

Shankar Kumar Selvaraja

List of Publications by Year in descending order

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147
papers

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147
docs citations

147
times ranked

4351
citing authors

#	ARTICLE	IF	CITATIONS
1	Hybrid SiN-SOI Bragg Filter in Presence of Stress-Optic Effect. IEEE Journal of Quantum Electronics, 2022, 58, 1-7.	1.9	1
2	On-chip silicon nano-slab photodetector integrated wavelength division de-multiplexer in the 850nm band. Applied Optics, 2022, 61, 1403.	1.8	5
3	Comprehensive grating enabled silicon nitride fiber-chip couplers in the SNIR wavelength band. Optics Express, 2022, 30, 4327.	3.4	6
4	Laser-Crystallized Epitaxial Germanium on Silicon-Based Near-Infrared Photodetector. IEEE Sensors Journal, 2022, 22, 11682-11689.	4.7	3
5	Polar Semiconducting Scandium Nitride as an Infrared Plasmon and Phonon Polaritonic Material. Nano Letters, 2022, 22, 5182-5190.	9.1	11
6	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
7	WDM integrated silicon nano-slab photodetector for short-reach datacom on silicon nitride-on-SOI platform. , 2021, , .		1
8	Common mode disturbance tolerant broadband differential SPDT switch for Ka-band radar. IEICE Electronics Express, 2021, 18, 20200428-20200428.	0.8	5
9	High-efficiency vertical fibre-to-polymer waveguide coupling scheme for scalable polymer photonic circuits. Optics Express, 2021, 29, 9699.	3.4	6
10	Phase-orthogonal FIR filter based reactive power measurement for power meters. Analog Integrated Circuits and Signal Processing, 2021, 108, 317-322.	1.4	0
11	Fano Resonances in Corrugated Ring coupled Bragg Waveguide System. , 2021, , .		0
12	Fluid sensing strategies adopted in photonic devices: A review. Optics and Laser Technology, 2021, 139, 106975.	4.6	1
13	Mitigation of carrier induced optical bistability in silicon ring resonators. Optics Communications, 2021, 493, 127021.	2.1	3
14	Single Stage Low Noise Inductor-Less TIA for RF Over Fiber Communication. IEEE Access, 2021, 9, 141504-141512.	4.2	4
15	Controlled crystallisation of thermal evaporated GST-on-SOI for photonic neuromorphic application. , 2021, , .		0
16	Fluidics Integrated Silicon Photonics Based Continuous Monitoring of Electrolyte Concentration in a Flow-channel. , 2021, , .		0
17	Sputter-deposited PZT-on-Silicon electro-optic modulator. , 2021, , .		0
18	Controlled phase change of GST-on-SOI for photonic neuromorphic application. , 2021, , .		0

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19	Compact low-loss strip to double-slot waveguide coupler for sensing application. , 2021, , .		1
20	High Responsivity and Photovoltaic Effect Based on Vertical Transport in Multilayer In_2Se_3 . Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900932.	1.8	19
21	On-Chip Chemical Sensing Using Slot-Waveguide-Based Ring Resonator. IEEE Sensors Journal, 2020, 20, 5970-5975.	4.7	33
22	Broadband optical single sideband generation using an ultra high shape-factor self coupled ring resonator. Optics Communications, 2020, 461, 125224.	2.1	3
23	Two-Step Liquid Phase Crystallized Germanium-Based Photodetector for Near-Infrared Applications. IEEE Sensors Journal, 2020, 20, 4660-4666.	4.7	5
24	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
25	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
26	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
27	On-chip silicon photonics based grating assisted vibration sensor. Optics Express, 2020, 28, 27495.	3.4	4
28	Thermally-induced optical modulation in a vanadium dioxide-on-silicon waveguide. OSA Continuum, 2020, 3, 132.	1.8	20
29	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
30	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
31	Photonics Integrated PiezoMEMS-PipMEMS: A Scalable Hybrid Platform for Next-Generation MEMS. , 2020, 4, 1-4.		2
32	Broadly tunable and low power penalty radio frequency phase shifter using a coupled silicon microcavity. Applied Optics, 2020, 59, 425.	1.8	4
33	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
34	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
35	Bandwidth scaling of silicon modulator-based combs using multi-carriers and frequency offset locking. OSA Continuum, 2020, 3, 921.	1.8	1
36	Microwave power induced resonance shifting of silicon ring modulators for continuously tunable, bandwidth scaled frequency combs. Optics Express, 2020, 28, 13032.	3.4	3

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37	Compact ring resonator enhanced silicon metal-semiconductor-metal photodetector in SiN-on-SOI platform. Optics Express, 2020, 28, 33644.	3.4	9
38	Silicon Photonics enabled on-chip Optical Readout of piezoMEMS Resonators. , 2020, , .		1
39	High-Efficiency Grating Coupler in 400Ånm and 500Ånm PECVD Silicon Nitride With Bottom Reflector. IEEE Photonics Journal, 2019, 11, 1-13.	2.0	14
40	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
41	Amorphous Germanium for Mid Infrared Photonics. , 2019, , .		0
42	Hybrid Waveguide Platform for Integrated Photonics Application. , 2019, , .		0
43	Visible Wavelength Photonic Integrated Circuit in Silicon Nitride Platform for On-Chip Sensing Applications. , 2019, , .		1
44	Compact Tapers for Wire-to-Slot Fundamental Mode Coupling. , 2019, , .		0
45	Mitigation of thermally induced non-linear effects in silicon ring resonator. , 2019, , .		0
46	High-Speed Cavity Enhanced Silicon Photodetector on SiN-SOI Platform for Short Reach Optical Datacom. , 2019, , .		1
47	Adaptive Spectral Phase Optimization of High Repetition Rate Electro-Optic Frequency Combs for Enhanced Nonlinear Spectral Broadening. , 2019, , .		0
48	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
49	High efficiency DBR assisted grating chirp generators for silicon nitride fiber-chip coupling. Scientific Reports, 2019, 9, 18821.	3.3	24
50	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
51	Broadly tunable wideband optical single sideband generation using self-coupled silicon resonator. Optics Express, 2019, 27, 8476.	3.4	9
52	Enhanced all-optical cavity-tuning using graphene. Optics Express, 2019, 27, 34093.	3.4	7
53	High-speed waveguide integrated silicon photodetector on a SiN-SOI platform for short reach datacom. Optics Letters, 2019, 44, 1682.	3.3	27
54	Low-power four-wave mixing in graphene-on-SiN micro-ring resonator. , 2019, , .		0

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55	CNT micro-heater on SOI micro-ring resonator. , 2019, , .		0
56	Flexible silicon nitride photonic integrated circuit embedded in polymer handle. , 2019, , .		0
57	Observation of novel optical and microwave power dependent effects in silicon micro-ring modulator based frequency comb generators. , 2019, , .		0
58	On-chip silicon-photonics based integrated vibrometer. , 2019, , .		2
59	Broadband on-chip silicon-photonics-enabled optical single sideband generation (Conference) Tj ETQq1 1 0.784314 rgBT /Ovgrlock 10 T		
60	Demonstration of alignment-error-free patterning of tapered waveguide using fixed beam moving stage e-beam lithography. , 2019, , .		1
61	Adaptive pulse shaping for enhanced spectral broadening of high repetition rate, electro-optic frequency combs. , 2019, , .		2
62	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
63	Optical Frequency Comb synthesis for super channel based high-bandwidth data communication. CSI Transactions on ICT, 2018, 6, 33-38.	1.0	1
64	Silicon Photonics Based On-Chip Cantilever Vibration Measurement. , 2018, , .		3
65	Lateral Dopant Diffusion Length Measurements Using Silicon Microring Resonators. IEEE Photonics Technology Letters, 2018, 30, 2163-2166.	2.5	2
66	All-Optical Wavelength Multicasting in Quadruple Resonance-Split Coupled Silicon Microring Cavity. IEEE Photonics Journal, 2018, 10, 1-8.	2.0	2
67	Grating-Assisted Fiber to Chip Coupling for SOI Photonic Circuits. Applied Sciences (Switzerland), 2018, 8, 1142.	2.5	38
68	Simultaneous generation of laser sources in S, C and L bands through four-wave mixing of electro-optic frequency combs. , 2018, , .		0
69	Silicon Slot Waveguide Mach-Zehnder Using Fixed Electron Beam Moving Stage Patterning Technique. , 2018, , .		0
70	On-chip Silicon photonics assisted frequency doubling and pulse generation. , 2018, , .		0
71	On-chip four channel multicasting using a coupled cavity system. , 2018, , .		0
72	Efficient and tunable strip-to-slot fundamental mode coupling. Optics Express, 2018, 26, 438.	3.4	20

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73	Generation of tunable, high repetition rate optical frequency combs using on-chip silicon modulators. Optics Express, 2018, 26, 10744.	3.4	21
74	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
75	Compact broadband low-loss taper for coupling to a silicon nitride photonic wire. Optics Letters, 2018, 43, 3433.	3.3	14
76	On-chip optical transduction scheme for graphene nano-electro-mechanical systems in silicon-photonic platform. Optics Letters, 2018, 43, 659.	3.3	5
77	High-efficiency broad-bandwidth subwavelength grating-based fiber-chip coupler in silicon-on-insulator. Optical Engineering, 2018, 57, 1.	1.0	4
78	Carbon-nanotube-on-waveguide thermo-optic tuners. Optics Letters, 2018, 43, 5194.	3.3	9
79	On-chip unidirectional dual-band fiber-chip grating coupler in silicon nitride. OSA Continuum, 2018, 1, 864.	1.8	13
80	Frequency offset locked dual-carrier excitation of phase-modulated electro-optic frequency combs for bandwidth scaling and nonlinear spectral broadening. , 2018, , .		1
81	Four channel 48Gbps Multicasting in a Coupled Si Ring Resonator with Tunable Channel Spacing. , 2018, , .		1
82	High-Speed Waveguide Integrated Si Photodetector on SiN-SOI Platform for Short Reach Optical Interconnect. , 2018, , .		0
83	Fano Resonance Assisted Tunable Microwave Photonic Phase Shifter in Loaded Ring Resonator. , 2018, , .		2
84	Scaling Bandwidths of Optical Frequency Combs generated in Silicon Modulators through Heterodyne Optical Frequency Locking. , 2018, , .		0
85	Power and Bandwidth Scaling of Electro-Optic Frequency Comb using Cascaded Four-Wave Mixing in a loop augmented by Tailored Optical Feedback. , 2018, , .		0
86	Tunable Suppression Ratio and SFDR Enhanced Single Sideband Generation on an Integrated Platform. , 2018, , .		0
87	A versatile, C-band spanning, high repetition rate, cascaded four wave mixing based multi-wavelength source. , 2018, , .		2
88	Silicon-photonic-assisted on-chip RF signal processing. , 2018, , .		0
89	Silicon photonic IC embedded optical-PCB for high-speed interconnect application. , 2018, , .		0
90	Compact broadband taper for low-loss coupling to a silicon nitride photonic wire. , 2018, , .		1

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91	Silicon photonics based on-chip vibrometer. , 2018, , .		3
92	Infrared (IR) photoresistors based on recrystallized amorphous germanium films on silicon using liquid phase epitaxy. , 2018, , .		1
93	Diffusion doped plasma dispersion silicon modulators. , 2017, , .		0
94	Internally-loaded ring resonator configuration for optical filter applications. CSI Transactions on ICT, 2017, 5, 135-141.	1.0	1
95	Optical single sideband generation using self-coupled micro ring resonator in SOI. , 2017, , .		1
96	Compact tapers for silicon grating fibre-chip couplers in O, C and L band. , 2017, , .		0
97	A novel scheme to excite SOI slot waveguide mode. , 2017, , .		0
98	Tunable mode hybridisation in compact SOI coupled ring cavity. , 2017, , .		0
99	Ultra-compact low-loss broadband waveguide taper in silicon-on-insulator. Optics Express, 2017, 25, 10196.	3.4	49
100	Tunable coupling-induced resonance splitting in a self-coupled silicon ring cavity with robust spectral characteristics. Optics Letters, 2017, 42, 2854.	3.3	11
101	Integrated silicon nitride based TE dual-band grating coupler. , 2017, , .		1
102	Feasibility of strain detection in graphene NEMS using silicon photonics. , 2016, , .		0
103	Generation of tunable, high repetition rate frequency combs with equalized spectra using carrier injection based silicon modulators. , 2016, , .		5
104	
 Lateral Diffusion Length measurement of the dopants in Silicon using micro ring resonator. , 2016, , .		1
105	Germanium-on-Glass waveguides for Mid-IR photonics. , 2016, , .		8
106	CMOS-Compatible Silicon Micro-Ring Resonator Based Optical Delay Lines. , 2016, , .		1
107	Near Field Study of Integrated Silicon Photonics Platform Based Passive Optical Components. , 2016, , .		0
108	Design and Fabrication of Subwavelength grating couplers for efficient Off chip fiber coupling. , 2016, , .		0

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109	Sensitivity analysis of tunable double microring resonator based intensity sensor. , 2014, , .		0
110	Highly uniform and low-loss passive silicon photonics devices using a 300mm CMOS platform. , 2014, , .		52
111	Subwavelength grating fiber chip coupler in SOI with enhanced bandwidth and efficiency. , 2014, , .		1
112	Supercontinuum generation in hydrogenated amorphous silicon waveguides at telecommunication wavelengths. Optics Express, 2014, 22, 3089.	3.4	38
113	Deposited amorphous silicon-on-insulator technology for nano-photonic integrated circuits. Optics Communications, 2014, 313, 210-216.	2.1	10
114	Silicon Photonic Integration Platformâ€™Have We Found the Sweet Spot?. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 189-205.	2.9	112
115	Low-Loss Singlemode PECVD Silicon Nitride Photonic Wire Waveguides for 532â€™900 nm Wavelength Window Fabricated Within a CMOS Pilot Line. IEEE Photonics Journal, 2013, 5, 2202809-2202809.	2.0	204
116	Supercontinuum generation in hydrogenated amorphous silicon waveguide. , 2013, , .		1
117	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
118	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
119	Near-Infrared Grating Couplers for Silicon Nitride Photonic Wires. IEEE Photonics Technology Letters, 2012, 24, 1700-1703.	2.5	46
120	Silicon-on-Insulator Polarization Rotator Based on a Symmetry Breaking Silicon Overlay. IEEE Photonics Technology Letters, 2012, 24, 482-484.	2.5	60
121	Silicon microring resonators. Laser and Photonics Reviews, 2012, 6, 47-73.	8.7	1,788
122	SOI thickness uniformity improvement using corrective etching for silicon nano-photonic device. , 2011, , .		15
123	Nonlinear properties of and nonlinear processing in hydrogenated amorphous silicon waveguides. Optics Express, 2011, 19, B146.	3.4	108
124	On-chip parametric amplification with 265â€™dB gain at telecommunication wavelengths using CMOS-compatible hydrogenated amorphous silicon waveguides. Optics Letters, 2011, 36, 552.	3.3	94
125	Four-Wave-Mixing Gain and All-optical Signal Processing in Silicon Nanowires. , 2011, , .		0
126	Compact Single-Mode Silicon Hybrid Rib/Strip Waveguide With Adiabatic Bends. IEEE Photonics Journal, 2011, 3, 422-432.	2.0	139

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127	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
128	Loss reduction in silicon nanophotonic waveguide micro-bends through etch profile improvement. Optics Communications, 2011, 284, 2141-2144.	2.1	31
129	Optical Interconnect Technologies based on Silicon Photonics. Materials Research Society Symposia Proceedings, 2011, 1335, 113.	0.1	1
130	Athermal AWGs in SOI by overlaying a Polymer Cladding on Narrowed Arrayed Waveguides. , 2011, , .		2
131	A Silicon Photonics Platform with Heterogeneous III-V Integration. , 2011, , .		1
132	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
133	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
134	Silicon-on-Insulator Spectral Filters Fabricated With CMOS Technology. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 33-44.	2.9	418
135	Nanophotonic Devices for Optical Interconnect. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1363-1375.	2.9	72
136	Thermal trimming and tuning of hydrogenated amorphous silicon nanophotonic devices. Applied Physics Letters, 2010, 97, 071120.	3.3	14
137	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
138	Highly efficient grating coupler between optical fiber and silicon photonic circuit. , 2009, , .		53
139	Effect of device density on the uniformity of silicon nano-photonic waveguide devices. , 2009, , .		5
140	Low-loss amorphous silicon-on-insulator technology for photonic integrated circuitry. Optics Communications, 2009, 282, 1767-1770.	2.1	119
141	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
142	Silicon-on-Insulator CWDM Power Monitor/Receiver With Integrated Thin-Film InGaAs Photodetectors. IEEE Photonics Technology Letters, 2009, 21, 1423-1425.	2.5	14
143	Planar Concave Grating Demultiplexer With High Reflective Bragg Reflector Facets. IEEE Photonics Technology Letters, 2008, 20, 309-311.	2.5	103
144	Silicon nanophotonic waveguide circuits and devices. , 2008, , .		1

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145	Silicon nanophotonic waveguides and their applications. , 2008, , .		9
146	Planar Concave Grating Demultiplexer with Distributed Bragg Reflection Facets. , 2007, , .		2
147	Silicon nanophotonic wire structures fabricated by 193nm optical lithography. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	4