

Shankar Kumar Selvaraja

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8459691/publications.pdf>

Version: 2024-02-01

147
papers

5,235
citations

236925

25
h-index

85541

71
g-index

147
all docs

147
docs citations

147
times ranked

4351
citing authors

#	ARTICLE	IF	CITATIONS
1	Silicon microring resonators. Laser and Photonics Reviews, 2012, 6, 47-73.	8.7	1,788
2	Silicon-on-Insulator Spectral Filters Fabricated With CMOS Technology. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 33-44.	2.9	418
3	High-efficiency fiber-to-chip grating couplers realized using an advanced CMOS-compatible Silicon-On-Insulator platform. Optics Express, 2010, 18, 18278.	3.4	418
4	Subnanometer Linewidth Uniformity in Silicon Nanophotonic Waveguide Devices Using CMOS Fabrication Technology. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 316-324.	2.9	270
5	Low-Loss Singlemode PECVD Silicon Nitride Photonic Wire Waveguides for 532-900 nm Wavelength Window Fabricated Within a CMOS Pilot Line. IEEE Photonics Journal, 2013, 5, 2202809-2202809.	2.0	204
6	Fabrication of Photonic Wire and Crystal Circuits in Silicon-on-Insulator Using 193-nm Optical Lithography. Journal of Lightwave Technology, 2009, 27, 4076-4083.	4.6	196
7	Compact Single-Mode Silicon Hybrid Rib/Strip Waveguide With Adiabatic Bends. IEEE Photonics Journal, 2011, 3, 422-432.	2.0	139
8	Low-loss amorphous silicon-on-insulator technology for photonic integrated circuitry. Optics Communications, 2009, 282, 1767-1770.	2.1	119
9	Grating-Based Optical Fiber Interfaces for Silicon-on-Insulator Photonic Integrated Circuits. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 571-580.	2.9	114
10	Silicon Photonic Integration Platform—Have We Found the Sweet Spot?. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 189-205.	2.9	112
11	Nonlinear properties of and nonlinear processing in hydrogenated amorphous silicon waveguides. Optics Express, 2011, 19, B146.	3.4	108
12	Planar Concave Grating Demultiplexer With High Reflective Bragg Reflector Facets. IEEE Photonics Technology Letters, 2008, 20, 309-311.	2.5	103
13	Silicon-organic hybrid (SOH) IQ modulator using the linear electro-optic effect for transmitting 16QAM at 112 Gbit/s. Optics Express, 2013, 21, 13219.	3.4	100
14	On-chip parametric amplification with 265-dB gain at telecommunication wavelengths using CMOS-compatible hydrogenated amorphous silicon waveguides. Optics Letters, 2011, 36, 552.	3.3	94
15	Nanophotonic Devices for Optical Interconnect. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1363-1375.	2.9	72
16	Silicon-on-Insulator Polarization Rotator Based on a Symmetry Breaking Silicon Overlay. IEEE Photonics Technology Letters, 2012, 24, 482-484.	2.5	60
17	Highly efficient grating coupler between optical fiber and silicon photonic circuit. , 2009, , .		53
18	Highly uniform and low-loss passive silicon photonics devices using a 300mm CMOS platform. , 2014, , .		52

#	ARTICLE	IF	CITATIONS
19	Bridging the Gap Between Nanophotonic Waveguide Circuits and Single Mode Optical Fibers Using Diffractive Grating Structures. Journal of Nanoscience and Nanotechnology, 2010, 10, 1551-1562.	0.9	49
20	Ultra-compact low-loss broadband waveguide taper in silicon-on-insulator. Optics Express, 2017, 25, 10196.	3.4	49
21	Near-Infrared Grating Couplers for Silicon Nitride Photonic Wires. IEEE Photonics Technology Letters, 2012, 24, 1700-1703.	2.5	46
22	Supercontinuum generation in hydrogenated amorphous silicon waveguides at telecommunication wavelengths. Optics Express, 2014, 22, 3089.	3.4	38
23	Grating-Assisted Fiber to Chip Coupling for SOI Photonic Circuits. Applied Sciences (Switzerland), 2018, 8, 1142.	2.5	38
24	On-Chip Chemical Sensing Using Slot-Waveguide-Based Ring Resonator. IEEE Sensors Journal, 2020, 20, 5970-5975.	4.7	33
25	Loss reduction in silicon nanophotonic waveguide micro-bends through etch profile improvement. Optics Communications, 2011, 284, 2141-2144.	2.1	31
26	High-speed waveguide integrated silicon photodetector on a SiN-SOI platform for short reach datacom. Optics Letters, 2019, 44, 1682.	3.3	27
27	Athermal arrayed waveguide gratings in silicon-on-insulator by overlaying a polymer cladding on narrowed arrayed waveguides. Applied Optics, 2012, 51, 1251.	1.8	26
28	High efficiency DBR assisted grating chirp generators for silicon nitride fiber-chip coupling. Scientific Reports, 2019, 9, 18821.	3.3	24
29	Generation of tunable, high repetition rate optical frequency combs using on-chip silicon modulators. Optics Express, 2018, 26, 10744.	3.4	21
30	Efficient and tunable strip-to-slot fundamental mode coupling. Optics Express, 2018, 26, 438.	3.4	20
31	Thermally-induced optical modulation in a vanadium dioxide-on-silicon waveguide. OSA Continuum, 2020, 3, 132.	1.8	20
32	High Responsivity and Photovoltaic Effect Based on Vertical Transport in Multilayer In ₂ Se ₃ . Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900932.	1.8	19
33	SOI thickness uniformity improvement using corrective etching for silicon nano-photonic device. , 2011, , .		15
34	Polarization-independent angle-tolerant mid-infrared spectral resonance using amorphous germanium high contrast gratings for notch filtering application. OSA Continuum, 2020, 3, 1194.	1.8	15
35	Silicon-on-Insulator CWDM Power Monitor/Receiver With Integrated Thin-Film InGaAs Photodetectors. IEEE Photonics Technology Letters, 2009, 21, 1423-1425.	2.5	14
36	Thermal trimming and tuning of hydrogenated amorphous silicon nanophotonic devices. Applied Physics Letters, 2010, 97, 071120.	3.3	14

#	ARTICLE	IF	CITATIONS
37	Compact broadband low-loss taper for coupling to a silicon nitride photonic wire. Optics Letters, 2018, 43, 3433.	3.3	14
38	High-Efficiency Grating Coupler in 400Ånm and 500Ånm PECVD Silicon Nitride With Bottom Reflector. IEEE Photonics Journal, 2019, 11, 1-13.	2.0	14
39	On-chip unidirectional dual-band fiber-chip grating coupler in silicon nitride. OSA Continuum, 2018, 1, 864.	1.8	13
40	Optical frequency comb based on nonlinear spectral broadening of a phase modulated comb source driven by dual offset locked carriers. Optics Letters, 2020, 45, 893.	3.3	12
41	Tunable coupling-induced resonance splitting in a self-coupled silicon ring cavity with robust spectral characteristics. Optics Letters, 2017, 42, 2854.	3.3	11
42	Real-time compensation of errors in refractive index shift measurements of microring sensors using thermo-optic coefficients. Optics Express, 2018, 26, 13461.	3.4	11
43	Polar Semiconducting Scandium Nitride as an Infrared Plasmon and Phonon Polaritonic Material. Nano Letters, 2022, 22, 5182-5190.	9.1	11
44	Deposited amorphous silicon-on-insulator technology for nano-photonic integrated circuits. Optics Communications, 2014, 313, 210-216.	2.1	10
45	Epitaxial BaTiO ₃ on Si(100) with In-Plane and Out-of-Plane Polarization Using a Single TiN Transition Layer. ACS Applied Electronic Materials, 2021, 3, 687-695.	4.3	10
46	Silicon nanophotonic waveguides and their applications. , 2008, , .		9
47	Broadly tunable wideband optical single sideband generation using self-coupled silicon resonator. Optics Express, 2019, 27, 8476.	3.4	9
48	Carbon-nanotube-on-waveguide thermo-optic tuners. Optics Letters, 2018, 43, 5194.	3.3	9
49	Compact ring resonator enhanced silicon metal-semiconductor-metal photodetector in SiN-on-SOI platform. Optics Express, 2020, 28, 33644.	3.4	9
50	Enhanced nonlinear spectral broadening and sub-picosecond pulse generation by adaptive spectral phase optimization of electro-optic frequency combs. Optics Express, 2020, 28, 11215.	3.4	8
51	Germanium-on-Glass waveguides for Mid-IR photonics. , 2016, , .		8
52	Low-loss 7â€bit Sâ€band CMOS passive phase shifter with digital control. International Journal of Circuit Theory and Applications, 2019, 47, 542-548.	2.0	7
53	Enhanced all-optical cavity-tuning using graphene. Optics Express, 2019, 27, 34093.	3.4	7
54	High-efficiency vertical fibre-to-polymer waveguide coupling scheme for scalable polymer photonic circuits. Optics Express, 2021, 29, 9699.	3.4	6

#	ARTICLE	IF	CITATIONS
55	Comprehensive grating enabled silicon nitride fiber-chip couplers in the SNIR wavelength band. Optics Express, 2022, 30, 4327.	3.4	6
56	Effect of device density on the uniformity of silicon nano-photonics waveguide devices. , 2009, , .		5
57	Generation of tunable, high repetition rate frequency combs with equalized spectra using carrier injection based silicon modulators. , 2016, , .		5
58	On-chip optical transduction scheme for graphene nano-electro-mechanical systems in silicon-photonics platform. Optics Letters, 2018, 43, 659.	3.3	5
59	Two-Step Liquid Phase Crystallized Germanium-Based Photodetector for Near-Infrared Applications. IEEE Sensors Journal, 2020, 20, 4660-4666.	4.7	5
60	Common mode disturbance tolerant broadband differential SPDT switch for Ka-band radar. IEICE Electronics Express, 2021, 18, 20200428-20200428.	0.8	5
61	Alignment-tolerant broadband compact taper for low-loss coupling to a silicon-on-insulator photonic wire waveguide. Applied Optics, 2019, 58, 6222.	1.8	5
62	Generation of a multi-wavelength source spanning the entire C-band by nonlinear spectral broadening of dual-carrier electro-optic frequency combs. OSA Continuum, 2020, 3, 2185.	1.8	5
63	On-chip silicon nano-slab photodetector integrated wavelength division de-multiplexer in the 850nm band. Applied Optics, 2022, 61, 1403.	1.8	5
64	Silicon nanophotonic wire structures fabricated by 193nm optical lithography. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	4
65	High-efficiency broad-bandwidth subwavelength grating-based fiber-chip coupler in silicon-on-insulator. Optical Engineering, 2018, 57, 1.	1.0	4
66	An Ultra-Portable Vis-NIR Spectrometer with an Integrated Light Source for Chemometric Applications. Journal of the Electrochemical Society, 2020, 167, 167515.	2.9	4
67	On-chip silicon photonics based grating assisted vibration sensor. Optics Express, 2020, 28, 27495.	3.4	4
68	Single Stage Low Noise Inductor-Less TIA for RF Over Fiber Communication. IEEE Access, 2021, 9, 141504-141512.	4.2	4
69	Broadly tunable and low power penalty radio frequency phase shifter using a coupled silicon microcavity. Applied Optics, 2020, 59, 425.	1.8	4
70	Silicon Photonics Based On-Chip Cantilever Vibration Measurement. , 2018, , .		3
71	Broadband optical single sideband generation using an ultra high shape-factor self coupled ring resonator. Optics Communications, 2020, 461, 125224.	2.1	3
72	Mitigation of carrier induced optical bistability in silicon ring resonators. Optics Communications, 2021, 493, 127021.	2.1	3

#	ARTICLE	IF	CITATIONS
73	Silicon photonics based on-chip vibrometer. , 2018, , .		3
74	Method to fabricate taper waveguide using fixed-beam moving stage electron-beam lithography. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2019, 18, 1.	0.9	3
75	Probing optical mode hybridization in an integrated graphene nano-optomechanical system. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 1122.	2.1	3
76	Microwave power induced resonance shifting of silicon ring modulators for continuously tunable, bandwidth scaled frequency combs. Optics Express, 2020, 28, 13032.	3.4	3
77	Laser-Crystallized Epitaxial Germanium on Silicon-Based Near-Infrared Photodetector. IEEE Sensors Journal, 2022, 22, 11682-11689.	4.7	3
78	Planar Concave Grating Demultiplexer with Distributed Bragg Reflection Facets. , 2007, , .		2
79	Lateral Dopant Diffusion Length Measurements Using Silicon Microring Resonators. IEEE Photonics Technology Letters, 2018, 30, 2163-2166.	2.5	2
80	All-Optical Wavelength Multicasting in Quadruple Resonance-Split Coupled Silicon Microring Cavity. IEEE Photonics Journal, 2018, 10, 1-8.	2.0	2
81	Quantification of Curcuminoids in Turmeric Using Visible Reflectance Spectra and a Decision-Tree Based Chemometric Approach. Journal of the Electrochemical Society, 2020, 167, 167528.	2.9	2
82	Athermal AWGs in SOI by overlaying a Polymer Cladding on Narrowed Arrayed Waveguides. , 2011, , .		2
83	Fano Resonance Assisted Tunable Microwave Photonic Phase Shifter in Loaded Ring Resonator. , 2018, , .		2
84	A versatile, C-band spanning, high repetition rate, cascaded four wave mixing based multi-wavelength source. , 2018, , .		2
85	On-chip silicon-photonics based integrated vibrometer. , 2019, , .		2
86	Adaptive pulse shaping for enhanced spectral broadening of high repetition rate, electro-optic frequency combs. , 2019, , .		2
87	Photonics Integrated PiezoMEMS-PipMEMS: A Scalable Hybrid Platform for Next-Generation MEMS. , 2020, 4, 1-4.		2
88	Silicon nanophotonic waveguide circuits and devices. , 2008, , .		1
89	Optical Interconnect Technologies based on Silicon Photonics. Materials Research Society Symposia Proceedings, 2011, 1335, 113.	0.1	1
90	Supercontinuum generation in hydrogenated amorphous silicon waveguide. , 2013, , .		1

#	ARTICLE	IF	CITATIONS
91	Subwavelength grating fiber chip coupler in SOI with enhanced bandwidth and efficiency. , 2014, , .		1
92	Internally-loaded ring resonator configuration for optical filter applications. CSI Transactions on ICT, 2017, 5, 135-141.	1.0	1
93	Optical single sideband generation using self-coupled micro ring resonator in SOI. , 2017, , .		1
94	Integrated silicon nitride based TE dual-band grating coupler. , 2017, , .		1
95	Optical Frequency Comb synthesis for super channel based high-bandwidth data communication. CSI Transactions on ICT, 2018, 6, 33-38.	1.0	1
96	Visible Wavelength Photonic Integrated Circuit in Silicon Nitride Platform for On-Chip Sensing Applications. , 2019, , .		1
97	High-Speed Cavity Enhanced Silicon Photodetector on SiN-SOI Platform for Short Reach Optical Datacom. , 2019, , .		1
98	WDM integrated silicon nano-slab photodetector for short-reach datacom on silicon nitride-on-SOI platform. , 2021, , .		1
99	Fluid sensing strategies adopted in photonic devices: A review. Optics and Laser Technology, 2021, 139, 106975.	4.6	1
100	
 Lateral Diffusion Length measurement of the dopants in Silicon using micro ring resonator. , 2016, , .		1
101	A Silicon Photonics Platform with Heterogeneous III-V Integration. , 2011, , .		1
102	CMOS-Compatible Silicon Micro-Ring Resonator Based Optical Delay Lines. , 2016, , .		1
103	Frequency offset locked dual-carrier excitation of phase-modulated electro-optic frequency combs for bandwidth scaling and nonlinear spectral broadening. , 2018, , .		1
104	Four channel 48Gbps Multicasting in a Coupled Si Ring Resonator with Tunable Channel Spacing. , 2018, , .		1
105	Compact broadband taper for low-loss coupling to a silicon nitride photonic wire. , 2018, , .		1
106	Infrared (IR) photoresistors based on recrystallized amorphous germanium films on silicon using liquid phase epitaxy. , 2018, , .		1
107	Demonstration of alignment-error-free patterning of tapered waveguide using fixed beam moving stage e-beam lithography. , 2019, , .		1
108	Bandwidth scaling of silicon modulator-based combs using multi-carriers and frequency offset locking. OSA Continuum, 2020, 3, 921.	1.8	1

#	ARTICLE	IF	CITATIONS
109	Silicon Photonics enabled on-chip Optical Readout of piezoMEMS Resonators. , 2020, , .		1
110	Hybrid SIN-SOI Bragg Filter in Presence of Stress-Optic Effect. IEEE Journal of Quantum Electronics, 2022, 58, 1-7.	1.9	1
111	Compact low-loss strip to double-slot waveguide coupler for sensing application. , 2021, , .		1
112	Four-Wave-Mixing Gain and All-optical Signal Processing in Silicon Nanowires. , 2011, , .		0
113	Sensitivity analysis of tunable double microring resonator based intensity sensor. , 2014, , .		0
114	Feasibility of strain detection in graphene NEMS using silicon photonics. , 2016, , .		0
115	Diffusion doped plasma dispersion silicon modulators. , 2017, , .		0
116	Compact tapers for silicon grating fibre-chip couplers in O, C and L band. , 2017, , .		0
117	A novel scheme to excite SOI slot waveguide mode. , 2017, , .		0
118	Tunable mode hybridisation in compact SOI coupled ring cavity. , 2017, , .		0
119	Simultaneous generation of laser sources in S, C and L bands through four-wave mixing of electro-optic frequency combs. , 2018, , .		0
120	Silicon Slot Waveguide Mach-Zehnder Using Fixed Electron Beam Moving Stage Patterning Technique. , 2018, , .		0
121	On-chip Silicon photonics assisted frequency doubling and pulse generation. , 2018, , .		0
122	On-chip four channel multicasting using a coupled cavity system. , 2018, , .		0
123	Amorphous Germanium for Mid Infrared Photonics. , 2019, , .		0
124	Hybrid Waveguide Platform for Integrated Photonics Application. , 2019, , .		0
125	Compact Tapers for Wire-to-Slot Fundamental Mode Coupling. , 2019, , .		0
126	Mitigation of thermally induced non-linear effects in silicon ring resonator. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
127	Adaptive Spectral Phase Optimization of High Repetition Rate Electro-Optic Frequency Combs for Enhanced Nonlinear Spectral Broadening. , 2019, , .		0
128	Microwave Power Dependent Resonance Shifts in Silicon Ring Modulators for Continuous Wavelength Tuning and Bandwidth Scaling of on-Chip, Electro-Optic, Optical Frequency Combs. , 2019, , .		0
129	Phase-orthogonal FIR filter based reactive power measurement for power meters. Analog Integrated Circuits and Signal Processing, 2021, 108, 317-322.	1.4	0
130	Fano Resonances in Corrugated Ring coupled Bragg Waveguide System. , 2021, , .		0
131	Near Field Study of Integrated Silicon Photonics Platform Based Passive Optical Components. , 2016, , .		0
132	Design and Fabrication of Subwavelength grating couplers for efficient Off chip fiber coupling. , 2016, , .		0
133	High-Speed Waveguide Integrated Si Photodetector on SiN-SOI Platform for Short Reach Optical Interconnect. , 2018, , .		0
134	Scaling Bandwidths of Optical Frequency Combs generated in Silicon Modulators through Heterodyne Optical Frequency Locking. , 2018, , .		0
135	Power and Bandwidth Scaling of Electro-Optic Frequency Comb using Cascaded Four-Wave Mixing in a loop augmented by Tailored Optical Feedback. , 2018, , .		0
136	Tunable Suppression Ratio and SFDR Enhanced Single Sideband Generation on an Integrated Platform. , 2018, , .		0
137	Silicon-photonics-assisted on-chip RF signal processing. , 2018, , .		0
138	Silicon photonic IC embedded optical-PCB for high-speed interconnect application. , 2018, , .		0
139	Low-power four-wave mixing in graphene-on-SiN micro-ring resonator. , 2019, , .		0
140	CNT micro-heater on SOI micro-ring resonator. , 2019, , .		0
141	Flexible silicon nitride photonic integrated circuit embedded in polymer handle. , 2019, , .		0
142	Observation of novel optical and microwave power dependent effects in silicon micro-ring modulator based frequency comb generators. , 2019, , .		0
143	Broadband on-chip silicon-photonics-enabled optical single sideband generation (Conference) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T		0
144	Controlled crystallisation of thermal evaporated GST-on-SOI for photonic neuromorphic application. , 2021, , .		0

#	ARTICLE	IF	CITATIONS
145	Fluidics Integrated Silicon Photonics Based Continuous Monitoring of Electrolyte Concentration in a Flow-channel. , 2021, , .		0
146	Sputter-deposited PZT-on-Silicon electro-optic modulator. , 2021, , .		0
147	Controlled phase change of GST-on-SOI for photonic neuromorphic application. , 2021, , .		0