , 43, 215-224	2	9
53	Photoluminescence Study of V-Groove Quantum Wires: The Influence of Disorder on the Optical Spectra and the Carrier Thermalization. <i>Physica Status Solidi A</i> , 2000 , 178, 211-220		9
52	Optical Spectra of Single Quantum Dots: Influence of Impurities and Few-Particle Effects. <i>Physica Status Solidi A</i> , 2000 , 178, 283-290		9
51	Numerical Analysis of Mode Discrimination by Intracavity Patterning in Long-Wavelength Wafer-Fused Vertical-Cavity Surface-Emitting Lasers. <i>IEEE Journal of Quantum Electronics</i> , 2014 , 50, 1-9	2	8
50	Turn-on delay and Auger recombination in long-wavelength vertical-cavity surface-emitting lasers. <i>Applied Physics Letters</i> , 2010 , 97, 131102	3.4	8
49	Exciton confinement and trapping dynamics in double-graded-bandgap quantum nanowires. <i>Applied Physics Letters</i> , 2012 , 100, 211907	3.4	8
48	In(Al)GaAs/AlGaAs Wafer Fused VCSELs Emitting at 2- μ m Wavelength. <i>IEEE Photonics Technology Letters</i> , 2008 , 20, 24-26	2.2	8
47	Localization of excitons in disordered quantum wires probed by single-photon correlation spectroscopy. <i>Applied Physics Letters</i> , 2004 , 85, 5715-5717	3.4	8

46	Direct Observation of New Transitions in the Absorption Spectra of a V-Groove Quantum Wire Waveguide. <i>Physica Status Solidi A</i> , 2000 , 178, 233-237		8
45	Vectorial electromagnetic modes in V-shaped dielectric waveguides with application to quantum wire devices. <i>Optical and Quantum Electronics</i> , 1999 , 31, 797-812	2.4	8
44	Polarization-resolved optical absorption in single V-groove quantum wires. <i>Applied Physics Letters</i> , 2006 , 89, 191111	3.4	7
43	Mode switching and beam steering in photonic crystal heterostructures implemented with vertical-cavity surface-emitting lasers. <i>Applied Physics Letters</i> , 2007 , 90, 241115	3.4	7
42	Single photon extraction and propagation in photonic crystal waveguides incorporating site-controlled quantum dots. <i>Applied Physics Letters</i> , 2018 , 112, 051105	3.4	6
41	Magneto-optical properties of single site-controlled InGaAsN quantum wires grown on prepatterned GaAs substrates. <i>Physical Review B</i> , 2012 , 85,	3.3	6
40	Extension of Coupled Mode Analysis to Infinite Photonic Superlattices. <i>IEEE Journal of Quantum Electronics</i> , 2008 , 44, 826-833	2	6
39	Emission wavelength control of ordered arrays of InGaAs/GaAs quantum dots. <i>Journal of Crystal Growth</i> , 2017 , 464, 69-74	1.6	5
38	Spatial-Mode Discrimination in Guided and Antiguided Arrays of Long-Wavelength VCSELs. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2013 , 19, 1-10	3.8	5
37	Engineering conduction and valence band states in site-controlled pyramidal quantum dots. <i>Applied Physics Letters</i> , 2011 , 98, 253102	3.4	5
36	Semiconductor quantum-wires and nano-wires for optoelectronic applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2009 , 20, 94-101	2.1	5
35	Reduced temperature sensitivity of the polarization properties of hydrogenated InGaAsN V-groove quantum wires. <i>Applied Physics Letters</i> , 2012 , 101, 151114	3.4	5
34	Very low transparency currents in double quantum well InGaAs semiconductor lasers with doped resonant tunneling. <i>Applied Physics Letters</i> , 2008 , 92, 021109	3.4	5
33	Observation of Charged Few-Particle States in the Optical Spectra of Single Semiconductor Quantum Dots. <i>Physica Status Solidi (B): Basic Research</i> , 2001 , 224, 325-330	1.3	5
32	Wide-range tuning of the two-dimensional confinement in V-groove quantum wires. <i>Applied Physics Letters</i> , 2002 , 81, 274-276	3.4	5
31	High-Power 760 nm VECSEL Based on Quantum Dot Gain Mirror. <i>IEEE Journal of Quantum Electronics</i> , 2020 , 56, 1-4	2	4
30	Probing disorder and mode localization in photonic crystal cavities using site-controlled quantum dots. <i>Journal of Applied Physics</i> , 2018 , 123, 043109	2.5	4
29	Flip-Chip Wafer-Fused OP-VECSELs Emitting 3.65 W at the 1.55- μ m Waveband. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019 , 25, 1-5	3.8	4

28	Carrier capture into semiconductor quantum dots via quantum wire barriers: Localization and thermionic emission effects. <i>Applied Physics Letters</i> , 2011 , 99, 091910	3-4	4
27	Performances of Microwave-Band Analog Signal Transmission Using Wafer-Fused Long Wavelength VCSELs. <i>IEEE Photonics Technology Letters</i> , 2011 , 23, 1463-1465	2-2	4
26	Threshold analysis of vertical-cavity surface-emitting lasers with intracavity contacts. <i>IEEE Journal of Quantum Electronics</i> , 2006 , 42, 889-895	2	4
25	Comparative Study of Atomic Force Imaging of DNA on Graphite and Mica Surfaces. <i>AIP Conference Proceedings</i> , 2006 ,	0	4
24	Carrier Capture and Recombination Dynamics in a Single Pyramidal Quantum Dot. <i>Physica Status Solidi (B): Basic Research</i> , 2001 , 224, 431-436	1-3	4
23	Optical Injection Locking of Polarization Modes in VCSELs Emitting at 1.3 μm Wavelength. <i>IEEE Journal of Quantum Electronics</i> , 2013 , 49, 939-944	2	3
22	Wafer-fused 1550-nm band VCSELs with fundamental mode output exceeding 6 mW 2008 ,		3
21	Dynamics of polarization modes in photonic crystals based on arrays of vertical-cavity surface-emitting lasers. <i>Applied Physics Letters</i> , 2004 , 84, 3777-3779	3-4	3
20	Mode switching in shear-strained and modulated photonic lattices by vertical-cavity surface-emitting laser arrays by means of injection locking. <i>Applied Physics Letters</i> , 2000 , 76, 816-818	3-4	3
19	Limiting the Spectral Diffusion of Nano-Scale Light Emitters using the Purcell effect in a Photonic-Confined Environment. <i>Scientific Reports</i> , 2019 , 9, 1195	4-9	2
18	Deterministic coupling of a system of multiple quantum dots to a single photonic cavity mode. <i>Applied Physics Letters</i> , 2017 , 111, 053103	3-4	2
17	Photocurrent spectroscopy of site-controlled pyramidal quantum dots. <i>Applied Physics Letters</i> , 2012 , 101, 031110	3-4	2
16	High power vertical external cavity surface-emitting lasers (VECSELs) emitting in 1310 nm and 1550 nm bands 2009 ,		2
15	Influence of long-range substrate roughness on disorder in V-groove quantum wire structures. <i>Journal of Applied Physics</i> , 2006 , 100, 123509	2-5	2
14	Tilted-potential photonic crystal cavities for integrated quantum photonics. <i>Optics Express</i> , 2019 , 27, 21822-21833	3-3	2
13	Multiexciton dynamics in tailored band-gap quasi-one-dimensional systems. <i>Physical Review B</i> , 2015 , 91,	3-3	1
12	VCSEL-based processing of microwave signals 2014 ,		1
11	Effects of hydrogen irradiation on the optical and electronic properties of site-controlled InGaAsN V-groove quantum wires 2013 ,		1

10	Low power consumption 1310 nm VCSELs for 4x10 Gbps CWDM links 2013 ,			1
9	Microwave-band optoelectronic frequency converters based on long wavelength VCSELs 2011 ,			1
8	Observation of charged excitons in V-groove quantum wires. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004 , 1, 526-530			1
7	Use of an Optical Microcavity to Probe Exciton Relaxation in Strained V-Groove Quantum Wires. <i>Physica Status Solidi A</i> , 2000 , 178, 161-165			1
6	Electrically Pumped Vertical-External-Cavity Surface-Emitting Lasers With Patterned Tunnel Junction for Single Transversal-Mode Emission. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2015 , 21, 485-492	3.8	0	
5	Optical Injection and Lasing Dynamics in Long-Wavelength VCSELs With Intracavity Patterning. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2015 , 21, 659-667	3.8		
4	Effects of hydrogen irradiation on the optical and electronic properties of site-controlled InGaAsN V-groove quantum wires. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2013 , 10, 556-560			
3	Inverse ray-tracing method for nondestructive mapping of three-dimensional surfaces. <i>Journal of Applied Physics</i> , 2004 , 95, 7888-7891			2.5
2	Carrier-Induced Effects on Absorption and Emission in V-Groove Quantum Wire Diodes. <i>Physica Status Solidi A</i> , 2000 , 178, 249-253			
1	Selective Effects of the Host Matrix in Hydrogenated InGaAsN Alloys: Toward an Integrated Matrix/Defect Engineering Paradigm. <i>Advanced Functional Materials</i> , 2022 , 32, 2108862			15.6