Sergei N Smetanin

List of Publications by Year
in descending order

107	558	687363 13	794594 19
papers	citations	h-index	g-index

107	107	107	145
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stimulated Raman Scattering in Pb(MoO4)1â^'x(WO4)x with x = 0, 0.5, 0.8 and 1.0 with Combined Frequency Shifts on High- and Low-Frequency Raman Modes under Synchronous Picosecond Laser Pumping. Crystals, 2022, 12, 148.	2.2	4
2	Measurement of Multi-Stokes Ultrashort Pulse Shapes of Synchronously Pumped Stimulated Raman Scattering on Combined Vibrational Modes in a BaWO4 Crystal. Crystals, 2022, 12, 495.	2.2	1
3	Multiwavelength Ultrafast SRS Oscillation in Pb(MoO4)0.5(WO4)0.5 Mixed Crystal with Combined Frequency Shifts on Stretching and Bending Vibrations of Molybdate and Tungstate Anionic Groups. , 2021, , .		0
4	Multiwavelength, picosecond, synchronously pumped, Pb(MoO₄)_{0.2}(WO₄)_{0.8} Raman laser oscillating at 12 wavelengths in a range of 1128â€“1360â€‰â€‰nm. Optics Letters, 2021, 46, 5272.	3.3	3
5	Laser Pulse Shortening via Zero-Dispersion Phase Matching of Parametric Raman Interactions in Crystals. Crystals, 2021, 11, 19.	2.2	3
6	Stimulated Raman Scattering in Yttrium, Gadolinium, and Calcium Orthovanadate Crystals with Single and Combined Frequency Shifts under Synchronous Picosecond Pumping for Sub-Picosecond or Multi-Wavelength Generation around 1.2 Âµm. Crystals, 2020, 10, 871.	2.2	13
7	50-ÂµJ level, 20-picosecond, narrowband difference-frequency generation at 46, 54, 75, 92, and 108 Âµm in LiGaS2 and LiGaSe2 at Nd:YAG laser pumping and various crystalline Raman laser seedings. Optical Materials Express, 2020, 10, 1881.	3.0	10
8	Highly efficient, high-energy, picosecond, synchronously pumped Raman laser at 1171 and 1217 nm based on PbMoO₄ crystals with single and combined Raman shifts. Optics Express, 2020, 28, 39944.	3.4	13
9	Nanosecond parametric Raman anti-Stokes SrWO₄ laser at 507 nm with collinear phase matching. Optics Express, 2020, 28, 22919.	3.4	5
10	Synchronously-pumped, all-solid-state, picosecond Raman laser at 1169 and 1222 nm on single and combined Raman modes in a Ca₃(VO₄)₂ crystal with 30-times pulse shortening down to 1.2 ps. Laser Physics Letters, 2020, 17, 115402.	1.4	6
11	Efficient synchronously-pumped all-solid-state Raman laser at 1178 and 1227â€¯nm on stretching and bending anionic group vibrations in a SrWO4 crystal with pulse shortening down to 1.4â€¯ps. Optics and Laser Technology, 2019, 119, 105660.	4.6	13
12	860 fs GdVO4 Raman laser at 1228â€‰nm pumped by 36 ps, 1063â€‰nm laser. Laser Physics Letters, 2019, 16, 085401.	1.4	6
13	Synchronously-Pumped Picosecond Raman Laser at 1169 and 1222 nm with Single and Combined Raman Mode Shifts in a Ca3(VO4)2 Crystal. , 2019, , .		0
14	Zero-Dispersion Phase-Matched Extracavity Parametric Raman CaCO3 Laser Generating 3rd Stokes Single 80-ps Pulse at 1629 nm under Nanosecond Pumping at 1064 nm. , 2019, , .		0
15	Nd3+:YAG laser based on the 4F3/2 â†' 4I13/2 secondary transition with a phase-conjugate electro-optically Q-switched open multiloop cavity. Quantum Electronics, 2019, 49, 804-809.	1.0	1
16	860-Femtosecond Synchronously-Pumped GdVO4 Raman Laser at 1228 nm with 36-Picosecond 1063 nm Pumping. , 2019, , .		0
17	Stimulated Raman Scattering in Alkali-Earth Tungstate and Molybdate Crystals at Both Stretching and Bending Raman Modes under Synchronous Picosecond Pumping with Multiple Pulse Shortening Down to 1 ps. Crystals, 2019, 9, 167.	2.2	19
18	Synchronously-pumped all-solid-state SrMoO4 Raman laser generating at combined vibrational Raman modes with 26-fold pulse shortening down to 1.4â€¯ps at 1220â€¯nm. Optics and Laser Technology, 2019, 111, 129-133.	4.6	23

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19	50-Î¼J level, 20-picosecond difference-frequency generation at 4.6-9.2 Î¼m in LiGaS2 and LiGaSe2 at Nd:YAG laser pumping and various crystalline Raman laser seeding. , 2019, , .		0
20	Laser Output Radiation Characteristics Controlled by the GdVO4 Crystal Length in the Extracavity Synchronously Pumped Raman Laser with Combined Raman Shift Resulting in Generation of 860 fs Pulses at 1228 nm. , 2019, , .		0
21	Anti-Stokes nanosecond cyan 503, 507, and 508 nm generation at tangential phase matching in extracavity parametric Raman lasers based on crystals with different birefringence. , 2019, , .		0
22	Synchronously-pumped all-solid-state Raman lasers based on YVO4 and GdVO4 crystals with pulse shortening by higher than 30 times down to 850 fs. , 2019, , .		0
23	Efficient synchronously-pumped all-solid-state SrWO4 Raman laser at 1178 and 1227 nm on single and combined Raman modes with 26-fold pulse shortening down to 1.4 ps. , 2019, , .		0
24	Multi-wavelength picosecond BaWO4Raman laser with long and short Raman shifts and 12-fold pulse shortening down to 3â€‰ps at 1227 nm. Laser Physics, 2018, 28, 025403.	1.2	13
25	Extracavity pumped parametric Raman nanosecond crystalline anti-Stokes laser at 954 nm with collinear orthogonally polarized beam interaction at tangential phase matching. Optics Express, 2018, 26, 22637.	3.4	9
26	Highly efficient picosecond all-solid-state Raman laser at 1179 and 1227â€‰â€‰nm on single and combined Raman lines in a BaWO₄ crystal. Optics Letters, 2018, 43, 2527.	3.3	34
27	Spontaneous and Stimulated Raman Scattering in Tungstate and Molybdate Crystals at Both High and Low Frequency Anionic Group Vibrations. , 2018, , .		0
28	Extra-cavity Pumped Parametric Raman Crystalline Anti-Stokes Laser at 954 nm with Collinear Orthogonally Polarized Beam Interaction at Tangential Phase Matching. , 2018, , .		0
29	Difference-frequency Generation at 9.2 & 4.6 Î¼m in LiGaS2 Pumped by a 20-picosecond Nd:YAG/CaCO3 Raman Laser. , 2018, , .		0
30	Study of lasing on the 4F3/2 â†' 4I13/2 secondary transition of Nd3+ ions in a phase-conjugate Nd3+ : YAG laser. Quantum Electronics, 2017, 47, 26-31.	1.0	2
31	Parametric Raman anti-Stokes laser at 503 nm with phase-matched collinear beam interaction of orthogonally polarized Raman components in calcite under 532 nm 20 ps laser pumping. Proceedings of SPIE, 2017, , .	0.8	0
32	Parametric Raman crystalline anti-Stokes laser at 503Ânm with collinear beam interaction at tangential phase matching. Applied Physics B: Lasers and Optics, 2017, 123, 1.	2.2	9
33	Parametric Raman crystalline anti-Stokes laser at 503 nm with collinear orthogonally polarized beam interaction at tangential phase matching. , 2017, , .		0
34	Eye-safe, Diode-pumped, Passively Q-switched, Self-Raman Nd:SrMoO4 Laser Generating at 4F3/2 â€"> 4I13/2 Transition. , 2017, , .		2
35	Self-organized Separation of Single 120 ps, 1168-nm Anti-Stokes Pulse from the Pulse Train Generated by All-solid-state, Self-mode-locked, Parametric Raman Nd:YAG/CaCO3 Laser. , 2017, , .		0
36	Multiwavelength, All-solid-state, Synchronously Pumped, Ultrafast BaWO4 Raman Laser With Long and Short Raman Shifts and 12-times Pulse Shortening Down To 3 ps. , 2017, , .		0

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37	Generation of 120 ps, 1168 nm anti-Stokes pulses from the all-solid-state, self-mode-locked, parametric Raman CaCO3 laser with intracavity pumping by 1338 nm Nd:YAG laser. , 2017, , .		2
38	All-solid-state, synchronously pumped, ultrafast BaWO4 Raman laser with long and short Raman shifts generating at 1180, 1225, and 1323 nm. , 2017, , .		0
39	Four-wave-mixing and nonlinear cavity dumping of 280 picosecond 2nd Stokes pulse at 1.3Î¼m from Nd:SrMoO₄self-Raman laser. Laser Physics Letters, 2016, 13, 015801.	1.4	18
40	Determination of the stimulated raman scattering threshold for a pump pulse of arbitrary width. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2016, 121, 395-404.	0.6	5
41	The diode-pumped Nd:SrMoO<inf>4</inf> self-Raman-parametric laser generation of shortened 300-picosecond pulses without any mode-locking device. , 2016, , .		0
42	1.34-Î¼m Nd:YAG laser with an open-loop self-adaptive cavity. , 2016, , .		0
43	Parametric second Stokes Raman laser output pulse shortening to 300 ps due to depletion of pumping of intracavity Raman conversion. Applied Physics B: Lasers and Optics, 2016, 122, 1.	2.2	14
44	Self-Q-switching of a loop laser cavity with a self-pumped four-wave phase-conjugate mirror in an active laser medium. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2015, 119, 526-533.	0.6	2
45	Holographic self-Q-switching of Nd:YAG all-solid-state lasers with Cr:YAG saturable absorber. Russian Journal of Physical Chemistry B, 2015, 9, 521-525.	1.3	4
46	Low-threshold collinear parametric Raman comb generation in calcite under 532 and 1064â€‰nm picosecond laser pumping. Laser Physics Letters, 2015, 12, 095403.	1.4	12
47	On the influence of the local vibration on spectral and laser characteristics of F2-colour centres in LiF crystals at low temperatures. Quantum Electronics, 2015, 45, 1111-1116.	1.0	0
48	Passively Q-switched high-energy all-solid-state holographic Nd:YAG laser with a multiloop cavity. , 2015, , .		3
49	Low-threshold collinear parametric Raman comb generation in calcite. , 2015, , .		0
50	Wide-Range Peak Power Control in the Diode-Pumped Multiloop Self-Phase-Conjugate Nd:YAG Laser by Different Passive Q-Switches. , 2015, , .		0
51	Theoretical study of collinear optical frequency comb generation under multi-wave, transient stimulated Raman scattering in crystals. Quantum Electronics, 2014, 44, 1012-1021.	1.0	11
52	Generation regimes of a pulsed Nd:YAG laser with transverse LED pumping and multiloop self-pumped phase-conjugate cavity. Technical Physics, 2014, 59, 1844-1848.	0.7	5
53	Transient stimulated raman scattering in crystals during motion of populations of vibrational states. Journal of Experimental and Theoretical Physics, 2014, 119, 36-48.	0.9	2
54	Numerical simulation of a passive Q-switching operation of the diode-pumped solid-state laser with a multiloop self-phase-conjugate cavity. , 2014, , .		0

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55	Solid-state blue laser by nonlinear frequency conversion of 1.338-µm Nd:YAG laser radiation. , 2014, , .		0
56	Passive V:YAG Q-switching operation of 1.34-µm Nd:YAG laser with loop cavity. , 2014, , .		0
57	Low-threshold parametric Raman generation of high-order Raman components in crystals. Applied Physics B: Lasers and Optics, 2014, 117, 225-234.	2.2	11
58	SRS generation under phase matching conditions for four-wave interactions of SRS components in birefringent Raman-active crystals. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 617 T	0.6	4
59	Four-wave-mixing generation of SRS components in BaWO4and SrWO4crystals under picosecond excitation. Quantum Electronics, 2013, 43, 616-620.	1.0	8
60	All-solid-state Nd:YAG lasers with self-pumped multiwave-mixing phase conjugate cavities. Optical Memory and Neural Networks (Information Optics), 2013, 22, 267-271.	1.0	8
61	Random lasing in a nanocomposite medium. Quantum Electronics, 2013, 43, 63-70.	1.0	2
62	High-energy compact all-solid-state holographic Nd:YAG laser with a multiloop cavity. , 2013, , .		2
63	High power Nd:YAG laser with self-pumped phase-conjugate loop cavity and repetitive pulsed diode-matrix side-pumping. Proceedings of SPIE, 2013, , .	0.8	5
64	Comparative analysis of the use of various solid-state laser media for the self-starting of four-wave PCW generation in a loop laser resonator. Quantum Electronics, 2013, 43, 37-46.	1.0	3
65	Realisation of four-wave mixing phase matching for frequency components at intracavity stimulated Raman scattering in a calcite crystal. Quantum Electronics, 2013, 43, 512-518.	1.0	13
66	Phase matching of four-wave interactions of SRS components in birefringent SRS-active crystals. Quantum Electronics, 2012, 42, 224-227.	1.0	9
67	Stimulated Raman scattering of 18 picosecond laser pulses in strontium barium niobate crystal. Laser Physics Letters, 2012, 9, 519-523.	1.4	7
68	Multi-wave SRS oscillation in PbMoO₄and PbMo_{0.5}W_{0.5}O₄crystals under 18 picosecond laser pumping. Laser Physics Letters, 2012, 9, 853-857.	1.4	16
69	Principles of laser drilling with adapted control over the parameters of repeated laser pulses. Bulletin of the Russian Academy of Sciences: Physics, 2012, 76, 1115-1118.	0.6	2
70	A method for controlling the phase locking of a multichannel laser system. Bulletin of the Russian Academy of Sciences: Physics, 2012, 76, 637-642.	0.6	1
71	Loop laser cavities with self-pumped phase-conjugate mirrors in low-gain active media for phase-locked multichannel laser systems. Quantum Electronics, 2011, 41, 207-211.	1.0	15
72	Control of phase locking in a set of lasers with self-pumped phase-conjugate gain-grating mirrors using a passive Q-switch. Quantum Electronics, 2011, 41, 202-206.	1.0	5

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73	Lamp-pumped and diode-pumped YAG:Nd3+ laser systems with gain-grating phase conjugation and interchannel phase locking control by a passive LiF:F2 â€“Q-switch. , 2011, , .		1
74	The phase locking control of the multichannel holographic neodymium laser system with the help of a passive Q-switch. Doklady Physics, 2010, 55, 13-17.	0.7	1
75	Parametric coupling of frequency components at stimulated Raman scattering in solids. Physics-Uspekhi, 2010, 53, 611-617.	2.2	16
76	Efficient conversion of Nd:YAG laser radiationto the eye-safe spectral region by stimulated Raman scatteringin BaWO₄crystal. Quantum Electronics, 2010, 40, 710-715.	1.0	25
77	<title>Phased multichannel laser systems with high spatial emission brightness</title>. Proceedings of SPIE, 2010, , .	0.8	0
78	Intracavity SRS conversion in diode-pumpedmultifunctional Nd3+:SrMoO4laser crystal. Quantum Electronics, 2010, 40, 704-709.	1.0	16
79	Phase Locking Control of the multichannel holographic laser system with the help of passive Q-switch. , 2010, , .		0
80	Study of diffraction-coupled lasing in a set of lasers with self-pumped phase-conjugate mirrors on gain gratings in the case of short-range coupling. Quantum Electronics, 2009, 39, 31-35.	1.0	9
81	Technologies of perforation of closely spaced micron holes with the help of neodymiumâ€”LiF:F2-lasers. Quantum Electronics, 2009, 39, 385-387.	1.0	1
82	Four-wave parametric processes in multicascade SRS conversion of neodymium laser radiation into an eye-safe region. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2009, 107, 353-358.	0.6	4
83	Advanced multichannel laser systems with phase conjugation and interchannel phase locking by laser-gain-hologram long- and short-range coupling. Laser Physics, 2009, 19, 1117-1124.	1.2	2
84	Phase locking of multichannel holographic laser systems with long-range coupling by gain gratings. Doklady Physics, 2008, 53, 467.	0.7	3
85	<title>High rate ablative formation of ultra-deep channels by self-adaptive Nd:YAG laser with dynamically adjustable passive Q-switch</title>. Proceedings of SPIE, 2008, , .	0.8	0
86	High-speed ablation of ultradeep channels by a phase-conjugate dynamically controlled passivelyQ-switched Nd:YAG laser. Quantum Electronics, 2007, 37, 956-960.	1.0	15
87	Laser drilling of superdeep micron holes in various materials with a programmable control of laser radiation parameters. Quantum Electronics, 2007, 37, 99-102.	1.0	6
88	<title>Multi-channel laser system with phase locking by holographic gain gratings and small diameter deep hole drilling</title>. , 2007, , .		1
89	High-productive laser-assisted microtechnology of superdeep hole drilling. , 2007, , .		0
90	<title>Lasing of a phase-locked three-channel laser system based on oscillators with self-phase-conjugate loop cavities</title>. , 2007, , .		0

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91	Oscillation dynamics of a phase-locked three-channel holographic Nd:YAG laser system. Quantum Electronics, 2007, 37, 255-258.	1.0	4
92	Multichannel laser system with phase conjugation and interchannel phase locking by laser gain hologram. , 2007, , .		0
93	Increasing the generation efficiency of a self-phase-conjugate Nd:YAG laser. Doklady Physics, 2006, 51, 296-299.	0.7	10
94	High-power phase-locked Nd:YAG laser system with long-range coupling of three self-pumped phase-conjugated oscillators. Laser Physics, 2006, 16, 1610-1615.	1.2	6
95	High-average-power SRS conversion of radiation in a BaWO4crystal. Quantum Electronics, 2004, 34, 649-651.	1.0	25
96	<title>High-energy BaWO<formula><inf><roman>4</roman></inf></formula> Raman laser pumped by a self-phase-conjugated Nd:GGG laser</title>. , 2004, , .		3
97	Phase locking of optically coupled lasers by gain gratings in an active medium. Quantum Electronics, 2003, 33, 659-670.	1.0	17
98	Phase locking of holographic solid state Nd-lasers by parallel coupling in gain gratings. , 2003, , .		0
99	Self-Q-switching at phase conjugation in active media. , 2002, , .		8
100	<title>Powerful neodymium lasers with the self-phase-conjugation</title>. , 2001, , .		2
101	A YAG:Nd laser with a Sagnac interferometer and a passive laser Q-switch on Lif:F 2 â^' crystal. Doklady Physics, 2001, 46, 79-84.	0.7	0
102	High-effective laser hole drilling in metals and alloys. , 2000, 3888, 685.		0
103	100-W-average-power Nd:YAG laser with adaptive cavity formed by self-induced population gratings. , 2000, , .		0
104	Single-mode Nd lasers with adaptive cavity and self-phase-conjugation. , 2000, , .		0
105	Single-mode Nd:YAG laser with a self-pumped phase-conjugate loop cavity. Quantum Electronics, 1999, 29, 424-427.	1.0	5
106	High-average-power BaWO/sub 4/ Raman laser pumped by a self-phase-conjugated Nd-laser. , 0, , .		0
107	Phase locking of holographic solid-state Nd-lasers via four-wave-mixing in saturable-gain media. , 0, , .		0