

# Andrew W Poon

## List of Publications by Year in descending order

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121  
papers

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186209

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docs citations

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times ranked

2036  
citing authors

#	ARTICLE	IF	CITATIONS
1	Integrated Si <sub>3</sub> N <sub>4</sub> microresonator-based quantum light sources with high brightness using a subtractive wafer-scale platform. Optics Express, 2021, 29, 24750.	1.7	8
2	An optofluidic "tweezer-and-drag" cell stretcher in a microfluidic channel. Lab on A Chip, 2020, 20, 601-613.	3.1	34
3	Stress-released Si <sub>3</sub> N <sub>4</sub> fabrication process for dispersion-engineered integrated silicon photonics. Optics Express, 2020, 28, 17708.	1.7	22
4	Photoresponsive spiro-polymers generated in situ by C-H-activated polyspiroannulation. Nature Communications, 2019, 10, 5483.	5.8	46
5	Integrated Silicon Photonic Microresonators: Emerging Technologies. IEEE Journal of Selected Topics in Quantum Electronics, 2018, , 1-1.	1.9	33
6	Optical lattice generation using vertically embedded multimode-interference square-core polymer waveguides on a silicon chip. Optics Express, 2018, 26, 14752.	1.7	1
7	Design Principles for Heterogeneously Integrated III-V-on-Silicon Microdisk Unidirectional Singlemode Lasers. , 2018, , .		1
8	Heterogeneously integrated III-V-on-silicon microspiral disk lasers for optical interconnects. , 2017, , .		2
9	Vertically Embedded Multimode-Interference Waveguide-Based Optical Stretchers for Mechanical Characterization of Cells. , 2017, , .		0
10	Actively stabilized silicon microrings with integrated surface-state-absorption photodetectors using a slope-detection method. Optics Express, 2016, 24, 21286.	1.7	11
11	Actively stabilized silicon microring resonator switch arrays for optical interconnects. Proceedings of SPIE, 2016, , .	0.8	0
12	Characterization of surface-state absorption in foundry-fabricated silicon ridge waveguides at 1550 nm using photocurrents. , 2016, , .		2
13	Integrated Optofluidic Cell Stretchers Using Optical Lattices Generated from Vertically Embedded Multimode-Interference Waveguides. , 2016, , .		0
14	Silicon and hybrid silicon photonic devices for intra-datacenter applications: state of the art and perspectives [Invited]. Photonics Research, 2015, 3, B10.	3.4	87
15	Silicon-Nitride-Based Integrated Optofluidic Biochemical Sensors Using a Coupled-Resonator Optical Waveguide. Frontiers in Materials, 2015, 2, .	1.2	24
16	Waveguide-integrated Unidirectional-Emission Microspiral Lasers for Optical Interconnects. , 2015, , .		0
17	A 2Å–2 quantum photonic switch fabric using two-photon quantum interference in an integrated silicon microring resonator array. , 2015, , .		0
18	Hybrid silicon unidirectional-emission microspiral disk lasers for optical interconnect applications. , 2015, , .		2

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19	Active resonance wavelength stabilization for silicon microring resonators with an in-resonator defect-state-absorption-based photodetector. Optics Express, 2015, 23, 360.	1.7	52
20	Active Resonance Wavelength Stabilization for Silicon Microring Resonators Using Slope-Detection with an In-resonator Defect-state-absorption-based Photodetector. , 2015, , .		2
21	Actively Stabilized Silicon Microrings Integrated with Surface-state-absorption Photomonitors at 1310 nm Using a Slope-Detection Method. , 2015, , .		0
22	Coupled-resonator-optical-waveguide (CROW)-based On-chip Sensors with Multi-pixel Detection Using All-silicon Sub-bandgap Photodetectors. , 2014, , .		0
23	Direct-modulated waveguide-coupled microspiral disk lasers with spatially selective injection for on-chip optical interconnects. Optics Express, 2014, 22, 824.	1.7	46
24	Unfolding a design rule for microparticle buffering and dropping in microring-resonator-based add-drop devices. Lab on A Chip, 2014, 14, 1426-1436.	3.1	19
25	Towards Adaptively Tuned Silicon Microring Resonators for Optical Networks-on-Chip Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 136-149.	1.9	51
26	A 0.5-V P-Well/Deep N-Well Photodetector in 65-nm CMOS for Monolithic 850-nm Optical Receivers. IEEE Photonics Technology Letters, 2014, 26, 1184-1187.	1.3	13
27	Silicon coupled-resonator optical-waveguide-based biosensors using light-scattering pattern recognition with pixelized mode-field-intensity distributions. Scientific Reports, 2014, 4, 7528.	1.6	34
28	Directional-Emission III-V-on-Silicon Microspiral and Double-Notch Microdisk Lasers for Optical Interconnects. , 2014, , .		1
29	High-speed InGaAs photodetectors with low dark current selectively grown on SOI substrate. , 2014, , .		2
30	Silicon photonics for functional on-chip optical tweezers devices and circuits. , 2013, , .		0
31	All-silicon and epitaxially grown III-V-on-silicon photodetectors for on-chip optical interconnection applications. Proceedings of SPIE, 2013, , .	0.8	0
32	Silicon-on-insulator multimode-interference waveguide-based arrayed optical tweezers (SMART) for two-dimensional microparticle trapping and manipulation. Optics Express, 2013, 21, 1520.	1.7	13
33	Sub-bandgap linear-absorption-based photodetectors in avalanche mode in PN-diode-integrated silicon microring resonators. Optics Letters, 2013, 38, 5200.	1.7	28
34	Defect-State-Absorption Photocurrent in PN-Diode-Integrated Silicon Microring Resonators. , 2013, , .		0
35	Microparticle Guiding and Acceleration in Optical Lattices Generated by Silicon-on-Insulator Multimode-Interference Waveguide-based Arrayed Optical Tweezers (SMART). , 2013, , .		0
36	Silicon feedback-microring electro-optical switches with integrated surface-state-absorption linear photocurrent monitors. , 2013, , .		0

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37	Dynamic switching between microparticle buffering and dropping on a silicon nitride optofluidic microring resonator. , 2013, , .		0
38	Dynamic switching between microparticle buffering and dropping on a silicon nitride optofluidic microring resonator. , 2013, , .		0
39	Planar optical tweezers using tapered-waveguide junctions. Optics Letters, 2012, 37, 3000.	1.7	5
40	Optofluidic microparticle splitters using multimode-interference-based power splitters. , 2012, , .		2
41	Electro-optically tunable switches with 100GHz flat-top passband and 45dB extinction ratio using silicon high-order coupled-microring resonators for optical interconnects. , 2012, , .		0
42	Epitaxial III-V-on-silicon waveguide butt-coupled photodetectors. Optics Letters, 2012, 37, 4035.	1.7	34
43	Epitaxial III&#x2013;V-on-silicon waveguide butt-coupled photodetectors. , 2012, , .		1
44	CMOS photonics for optical manipulation of particles and biosensing. , 2012, , .		1
45	High-Speed Normal-Incidence p-i-n InGaAs Photodetectors Grown on Silicon Substrates by MOCVD. IEEE Photonics Technology Letters, 2012, 24, 237-239.	1.3	34
46	Optical trapping of microparticles using silicon nitride waveguide junctions and tapered-waveguide junctions on an optofluidic chip. Lab on A Chip, 2012, 12, 3803.	3.1	43
47	Silicon-on-insulator 100&#x00B5;m-core multimode interferometer waveguides for two-dimensional microparticle trapping and manipulation. , 2012, , .		0
48	Silicon High-Order Coupled-Microring-Based Electro-Optical Switches for On-Chip Optical Interconnects. IEEE Photonics Technology Letters, 2012, 24, 821-823.	1.3	73
49	Time-domain measurement of feedback-controlled electro-optically tunable time delay and advance in silicon microring resonators. , 2011, , .		0
50	Modeling of coupled-resonator optical waveguide (CROW) based refractive index sensors using pixelized spatial detection at a single wavelength. Optics Express, 2011, 19, 22227.	1.7	12
51	Electro-optical tunable time delay and advance in a silicon feedback-microring resonator. Optics Letters, 2011, 36, 1278.	1.7	16
52	Optical manipulation of microparticles using whispering-gallery modes in a silicon nitride microdisk resonator. Optics Letters, 2011, 36, 4257.	1.7	42
53	Microring and microdisk resonator-based devices for on-chip optical interconnects, particle manipulation, and biosensing. , 2011, , .		1
54	Silicon microresonators for on-chip optical interconnects and optofluidics. , 2011, , .		0

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55	Coupled-Resonator Optical Waveguide Sensors Using Multi-Channel Spatial Detection. , 2011, , .		2
56	Electro-Optical Tunable Time Delay and Advance in Silicon Feedback-Microring Resonators. , 2011, , .		0
57	Optical manipulation of microparticles using whispering-gallery-modes in a silicon nitride microdisk resonator. , 2011, , .		1
58	Large-scale-integrated silicon photonics using microdisk and microring resonators. Proceedings of SPIE, 2010, , .	0.8	0
59	Feedback-controlled resonance and temporal response modulations in silicon microring resonators. , 2010, , .		0
60	Optical manipulation and transport of microparticles on a silicon nitride microracetrack resonator add-drop device. , 2010, , .		1
61	Flow-assisted Single-beam Optothermal Manipulation of Microparticles. Optics Express, 2010, 18, 18483.	1.7	26
62	Optical manipulation and transport of microparticles on silicon nitride microring-resonator-based add-drop devices. Optics Letters, 2010, 35, 2855.	1.7	80
63	Electro-optical tunable time delay and advance in silicon microring resonators. Optics Letters, 2010, 35, 2940.	1.7	13
64	Two-photon absorption photocurrent in p-i-n diode embedded silicon microdisk resonators. Applied Physics Letters, 2010, 96, .	1.5	45
65	Cavity-Enhanced Photocurrent Generation in a p-i-n Diode Integrated Silicon Microring Resonator Matrix. , 2010, , .		0
66	Dual-microring resonator-coupled cross-connect switch element for on-chip optical interconnection. , 2009, , .		2
67	A serial-cascaded double-microring-based silicon photonic circuit for high-speed on-chip clock-recovery applications. , 2009, , .		3
68	Cascaded Microresonator-Based Matrix Switch for Silicon On-Chip Optical Interconnection. Proceedings of the IEEE, 2009, 97, 1216-1238.	16.4	225
69	Many-element coupled-resonator optical waveguides using gapless-coupled microdisk resonators. Optics Express, 2009, 17, 23617.	1.7	19
70	Cavity-enhanced photocurrent generation by 1.55- $\mu$ m wavelengths linear absorption in a p-i-n diode embedded silicon microring resonator. Applied Physics Letters, 2009, 95, .	1.5	89
71	101-Element Cascaded-Microdisk Resonators on a Silicon Chip. , 2009, , .		2
72	Microspiral Resonators for Integrated Photonics. Optics and Photonics News, 2008, 19, 48.	0.4	13

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73	On-Chip NRZ-to-PRZ Format Conversion Using Narrow-Band Silicon Microring Resonator-Based Notch Filters. <i>Journal of Lightwave Technology</i> , 2008, 26, 1950-1955.	2.7	27
74	Reciprocal transmissions and asymmetric modal distributions in waveguide-coupled spiral-shaped microdisk resonators: Reply. <i>Optics Express</i> , 2008, 16, 5876.	1.7	1
75	Silicon cross-connect filters using microring resonator coupled multimode-interference-based waveguide crossings. <i>Optics Express</i> , 2008, 16, 8649.	1.7	64
76	Multimode-interference waveguide crossing coupled microring-resonator-based switch nodes for photonic networks-on-chip. , 2008, , .		3
77	50-element cascaded-resonator devices with gapless non-evanescent coupling using double-notch-shaped microdisks on a silicon chip. , 2008, , .		2
78	Cascaded active silicon microresonator array cross-connect circuits for WDM networks-on-chip. , 2008, , .		47
79	Double-notch-shaped microdisk resonator-based devices in silicon-on-insulator. , 2008, , .		5
80	Nonlinear response of silicon double-notch-shaped microdisk resonators with non-evanescent coupling. , 2008, , .		1
81	Silicon Electro-Optic Switching Based on Coupled-Microring Resonators. , 2007, , .		4
82	Spiral-Shaped Microdisk Resonator Channel Drop/Add Filters: Asymmetry in Modal Distributions. , 2007, , .		1
83	Non-evanescently pumped Raman silicon lasers using spiral-shaped microdisks. , 2007, , .		2
84	Silicon depletion-type microdisk electro-optic modulators using selectively integrated Schottky diodes. , 2007, , .		0
85	NRZ-to-PRZ format conversion using silicon second-order coupled-microring resonator-based notch filters. , 2007, , .		11
86	Fano resonance-based electrically reconfigurable add-drop filters in silicon microring resonator-coupled Mach-Zehnder interferometers. <i>Optics Letters</i> , 2007, 32, 781.	1.7	111
87	Surface plasmon resonance-assisted coupling to whispering-gallery modes in micropillar resonators. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2007, 24, 1981.	0.9	10
88	Silicon microring carrier-injection-based modulators/switches with tunable extinction ratios and OR-logic switching by using waveguide cross-coupling. <i>Optics Express</i> , 2007, 15, 5069.	1.7	106
89	Electrically reconfigurable silicon microring resonator-based filter with waveguide-coupled feedback. <i>Optics Express</i> , 2007, 15, 9194.	1.7	117
90	Reciprocal transmissions and asymmetric modal distributions in waveguide-coupled spiral-shaped microdisk resonators. <i>Optics Express</i> , 2007, 15, 14650.	1.7	32

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91	Coupled spiral-shaped microdisk resonators with non-evanescent asymmetric inter-cavity coupling. Optics Express, 2007, 15, 17313.	1.7	26
92	Silicon depletion-type microdisk electro-optic modulators using selectively integrated Schottky diodes. , 2007, , .		0
93	Spiral-shaped microdisk resonator channel drop/add filters: Asymmetry in modal distributions. , 2007, , .		0
94	Silicon electro-optic switching based on coupled-microring resonators. , 2007, , .		0
95	Microring resonator-coupled multimode-interference-based crossings in 2 $\mu$ m <sup>2</sup> cross-grid array filters. , 2007, , .		2
96	Non-evanescently pumped raman silicon lasers using spiral-shaped microdisks. , 2007, , .		0
97	Coupled spiral-shaped microdisk resonators with asymmetric non-evanescent coupling. , 2007, , .		2
98	Microring-Resonator Cross-Connect Filters in Silicon Nitride: Rib Waveguide Dimensions Dependence. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1380-1387.	1.9	32
99	Silicon Polygonal Microdisk Resonators. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1438-1449.	1.9	33
100	Waveguide-coupled Square Micropillar Resonator-based Devices: Channel Filters and Electro-optic Switches with Embedded p-i-n Diodes. , 2006, , .		0
101	Electrically Tunable Fano Resonance Line Shapes by Using Racetrack Microresonator-Coupled Mach-Zehnder Interferometers with Embedded p-i-n Diodes. , 2006, , .		0
102	Spiral microdisk resonator-based channel filters on a silicon chip: probing the out-of-plane scattering spectra. , 2006, , .		1
103	Retrieving Dispersion Diagrams of Waveguide-Coupled Planar Photonic-Crystal-Embedded Microresonators. , 2006, , .		0
104	Low-Loss Multimode-Interference-Based Crossings for Silicon Wire Waveguides. IEEE Photonics Technology Letters, 2006, 18, 2260-2262.	1.3	139
105	Silicon electro-optic modulators using p-i-n diodes embedded 10-micron-diameter microdisk resonators. Optics Express, 2006, 14, 6851.	1.7	114
106	Surface modes in two-dimensional photonic crystal slabs with a flat dielectric margin. Optics Express, 2006, 14, 7368.	1.7	21
107	Silica polygonal micropillar resonators: fano line shapes tuning by using a Mach-Zehnder interferometer. , 2006, , .		3
108	Spiral Micropillar Resonator-Based Unidirectional Channel Drop Filters. , 2006, , .		3

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109	Silicon waveguide-coupled octagonal microresonators with directional coupling to single modes. , 2006, , .		0
110	Design of silicon MMI crossing laterally coupled microring resonators. , 2006, , .		1
111	Surface plasmon resonance enhanced coupling to whispering-gallery modes in optical micropillar resonators. , 2006, , .		2
112	Silicon electro-optic modulators based on p-i-n diodes integrated microdisk and microring resonators. , 2006, , .		0
113	Experimental demonstration of waveguide-coupled round-cornered octagonal microresonators in silicon nitride. Optics Letters, 2005, 30, 546.	1.7	22
114	Fano resonances in prism-coupled multimode square micropillar resonators. Optics Letters, 2005, 30, 1527.	1.7	7
115	Photonics Filters, Switches and Subsystems for Next-generation Optical Networks. HKIE Transactions, 2004, 11, 60-67.	1.9	8
116	Planar corner-cut square microcavities: ray optics and FDTD analysis. Optics Express, 2004, 12, 4864.	1.7	19
117	Dispersion-guided resonances in two-dimensional photonic-crystal-embedded microcavities. Optics Express, 2004, 12, 5711.	1.7	20
118	Fano resonances in prism-coupled square micropillars. Optics Letters, 2004, 29, 5.	1.7	42
119	Waveguide-coupled octagonal microdisk channel add-drop filters. Optics Letters, 2004, 29, 471.	1.7	31
120	Waveguide-coupled round-corner octagonal microresonator channel add-drop filters. , 2004, , .		0
121	Hexagonal micropillar cavities: multimode resonances and open-loop resonance linewidth broadening. , 2003, , .		6