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	Cascaded frequency up-conversion of bright squeezed vacuum: spectral and correlation properties. Optics Letters, 2022, 47, 766-769.	3.3	0
2	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
3	Entangled photons from subwavelength nonlinear films. Optics Letters, 2021, 46, 653.	3.3	31
4	Special Topic: Quantum sensing with correlated light sources. Applied Physics Letters, 2021, 118, .	3.3	17
5	Multimode optical parametric amplification in the phase-sensitive regime. Optics Letters, 2021, 46, 2364.	3.3	3
6	Photon Pairs from Resonant Metasurfaces. Nano Letters, 2021, 21, 4423-4429.	9.1	91
7	Overcoming detection loss and noise in squeezing-based optical sensing. Npj Quantum Information, 2021, 7, .	6.7	28
8	Spontaneous Parametric Down-Conversion in Nonlinear Metasurfaces. , 2021, , .		0
9	Fiber Source of Biphotons with Ultrabroad Frequency Tuneability. , 2021, , .		0
10	Fiber-based biphoton source with ultrabroad frequency tunability. Optics Letters, 2021, 46, 4033.	3.3	5
11	Broadening the high sensitivity range of squeezing-assisted interferometers by means of two-channel detection. Optics Express, 2021, 29, 95.	3.4	9
12	Nanoscale Spontaneous Parametric Down-Conversion. , 2021, , .		0
13	Optical coherence tomography with a nonlinear interferometer in the high parametric gain regime. Applied Physics Letters, 2020, 117, .	3.3	22
14	Reconstructing two-dimensional spatial modes for classical and quantum light. Physical Review A, 2020, 102, .	2.5	4
15	Spectral properties of second, third and fourth harmonics generation from broadband multimode bright squeezed vacuum. Laser Physics Letters, 2020, 17, 075401.	1.4	3
16	Progress toward third-order parametric down-conversion in optical fibers. Physical Review A, 2020, 101, .	2.5	15
17	Direct measurement of the coupled spatiotemporal coherence of parametric down-conversion under negative group-velocity dispersion. Optics Letters, 2020, 45, 3581.	3.3	7
18	Gas-Pressure-Tunable Photon-Pair Generation in Sub-Micron Suspended-Core Fibres. , 2020, , .		0

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19	Fibre Spectroscopy of Nanoscale Spontaneous Parametric Down-Conversion. , 2020, , .		0
20	Overcoming detection losses in a supersensitive interferometer with coherent and squeezed vacuum inputs. , 2020, , .		1
21	Broadly tunable photon-pair generation in a suspended-core fiber. Physical Review Research, 2020, 2, .	3.6	7
22	Indefinite-Mean Pareto Photon Distribution from Amplified Quantum Noise. Physical Review Letters, 2019, 123, 123606.	7.8	24
23	Study of broadband multimode light via non-phase-matched sum frequency generation. New Journal of Physics, 2019, 21, 033024.	2.9	8
24	A primary radiation standard based on quantum nonlinear optics. Nature Physics, 2019, 15, 529-532.	16.7	14
25	Seeded and unseeded high-order parametric down-conversion. Physical Review A, 2019, 99, .	2.5	11
26	Experimental reconstruction of spatial Schmidt modes for a wide-field SU(1,1) interferometer. Laser Physics, 2019, 29, 124013.	1.2	7
27	Detection-device-independent verification of nonclassical light. Physical Review Research, 2019, 1, .	3.6	9
28	Overcoming inefficient detection in sub-shot-noise absorption measurement and imaging. Optics Express, 2019, 27, 7868.	3.4	18
29	Feasibility of quantum key distribution with macroscopically bright coherent light. Optics Express, 2019, 27, 36154.	3.4	3
30	Wide-field SU(1,1) interferometer. Optica, 2019, 6, 1233.	9.3	41
31	Non-phase matched spontaneous parametric down conversion in ultra-thin lithium niobate. , 2019, , .		0
32	Quantum tomography enhanced through parametric amplification. New Journal of Physics, 2018, 20, 013005.	2.9	19
33	Pressure-tuned phase-matched generation of non-classical light in microstructured fibre. , 2018, , .		0
34	Multiphoton nonclassical light from clusters of single-photon emitters. New Journal of Physics, 2018, 20, 073013.	2.9	21
35	Non-phasematched Sum Frequency Generation from Tightly Focused High Gain Parametric Down Conversion. , 2018, , .		0
36	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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37	Broadband bright twin beams and their upconversion. Optics Letters, 2018, 43, 375.	3.3	28
38	A Primary Radiation Standard Based on Quantum Nonlinear Optics. , 2018, , .		0
39	Orbital angular momentum modes of high-gain parametric down-conversion. Journal of Optics (United Kingdom), 2017, 19, 044005.	2.2	14
40	Improving the phase super-sensitivity of squeezing-assisted interferometers by squeeze factor unbalancing. New Journal of Physics, 2017, 19, 013014.	2.9	44
41	Detection Loss Tolerant Supersensitive Phase Measurement with an SU(1,1) Interferometer. Physical Review Letters, 2017, 119, 223604.	7.8	102
42	Multiphoton Effects Enhanced due to Ultrafast Photon-Number Fluctuations. Physical Review Letters, 2017, 119, 223603.	7.8	58
43	Engineering of spectral and spatial properties of bright squeezed-vacuum states of light. , 2017, , .		0
44	Optical harmonic generation from bright squeezed vacuum. , 2017, , .		0
45	Photonic crystal fiber designs for third-harmonic and photon triplet generation. , 2017, , .		2
46	Autonomous absolute calibration of an ICCD camera in single-photon detection regime. Optics Express, 2016, 24, 26444.	3.4	20
47	Hybrid photonic-crystal fiber for single-mode phase matched generation of third harmonic and photon triplets. Optica, 2016, 3, 952.	9.3	40
48	Nonlinear interferometer for tailoring the frequency spectrum of bright squeezed vacuum. Journal of Modern Optics, 2016, 63, 64-70.	1.3	14
49	Heralded source of bright multi-mode mesoscopic sub-Poissonian light. Optics Letters, 2016, 41, 2149.	3.3	46
50	Tunable optical parametric generator based on the pump spatial walk-off. Optics Letters, 2016, 41, 646.	3.3	5
51	Low-noise macroscopic twin beams. Physical Review A, 2016, 93, .	2.5	20
52	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
53	Nonlinear interferometers in quantum optics. Advances in Optics and Photonics, 2016, 8, 104.	25.5	171
54	Ring-shaped spectra of parametric downconversion and entangled photons that never meet. Optics Letters, 2016, 41, 2827.	3.3	16

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55	Twin Beams from Noble Gas Filled KagomÃ©-PCF. , 2016, , .		0
56	Hybrid photonic crystal fiber for efficient single-mode third-harmonic and triplet photon generation. , 2016, , .		0
57	Projective filtering of the fundamental eigenmode from spatially multimode radiation. Physical Review A, 2015, 92, .	2.5	5
58	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
59	Two-photon spectral amplitude of entangled states resolved in separable Schmidt modes. Physica Scripta, 2015, T165, 014005.	2.5	1
60	Giant narrowband twin-beam generation along the pump-energy propagation direction. Nature Communications, 2015, 6, 7707.	12.8	22
61	Schmidt modes in the angular spectrum of bright squeezed vacuum. Physical Review A, 2015, 91, .	2.5	65
62	Bright squeezed vacuum: Entanglement of macroscopic light beams. Optics Communications, 2015, 337, 27-43.	2.1	69
63	Possibility investigation of experimental verification of general bell inequality violation for polarization scalar light based realization. , 2014, , .		0
64	Separable Schmidt modes of an entangled state. , 2014, , .		0
65	Bright squeezed-vacuum source with 11 spatial mode. Optics Letters, 2014, 39, 2403.	3.3	56
66	Detection of non-classical space-time correlations with a novel type of single-photon camera. Optics Express, 2014, 22, 17561.	3.4	9
67	Compensation of anisotropy effects in the generation of two-photon light. Optics Express, 2014, 22, 9983.	3.4	7
68	Separable Schmidt modes of a nonseparable state. Physical Review A, 2014, 89, .	2.5	13
69	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
70	Photon correlations for colloidal nanocrystals and their clusters. Optics Letters, 2014, 39, 1791.	3.3	17
71	Transverse entanglement of biphotons. New Journal of Physics, 2013, 15, 083015.	2.9	41
72	A versatile source of single photons for quantum information processing. Nature Communications, 2013, 4, 1818.	12.8	181

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73	Multiphoton nonclassical correlations in entangled squeezed vacuum states. Physical Review A, 2013, 87, .	2.5	7
74	Macroscopic Hongâ€“Ouâ€“Mandel interference. New Journal of Physics, 2013, 15, 093036.	2.9	20
75	Entanglement of macroscopic Bell states. , 2013, , .		0
76	Nonclassical features of the polarization quasiprobability distribution. Physical Review A, 2013, 88, .	2.5	4
77	Compensation of anisotropy effects in a nonlinear crystal for squeezed vacuum generation. Laser Physics Letters, 2013, 10, 125201.	1.4	14
78	The Schmidt modes of biphoton qutrits: PoincarÃ©-sphere representation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2013, 46, 095502.	1.5	12
79	Transverse Entanglement of Biphotons. , 2013, , .		0
80	Measurement of two-mode squeezing with photon number resolving multipixel detectors. Optics Letters, 2012, 37, 2829.	3.3	22
81	Spectral properties of high-gain parametric down-conversion. Optics Express, 2012, 20, 7507.	3.4	50
82	Three-dimensional quantum polarization tomography of macroscopic Bell states. Physical Review A, 2012, 85, .	2.5	15
83	Superbunched bright squeezed vacuum state. Optics Letters, 2012, 37, 1919.	3.3	73
84	Engineering of spectral properties of two-photon states, preliminary results. Proceedings of SPIE, 2012, , .	0.8	0
85	Macroscopic Bell States and their Quantum Polarization Tomography. , 2012, , .		0
86	Filtering of the absolute value of photon-number difference for two-mode macroscopic quantum superpositions. Physical Review A, 2012, 86, .	2.5	18
87	Entanglement witnesses and measures for bright squeezed vacuum. Physical Review A, 2012, 86, .	2.5	27
88	Polarization-Entangled Light Pulses of105Photons. Physical Review Letters, 2012, 109, 150502.	7.8	67
89	Polarization tomography of bright states of light. JETP Letters, 2012, 96, 496-501.	1.4	2
90	Polarization and Spectral Properties of Biphotons. Progress in Optics, 2011, 56, 187-226.	0.6	5

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91	Accessing photon bunching with a photon number resolving multi-pixel detector. Optics Express, 2011, 19, 9352.	3.4	36
92	Absolute calibration of photodetectors: photocurrent multiplication versus photocurrent subtraction. Optics Letters, 2011, 36, 1329.	3.3	19
93	Biphoton compression in standard optical fiber. , 2011, , .		0
94	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
95	Feedback in the problem of distinguishing between two nonorthogonal coherent states. Journal of Experimental and Theoretical Physics, 2011, 112, 179-186.	0.9	1
96	Intensity correlations of thermal light. European Physical Journal: Special Topics, 2011, 199, 127-138.	2.6	28
97	Macroscopic Pure State of Light Free of Polarization Noise. Physical Review Letters, 2011, 106, 113602.	7.8	37
98	Polarization properties of macroscopic Bell states. Physical Review A, 2011, 84, .	2.5	12
99	Systematic analysis of signal-to-noise ratio in bipartite ghost imaging with classical and quantum light. Physical Review A, 2011, 83, .	2.5	87
100	Accessing photon bunching with photon number resolving multi-pixel detector. , 2011, , .		0
101	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
102	Two-color bright squeezed vacuum. Physical Review A, 2010, 82, .	2.5	105
103	Ghost imaging with the use of the variance of the difference photocurrent. JETP Letters, 2010, 91, 447-451.	1.4	11
104	Transverse compression of two-photon wave packets. JETP Letters, 2010, 91, 649-654.	1.4	0
105	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
106	Accessing Higher Order Correlations in Quantum Optical States by Time Multiplexing. Physical Review Letters, 2010, 104, 063602.	7.8	124
107	Testing ultrafast two-photon spectral amplitudes via optical fibres. Optics Express, 2010, 18, 12915.	3.4	6
108	High-visibility, high-order lensless ghost imaging with thermal light. Optics Letters, 2010, 35, 1166.	3.3	125

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109	Biphoton compression in a standard optical fiber: Exact numerical calculation. Physical Review A, 2010, 81, .	2.5	4
110	Chirped Biphotons and their Compression in Optical Fibers. Physical Review Letters, 2009, 103, 193602.	7.8	37
111	Absolute calibration of analog detectors using stimulated parametric down conversion. Journal of Modern Optics, 2009, 56, 401-404.	1.3	9
112	High-visibility intensity interference and ghost imaging with pseudo-thermal light. Journal of Modern Optics, 2009, 56, 422-431.	1.3	35
113	Generation of broadband biphotons and their compression in an optical fiber. JETP Letters, 2009, 90, 172-176.	1.4	6
114	Generation and Direct Detection of Broadband Mesoscopic Polarization-Squeezed Vacuum. Physical Review Letters, 2009, 102, 183602.	7.8	97
115	Experimental verification of high spectral entanglement for pulsed waveguided spontaneous parametric down-conversion. Physical Review A, 2009, 79, .	2.5	37
116	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
117	Two methods for detecting nonclassical correlations in parametric scattering of light. JETP Letters, 2008, 88, 660-664.	1.4	18
118	Analysis of the possibility of analog detectors calibration by exploiting stimulated parametric down conversion. Optics Express, 2008, 16, 12550.	3.4	13
119	High-visibility multiphoton interference of Hanbury Brownâ€“Twiss type for classical light. Physical Review A, 2008, 77, .	2.5	69
120	Tailoring polarization entanglement in anisotropy-compensated spontaneous parametric down-conversion. Physical Review A, 2008, 77, .	2.5	7
121	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
122	Interference structure of two-photon amplitude revealed by dispersion spreading. Physical Review A, 2007, 75, .	2.5	11
123	Bell States Generation within the Bandwidth of Spontaneous Parametric Down-Conversion. , 2007, , .		0
124	Quantum Reconstruction of an Intense Polarization Squeezed Optical State. Physical Review Letters, 2007, 99, 220401.	7.8	40
125	High-visibility classical multi-photon interference. , 2007, , .		0
126	High-visibility multi-photon interference for classical light. , 2007, , .		0

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127	Experimental characterization of multi-photon entanglement with intensity correlation functions. Proceedings of SPIE, 2007, , .	0.8	0
128	Bell states within the linewidth of SPDC and applications. Proceedings of SPIE, 2007, , .	0.8	0
129	Two-photon entanglement generation: different Bell states within the linewidth of phase-matching. Optics Express, 2007, 15, 10182.	3.4	9
130	Generation of different Bell states within the spontaneous parametric down-conversion phase-matching bandwidth. Physical Review A, 2007, 76, .	2.5	25
131	Classical visibility limit for three-photon interference. JETP Letters, 2007, 85, 381-385.	1.4	4
132	Study of the Glauber correlation functions in a pulsed mode. Optics and Spectroscopy (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 54	0.6	0
133	Dispersion spreading of polarization-entangled states of light and two-photon interference. Laser Physics, 2007, 17, 567-575.	1.2	3
134	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
135	Multiphoton correlations in parametric down-conversion and their measurement in the pulsed regime. Quantum Electronics, 2006, 36, 951-956.	1.0	46
136	Dispersion Spreading of Biphotons in Optical Fibers and Two-Photon Interference. Physical Review Letters, 2006, 96, 143601.	7.8	29
137	Multi-photon correlations for nonclassical light measured in the pulsed regime. , 2006, , .		0
138	Multi-photon states and their measurement. , 2005, , .		2
139	Preparation of arbitrary qutrit state based on biphotons. , 2005, , .		2
140	Fourth seminar to the memory of D.N. Klyshko. Quantum Electronics, 2005, 35, 675-675.	1.0	0
141	â€œSpreadingâ€•of a biphoton in a group-velocity-dispersion medium and two-photon interference. JETP Letters, 2005, 81, 95-98.	1.4	2
142	Preparation of Biphotons in Arbitrary Polarization States. Journal of Experimental and Theoretical Physics, 2005, 100, 521.	0.9	6
143	Absolute Quantum Efficiency Measurements by Means of Conditioned Polarization Rotation. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 898-900.	4.7	6
144	Polarisation properties of single-mode biphotons. Quantum Electronics, 2005, 35, 69-79.	1.0	3

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145	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
146	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
147	Conditional unitary transformation on biphotons. Physical Review A, 2004, 70, .	2.5	16
148	Orthogonality of biphoton polarization states. Physical Review A, 2004, 70, .	2.5	25
149	Four-photon correlations in parametric down-conversion. Journal of Experimental and Theoretical Physics, 2004, 98, 227-230.	0.9	2
150	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
151	Statistical reconstruction of qutrits. Physical Review A, 2004, 70, .	2.5	65
152	Qutrit State Engineering with Biphotons. Physical Review Letters, 2004, 93, 230503.	7.8	122
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	Measurement of qutrits. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2003, 94, 684-690.	0.6	16
156	Biphotons as three-level systems: Transformation and measurement. Journal of Experimental and Theoretical Physics, 2003, 97, 846-857.	0.9	9
157	Single beam polarization tomography: fourth order approach. , 2003, , .		0
158	The operational criterion of the orthogonality of single-mode biphotons. , 2003, , .		0
159	Experimental entanglement concentration and universal Bell-state synthesizer. Physical Review A, 2003, 67, .	2.5	84
160	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
161	Two-photon processes in faint biphoton fields. Journal of Modern Optics, 2002, 49, 2349-2364.	1.3	7
162	Entangled Two-Photon Wave Packet in a Dispersive Medium. Physical Review Letters, 2002, 88, 183601.	7.8	108

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163	Two-photon spectron. JETP Letters, 2002, 75, 225-226.	1.4	18
164	Polarization optics of biphotons. JETP Letters, 2002, 75, 432-438.	1.4	26
165	Biphoton light generation in polarization-frequency bell states. Journal of Experimental and Theoretical Physics, 2002, 95, 639-644.	0.9	13
166	Operationalistic orthogonality condition for single-mode biphotons (qutrits). JETP Letters, 2002, 76, 596-599.	1.4	11
167	Two-Photon Diffraction and Quantum Lithography. Physical Review Letters, 2001, 87, 013602.	7.8	550
168	Interferometric Bell-state preparation using femtosecond-pulse-pumped spontaneous parametric down-conversion. Physical Review A, 2001, 63, .	2.5	65
169	Anticorrelation effect in femtosecond-pulse pumped type-II spontaneous parametric down-conversion. Physical Review A, 2001, 64, .	2.5	13
170	Quantum Interference by Two Temporally Distinguishable Pulses. Fortschritte Der Physik, 2000, 48, 505-510.	4.4	0
171	Temporal indistinguishability and quantum interference. Physical Review A, 2000, 62, .	2.5	17
172	First-order interference of nonclassical light emitted spontaneously at different times. Physical Review A, 2000, 61, .	2.5	14
173	Quantum interference by two temporally distinguishable pulses. Physical Review A, 1999, 60, R37-R40.	2.5	17
174	Propagation and decay of equilibrium phonon polaritons studied via near-forward Raman scattering. Optics Communications, 1999, 165, 39-44.	2.1	3
175	Interference between spontaneous two-photon radiation from two macroscopic regions. JETP Letters, 1997, 65, 19-24.	1.4	5
176	<title>Correlation of photons in scattered light</title>. , 1996, 2799, 131.		0
177	Fourth-order interference of quasi-thermal light beams generated in an acoustic cell. Optics Communications, 1996, 132, 15-18.	2.1	7
178	Waveguide polariton modes in the polariton scattering spectra of a thin LiNbO3 layer. Optics Communications, 1995, 114, 301-308.	2.1	4
179	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
180	<title>Polariton spectroscopy: a method of investigating spectral and spatial properties of nonlinear optical materials</title>. , 1993, , .		6

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181	Interference of Raman and parametric processes in small angle scattering. Optics Communications, 1989, 73, 361-364.	2.1	6
182	Two-phonon excitations in Î±-HIO3polariton spectra. Ferroelectrics, Letters Section, 1988, 9, 131-138.	1.0	2
183	First-order interference of nonclassical light emitted spontaneously at different times. , 0, , .		0
184	Preparation and measurement of biphotons in given polarization state. , 0, , .		0
185	High-visibility two-photon interference in femtosecond pulse pumped type-II SPDC. , 0, , .		0
186	Quantum interference by two temporally distinguishable pulses. , 0, , .		0
187	Spectral and Correlation Properties of Two-Photon Light. , 0, , 437-455.		0