

# Marco Romagnoli

## List of Publications by Year in descending order

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174  
papers

4,435  
citations

117619

34  
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114455

63  
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176  
all docs

176  
docs citations

176  
times ranked

3938  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical Components for Transport Network Enabling The Path to 6G. Journal of Lightwave Technology, 2022, 40, 527-537.	4.6	6
2	Integrated Remote Laser Source for 6G Advanced Antenna Systems. Journal of Lightwave Technology, 2022, 40, 519-526.	4.6	3
3	Ultra-clean high-mobility graphene on technologically relevant substrates. Nanoscale, 2022, 14, 2167-2176.	5.6	22
4	Optical Technology for NFV Converged Networks. Applied Sciences (Switzerland), 2021, 11, 1522.	2.5	1
5	Wafer-Scale Integration of Graphene-Based Photonic Devices. ACS Nano, 2021, 15, 3171-3187.	14.6	75
6	2D-3D integration of hexagonal boron nitride and a high- $\hat{\epsilon}$ dielectric for ultrafast graphene-based electro-absorption modulators. Nature Communications, 2021, 12, 1070.	12.8	40
7	Photo thermal effect graphene detector featuring 105 Gbit s <sup>-1</sup> NRZ and 120 Gbit s <sup>-1</sup> PAM4 direct detection. Nature Communications, 2021, 12, 806.	12.8	51
8	On-chip tunable SOI interferometer for quantum random number generation based on phase diffusion in lasers. Optics Communications, 2021, 485, 126736.	2.1	4
9	Full daylight quantum-key-distribution at 1550 nm enabled by integrated silicon photonics. Npj Quantum Information, 2021, 7, .	6.7	54
10	High-responsivity graphene photodetectors integrated on silicon microring resonators. Nature Communications, 2021, 12, 3733.	12.8	57
11	Hybrid Graphene-WS <sub>2</sub> Mach-Zehnder modulator on passive silicon waveguide. , 2021, , .		0
12	Optically enabled graphene-based transmitter for Gbit/s links at 93 GHz carrier frequency. , 2021, , .		0
13	Ultrafast, Zero-Bias, Graphene Photodetectors with Polymeric Gate Dielectric on Passive Photonic Waveguides. ACS Nano, 2020, 14, 11190-11204.	14.6	48
14	Graphene on Silicon Modulators. Journal of Lightwave Technology, 2020, 38, 2782-2789.	4.6	24
15	Cavity Enhanced Light-Matter Interaction in a Graphene Photodetector. , 2019, , .		1
16	Waveguide-Integrated, Plasmonic Enhanced Graphene Photodetectors. Nano Letters, 2019, 19, 7632-7644.	9.1	113
17	Introduction to JSTQE Special Issue on Foundry Enabled Photonic Integrated Circuits. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-3.	2.9	0
18	Optical Pre-Emphasis by Cascaded Graphene Electro Absorption Modulators. IEEE Photonics Technology Letters, 2019, 31, 955-958.	2.5	5

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19	Geometrical Representation of a Polarisation Management Component on a SOI Platform. <i>Micromachines</i> , 2019, 10, 364.	2.9	2
20	Graphene modulators in silicon photonics platforms. , 2019, , .		0
21	2D-3D integration of high- $\hat{n}^2$ dielectric with 2D heterostructures for opto-electronic applications. , 2019, , .		0
22	Waveguide Integrated CVD Graphene Photo-Thermo-Electric Detector With >40GHz Bandwidth. , 2019, , .		3
23	QCoSOne: a chip-based prototype for daylight free-space QKD at telecom wavelength. , 2019, , .		2
24	High-speed double layer graphene electro-absorption modulator on SOI waveguide. <i>Optics Express</i> , 2019, 27, 20145.	3.4	57
25	Graphene Photonics for Optical Communications. , 2019, , .		2
26	50Gb/s CVD Graphene-Insulator-Graphene Electro-Absorption Modulator on Si waveguide. , 2019, , .		0
27	Graphene photonics for optical communications. , 2019, , .		1
28	Graphene- $\hat{e}$ silicon phase modulators with gigahertz bandwidth. <i>Nature Photonics</i> , 2018, 12, 40-44.	31.4	261
29	Silicon Photonics Switch Matrices: Technologies and Architectures. , 2018, , 221-259.		2
30	Graphene-based integrated photonics for next-generation datacom and telecom. <i>Nature Reviews Materials</i> , 2018, 3, 392-414.	48.7	286
31	Photonic Integrated Microwave Phase Shifter up to the mm-Wave Band With Fast Response Time in Silicon-on-Insulator Technology. <i>Journal of Lightwave Technology</i> , 2018, 36, 4494-4500.	4.6	21
32	Fast and Linear Photonic Integrated Microwave Phase-Shifter for 5G Beam-Steering Applications. , 2018, , .		11
33	High-bandwidth density optically interconnected terabit/s boards. , 2018, , .		1
34	Fast and Broadband SOI Photonic Integrated Microwave Phase Shifter. , 2018, , .		5
35	100Gb/s PolMux-NRZ Transmission at 1550nm over 30km Single Mode Fiber Enabled by a Silicon Photonics Optical Dispersion Compensator. , 2018, , .		9
36	Highly Efficient Silicon Photonics Phase Modulator using Graphene. , 2018, , .		0

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37	Deterministic patterned growth of high-mobility large-crystal graphene: a path towards wafer scale integration. 2D Materials, 2017, 4, 021004.	4.4	71
38	Design and characterization of a photonic integrated circuit for beam forming in 5G wireless networks. , 2017, , .		4
39	Integration of III-V light sources on a silicon photonics circuit by transfer printing. , 2017, , .		2
40	Chirp management in silicon-graphene electro absorption modulators. Optics Express, 2017, 25, 19371.	3.4	22
41	Capacitive actuation and switching of add-drop graphene-silicon micro-ring filters. Photonics Research, 2017, 5, 762.	7.0	13
42	Dual use architecture for innovative lidar and free space optical communications. Applied Optics, 2017, 56, 8811.	1.8	6
43	Wide-band polarization controller for Si photonic integrated circuits. Optics Letters, 2016, 41, 5656.	3.3	49
44	Complex effective index in graphene-silicon waveguides. Optics Express, 2016, 24, 29984.	3.4	32
45	Si photonic active controller for polarization independent coupling. , 2016, , .		0
46	Space based software defined coherent lidar architecture: From system demonstration to system integration. , 2016, , .		0
47	Reconfigurable Silicon Photonics Integrated 16-QAM Modulator Driven by Binary Electronics. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 334-343.	2.9	9
48	Design and Implementation of an Integrated Reconfigurable Silicon Photonics Switch Matrix in IRIS Project. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 155-168.	2.9	44
49	Performance Analysis of 40-Gb/s Transmission Based on Directly Modulated High-Speed 1530-nm VCSEL. IEEE Photonics Technology Letters, 2016, 28, 1735-1738.	2.5	12
50	Polarization insensitive silicon photonic ROADM with selectable communication direction for radio access networks. Optics Letters, 2016, 41, 5688.	3.3	19
51	Silicon Photonics Integrated 16-QAM Modulator Exploiting Only Binary Driving Electronics. , 2016, , .		1
52	Graphene on SOI phase modulation. , 2015, , .		1
53	High responsivity SiGe heterojunction phototransistor on silicon photonics platform. Optics Express, 2015, 23, 28163.	3.4	16
54	Germanium gate junction-field-effect phototransistor integrated on SOI platform. , 2015, , .		0

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55	Germanium gate phototransistor fabricated on SOI platform. , 2015, , .		0
56	Negligible power consumption add/drop switching properties of graphene on SOI microring resonators. , 2015, , .		1
57	Design optimization of single and double layer Graphene phase modulators in SOI. Optics Express, 2015, 23, 6478.	3.4	97
58	300 nm bandwidth adiabatic SOI polarization splitter-rotators exploiting continuous symmetry breaking. Optics Express, 2015, 23, 19261.	3.4	24
59	High-Speed Long-Wavelength VCSELs for Energy-Efficient 40 Gbps Links up to 1 km Without Error Correction. , 2015, , .		5
60	Integrated silicon photonics ROADM for mobile network applications: System evaluation. , 2014, , .		1
61	Introduction for the Group-IV Photonics feature. Photonics Research, 2014, 2, GP1.	7.0	5
62	Graphene-based optical phase modulation of waveguide transverse electric modes. Photonics Research, 2014, 2, A34.	7.0	38
63	Experimental evaluation of system requirements for integrated silicon photonics ROADM. , 2014, , .		0
64	Experimental evaluation of Residual Added Signal Crosstalk in a silicon photonics integrated ROADM. , 2014, , .		6
65	Method for characterization of Si waveguide propagation loss. Optics Express, 2013, 21, 5391.	3.4	17
66	Graphene sustained nonlinear modes in dielectric waveguides. Optics Letters, 2013, 38, 631.	3.3	28
67	An electrically pumped germanium laser. Optics Express, 2012, 20, 11316.	3.4	689
68	An Electrically Pumped Ge-on-Si Laser. , 2012, , .		16
69	Plasmon-enhanced Isotropic Structural Coloration of Metal Films with Homogenized Pinwheel Nanoparticle Arrays. , 2012, , .		0
70	Germanium laser: A CMOS compatible light emitter. , 2012, , .		1
71	Graphene-assisted critically-coupled optical ring modulator. Optics Express, 2012, 20, 23144.	3.4	64
72	Fully inorganic oxide-in-oxide ultraviolet nanocrystal light emitting devices. Nature Communications, 2012, 3, 690.	12.8	56

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73	An Electrically Pumped Ge-on-Si Laser. , 2012, , .		12
74	Plasmon-enhanced structural coloration of metal films with isotropic Pinwheel nanoparticle arrays. Optics Express, 2011, 19, 23818.	3.4	22
75	Flared Monopole Antennas for 10- $\mu\text{m}$ Radiation. IEEE Journal of Quantum Electronics, 2011, 47, 84-91.	1.9	14
76	Optical power monitors in Ge monolithically integrated on SOI chips. Microelectronic Engineering, 2011, 88, 514-517.	2.4	1
77	Isotropic Structural Color of Nanostructured Metal Surfaces. , 2011, , .		0
78	Near-Infrared Ge-on-Si Power Monitors Monolithically Integrated on SOI Chips. IEEE Photonics Technology Letters, 2010, 22, 658-660.	2.5	10
79	Guided-wave photodetectors in germanium on SOI optical chips. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 1090-1093.	2.7	8
80	Role of Integrated Photonics Technologies in the Realization of Terabit Nodes [Invited]. Journal of Optical Communications and Networking, 2009, 1, B111.	4.8	4
81	Optical integration : Enabling technology for photonic switching. , 2009, , .		0
82	Fabrication of ultra high aspect ratio Bragg gratings for optical filter. Microelectronic Engineering, 2008, 85, 1511-1513.	2.4	2
83	The art of optoelectronic packaging. , 2008, , .		0
84	Silicon photonics in Pirelli. , 2008, , .		8
85	Silicon on Insulator Based Integrated Tunable Add & Drop Filter for Metro DWDM Networks. , 2007, , .		2
86	SOI technology for microring tunable filters. , 2006, , .		0
87	High-index-contrast microphotonics, from concept to implementation. , 2006, , .		0
88	Nanostructured SnO <sub>2</sub> -SiO <sub>2</sub> glassceramic: a competitor for Si nanodots in silica. , 2005, 5925, 77.		2
89	Effects of random and systematic perturbations in a one-dimensional photonic crystal wavelength converter. Physical Review E, 2004, 70, 017601.	2.1	5
90	Phase-matched nonlinear interactions in a holey fiber induced by infrared super-continuum generation. Optics Communications, 2003, 215, 191-197.	2.1	29

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91	Carrier frequency hopping for optical pulse transmission in dispersion-managed fiber systems. Optics Communications, 2003, 218, 273-281.	2.1	0
92	NONLINEAR PROPAGATION OF ULTRASHORT LASER PULSES IN A MICROSTRUCTURED FIBER. Journal of Nonlinear Optical Physics and Materials, 2002, 11, 409-419.	1.8	2
93	Frequency conversion in one-dimensional stratified media with quadratic nonlinearity. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 83.	2.1	12
94	Polarization-insensitive wavelength conversion in a lithium niobate waveguide by the cascading technique. IEEE Photonics Technology Letters, 2002, 14, 669-671.	2.5	42
95	Carrier frequency hopping for optical pulse transmission in dispersion-managed fiber links. , 2002, , .		1
96	Impact of polarisation mode dispersion in field demonstration of 40 Gbit/s soliton transmission over 500 km. Electronics Letters, 1999, 35, 407.	1.0	4
97	Long-range soliton interactions in periodically amplified fiber links. Journal of the Optical Society of America B: Optical Physics, 1999, 16, 12.	2.1	37
98	Field demonstration of 40 Gb/s soliton transmission with alternate polarizations. Journal of Lightwave Technology, 1999, 17, 2225-2234.	4.6	27
99	Time-domain Fourier optics for polarization-mode dispersion compensation. Optics Letters, 1999, 24, 1197.	3.3	36
100	Pulse generation and propagation beyond the limit of soliton spectral resonances. Optics Communications, 1998, 146, 241-244.	2.1	2
101	Vector soliton interaction induced depolarization. Optics Communications, 1998, 157, 161-164.	2.1	5
102	Long-range soliton interactions in dispersion-managed links. Optics Letters, 1998, 23, 1182.	3.3	5
103	Noise statistics in transmission systems with grating dispersion compensation. Journal of the Optical Society of America B: Optical Physics, 1998, 15, 2748.	2.1	5
104	Inter-resonance soliton generation and trapping. IEEE Photonics Technology Letters, 1998, 10, 1557-1559.	2.5	4
105	Continuum-induced self-stabilization in soliton fiber lasers. , 1998, , .		0
106	10 Gbit/s alternate polarisation soliton transmission over 300 km step-index fibre link with no in-line control. Electronics Letters, 1998, 34, 1116.	1.0	3
107	Role of the Dispersive Wave in Soliton Dynamics and Interactions. Solid-state Science and Technology Library, 1998, , 39-51.	0.3	2
108	Straight line 10 Gbit/s soliton transmission over 1000 km of standard fibre with in-line chirped fibre grating for partial dispersion compensation. Electronics Letters, 1997, 33, 1572.	1.0	25

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109	Generation of highly chirped pulses in a diode-pumped optical fiber laser. Optics Communications, 1997, 140, 19-22.	2.1	4
110	Timing jitter in soliton transmission with sliding filters. Optics Letters, 1996, 21, 402.	3.3	27
111	Clock multiplication in a singly resonant fiber parametric oscillator. Optics Letters, 1996, 21, 788.	3.3	3
112	Relaxation of guiding center solitons in optical fibers. Optics Letters, 1996, 21, 1351.	3.3	11
113	Polarization shift keying for high-bit-rate multilevel soliton transmissions. Journal of the Optical Society of America B: Optical Physics, 1996, 13, 1526.	2.1	7
114	Sliding-frequency figure-eight optical fibre laser. Electronics Letters, 1995, 31, 1452-1453.	1.0	9
115	Acousto-optic filter soliton control. Journal of Optics, 1995, 4, 441-449.	0.5	0
116	Polarisation-multilevel soliton transmission. Electronics Letters, 1995, 31, 1473-1475.	1.0	4
117	Self-induced modulational-instability laser. Optics Letters, 1995, 20, 2009.	3.3	64
118	Tunable erbium-ytterbium fiber sliding-frequency soliton laser. Journal of the Optical Society of America B: Optical Physics, 1995, 12, 72.	2.1	46
119	Role of dispersion in pulse emission from a sliding-frequency fiber laser. Journal of the Optical Society of America B: Optical Physics, 1995, 12, 938.	2.1	22
120	Maximum soliton-train duty cycle in harmonically mode-locked fiber lasers. Journal of the Optical Society of America B: Optical Physics, 1995, 12, 1732.	2.1	11
121	Alternate polarisation soliton transmission in standard dispersion fibre links with no in-line controls. Electronics Letters, 1995, 31, 1172.	1.0	15
122	Sliding-frequency soliton laser. , 1995, , .		0
123	Fully integrated 30 ps modelocked fiber laser electronically tunable over 1530-1560 nm. Optics Communications, 1994, 107, 240-244.	2.1	3
124	Multisoliton interaction in actively mode-locked erbium fiber lasers: theory and experiment. Optics Communications, 1994, 108, 65-70.	2.1	3
125	Bandwidth limits of soliton transmission with sliding filters. Optics Communications, 1994, 104, 293-297.	2.1	21
126	Wavelength division multiplexed soliton transmission with filtering. Optics Communications, 1994, 112, 283-288.	2.1	12



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127	Signal propagation in the presence of side-band instability in long fiber links. Microwave and Optical Technology Letters, 1994, 7, 537-539.	1.4	2
128	Stabilisation of optical solitons by an acousto-optic modulator and filter. Electronics Letters, 1994, 30, 261-262.	1.0	40
129	Role of third-order dispersion on soliton instabilities and interactions in optical fibers. Optics Letters, 1994, 19, 165.	3.3	92
130	Characterization and optimization criteria for filterless erbium-doped fiber lasers. Journal of the Optical Society of America B: Optical Physics, 1994, 11, 1090.	2.1	42
131	Self-starting sliding-frequency fibre soliton laser. Electronics Letters, 1994, 30, 321-322.	1.0	40
132	Three-Soliton Interaction in Actively Mode-Locked Fiber Lasers. , 1994, , .		0
133	Study of all optical metropolitan area networks. Computer Communications, 1993, 16, 54-61.	5.1	0
134	Evolution of signals in long-haul fiber links. Microwave and Optical Technology Letters, 1993, 6, 675-677.	1.4	0
135	Proposal of an all Optical Shuffle Multihop Network. European Transactions on Telecommunications, 1993, 4, 213-219.	1.2	0
136	Sideband instability induced by periodic power variation in long-distance fiber links. Optics Letters, 1993, 18, 1499.	3.3	162
137	Evaluation and measurement of the resonant group-velocity dispersion in erbium-doped fiber lasers. Optics Letters, 1993, 18, 2011.	3.3	8
138	High-speed DPSK coherent systems in the presence of chromatic dispersion and Kerr effect. Journal of Lightwave Technology, 1993, 11, 1478-1485.	4.6	10
139	Conditions for soliton generation in harmonically modelocked erbium-doped fibre lasers. Electronics Letters, 1993, 29, 1652.	1.0	9
140	Performance evaluation of single-channel coherent systems in presence of nonlinear effects. Electronics Letters, 1992, 28, 645.	1.0	3
141	Nonlinear evolution of ASK and PSK signals in repeaterless fibre links. Electronics Letters, 1992, 28, 1902.	1.0	16
142	Generation of sequences of ultrashort pulses in erbium doped fibre single ring lasers. Electronics Letters, 1992, 28, 1291.	1.0	17
143	Coupled-mode analysis of the self-induced-transparency soliton switch. Physical Review A, 1992, 46, 1594-1605.	2.5	4
144	Soliton stability and interactions in fibre lasers. Electronics Letters, 1992, 28, 1981.	1.0	129

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145	Role of pump-induced dispersion on femtosecond soliton amplification in erbium-doped fibers. Optics Letters, 1992, 17, 923.	3.3	20
146	Adiabatic femtosecond soliton active nonlinear directional coupler. Optics Letters, 1992, 17, 1213.	3.3	13
147	Adiabatic femtosecond soliton active nonlinear directional coupler. Optics Letters, 1992, 17, 1394.	3.3	1
148	Nonlinear nonreciprocity of soliton amplification with erbium-doped fibers. Optics Letters, 1992, 17, 1456.	3.3	6
149	Role of pump-induced dispersion on femtosecond soliton amplification in erbium-doped fibers: erratum. Optics Letters, 1992, 17, 1721.	3.3	3
150	Soliton switching in nonlinear couplers. Optical and Quantum Electronics, 1992, 24, S1237-S1267.	3.3	127
151	Proposal of a high-capacity all-optical tdma network. Microwave and Optical Technology Letters, 1992, 5, 41-44.	1.4	3
152	Femtosecond Soliton Amplification with the Pump Dependent Response Function of Erbium Doped Fibers. , 1992, , .		0
153	Femtosecond soliton collapse and coherent pulse train generation in erbium-doped fiber amplifiers. Applied Physics Letters, 1991, 59, 1811-1813.	3.3	15
154	Ultrashort soliton switching based on coherent energy hiding. Optics Letters, 1991, 16, 1249.	3.3	6
155	Evaluation of chromatic dispersion in erbium doped fibre amplifiers. Electronics Letters, 1991, 27, 1867.	1.0	25
156	Self-induced transparency soliton digital switch. Applied Physics Letters, 1990, 56, 614-616.	3.3	16
157	Third-order nonlinearity enhancement in an artificial Kerr medium through bulk intrinsic birefringence. Optics Letters, 1989, 14, 239.	3.3	11
158	TM modes in a slab waveguide filled with nematic liquid crystal in an external magnetic field. Journal of the Optical Society of America B: Optical Physics, 1989, 6, 126.	2.1	8
159	Optically induced reorientational birefringence in an artificial anisotropic Kerr medium. Optics Communications, 1988, 68, 231-234.	2.1	32
160	Optically induced birefringence and dichroism in rigidly held dye molecules. Journal of the Optical Society of America B: Optical Physics, 1988, 5, 2357.	2.1	15
161	Self-Induced Stimulated Light Scattering. Physical Review Letters, 1988, 61, 113-116.	7.8	42
162	Continuous Transfer Of Angular Momentum From The Light To A Nematic Liquid Crystal In The Mesophase. Proceedings of SPIE, 1987, , .	0.8	0

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163	Collective Rotation of the Molecules of a Nematic Liquid Crystal Driven by the Angular Momentum of Light. <i>Molecular Crystals and Liquid Crystals</i> , 1987, 143, 89-100.	0.8	8
164	Saturation of guided wave index with power in nonlinear planar waveguides. <i>Optics Communications</i> , 1987, 64, 343-346.	2.1	9
165	Collective Rotation of Molecules Driven by the Angular Momentum of Light in a Nematic Film. <i>Physical Review Letters</i> , 1986, 57, 2423-2426.	7.8	161
166	Second harmonic generation at thin film silver electrodes via surface polaritons. <i>Journal of Chemical Physics</i> , 1984, 81, 4127-4132.	3.0	62
167	The potential dependence of surface plasmon-enhanced second-harmonic generation at thin film silver electrodes. <i>Chemical Physics Letters</i> , 1984, 106, 30-35.	2.6	88
168	Beyond the bottleneck: submicrosecond hole burning in phthalocyanine. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1984, 1, 341.	2.1	44
169	Frequency-modulation polarization-spectroscopy detection of persistent spectral holes. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1984, 1, 571.	2.1	17
170	Frequency-modulation-polarization spectroscopy. <i>Optics Letters</i> , 1983, 8, 635.	3.3	20
171	Soliton Propagation On Standard Monomode Fibers With Lumped Amplifiers: Basic Features And Performance Analysis. , 0, , .		0
172	Impact of the polarization mode dispersion on a field demonstration of 40 Gbit/s soliton transmission over 500 km. , 0, , .		0
173	Efficient phase-matched down-conversion in highly dispersive 1D-PBG. , 0, , .		0
174	Guided-wave photodetectors in germanium on optical chips in silicon-on-insulator. <i>Journal of the European Optical Society-Rapid Publications</i> , 0, 4, .	1.9	0