Pavel Peterka

List of Publications by Year
in descending order

128	1,433	304743	395702
papers	citations	22 h-index	33 g-index

131	131	131	945
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Heat treatment and fiber drawing effect on the luminescence properties of RE-doped optical fibers (REâ€‰=â€‰Yb, Tm, Ho). Optics Express, 2022, 30, 10050.	3.4	10
2	The effect of thermal and mechanical processing on the fluorescence lifetime of Yb-doped silica preforms and fibers for use in nanostructured-core fiber lasers. , 2022, , .		0
3	Simulations of Pump Absorption in Tandem-Pumped Octagon Double-Clad Fibers. IEEE Photonics Journal, 2021, 13, 1-14.	2.0	4
4	Energy transfer coefficients in thulium-doped silica fibers. Optical Materials Express, 2021, 11, 1805.	3.0	13
5	High-power laser testing of calcium-phosphate-based bioresorbable optical fibers. Optical Materials Express, 2021, 11, 2049.	3.0	5
6	Heat Treatment and Fiber Drawing Effect on the Fluorescence Lifetime of RE3+-doped Preforms and Fibers. , 2021, , .		0
7	Double-clad fibers for high-power fiber lasers. EPJ Web of Conferences, 2020, 243, 02001.	0.3	0
8	Active Optical Fibers and Components for Fiber Lasers Emitting in the 2-Î¼m Spectral Range. Materials, 2020, 13, 5177.	2.9	27
9	Double-Clad Active MOF and Shaped Optical Fibers for Fiber Lasers and Amplifiers. , 2020, , .		0
10	Impact of shaping optical fiber preforms based on grinding and a CO₂ laser on the inner-cladding losses of shaped double-clad fibers. Optics Express, 2020, 28, 13601.	3.4	9
11	Broadband thulium-doped fiber ASE source. Optics Letters, 2020, 45, 2164.	3.3	15
12	Broadly tunable laser based on novel metallic resonant leaky-mode diffraction grating. Optics Express, 2020, 28, 4340.	3.4	3
13	Holmium-doped fibers for efficient fiber lasers at 2100 nm. , 2020, , .		2
14	Numerical modelling of pump absorption in coiled and twisted double-clad fiber: a prospect for tandem pumped fiber laser. , 2020, , .		2
15	All-Fiber Mode-Locked Thulium Doped Fiber Laser using a Novel Femtosecond Laser Inscribed 45Â° Tilted Fiber Grating. , 2019, , .		0
16	All fiber mode-locked thulium-doped fiber laser using a novel femtosecond-laser-inscribed 45Â°-plane-by-plane-tilted fiber grating. Laser Physics Letters, 2019, 16, 095104.	1.4	14
17	Enhanced Pump Absorption Efficiency in Coiled and Twisted Double-Clad Fibers for Fiber Lasers. , 2019, , .		2
18	Nanoparticle and Solution Doping for Efficient Holmium Fiber Lasers. IEEE Photonics Journal, 2019, 11, 1-10.	2.0	25

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19	Er/Yb Double-Clad Fiber Laser With fs-Laser Inscribed Plane-by-Plane Chirped FBG Laser Mirrors. IEEE Photonics Technology Letters, 2019, 31, 409-412.	2.5	18
20	Solâ€gel route to nanocrystalline Eu 2 Ti 2 O 7 films with tailored structural and optical properties. Journal of the American Ceramic Society, 2019, 102, 6713-6723.	3.8	5
21	Nanocrystalline Ceramic Phosphors for High-Power Lasers Operating at 2Î¼m. , 2019, , .		0
22	Efficient Pump Absorption in Twisted Double Clad Thulium-Doped Fibers Drawn of CO₂ Laser Shaped Preform. , 2019, , .		4
23	In vivo testing of a bioresorbable phosphateâ€based optical fiber. Journal of Biophotonics, 2019, 12, e201800397.	2.3	19
24	Experimental investigation and characterization of fabrication shaped clad optical fiber by thermally polishing optical fiber preforms with CO2 laser. , 2019, , .		3
25	High-power laser tests of phosphate glass-based bioresorbable optical fibers transmission. , 2019, , .		1
26	Spectroscopic characterization of holmium-doped optical fibers for fiber lasers. , 2019, , .		3
27	Femtosecond laser plane-by-plane Bragg gratings for monolithic Thulium-doped fibre laser operating at 1970 nm. , 2019, , .		1
28	Monolithic fibre lasers developed using the plane-by-plane femtosecond laser inscription method. , 2019, , .		0
29	Reflectivity of Superimposed Bragg Gratings Induced by Longitudinal Mode Instabilities in Fiber Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-8.	2.9	30
30	Self-swept erbium fiber laser around 1.56â€Î¼m. Opto-electronics Review, 2018, 26, 29-34.	2.4	31
31	Sol-gel route to highly transparent (Ho0.05Y0.95)2Ti2O7 thin films for active optical components operating at 2â€Î¼m. Optical Materials, 2018, 78, 415-420.	3.6	9
32	Thulium-Doped Silica Fibers with Enhanced Fluorescence Lifetime and Their Application in Ultrafast Fiber Lasers. Fibers, 2018, 6, 66.	4.0	22
33	Comparative Modeling of Infrared Fiber Lasers. Photonics, 2018, 5, 48.	2.0	11
34	YAG Ceramic Nanocrystals Implementation into MCVD Technology of Active Optical Fibers. Applied Sciences (Switzerland), 2018, 8, 833.	2.5	17
35	Silica- and germanate-based rare earth doped glasses for fiber lasers. , 2018, , .		1
36	Monolithic Er/Yb double-clad fibre laser with FBG inscribed using the direct-write plane-by-plane fs-laser inscription method. , 2018, , .		3

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37	Pump absorption in coiled and twisted double-clad hexagonal fiber: effect of launching conditions and core location. , 2018, , .		1
38	Biomedical and sensing applications of a multi-mode biodegradable phosphate-based optical fiber. , 2018, , .		0
39	Comparative study of infrared fiber laser models. , 2018, , .		0
40	High-energy subpicosecond 2.1-um fiber laser. , 2018, , .		0
41	Dynamic gratings induced by mode instabilities in fiber lasers. , 2018, , .		1
42	Reverse spontaneous laser line sweeping in ytterbium fiber laser. Laser Physics Letters, 2017, 14, 035102.	1.4	24
43	Modal-field spectra analysis of pump absorption efficiency in double-clad rare-earth doped fibers (Conference Presentation). , 2017, , .		1
44	Development and characterization of highly-nonlinear multicomponent glass photonic crystal fibers for mid-infrared applications. Proceedings of SPIE, 2017, , .	0.8	0
45	Spectral properties of thulium doped optical fibers for fiber lasers around 2 micrometers. Proceedings of SPIE, 2017, , .	0.8	1
46	Spontaneous laser-line sweeping in Ho-doped fiber laser. , 2017, , .		3
47	Self-sweeping of laser wavelength and associated mode instabilities in fiber lasers. , 2017, , .		1
48	Enhancement of pump absorption efficiency by bending and twisting of double clad rare earth doped fibers (Conference Presentation). , 2017, , .		1
49	Self-swept holmium fiber laser near 2100 nm. Optics Express, 2017, 25, 4120.	3.4	53
50	Thulium-doped optical fibers for fiber lasers. , 2017, , .		2
51	Monolithic thulium-doped fiber laser. , 2017, , .		2
52	Evaluation of energy transfer coefficients in Tm-doped fibers for fiber lasers. , 2017, , .		3
53	Identification of zero density of states domains in band gap fibers using a single binary function. Optics Express, 2016, 24, 16212.	3.4	2
54	Silica Optical Fibers Doped with Nanoparticles for Fiber Lasers and Broadband Sources. Current Nanoscience, 2016, 12, 277-290.	1.2	44

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55	Measurement of refractive index profile of non-symmetric, complex silica preforms with high refractive index differences. , 2016, , .		2
56	Coherent sources for mid-infrared laser spectroscopy. Proceedings of SPIE, 2016, , .	0.8	0
57	All-fiber Ho-doped mode-locked oscillator based on a graphene saturable absorber. Optics Letters, 2016, 41, 2592.	3.3	73
58	Characterization of holmium fibers with various concentrations for fiber laser applications around 2.1 Î¼m. , 2016, , .		5
59	Enhanced pump absorption efficiency in coiled and twisted double-clad thulium-doped fibers. Optics Express, 2016, 24, 102.	3.4	35
60	Challenges and future trends in fiber lasers. , 2016, , .		5
61	Thulium-doped fibre broadband source for spectral region near 2 micrometers. Opto-electronics Review, 2016, 24, .	2.4	12
62	Numerical Modeling of Pump Absorption in Coiled and Twisted Double-Clad Fibers. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 55-62.	2.9	37
63	Self-Swept Holmium-Doped Fiber Laser near 2100 nm. , 2016, , .		4
64	Transient-fiber-Bragg grating spectra in self-swept Fabry-Perot fiber lasers. , 2015, , .		1
65	Characterization of double-clad thulium-doped fiber with increased quantum conversion efficiency. , 2015, , .		0
66	Numerical analysis of pump propagation and absorption in specially tailored double-clad rare-earth doped fiber. Optical and Quantum Electronics, 2015, 47, 3181-3191.	3.3	10
67	Characterization of fluorescence lifetime of Tm-doped fibers with increased quantum conversion efficiency. , 2015, , .		1
68	Preparation of optical fibers with non-circular cross-section for fiber lasers and amplifiers. Proceedings of SPIE, 2015, , .	0.8	2
69	Mode-field adapter for tapered-fiber-bundle signal and pump combiners. Applied Optics, 2015, 54, 751.	1.8	22
70	Optimized mode-field adapter for low-loss fused fiber bundle signal and pump combiners. Proceedings of SPIE, 2015, , .	0.8	1
71	Active Optical Fibers Doped with Ceramic Nanocrystals. Advances in Electrical and Electronic Engineering, 2015, 12, .	0.3	3
72	Enhanced Pump Absorption Efficiency in Coiled and Twisted Double-Clad Thulium-Doped Fibers. , 2015, , .		0

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73	Erbium and Al2O3 nanocrystals-doped silica optical fibers. Bulletin of the Polish Academy of Sciences: Technical Sciences, 2014, 62, 641-646.	0.8	8
74	Reflectivity of transient Bragg reflection gratings in fiber laser with laser-wavelength self-sweeping. Optics Express, 2014, 22, 30024.	3.4	25
75	Thulium-doped optical fibers and components for fiber lasers in 2 Âµm spectral range. , 2014, , .		2
76	Reliability of aircraft multimode optical networks. Optical Engineering, 2014, 53, 096102.	1.0	3
77	Fused fiber components for â€œeye-safeâ€•spectral region around 2Â $$upmu $$ Î¼ m. Optical and Quantum Electronics, 2014, 46, 603-611.	3.3	15
78	Self-Q-switched Regime of Fiber Lasers as a Transition from Self-Induced Laser Line Sweeping. , 2014, , .		4
79	Monolithic Tm-Doped Fiber Laser at 1951 nm With Deep-UV Femtosecond-Induced FBG Pair. IEEE Photonics Technology Letters, 2013, 25, 1623-1625.	2.5	13
80	Double-clad rare-earth-doped fiber with cross-section tailored for splicing to the pump and signal fibers: analysis of pump propagation. Proceedings of SPIE, 2013, , .	0.8	5
81	Effect of pump wavelength on self-induced laser line sweeping in Yb-doped fiber laser. , 2013, , .		6
82	The influence of nanostructured optical fiber core matrix on the optical properties of EDFA. Proceedings of SPIE, 2013, , .	0.8	3
83	Monolithic thulium-doped fiber laser with UV femtosecond-laser-induced fiber-Bragg-grating pair. , 2013, , .		1
84	Coherently combined power of 20 W at 2000 nm from a pair of thulium-doped fiber lasers. Laser Physics Letters, 2013, 10, 095104.	1.4	15
85	Self-induced laser line sweeping and self-pulsing in double-clad fiber lasers in Fabry-Perot and unidirectional ring cavities. Proceedings of SPIE, 2012, , .	0.8	13
86	Self-induced laser line sweeping and self-pulsing in rare-earth doped fiber lasers. , 2012, , .		1
87	Self-induced laser line sweeping in double-clad Yb-doped fiber-ring lasers. Laser Physics Letters, 2012, 9, 445-450.	1.4	46
88	Wideband and high-power light sources for in-line interferometric diagnostics of laser structuring systems. Proceedings of SPIE, 2012, , .	0.8	1
89	Numerical modeling of all-fiber passively Q-switched fiber lasers. , 2012, , .		0
90	Thulium-doped silica fibers with enhanced ³H<inf>4</inf> level lifetime for fiber lasers and amplifiers. , 2012, , .		2

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91	Passively Q-switched ytterbium- and chromium-doped all-fiber laser. Applied Optics, 2011, 50, E20.	2.1	25
92	Theoretical modeling of fiber laser at 810 nm based on thulium-doped silica fibers with enhanced ^3H_4 level lifetime. Optics Express, 2011, 19, 2773.	3.4	74
93	Preparation and characterization of highly thulium- and alumina-doped optical fibers for single-frequency fiber lasers. , 2011, , .		2
94	Development of a FD-OCT for the inline process metrology in laser structuring systems. Proceedings of SPIE, 2011, , .	0.8	9
95	Tomography reconstruction of geometry and refractive index profile of highly asymmetric optical fiber preforms. Proceedings of SPIE, 2010, , .	0.8	0
96	Thulium-doped silica fibers with enhanced3H 4 level lifetime: modelling the devices for 800-820 nm band. , 2010, , .		2
97	Extension of the double-clad Yb-doped fiber laser oscillation range thanks to long-period fiber grating filters. , 2009, , .		0
98	Long-period fiber grating as wavelength selective element in double-clad Yb-doped fiber-ring lasers. Laser Physics Letters, 2009, 6, 732-736.	1.4	65
99	Fabrication and characterization of solid-core photonic crystal fiber with steering-wheel air-cladding for strong evanescent field overlap. Optics Communications, 2008, 281, 55-60.	2.1	19
100	Visible and near infra-red up-conversion in Tm^3+/Yb^3+ co-doped silica fibers under 980 nm excitation. Optics Express, 2008, 16, 13781.	3.4	64
101	Influence of Si-Al-Ge-Sb Matricies on Tm³⁺ Excitation Levels. Materials Science Forum, 2008, 587-588, 293-297.	0.3	0
102	Estimation of energy transfer parameters in thulium- and ytterbium-doped silica fibers. , 2008, , .		9
103	Distributed gain in a Tm-doped silica fiber - experiment and modeling. , 2007, , .		2
104	The modified interferometer for measurement of the chromatic dispersion in PCFs. , 2007, , .		2
105	Amplifier Performance of Double-Clad Er/Yb-Doped Fiber with Cross-Section Tailored for Direct Splicing to the Pump and Signal Fibers. , 2007, , .		3
106	Thulium-doped silica-based optical fibers for cladding-pumped fiber amplifiers. Optical Materials, 2007, 30, 174-176.	3.6	26
107	Experimental demonstration of novel end-pumping method for double-clad fiber devices. Optics Letters, 2006, 31, 3240.	3.3	34
108	<title>Microstructure fibers for the development of fiber lasers</title>. , 2006, , .		0

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109	10 gigabit Ethernet long-haul transmission without in-line EDFAs. Annales Des Telecommunications/Annals of Telecommunications, 2006, 61, 478-488.	2.5	2
110	Microstructure fibers for gas detection. Materials Science and Engineering C, 2006, 26, 317-321.	7.3	15
111	<title>Optimization of erbium-ytterbium fibre laser with simple double-clad structure</title>. , 2006, , .		5
112	<title>Characterization of a thulium-doped silica-based optical fibre for S-band amplification</title>. , 2006, 6180, 181.		4
113	Laser performance of double-clad Er/Yb doped fiber with cross-section tailored for direct splicing to the pump and signal fibers. , 2006, , .		0
114	Influence of fibre length on intermodal interference in PCF. , 2005, , .		0
115	Novel coupling element for end-pumping of double-clad fibres. , 2005, , .		2
116	Modelling of a pump-power-controlled gain-locking system for multi-pump wideband Raman fibre amplifiers. IEE Proceedings: Optoelectronics, 2004, 151, 74.	0.8	9
117	The determination of the refractive index profile in Î±-profile optical fibres by intermodal interference investigation. Optik, 2004, 115, 86-88.	2.9	7
118	Theoretical modelling of S-band thulium-doped silica fibre amplifiers. Optical and Quantum Electronics, 2004, 36, 201-212.	3.3	113
119	Time-domain simulation of power transients in Raman fibre amplifiers. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2004, 17, 165-176.	1.9	10
120	202 km repeaterless transmission of 2Ã—10 GE plus 2Ã—1 GE channels over standard single mode fibre. Optics Communications, 2004, 235, 269-274.	2.1	6
121	Generation of high-repetition-rate pulse trains in a fiber laser through a twin-core fiber. , 2003, , .		18
122	Three- and four-wave model of modulation instability fibre laser. Journal of Optics, 2002, 4, S135-S139.	1.5	1
123	Modulational-instability Ïƒ-resonator fiber laser. Optics Letters, 2001, 26, 810.	3.3	14
124	Erbium-doped twin-core fibre narrow-band filter for fibre lasers. Optical and Quantum Electronics, 2001, 33, 571-581.	3.3	15
125	Title is missing!. Journal of Sol-Gel Science and Technology, 2000, 19, 293-296.	2.4	2
126	Twin-core fiber design and preparation for easy splicing. IEEE Photonics Technology Letters, 2000, 12, 1656-1658.	2.5	28

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127	Er-doped twin-core fibre coupler as a saturable-absorber-based narrow-band filter for fibre lasers. European Physical Journal D, 1999, 49, 889-894.	0.4	6
128	Transmission of 2x10 GE channels over 252 km without in-line EDFA. , 0, , .		3