Maria V Chekhova

List of Publications by Year
in descending order

187	4,437	101543	123424
papers	citations	36 h-index	61 g-index

191	191	191	2283
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Two-Photon Diffraction and Quantum Lithography. Physical Review Letters, 2001, 87, 013602.	7.8	550
2	A versatile source of single photons for quantum information processing. Nature Communications, 2013, 4, 1818.	12.8	181
3	Nonlinear interferometers in quantum optics. Advances in Optics and Photonics, 2016, 8, 104.	25.5	171
4	High-visibility, high-order lensless ghost imaging with thermal light. Optics Letters, 2010, 35, 1166.	3.3	125
5	Accessing Higher Order Correlations in Quantum Optical States by Time Multiplexing. Physical Review Letters, 2010, 104, 063602.	7.8	124
6	Qutrit State Engineering with Biphotons. Physical Review Letters, 2004, 93, 230503.	7.8	122
7	Entangled Two-Photon Wave Packet in a Dispersive Medium. Physical Review Letters, 2002, 88, 183601.	7.8	108
8	Two-color bright squeezed vacuum. Physical Review A, 2010, 82, .	2.5	105
9	Detection Loss Tolerant Supersensitive Phase Measurement with an SU(1,1) Interferometer. Physical Review Letters, 2017, 119, 223604.	7.8	102
10	Generation and Direct Detection of Broadband Mesoscopic Polarization-Squeezed Vacuum. Physical Review Letters, 2009, 102, 183602.	7.8	97
11	Photon Pairs from Resonant Metasurfaces. Nano Letters, 2021, 21, 4423-4429.	9.1	91
12	Systematic analysis of signal-to-noise ratio in bipartite ghost imaging with classical and quantum light. Physical Review A, 2011, 83, .	2.5	87
13	Experimental entanglement concentration and universal Bell-state synthesizer. Physical Review A, 2003, 67, .	2.5	84
14	Superbunched bright squeezed vacuum state. Optics Letters, 2012, 37, 1919.	3.3	73
15	High-visibility multiphoton interference of Hanbury Brownâ€“Twiss type for classical light. Physical Review A, 2008, 77, .	2.5	69
16	Bright squeezed vacuum: Entanglement of macroscopic light beams. Optics Communications, 2015, 337, 27-43.	2.1	69
17	Polarization-Entangled Light Pulses of105Photons. Physical Review Letters, 2012, 109, 150502.	7.8	67
18	Interferometric Bell-state preparation using femtosecond-pulse-pumped spontaneous parametric down-conversion. Physical Review A, 2001, 63, .	2.5	65

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19	Statistical reconstruction of qutrits. Physical Review A, 2004, 70, .	2.5	65
20	Schmidt modes in the angular spectrum of bright squeezed vacuum. Physical Review A, 2015, 91, .	2.5	65
21	Raman-Free, Noble-Gas-Filled Photonic-Crystal Fiber Source for Ultrafast, Very Bright Twin-Beam Squeezed Vacuum. Physical Review Letters, 2015, 115, 143602.	7.8	58
22	Multiphoton Effects Enhanced due to Ultrafast Photon-Number Fluctuations. Physical Review Letters, 2017, 119, 223603.	7.8	58
23	Bright squeezed-vacuum source with 11 spatial mode. Optics Letters, 2014, 39, 2403.	3.3	56
24	Spectral properties of high-gain parametric down-conversion. Optics Express, 2012, 20, 7507.	3.4	50
25	Multiphoton correlations in parametric down-conversion and their measurement in the pulsed regime. Quantum Electronics, 2006, 36, 951-956.	1.0	46
26	Heralded source of bright multi-mode mesoscopic sub-Poissonian light. Optics Letters, 2016, 41, 2149.	3.3	46
27	Improving the phase super-sensitivity of squeezing-assisted interferometers by squeeze factor unbalancing. New Journal of Physics, 2017, 19, 013014.	2.9	44
28	Transverse entanglement of biphotons. New Journal of Physics, 2013, 15, 083015.	2.9	41
29	Wide-field SU(1,1) interferometer. Optica, 2019, 6, 1233.	9.3	41
30	Quantum Reconstruction of an Intense Polarization Squeezed Optical State. Physical Review Letters, 2007, 99, 220401.	7.8	40
31	Hybrid photonic-crystal fiber for single-mode phase matched generation of third harmonic and photon triplets. Optica, 2016, 3, 952.	9.3	40
32	Engineering the Frequency Spectrum of Bright Squeezed Vacuum via Group Velocity Dispersion in an SU(1,1) Interferometer. Physical Review Letters, 2016, 117, 183601.	7.8	40
33	Chirped Biphotons and their Compression in Optical Fibers. Physical Review Letters, 2009, 103, 193602.	7.8	37
34	Experimental verification of high spectral entanglement for pulsed waveguided spontaneous parametric down-conversion. Physical Review A, 2009, 79, .	2.5	37
35	Macroscopic Pure State of Light Free of Polarization Noise. Physical Review Letters, 2011, 106, 113602.	7.8	37
36	Possibility of absolute calibration of analog detectors by using parametric downconversion: a systematic study. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 2185.	2.1	36

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37	Accessing photon bunching with a photon number resolving multi-pixel detector. Optics Express, 2011, 19, 9352.	3.4	36
38	High-visibility intensity interference and ghost imaging with pseudo-thermal light. Journal of Modern Optics, 2009, 56, 422-431.	1.3	35
39	Entangled photons from subwavelength nonlinear films. Optics Letters, 2021, 46, 653.	3.3	31
40	Dispersion Spreading of Biphotons in Optical Fibers and Two-Photon Interference. Physical Review Letters, 2006, 96, 143601.	7.8	29
41	Single-photon detector calibration by means of conditional polarization rotation. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 488.	2.1	28
42	Intensity correlations of thermal light. European Physical Journal: Special Topics, 2011, 199, 127-138.	2.6	28
43	Broadband bright twin beams and their upconversion. Optics Letters, 2018, 43, 375.	3.3	28
44	Overcoming detection loss and noise in squeezing-based optical sensing. Npj Quantum Information, 2021, 7, .	6.7	28
45	Entanglement witnesses and measures for bright squeezed vacuum. Physical Review A, 2012, 86, .	2.5	27
46	Polarization optics of biphotons. JETP Letters, 2002, 75, 432-438.	1.4	26
47	Orthogonality of biphoton polarization states. Physical Review A, 2004, 70, .	2.5	25
48	Generation of different Bell states within the spontaneous parametric down-conversion phase-matching bandwidth. Physical Review A, 2007, 76, .	2.5	25
49	Spectral properties of three-photon entangled states generated via three-photon parametric down-conversion in aï‡(3)medium. Physical Review A, 2005, 72, .	2.5	24
50	Indefinite-Mean Pareto Photon Distribution from Amplified Quantum Noise. Physical Review Letters, 2019, 123, 123606.	7.8	24
51	Measurement of two-mode squeezing with photon number resolving multipixel detectors. Optics Letters, 2012, 37, 2829.	3.3	22
52	Giant narrowband twin-beam generation along the pump-energy propagation direction. Nature Communications, 2015, 6, 7707.	12.8	22
53	Optical coherence tomography with a nonlinear interferometer in the high parametric gain regime. Applied Physics Letters, 2020, 117, .	3.3	22
54	Multiphoton nonclassical light from clusters of single-photon emitters. New Journal of Physics, 2018, 20, 073013.	2.9	21

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55	Macroscopic Hongâ€“Ouâ€“Mandel interference. New Journal of Physics, 2013, 15, 093036.	2.9	20
56	Autonomous absolute calibration of an ICCD camera in single-photon detection regime. Optics Express, 2016, 24, 26444.	3.4	20
57	Low-noise macroscopic twin beams. Physical Review A, 2016, 93, .	2.5	20
58	Absolute calibration of photodetectors: photocurrent multiplication versus photocurrent subtraction. Optics Letters, 2011, 36, 1329.	3.3	19
59	Quantum tomography enhanced through parametric amplification. New Journal of Physics, 2018, 20, 013005.	2.9	19
60	Two-photon spectron. JETP Letters, 2002, 75, 225-226.	1.4	18
61	Two methods for detecting nonclassical correlations in parametric scattering of light. JETP Letters, 2008, 88, 660-664.	1.4	18
62	Filtering of the absolute value of photon-number difference for two-mode macroscopic quantum superpositions. Physical Review A, 2012, 86, .	2.5	18
63	Overcoming inefficient detection in sub-shot-noise absorption measurement and imaging. Optics Express, 2019, 27, 7868.	3.4	18
64	Quantum interference by two temporally distinguishable pulses. Physical Review A, 1999, 60, R37-R40.	2.5	17
65	Temporal indistinguishability and quantum interference. Physical Review A, 2000, 62, .	2.5	17
66	Photon correlations for colloidal nanocrystals and their clusters. Optics Letters, 2014, 39, 1791.	3.3	17
67	Special Topic: Quantum sensing with correlated light sources. Applied Physics Letters, 2021, 118, .	3.3	17
68	Measurement of qutrits. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2003, 94, 684-690.	0.6	16
69	Conditional unitary transformation on biphotons. Physical Review A, 2004, 70, .	2.5	16
70	Ring-shaped spectra of parametric downconversion and entangled photons that never meet. Optics Letters, 2016, 41, 2827.	3.3	16
71	Three-dimensional quantum polarization tomography of macroscopic Bell states. Physical Review A, 2012, 85, .	2.5	15
72	Dispersion tuning in sub-micron tapers for third-harmonic and photon triplet generation. Optics Letters, 2018, 43, 2320.	3.3	15

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73	Progress toward third-order parametric down-conversion in optical fibers. Physical Review A, 2020, 101, .	2.5	15
74	First-order interference of nonclassical light emitted spontaneously at different times. Physical Review A, 2000, 61, .	2.5	14
75	Compensation of anisotropy effects in a nonlinear crystal for squeezed vacuum generation. Laser Physics Letters, 2013, 10, 125201.	1.4	14
76	Nonlinear interferometer for tailoring the frequency spectrum of bright squeezed vacuum. Journal of Modern Optics, 2016, 63, 64-70.	1.3	14
77	Orbital angular momentum modes of high-gain parametric down-conversion. Journal of Optics (United Kingdom), 2017, 19, 044005.	2.2	14
78	A primary radiation standard based on quantum nonlinear optics. Nature Physics, 2019, 15, 529-532.	16.7	14
79	Bright squeezed vacuum for two-photon spectroscopy: simultaneously high resolution in time and frequency, space and wavevector. Optics Letters, 2022, 47, 465.	3.3	14
80	Anticorrelation effect in femtosecond-pulse pumped type-II spontaneous parametric down-conversion. Physical Review A, 2001, 64, .	2.5	13
81	Biphoton light generation in polarization-frequency bell states. Journal of Experimental and Theoretical Physics, 2002, 95, 639-644.	0.9	13
82	Practical realization of a quantum cryptography protocol exploiting polarization encoding in qutrits. Journal of Optics B: Quantum and Semiclassical Optics, 2003, 5, S530-S534.	1.4	13
83	Analysis of the possibility of analog detectors calibration by exploiting stimulated parametric down conversion. Optics Express, 2008, 16, 12550.	3.4	13
84	Separable Schmidt modes of a nonseparable state. Physical Review A, 2014, 89, .	2.5	13
85	Interference of macroscopic beams on a beam splitter: phase uncertainty converted into photon-number uncertainty. New Journal of Physics, 2014, 16, 013025.	2.9	13
86	Polarization properties of macroscopic Bell states. Physical Review A, 2011, 84, .	2.5	12
87	The Schmidt modes of biphoton qutrits: PoincarÃ©-sphere representation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2013, 46, 095502.	1.5	12
88	Operationalistic orthogonality condition for single-mode biphotons (qutrits). JETP Letters, 2002, 76, 596-599.	1.4	11
89	Interference structure of two-photon amplitude revealed by dispersion spreading. Physical Review A, 2007, 75, .	2.5	11
90	Ghost imaging with the use of the variance of the difference photocurrent. JETP Letters, 2010, 91, 447-451.	1.4	11

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91	Seeded and unseeded high-order parametric down-conversion. Physical Review A, 2019, 99, .	2.5	11
92	Biphotons as three-level systems: Transformation and measurement. Journal of Experimental and Theoretical Physics, 2003, 97, 846-857.	0.9	9
93	Two-photon entanglement generation: different Bell states within the linewidth of phase-matching. Optics Express, 2007, 15, 10182.	3.4	9
94	Absolute calibration of analog detectors using stimulated parametric down conversion. Journal of Modern Optics, 2009, 56, 401-404.	1.3	9
95	Detection of non-classical space-time correlations with a novel type of single-photon camera. Optics Express, 2014, 22, 17561.	3.4	9
96	Detection-device-independent verification of nonclassical light. Physical Review Research, 2019, 1, .	3.6	9
97	Broadening the high sensitivity range of squeezing-assisted interferometers by means of two-channel detection. Optics Express, 2021, 29, 95.	3.4	9
98	Study of broadband multimode light via non-phase-matched sum frequency generation. New Journal of Physics, 2019, 21, 033024.	2.9	8
99	Study of second-order excitations in Î±-iodic acid crystal by means of polariton k-spectroscopy. Journal of Raman Spectroscopy, 1993, 24, 581-584.	2.5	7
100	Fourth-order interference of quasi-thermal light beams generated in an acoustic cell. Optics Communications, 1996, 132, 15-18.	2.1	7
101	Two-photon processes in faint biphoton fields. Journal of Modern Optics, 2002, 49, 2349-2364.	1.3	7
102	Detection of two-mode compression and degree of entanglement in continuous variables in parametric scattering of light. Journal of Experimental and Theoretical Physics, 2008, 107, 923-932.	0.9	7
103	Tailoring polarization entanglement in anisotropy-compensated spontaneous parametric down-conversion. Physical Review A, 2008, 77, .	2.5	7
104	COMPARATIVE TEST OF TWO METHODS OF QUANTUM EFFICIENCY ABSOLUTE MEASUREMENT BASED ON SQUEEZED VACUUM DIRECT DETECTION. International Journal of Quantum Information, 2011, 09, 251-262.	1.1	7
105	Multiphoton nonclassical correlations in entangled squeezed vacuum states. Physical Review A, 2013, 87, .	2.5	7
106	Compensation of anisotropy effects in the generation of two-photon light. Optics Express, 2014, 22, 9983.	3.4	7
107	Experimental reconstruction of spatial Schmidt modes for a wide-field SU(1,1) interferometer. Laser Physics, 2019, 29, 124013.	1.2	7
108	Direct measurement of the coupled spatiotemporal coherence of parametric down-conversion under negative group-velocity dispersion. Optics Letters, 2020, 45, 3581.	3.3	7

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109	Broadly tunable photon-pair generation in a suspended-core fiber. Physical Review Research, 2020, 2, .	3.6	7
110	Interference of Raman and parametric processes in small angle scattering. Optics Communications, 1989, 73, 361-364.	2.1	6
111	<title>Polariton spectroscopy: a method of investigating spectral and spatial properties of nonlinear optical materials</title>. , 1993, , .		6
112	Preparation of Biphotons in Arbitrary Polarization States. Journal of Experimental and Theoretical Physics, 2005, 100, 521.	0.9	6
113	Absolute Quantum Efficiency Measurements by Means of Conditioned Polarization Rotation. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 898-900.	4.7	6
114	Generation of broadband biphotons and their compression in an optical fiber. JETP Letters, 2009, 90, 172-176.	1.4	6
115	Testing ultrafast two-photon spectral amplitudes via optical fibres. Optics Express, 2010, 18, 12915.	3.4	6
116	Interference between spontaneous two-photon radiation from two macroscopic regions. JETP Letters, 1997, 65, 19-24.	1.4	5
117	Polarization and Spectral Properties of Biphotons. Progress in Optics, 2011, 56, 187-226.	0.6	5
118	Projective filtering of the fundamental eigenmode from spatially multimode radiation. Physical Review A, 2015, 92, .	2.5	5
119	Tunable optical parametric generator based on the pump spatial walk-off. Optics Letters, 2016, 41, 646.	3.3	5
120	Fiber-based biphoton source with ultrabroad frequency tunability. Optics Letters, 2021, 46, 4033.	3.3	5
121	Waveguide polariton modes in the polariton scattering spectra of a thin LiNbO3 layer. Optics Communications, 1995, 114, 301-308.	2.1	4
122	Go and return propagation of biphotons in fibre and polarization entanglement. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 7985-7992.	2.1	4
123	Classical visibility limit for three-photon interference. JETP Letters, 2007, 85, 381-385.	1.4	4
124	Biphoton compression in a standard optical fiber: Exact numerical calculation. Physical Review A, 2010, 81, .	2.5	4
125	Nonclassical features of the polarization quasiprobability distribution. Physical Review A, 2013, 88, .	2.5	4
126	Reconstructing two-dimensional spatial modes for classical and quantum light. Physical Review A, 2020, 102, .	2.5	4

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127	Propagation and decay of equilibrium phonon polaritons studied via near-forward Raman scattering. Optics Communications, 1999, 165, 39-44.	2.1	3
128	Polarisation properties of single-mode biphotons. Quantum Electronics, 2005, 35, 69-79.	1.0	3
129	Dispersion spreading of polarization-entangled states of light and two-photon interference. Laser Physics, 2007, 17, 567-575.	1.2	3
130	Generation of bright squeezed vacuum in the Karassiov states. Optics and Spectroscopy (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.6	3
131	Spectral properties of second, third and fourth harmonics generation from broadband multimode bright squeezed vacuum. Laser Physics Letters, 2020, 17, 075401.	1.4	3
132	Multimode optical parametric amplification in the phase-sensitive regime. Optics Letters, 2021, 46, 2364.	3.3	3
133	Feasibility of quantum key distribution with macroscopically bright coherent light. Optics Express, 2019, 27, 36154.	3.4	3
134	Two-phonon excitations in Î±-HIO3polariton spectra. Ferroelectrics, Letters Section, 1988, 9, 131-138.	1.0	2
135	Four-photon correlations in parametric down-conversion. Journal of Experimental and Theoretical Physics, 2004, 98, 227-230.	0.9	2
136	Multi-photon states and their measurement. , 2005, , .		2
137	Preparation of arbitrary qutrit state based on biphotons. , 2005, , .		2
138	â€œSpreadingâ€•of a biphoton in a group-velocity-dispersion medium and two-photon interference. JETP Letters, 2005, 81, 95-98.	1.4	2
139	Polarization tomography of bright states of light. JETP Letters, 2012, 96, 496-501.	1.4	2
140	Photonic crystal fiber designs for third-harmonic and photon triplet generation. , 2017, , .		2
141	Sixth seminar in memory of D. N. Klyshko at Moscow State University. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2010, 109, 1-1.	0.6	1
142	Feedback in the problem of distinguishing between two nonorthogonal coherent states. Journal of Experimental and Theoretical Physics, 2011, 112, 179-186.	0.9	1
143	Two-photon spectral amplitude of entangled states resolved in separable Schmidt modes. Physica Scripta, 2015, T165, 014005.	2.5	1
144	Overcoming detection losses in a supersensitive interferometer with coherent and squeezed vacuum inputs. , 2020, , .		1

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145	<title>Correlation of photons in scattered light</title>. , 1996, 2799, 131.		0
146	Quantum Interference by Two Temporally Distinguishable Pulses. Fortschritte Der Physik, 2000, 48, 505-510.	4.4	0
147	First-order interference of nonclassical light emitted spontaneously at different times. , 0, , .		0
148	Preparation and measurement of biphotons in given polarization state. , 0, , .		0
149	High-visibility two-photon interference in femtosecond pulse pumped type-II SPDC. , 0, , .		0
150	Single beam polarization tomography: fourth order approach. , 2003, , .		0
151	The operational criterion of the orthogonality of single-mode biphotons. , 2003, , .		0
152	The Third David Klyshko Memorial Seminar at Moscow State University. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2004, 96, 643-644.	0.6	0
153	Experimental realization of a measurement conditional unitary operation at single photon level and application to detector characterization. , 2004, 5551, 182.		0
154	Single-beam biphotons: polarization properties and propagation in fibers. , 2004, , .		0
155	Fourth seminar to the memory of D.N. Klyshko. Quantum Electronics, 2005, 35, 675-675.	1.0	0
156	Multi-photon correlations for nonclassical light measured in the pulsed regime. , 2006, , .		0
157	Bell States Generation within the Bandwidth of Spontaneous Parametric Down-Conversion. , 2007, , .		0
158	High-visibility classical multi-photon interference. , 2007, , .		0
159	High-visibility multi-photon interference for classical light. , 2007, , .		0
160	Experimental characterization of multi-photon entanglement with intensity correlation functions. Proceedings of SPIE, 2007, , .	0.8	0
161	Bell states within the linewidth of SPDC and applications. Proceedings of SPIE, 2007, , .	0.8	0
162	Study of the Glauber correlation functions in a pulsed mode. Optics and Spectroscopy (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	0.6	0

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163	Transverse compression of two-photon wave packets. JETP Letters, 2010, 91, 649-654.	1.4	0
164	Biphoton compression in standard optical fiber. , 2011, , .		0
165	Accessing photon bunching with photon number resolving multi-pixel detector. , 2011, , .		0
166	Engineering of spectral properties of two-photon states, preliminary results. Proceedings of SPIE, 2012, , .	0.8	0
167	Macroscopic Bell States and their Quantum Polarization Tomography. , 2012, , .		0
168	Entanglement of macroscopic Bell states. , 2013, , .		0
169	Possibility investigation of experimental verification of general bell inequality violation for polarization scalar light based realization. , 2014, , .		0
170	Separable Schmidt modes of an entangled state. , 2014, , .		0
171	Engineering of spectral and spatial properties of bright squeezed-vacuum states of light. , 2017, , .		0
172	Optical harmonic generation from bright squeezed vacuum. , 2017, , .		0
173	Pressure-tuned phase-matched generation of non-classical light in microstructured fibre. , 2018, , .		0
174	Non-phasematched Sum Frequency Generation from Tightly Focused High Gain Parametric Down Conversion. , 2018, , .		0
175	Spontaneous Parametric Down-Conversion in Nonlinear Metasurfaces. , 2021, , .		0
176	Fiber Source of Biphotons with Ultrabroad Frequency Tuneability. , 2021, , .		0
177	Transverse Entanglement of Biphotons. , 2013, , .		0
178	Twin Beams from Noble Gas Filled KagomÃ©-PCF. , 2016, , .		0
179	Hybrid photonic crystal fiber for efficient single-mode third-harmonic and triplet photon generation. , 2016, , .		0
180	A Primary Radiation Standard Based on Quantum Nonlinear Optics. , 2018, , .		0

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181	Non-phase matched spontaneous parametric down conversion in ultra-thin lithium niobate. , 2019, , .		0
182	Gas-Pressure-Tunable Photon-Pair Generation in Sub-Micron Suspended-Core Fibres. , 2020, , .		0
183	Fibre Spectroscopy of Nanoscale Spontaneous Parametric Down-Conversion. , 2020, , .		0
184	Quantum interference by two temporally distinguishable pulses. , 0, , .		0
185	Cascaded frequency up-conversion of bright squeezed vacuum: spectral and correlation properties. Optics Letters, 2022, 47, 766-769.	3.3	0
186	Nanoscale Spontaneous Parametric Down-Conversion. , 2021, , .		0
187	Spectral and Correlation Properties of Two-Photon Light. , 0, , 437-455.		0