

Oleg Antipov

List of Publications by Year in descending order

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140
papers

1,532
citations

331259

21
h-index

395343

33
g-index

142
all docs

142
docs citations

142
times ranked

888
citing authors

#	ARTICLE	IF	CITATIONS
1	2-µm solid-state laser mode-locked by single-layer graphene. Applied Physics Letters, 2013, 102, 013113.	1.5	120
2	Broadly tunable femtosecond Tm:Lu ₂ O ₃ ceramic laser operating around 2070 nm. Optics Express, 2012, 20, 19349.	1.7	76
3	Optical properties and efficient laser oscillation at 2066 nm of novel Tm:Lu ₂ O ₃ ceramics. Optical Materials Express, 2012, 2, 183.	1.6	69
4	Dynamics of pump-induced refractive index changes in single-mode Yb-doped optical fibers. Optics Express, 2008, 16, 12658.	1.7	55
5	Highly efficient 2-µm CW and Q-switched Tm ³⁺ :Lu ₂ O ₃ ceramics lasers in-band pumped by a Raman-shifted erbium fiber laser at 1670 nm. Optics Letters, 2016, 41, 2298.	1.7	55
6	Electronic mechanism for refractive-index changes in intensively pumped Yb:YAG laser crystals. Optics Letters, 2006, 31, 763.	1.7	50
7	Detailed characterization of pump-induced refractive index changes observed in Nd:YVO ₄ , Nd:GdVO ₄ and Nd:KGW. Optics Express, 2010, 18, 1553.	1.7	48
8	Trends in stimulated Brillouin scattering and optical phase conjugation. Laser and Particle Beams, 2008, 26, 297-362.	0.4	39
9	All-fiber coherent combining of Er-doped amplifiers through refractive index control in Yb-doped fibers. Optics Letters, 2009, 34, 3574.	1.7	39
10	Electronic changes of refractive index in intensively pumped Nd:YAG laser crystals. IEEE Journal of Quantum Electronics, 2003, 39, 910-918.	1.0	36
11	Electronic (population) lensing versus thermal lensing in Yb:YAG and Nd:YAG laser rods and disks. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 363.	0.9	36
12	Low-threshold mode instability in Yb ³⁺ -doped few-mode fiber amplifiers. Optics Express, 2014, 22, 29714.	1.7	35
13	Diode-pumped Nd:YAG laser with reciprocal dynamic holographic cavity. Optics Express, 2004, 12, 4313.	1.7	27
14	2-µm Tm:Lu ₂ O ₃ ceramic disk laser intracavity-pumped by a semiconductor disk laser. Optics Express, 2013, 21, 23844.	1.7	27
15	Electronic and thermal refractive index changes in Ytterbium-doped fiber amplifiers. Optics Express, 2013, 21, 22374.	1.7	26
16	Efficient lasing at 2.1 µm in a Ho:YAG laser pumped by a Tm:YLF laser. Quantum Electronics, 2010, 40, 98-100.	0.3	23
17	Structural, optical, and spectroscopic properties and efficient two-micron lasing of new Tm ³⁺ :Lu ₂ O ₃ ceramics. Quantum Electronics, 2011, 41, 863-868.	0.3	23
18	Resonant two-wave mixing of optical beams by refractive-index and gain gratings in inverted Nd:YAG. Journal of the Optical Society of America B: Optical Physics, 1998, 15, 2276.	0.9	22

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19	Origin of athermal refractive index changes observed in Yb ³⁺ doped YAG and KGW. Optics Communications, 2008, 281, 2526-2530.	1.0	22
20	Influence of a backward reflection on low-threshold mode instability in Yb ³⁺ -doped few-mode fiber amplifiers. Optics Express, 2016, 24, 14871.	1.7	22
21	High power simultaneous dual-wavelength CW and passively-Q-switched laser operation of LD pumped Tm:YLF at 19 and 23 Åm. Optics Express, 2019, 27, 38593.	1.7	22
22	Solution DFWM ï(3) non-linear optical properties of poly[(arylene)silylene]s and poly[(arylene)(ethynylene)silylene]s containing tetra- or hypercoordinate silicon. Physical Chemistry Chemical Physics, 2000, 2, 3195-3201.	1.3	21
23	250-W average-power Nd:YAG laser with self-adaptive cavity completed by dynamic refractive-index gratings. IEEE Journal of Quantum Electronics, 2001, 37, 716-724.	1.0	21
24	Electronic and thermal lensing in diode end-pumped Yb:YAG laser rods and discs. Quantum Electronics, 2009, 39, 1131-1136.	0.3	21
25	Dynamics of refractive-index changes in a Nd:YAG laser crystal under excitation of Nd ³⁺ ions. Journal of the Optical Society of America B: Optical Physics, 1999, 16, 1072.	0.9	19
26	Cutting effects induced by 2 Î¼m laser radiation of cw Tm:YLF and cw and Q-switched Ho:YAG lasers on ex-vivo tissue. Medical Laser Application: International Journal for Laser Treatment and Research, 2011, 26, 67-75.	0.4	19
27	Efficient 2.1â€”m lasers based on Tm ³⁺ :Lu ₂ O ₃ ceramics pumped by 800â€”nm laser diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 969-973.	0.8	19
28	Mechanism of self-pumped phase conjugation by near-forward stimulated scattering of heterogeneous laser beams in nematic liquid crystal. Optics Communications, 1993, 103, 499-506.	1.0	18
29	Pulse repetitive Nd:YAG laser with distributed feedback by self-induced population grating. Optics Communications, 1998, 152, 313-318.	1.0	18
30	Changes in the refractive index of an Nd:YAG laser crystal on excitation of the Nd ³⁺ ions. Quantum Electronics, 1998, 28, 867-874.	0.3	18
31	Efficient continuous-wave generation in a self-organizing diode-pumped Nd:YVO ₄ laser with a reciprocal dynamic holographic cavity. Optics Letters, 2004, 29, 2390.	1.7	18
32	Efficient emission at 1908 nm in a diode-pumped Tm:YLF laser. Quantum Electronics, 2009, 39, 410-414.	0.3	17
33	Laser ceramics Tm:Lu ₂ O ₃ . Thermal, thermo-optical, and spectroscopic properties. Optical Materials, 2013, 35, 499-503.	1.7	17
34	Formation of dynamic cavity in a self-starting high-average-power Nd:YAG laser oscillator. Optics Express, 1999, 5, 286.	1.7	16
35	2.92â€”m Cr ²⁺ :CdSe single crystal laser pumped by a repetitively pulsed Tm ³⁺ :Lu ₂ O ₃ ceramics laser at 2.066â€”m. Laser Physics Letters, 2015, 12, 045801.	0.6	16
36	36 W Q-switched Ho:YAG laser at 2097â€”nm pumped by a Tm fiber laser: evaluation of different Ho ³⁺ doping concentrations. Laser Physics Letters, 2017, 14, 015002.	0.6	16

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37	Nonlinear spectroscopic properties of Yb ³⁺ -doped sesquioxides Lu ₂ O ₃ and Sc ₂ O ₃ . Optics Express, 2010, 18, 11173.	1.7	15
38	10-W mid-IR optical parametric oscillators based on ZnGeP ₂ elements pumped by a fibre-laser-pumped Ho : YAG Laser. Experimental and numerical study. Quantum Electronics, 2017, 47, 601-606.	0.3	15
39	Picosecond z-scan measurements of nonlinear optical susceptibility of films and solutions of novel organometallic polymers. Optics Communications, 2002, 201, 207-215.	1.0	14
40	Self-pumped phase conjugation of the heterogeneous light beam in the inverted Nd:YAG-rod with nonreciprocal feedback. Optics Communications, 1995, 117, 290-294.	1.0	13
41	Photorefractive properties of new polymer composites incorporating poly[ethynediyl-arylene-ethynediyl-silylene]s. Physical Chemistry Chemical Physics, 2002, 4, 109-114.	1.3	13
42	Tunable quasi-cw two-micron lasing in diode-pumped crystals of mixed Tm ³⁺ -doped sodium lanthanum gadolinium molybdates and tungstates. Quantum Electronics, 2010, 40, 847-850.	0.3	13
43	Hybrid booster at 1940 nm based on Tm:Lu ₂ O ₃ ceramics implementing fiber combined signal and pump sources. Optics Letters, 2014, 39, 3216.	1.7	13
44	2.3-2.5 μm laser operation of LD-pumped Tm:YAP on the 3H ₄ →3H ₅ transition. Optical Materials, 2021, 115, 111054.	1.7	12
45	Laser-induced damage threshold of the nonlinear crystals BaGa ₄ Se ₇ and BaGa ₂ GeSe ₆ at 2091 nm in the nanosecond regime. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 2655.	0.9	12
46	Optical nonlinearity of fullerene-doped polymer nanocomposites. Quantum Electronics, 2002, 32, 776-780.	0.3	11
47	Transient grating measurements of refractive-index changes in intensively pumped Yb-doped laser crystals. Applied Physics B: Lasers and Optics, 2007, 86, 315-318.	1.1	11
48	Stimulated resonance scattering of light waves in laser crystals with a population inversion. JETP Letters, 1996, 63, 13-19.	0.4	10
49	1940 nm, 1966 nm and 2066 nm multi-wavelength CW and passively-Q-switched operation of L-shaped Tm ³⁺ :Lu ₂ O ₃ ceramic laser in-band fiber-laser pumped at 1670 nm. Laser Physics Letters, 2021, 18, 055001.	0.6	10
50	Degenerate four-wave mixing measurements of the χ ⁽³⁾ non-linear optical properties of poly(arylene-ethynylsilylene)s. Applied Organometallic Chemistry, 2000, 14, 640-643.	1.7	9
51	High-efficiency CW and passively Q-switched operation of a 2050 nm L-shaped Tm ³⁺ :Y ₂ O ₃ ceramic laser in-band fiber-laser pumped at 1670 nm. Applied Physics B: Lasers and Optics, 2021, 127, 1.	1.1	9
52	Laser-Induced Damage Threshold of Single Crystal ZnGeP ₂ at 2.1 μm: The Effect of Crystal Lattice Quality at Various Pulse Widths and Repetition Rates. Crystals, 2022, 12, 652.	1.0	9
53	Self-starting laser oscillator with a nonlinear nematic liquid-crystal mirror. Journal of the Optical Society of America B: Optical Physics, 2001, 18, 13.	0.9	8
54	Novel materials from bis(arene)metal-containing polyacrylonitrile. Applied Organometallic Chemistry, 2001, 15, 51-55.	1.7	8

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55	Giant optical nonlinearity of C70-doped hole-conducting polymer nanocomposite. Optics Communications, 2003, 224, 329-336.	1.0	8
56	Mechanisms of a change in the refractive index of an intensely pumped Yb:YAG crystal. Quantum Electronics, 2006, 36, 418-423.	0.3	8
57	Transverse-Mode Instability in High-Gain Few-Mode Yb ³⁺ -Doped Fiber Amplifiers With a 10- μ m Core Diameter With or Without Backward Reflection. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-8.	1.9	8
58	Nondegenerate four-wave-mixing measurements of a resonantly induced refractive-index grating in a Nd:YAG amplifier. Optics Letters, 1998, 23, 448.	1.7	7
59	Two-micron lasing in NaLa _{1/2} Gd _{1/2} (WO ₄) ₂ crystals doped with Tm ³⁺ ions. Quantum Electronics, 2010, 40, 101-102.	0.3	7
60	CW and Q-switched 2- μ m solid-state laser on ZrO ₂ :Y ₂ O ₃ :Ho ₂ O ₃ crystals pumped by a Tm fiber laser. Laser Physics, 2018, 28, 035803.	0.6	7
61	Adaptive Correction of Thermal Distortions of Multichannel Laser Radiation. Atmospheric and Oceanic Optics, 2018, 31, 238-242.	0.6	7
62	Laser-Induced Damage Threshold of Nonlinear GaSe and GaSe:In Crystals upon Exposure to Pulsed Radiation at a Wavelength of 2.1 μ m. Applied Sciences (Switzerland), 2021, 11, 1208.	1.3	7
63	Near-infrared second-harmonic generation versus mid-infrared optical parametric oscillation in multigrating and fan-out PPMgO:LN structures pumped by a repetitively pulsed 2- μ m Tm ³⁺ :Lu ₂ O ₃ -ceramics laser. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 1674.	0.9	7
64	Four-wave interaction of middle-infrared radiation in media with a thermal nonlinearity. Soviet Journal of Quantum Electronics, 1989, 19, 1465-1473.	0.1	6
65	Novel vanadium-containing polymers prepared from bis(arene)vanadium and acrylonitrile: third-order non-linear optical properties. Polymer International, 2002, 51, 1178-1183.	1.6	6
66	High-efficiency high-repetition-rate gain-switched operation around 3- μ m in Cr ²⁺ :CdSe single-crystal laser pumped by fiber-laser-pumped Ho ³⁺ :YAG laser. Optics Letters, 2019, 44, 1285.	1.7	6
67	Broadband spectral characterization of the phase shift induced by population inversion in Ti:Sapphire. Optics Express, 2019, 27, 1226.	1.7	6
68	The Influence of Angstrom-Scale Roughness on the Laser-Induced Damage Threshold of Single-Crystal ZnGeP ₂ . Crystals, 2022, 12, 83.	1.0	6
69	Precision improvement of MEMS gyros for indoor mobile robots with horizontal motion inspired by methods of TRIZ. , 2014, , .		5
70	Optimisation of phase-conjugating mirrors made of nematic liquid crystals in a two-pass laser amplifier. Quantum Electronics, 1994, 24, 411-415.	0.3	4
71	High-average-power solid state lasers with cavity formed by self-induced refractive index gratings. , 1999, , .		4
72	Thin film Z-scan measurements of the nonlinear response of novel conjugated silicon-ethynylene polymers and metal-containing complexes incorporated into polymeric matrices. , 2000, , .		4

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73	Increase in phase-conjugate reflectivity of a holographic Nd:YAG oscillator due to resonant refractive-index grating. Optics Communications, 2001, 189, 143-150.	1.0	4
74	Efficient diode-side-pumped Nd:YVO ₄ slab laser in different generation regimes. Quantum Electronics, 2009, 39, 309-312.	0.3	4
75	Low-threshold mode instability in Yb ³⁺ -doped few-mode fiber amplifiers: influence of a backward reflection. , 2016, , .		4
76	<title>Nd:YAG laser with cavity formed by population inversion gratings</title>. , 1998, 3267, 181.		3
77	Spectroscopic studies of the population of high-energy levels of Nd ³⁺ -doped laser crystals upon intense pumping. Quantum Electronics, 2002, 32, 793-798.	0.3	3
78	Interferometric study of electronic changes in the refractive index of a Nd:YAG laser crystal caused by intense pumping. Quantum Electronics, 2003, 33, 861-868.	0.3	3
79	Dynamics of pump/signal-induced index change in Yb-doped fiber amplifier. , 2007, , .		3
80	Mid-IR Optical Parametric Oscillator Based on Periodically Polled LiNbO ₃ Pumped by Tm ³⁺ :Lu ₂ O ₃ Ceramic Laser. Atmospheric and Oceanic Optics, 2019, 32, 724-729.	0.6	3
81	Rate Equation for the Nonlinear Phase Shift in Yb-Doped Optical Fibers Under Resonant Diode-Laser Pumping. Journal of Holography and Speckle, 2009, 5, 299-302.	0.1	3
82	Phase conjugator of the light beams based on Nd:YAG rod with the reciprocal feedback.. , 1996, , .		3
83	Influence of Postgrowth Processing Technology on the Laser Induced Damage Threshold of ZnGeP ₂ Single Crystal. Russian Physics Journal, 2022, 64, 2096-2101.	0.2	3
84	Influence of thermal change in the phase of an optical beam on its stimulated scattering and wavefront reversal. Soviet Journal of Quantum Electronics, 1987, 17, 458-462.	0.1	2
85	Low Threshold Self-Pumped Phase Conjugation of an Ar ⁺ -Laser Beam in Dye-Doped Nematic Liquid Crystals. Molecular Crystals and Liquid Crystals, 1996, 282, 429-435.	0.3	2
86	Adaptive correction of distortions in a multichannel optical system. Atmospheric and Oceanic Optics, 2013, 26, 140-148.	0.6	2
87	Dependence of the effectiveness of multichannel radiation turbulent distortion compensation on the method of phase control: Increase of efficiency with amplitude control. Atmospheric and Oceanic Optics, 2017, 30, 284-290.	0.6	2
88	Comparative study of pump-induced refractive index changes in aluminum and phosphate silicate Yb-doped fibers. , 2009, , .		2
89	Instability of counterpropagating homogeneous laser beams in media with a local slow-response nonlinearity. Soviet Journal of Quantum Electronics, 1992, 22, 88-90.	0.1	1
90	Self-pumped phase conjugation of laser beams in a nematic liquid-crystal layer with nonreciprocal feedback. Quantum Electronics, 1995, 25, 49-52.	0.3	1

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109	Orientational self-pumped phase conjugation of a light beam in a layer of a nematic liquid crystal with nonreciprocal feedback. Radiophysics and Quantum Electronics, 1996, 38, 199-203.	0.1	0
110	<title>Laser amplifier with the feedback loop as self-pumped phase conjugator of the light beam</title>. , 1996, 2771, 53.		0
111	<title>High-average-power solid state lasers with a self-adaptive cavity based on a nonlinear mirror</title>. , 2000, , .		0
112	Modulation instabilities and stimulated Raman scattering in Nd ³⁺ - and Er ³⁺ -doped fibers by picosecond laser pulses. , 2000, 3928, 245.		0
113	Self-starting laser with a nonlinear liquid crystal mirror. , 2000, 3928, 157.		0
114	100-W-average-power Nd:YAG laser with adaptive cavity formed by self-induced population gratings. , 2000, , .		0
115	200-W-average-power Nd:YAG laser with self-adaptive cavity completed by dynamic refractive-index gratings. , 2001, , .		0
116	<title>Role of resonant refractive-index grating in a nonreciprocal Nd:YAG self-pumped phase conjugator</title>. , 2001, 4353, 221.		0
117	Measurement of cubic nonlinear-optical susceptibility of new metalloorganic polymer films and solutions. Quantum Electronics, 2001, 31, 432-436.	0.3	0
118	New materials for nonlinear optics. , 2002, , .		0
119	Corrections to "Electronic changes of refractive index in intensively pumped Nd:YAG laser crystals". IEEE Journal of Quantum Electronics, 2003, 39, 1170-1170.	1.0	0
120	Self-Pumped Phase Conjugation by Joint Stimulated Scatterings in Nematic Liquid Crystals and Its Application for Self-Starting Lasers. , 2005, , 331-366.		0
121	<title>Electronic component of refractive index changes in intensively pumped Yb-doped laser crystals</title>. , 2006, , .		0
122	UV absorption wing enhanced refractive index changes observed in Yb:YAG and Yb:KGW. , 2007, , .		0
123	Beam structure of a diode-side-pumped Nd:YVO ₄ slab laser. Quantum Electronics, 2009, 39, 1047-1049.	0.3	0
124	Method and algorithm for all-fiber coherent combining through refractive index control in Yb-doped fibers. , 2010, , .		0
125	All-fiber Rayleigh ring mirror with an optical control of the resonance. , 2011, , .		0
126	Pump induced refractive index changes in gamma-irradiated Yb-doped optical fibers. , 2011, , .		0

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127	Electronic vs thermal index changes in pulsed and CW Yb-doped fiber amplifiers. , 2011, , .		0
128	CW, Q-switched and mode-locking oscillations at 2.1 μm in novel $\text{Tm}^{3+}:\text{Lu}_2\text{O}_3/\text{Lu}_2\text{O}_3:\text{O}^{3+}$ ceramics lasers. , 2013, , .		0
129	Femtosecond pulse generation with Tm-doped sesquioxides. , 2013, , .		0
130	Ceramic $\text{Tm}:\text{Lu}_2\text{O}_3$ Disk Laser Pumped with a Semiconductor Disk Laser. , 2013, , .		0
131	Model of a multichannel laser system and influence of distortions on quality of radiation. , 2014, , .		0
132	Comparison of novel all-fiber-format and hybrid thulium pulse fiber lasers. , 2014, , .		0
133	Adaptive compensation of atmospheric distortions of multichannel laser radiation. Optoelectronics, Instrumentation and Data Processing, 2015, 51, 568-572.	0.2	0
134	Hybrid lasers based on $\text{Tm}^{3+}:\text{Lu}_2\text{O}_3/\text{Lu}_2\text{O}_3:\text{O}^{3+}$ ceramics in-band pumped by Raman-shifted erbium fiber lasers and their OPO frequency conversion. , 2016, , .		0
135	Influence of a backward optical signal on mode instability in Yb^{3+} -doped fiber amplifier. , 2016, , .		0
136	Influence of counter-propagating optical signal on mode instability in a single frequency fiber amplifier. , 2017, , .		0
137	<title>Design and application of a single-mode Nd:YAG laser with self-pumped phase conjugation in laser crystals and saturable absorber</title>. , 1999, , .		0
138	Thermal distortions of multichannel laser radiation. , 2017, , .		0
139	Laser-Induced Damage Threshold of Barium Chalcogenides Crystals at 2091 nm. , 2020, , .		0
140	High-Efficiency Repetitively-Pulsed 2.3-3.2 μm Lasers based on Cr^{2+} -doped Single-Crystalline or Polycrystalline Chalcogenides with Low-Quantum-Defect Pumping. , 2020, , .		0