Sara Ducci

List of Publications by Year
in descending order

110 papers	2,381 citations	172457 29 h-index	223800 46 g-index
110 all docs	110 docs citations	110 times ranked	2104 citing authors

#	Article	IF	Citations
1	High Frequency GaAs Nano-Optomechanical Disk Resonator. Physical Review Letters, 2010, 105, 263903.	7.8	155
2	Semiconductor devices for entangled photon pair generation: a review. Reports on Progress in Physics, 2017, 80, 076001.	20.1	117
3	Direct Bell States Generation on a III-V Semiconductor Chip at Room Temperature. Physical Review Letters, 2013, 110, 160502.	7.8	101
4	High-frequency nano-optomechanical disk resonators in liquids. Nature Nanotechnology, 2015, 10, 810-816.	31.5	101
5	Order Parameter Fragmentation after a Symmetry-Breaking Transition. Physical Review Letters, 1999, 83, 5210-5213.	7.8	87
6	Wavelength-sized GaAs optomechanical resonators with gigahertz frequency. Applied Physics Letters, 2011, 98, .	3.3	87
7	High-resolution spectral characterization of two photon states via classical measurements. Laser and Photonics Reviews, 2014, 8, L76-L80.	8.7	81
8	Electrically Injected Photon-Pair Source at Room Temperature. Physical Review Letters, 2014, 112, 183901.	7.8	78
9	Photoelastic coupling in gallium arsenide optomechanical disk resonators. Optics Express, 2014, 22, 14072.	3.4	77
10	Semiconductor Waveguide Source of Counterpropagating Twin Photons. Physical Review Letters, 2006, 97, 173901.	7.8	74
11	Continuous-wave second-harmonic generation in modal phase matched semiconductor waveguides. Applied Physics Letters, 2004, 84, 2974-2976.	3.3	62
12	Ultralow loss single-mode silica tapers manufactured by a microheater. Applied Optics, 2010, 49, 2441.	2.1	62
13	Second-harmonic generation in AlGaAs microdisks in the telecom range. Optics Letters, 2014, 39, 3062.	3.3	60
14	Localized versus delocalized patterns in a nonlinear optical interferometer. Journal of Optics B: Quantum and Semiclassical Optics, 2000, 2, 399-405.	1.4	58
15	Experimental study of the spatial distribution of quantum correlations in a confocal optical parametric oscillator. Physical Review A, 2003, 67, .	2.5	54
16	Integrated AlGaAs source of highly indistinguishable and energy-time entangled photons. Optica, 2016, 3, 143.	9.3	49
17	Optical instability and self-pulsing in silicon nitride whispering gallery resonators. Optics Express, 2012, 20, 29076.	3.4	45
18	Tailoring the profile and interactions of optical localized structures. Physical Review E, 2002, 65, 066204.	2.1	44

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19	Measuring propagation loss in a multimode semiconductor waveguide. Journal of Applied Physics, 2005, 97, 073105.	2.5	43
20	Flexible entanglement-distribution network with an AlGaAs chip for secure communications. Npj Quantum Information, 2021, 7, .	6.7	40
21	Scalable high-precision tuning of photonic resonators by resonant cavity-enhanced photoelectrochemical etching. Nature Communications, 2017, 8, 14267.	12.8	39
22	Near-infrared optical parametric oscillator in a III-V semiconductor waveguide. Applied Physics Letters, 2013, 103, .	3.3	35
23	Efficient parametric generation of counterpropagating two-photon states. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 45.	2.1	34
24	Ultrahigh Q-frequency product for optomechanical disk resonators with a mechanical shield. Applied Physics Letters, 2013, 103, .	3.3	34
25	Critical optical coupling between a GaAs disk and a nanowaveguide suspended on the chip. Applied Physics Letters, 2011, 99, .	3.3	33
26	Direct measurement of the biphoton Wigner function through two-photon interference. Scientific Reports, 2013, 3, 3530.	3.3	33
27	Optical Diffraction-Free Patterns Induced by a Discrete Translational Transport. Physical Review Letters, 1998, 81, 4128-4131.	7.8	31
28	Pattern formation in optical parametric oscillators. Physical Review A, 2001, 64, .	2.5	31
29	Origin of optical losses in gallium arsenide disk whispering gallery resonators. Optics Express, 2015, 23, 19656.	3.4	31
30	Engineering two-photon wavefunction and exchange statistics in a semiconductor chip. Optica, 2020, 7, 316.	9.3	31
31	Generation and symmetry control of quantum frequency combs. Npj Quantum Information, 2020, 6, .	6.7	30
32	THE LIQUID CRYSTAL LIGHT VALVE WITH OPTICAL FEEDBACK: A CASE STUDY IN PATTERN FORMATION. Journal of Nonlinear Optical Physics and Materials, 2000, 09, 183-204.	1.8	29
33	Multi-user quantum key distribution with entangled photons from an AlGaAs chip. Quantum Science and Technology, 2016, 1, 01LT02.	5.8	29
34	Nonlinear AlGaAs waveguide for the generation of counterpropagating twin photons in the telecom range. Journal of Applied Physics, 2005, 98, 063103.	2.5	28
35	Generation of a time-frequency grid state with integrated biphoton frequency combs. Physical Review A, 2020, 102, .	2.5	28
36	Parametric amplification in GaAs/AlOx waveguide. Applied Physics Letters, 2009, 94, 171110.	3.3	27

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37	A semiconductor source of counterpropagating twin photons: a versatile device allowing the control of the two-photon state. Journal of Modern Optics, 2009, 56, 232-239.	1.3	26
38	Nearly-degenerate three-wave mixing at 155 Î¼m in oxidized AlGaAs waveguides. Optics Express, 2011, 19, 22582.	3.4	25
39	Two-photon interference with a semiconductor integrated source at room temperature. Optics Express, 2010, 18, 9967.	3.4	23
40	Semiconductor microcavities for enhanced nonlinear optics interactions. Journal of the European Optical Society-Rapid Publications, 0, 3, .	1.9	21
41	Large second-harmonic generation at 155â€‰Î¼m oxidized AlGaAs waveguides. Optics Letters, 2011, 36, 2955	3.3	19
42	Toolbox for continuous-variable entanglement production and measurement using spontaneous parametric down-conversion. Physical Review A, 2015, 92, .	2.5	19
43	On-chip III-V monolithic integration of heralded single photon sources and beamsplitters. Applied Physics Letters, 2018, 112, .	3.3	18
44	Estimation of parametric gain in GaAsâˆ•AlOx waveguides by fluorescence and second harmonic generation measurements. Applied Physics Letters, 2007, 91, .	3.3	17
45	Improved optomechanical disk resonator sitting on a pedestal mechanical shield. New Journal of Physics, 2015, 17, 023016.	2.9	17
46	GaAs micro-nanodisks probed by a looped fiber taper for optomechanics applications. Proceedings of SPIE, 2010, , .	0.8	16
47	Quasiphase matched second-harmonic generation from periodic optical randomization of poled polymer channel waveguides. Applied Physics Letters, 2003, 83, 1086-1088.	3.3	15
48	A third-order-mode laser diode for quantum communication. Semiconductor Science and Technology, 2004, 19, L99-L102.	2.0	14
49	AlGaAs microdisk cavities for second-harmonic generation. Optics Letters, 2013, 38, 3965.	3.3	14
50	Quantum communication between remote mechanical resonators. Physical Review A, 2017, 95, .	2.5	14
51	Toward an AlGaAs/AlOx near-infrared integrated optical parametric oscillator. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 542.	2.1	13
52	Second-harmonic generation from a picosecond Ti:Sa laser in LBO: conversion efficiency and spatial properties. Applied Physics B: Lasers and Optics, 2002, 75, 53-58.	2.2	12
53	Photon pair sources in AlGaAs: from electrical injection to quantum state engineering. Journal of Modern Optics, 2015, 62, 1739-1745.	1.3	12
54	Nonlinear measurement of mid-infrared absorption in AlOx waveguides. Applied Physics Letters, 2008, 92, 151111.	3.3	11

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55	Towards an integrated AlGaAs waveguide platform for phase and polarisation shaping. Journal of Optics (United Kingdom), 2018, 20, 05LT01.	2.2	11
56	Anyonic Two-Photon Statistics with a Semiconductor Chip. ACS Photonics, 2021, 8, 2764-2769.	6.6	11
57	Damping of optomechanical disks resonators vibrating in air. Applied Physics Letters, 2012, 100, 242105.	3.3	10
58	Backward difference frequency generation in an AlGaAs waveguide. Applied Physics Letters, 2006, 89, 031106.	3.3	8
59	Time-resolved thermal characterization of semiconductor lasers. Applied Physics Letters, 2007, 90, 021105.	3.3	7
60	Producing a delocalized frequency-time SchrÃ¶dinger-cat-like state with Hong-Ou-Mandel interferometry. Physical Review A, 2020, 102, .	2.5	7
61	Polarization-entanglement generation and control in a counterpropagating phase-matching geometry. Physical Review A, 2014, 89, .	2.5	6
62	Tuning of a nonlinear THz emitter. Optics Express, 2012, 20, 17678.	3.4	5
63	Electrically Injected Twin Photon Emitting Lasers at Room Temperature. Technologies, 2016, 4, 24.	5.1	5
64	Ultra-porous alumina for microwave planar antennas. International Journal of Higher Education Management, 2015, 1, 93-99.	1.3	4
65	Parametric fluorescence in semiconductor waveguides. Comptes Rendus Physique, 2007, 8, 1184-1197.	0.9	3
66	AlGaAs guided-wave second-harmonic generation at 223â€‰â€‰Î¼m from a quantum cascade laser. Applied Optics, 2014, 53, 5615.	1.8	3
67	Quantum Dot parametric source. Optics Communications, 2014, 327, 27-30.	2.1	3
68	TRANSPORT INDUCED PATTERN SELECTION IN A NONLINEAR OPTICAL SYSTEM. Journal of Nonlinear Optical Physics and Materials, 1999, 08, 235-252.	1.8	2
69	Semiconductor sources of twin photons for quantum information. Journal of Optics B: Quantum and Semiclassical Optics, 2005, 7, S158-S165.	1.4	2
70	Integrated twin-photon sources for the silicon absorption band: a numerical study. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 2331.	2.1	2
71	Tunable quantum dot parametric source. Optics Express, 2013, 21, 22367.	3.4	2
72	Generation of quantum states of light in nonlinear AlGaAs chips: engineering and applications. Photoniques, 2021, , 28-34.	0.1	2

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73	Technique for time-resolved thermal characterisation of optoelectronic devices. Electronics Letters, 2007, 43, 417.	1.0	1
74	A laser diode for integrated photon pair generation at telecom wavelength. , 2012, , .		1
75	Microring Diode Laser for THz Generation. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 472-478.	3.1	1
76	Direct Bell States Generation on a III-V Semiconductor Chip at Room Temperature. , 2013, , .		1
77	Experimental evidence of multimode non-classical light emission using OPOs. Fortschritte Der Physik, 2003, 51, 421-427.	4.4	0
78	Time-resolved thermal crosstalk characterisation of laser diode arrays. Electronics Letters, 2009, 45, 467.	1.0	0
79	A semiconductor ridge microcavity source of quantum light at room temperature. Proceedings of SPIE, 2010, , .	0.8	0
80	Semiconductor integrated sources of quantum light at room temperature. Proceedings of SPIE, 2011, , .	0.8	0
81	Spectral study of propagation losses of GaAs/AlOx nonlinear waveguides. , 2011, , .		0
82	Integrated cavity for a GaAs-based OPO. , 2012, , .		0
83	Semiconductor sources of two-photon states at room temperature in the telecom range. Proceedings of SPIE, 2012, , .	0.8	0
84	Near-infrared OPO in an AlGaAs/AlOx waveguide. Proceedings of SPIE, 2013, , .	0.8	0
85	Quantum-dot micropillars for parametric THz emission. Proceedings of SPIE, 2013, , .	0.8	0
86	Semiconductor source of entangled photons at room temperature. Proceedings of SPIE, 2013, , .	0.8	0
87	Integrated AlGaAs sources of quantum correlated photon pairs. , 2014, , .		0
88	A laser diode for integrated photon pair generation at telecom wavelength. , 2014, , .		0
89	High-resolution measurement of the joint spectral density of quantum correlated photon pairs. , 2014, , .		0
90	AlGaAs guided-wave optical parametric oscillator: results and perspectives. , 2015, , .		0

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91	AlGaAs photonic devices for quantum information. , 2017, , .		0
92	Generation and Manipulation of Quantum Frequency States of Light with AlGaAs Chips. , 2019, , .		0
93	High-efficiency, low-loss AlGaAs/AlOx waveguides for parametric down-conversion. , 2007, , .		0
94	A Semiconductor Ridge Micro Cavity Generating Counter-propagating Twin Photons. , 2009, , .		0
95	GaAs disks optomechanics. , 2011, , .		0
96	Optical Characterization of Nonlinear THz Emitters. , 2012, , .		0
97	GaAs nano-optomechanical systems. , 2012, , .		0
98	Non-linear Optomechanical Resonators based on Gallium Arsenide. , 2013, , .		0
99	Sources de photons jumeaux : des dÃ©bats sur lâ€™intrication aux nouvelles technologies quantiques. Photoniques, 2014, , 24-28.	0.1	0
100	Integrated AlGaAs Source of Highly Indistinguishable and Energy-Time Entangled Photons. , 2015, , .		0
101	Multi-User Quantum Key Distribution with Entangled Photons from a Semiconductor Chip. , 2016, , .		0
102	On-chip generation of frequency-entangled qudits. , 2017, , .		0
103	On-chip monolithic integration of heralded single photons sources and beam splitters. , 2017, , .		0
104	Record single-to-noise ratio in active and passive AlGaAs sources of entangled photons. , 2017, , .		0
105	Multi-User Quantum Key Distribution With Entangled Photons From A Semiconductor Chip. , 2017, , .		0
106	III-V integrated nonlinear photonic chips for the generation and manipulation of quantum states of light. , 2018, , .		0
107	Les sources intÃ©grÃ©es de photons intriquÃ©s au coeur des technologies quantiques. Photoniques, 2018, , 25-28.	0.1	0
108	Generation and manipulation of quantum frequency states of light with AlGaAs chips. , 2019, , .		0

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109	Generation of time-frequency grid state with integrated biphoton frequency combs. , 2021, , .		0
110	Anyonic two-photon statistics and hybrid entanglement with a semiconductor chip. , 2021, , .		0