Sergey B Mirov

List of Publications by Year
in descending order

96	3,007	186265 28	168389 53
papers	citations	h-index	g-index

97	97	97	2088
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Progress in Mid-IR Lasers Based on Cr and Fe-Doped IIâ€“VI Chalcogenides. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 292-310.	2.9	306
2	Frontiers of Mid-IR Lasers Based on Transition Metal Doped Chalcogenides. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-29.	2.9	239
3	Progress in Cr²⁺and Fe²⁺doped midâ€IR laser materials. Laser and Photonics Reviews, 2010, 4, 21-41.	8.7	212
4	Highly efficient, narrow-linewidth, and single-frequency actively and passively Q-switched fiber-bulk hybrid Er:YAG lasers operating at 1645 nm. Optics Express, 2008, 16, 19427.	3.4	155
5	Broadly tunable compact continuous-wave Cr^2+:ZnS laser. Optics Letters, 2002, 27, 1040.	3.3	125
6	Temperature and concentration quenching of mid-IR photoluminescence in iron doped ZnSe and ZnS laser crystals. Journal of Luminescence, 2012, 132, 600-606.	3.1	107
7	Super-octave longwave mid-infrared coherent transients produced by optical rectification of few-cycle 25-Î¼m pulses. Optica, 2019, 6, 111.	9.3	96
8	140 W Cr:ZnSe laser system. Optics Express, 2016, 24, 21090.	3.4	90
9	Energy scaling of 43 Î¼m room temperature Fe:ZnSe laser. Optics Letters, 2011, 36, 94.	3.3	89
10	Frontiers of mid-infrared lasers based on transition metal doped IIâ€“VI semiconductors. Journal of Luminescence, 2013, 133, 268-275.	3.1	87
11	Ultrafast middle-IR lasers and amplifiers based on polycrystalline Cr:ZnS and Cr:ZnSe. Optical Materials Express, 2017, 7, 2636.	3.0	83
12	Recent Progress in Transition-Metal-Doped IIâ€“VI Mid-IR Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2007, 13, 810-822.	2.9	79
13	Vimentin intermediate filament assembly regulates fibroblast invasion in fibrogenic lung injury. JCI Insight, 2019, 4, .	5.0	69
14	Multi-Watt mid-IR femtosecond polycrystalline Cr^2+:ZnS and Cr^2+:ZnSe laser amplifiers with the spectrum spanning 20â€“26 Âµm. Optics Express, 2016, 24, 1616.	3.4	67
15	Heme oxygenase-1-mediated autophagy protects against pulmonary endothelial cell death and development of emphysema in cadmium-treated mice. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2015, 309, L280-L292.	2.9	62
16	High-pressure and high-temperature studies on oxide garnets. Physical Review B, 1996, 54, 6200-6209.	3.2	60
17	Continuous-wave tunable Cr2+:ZnS laser. Applied Physics B: Lasers and Optics, 2002, 74, 607-611.	2.2	57
18	Three optical cycle mid-IR Kerr-lens mode-locked polycrystalline Cr^2+:ZnS laser. Optics Letters, 2015, 40, 5054.	3.3	56

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19	Structural and morphological study of pulsed laser deposited calcium phosphate bioceramic coatings: Influence of deposition conditions, laser parameters, and target properties. , 2000, 50, 248-258.		50
20	Multiwavelength mid-IR spatially-dispersive CW laser based on polycrystalline Cr2+:ZnSe. Optics Express, 2004, 12, 4986.	3.4	40
21	Q-switched and gain-switched Fe:ZnSe lasers tunable over 360â€“515 Âµm. Optics Express, 2019, 27, 13934.	3.4	40
22	Middle Infrared, Quantum Cascade Laser Optoelectronic Absorption System for Monitoring Glucose in Serum. Applied Spectroscopy, 2005, 59, 881-884.	2.2	39
23	Laser spectroscopic characterization of negatively charged nitrogen-vacancy (NV^{â”}) centers in diamond. Optical Materials Express, 2019, 9, 2076.	3.0	39
24	Optical parametric oscillation in a random polycrystalline medium. Optica, 2017, 4, 617.	9.3	37
25	Using two discrete frequencies within the middle infrared to quantitatively determine glucose in serum. Journal of Biomedical Optics, 2002, 7, 613.	2.6	36
26	Efficient room temperature LiF:F2+** color center laser tunable in 820â€“1210 nm range. Optics Communications, 1998, 147, 107-111.	2.1	33
27	Middle-IR frequency comb based on Cr:ZnS laser. Optics Express, 2019, 27, 35079.	3.4	33
28	Octave-spanning Cr:ZnS femtosecond laser with intrinsic nonlinear interferometry. Optica, 2019, 6, 126.	9.3	33
29	Mid-IR lasing of ironâ€“cobalt co-doped ZnS(Se) crystals via Coâ€“Fe energy transfer. Journal of Luminescence, 2013, 133, 257-261.	3.1	32
30	Hot-pressed chromium doped zinc sulfide infrared transparent ceramics. Scripta Materialia, 2016, 125, 15-18.	5.2	28
31	Low-dose cadmium exposure induces peribronchiolar fibrosis through site-specific phosphorylation of vimentin. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2017, 313, L80-L91.	2.9	28
32	Compact Cr:ZnS channel waveguide laser operating at 2333 nm. Optics Express, 2014, 22, 7052.	3.4	27
33	Half-Watt average power femtosecond source spanning 3â€“8ÂÂµm based on subharmonic generation in GaAs. Applied Physics B: Lasers and Optics, 2018, 124, 1.	2.2	27
34	Mid-IR transitions of trivalent neodymium in low phonon laser crystals. Optical Materials, 2007, 29, 1115-1128.	3.6	25
35	Kerr-lens mode-locked Cr:ZnS oscillator reaches the spectral span of an optical octave. Optics Express, 2021, 29, 2458.	3.4	23
36	Two-octave-wide (3â€“12â€‰â€‰Âµm) subharmonic produced in a minimally dispersive optical parametric oscillator cavity. Optics Letters, 2021, 46, 709.	3.3	23

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37	Visible-near-middle infrared spanning supercontinuum generation in a silicon nitride (Si₃N₄) waveguide. Optical Materials Express, 2019, 9, 2553.	3.0	23
38	High energy (0.8 J) mechanically Q-switched 2.94 Î¼m Er:YAG laser. Optics Express, 2021, 29, 4287.	3.4	22
39	A histological evaluation and in vivo assessment of intratumoral near infrared photothermal nanotherapy-induced tumor regression. International Journal of Nanomedicine, 2014, 9, 5093.	6.7	21
40	Energy transfer in iron-chromium co-doped ZnSe middle-infrared laser crystals. Optical Materials Express, 2019, 9, 2340.	3.0	21
41	Gamma radiation-enhanced thermal diffusion of iron ions into II-VI semiconductor crystals. Optical Materials Express, 2015, 5, 558.	3.0	18
42	Room temperature, nanosecond, 60 mJ/pulse Fe:ZnSe master oscillator power amplifier system operating at 3.8-5.0â€...Âµm. Optics Express, 2021, 29, 2387.	3.4	18
43	Octave-spanning mid-infrared femtosecond OPA in a ZnGeP₂ pumped by a 2.4â€...Î¼m Cr:ZnSe chirped-pulse amplifier. Optics Express, 2020, 28, 32403.	3.4	18
44	Enhancement of Cr and Fe diffusion in ZnSe/S laser crystals via annealing in vapors of Zn and hot isostatic pressing. Optical Materials Express, 2017, 7, 25.	3.0	17
45	Multi-octave visible to long-wave IR femtosecond continuum generated in Cr:ZnS-GaSe tandem. Optics Express, 2019, 27, 16405.	3.4	16
46	Mid-IR spectroscopy of Fe:ZnSe quantum dots. Optics Express, 2016, 24, 5366.	3.4	15
47	Reduction of Nonlinear Absorption in Li₂B₄O₇by Temperature- and Repetition Rate-Control. Japanese Journal of Applied Physics, 2009, 48, 112502.	1.5	14
48	Hot-pressed ceramic Fe:ZnSe gain-switched laser. Optical Materials Express, 2020, 10, 3417.	3.0	14
49	Nonradiative relaxation and inhomogeneous splitting of aggregated optical centers in the Nd3+-doped CaF2 and SrF2 crystals (FLN and decay study). Journal of Luminescence, 1999, 83-84, 361-366.	3.1	12
50	Semiconductor disk laser pumped Cr^2+:Znse â€˜lasers. Optics Express, 2009, 17, 18136.	3.4	12
51	Laser testing of anti-reflection micro-structures fabricated in ZnSe and chromium-ion doped ZnSe laser gain media. Optical Materials Express, 2017, 7, 3377.	3.0	12
52	Temperature-dependent spectroscopic analysis of F2+** and F2+**-like color centers in LiF. Journal of Luminescence, 2000, 91, 147-153.	3.1	11
53	Middle-infrared electroluminescence of n-type Cr-doped ZnSe crystals. , 2006, 6100, 251.		9
54	Mid-IR volumetric Bragg grating based on LiF color center crystal. Optical Materials Express, 2012, 2, 1209.	3.0	9

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55	Mid-IR Kerr-lens mode-locked polycrystalline Cr:ZnS and Cr:ZnSe lasers with intracavity frequency conversion via random quasi-phase-matching. Proceedings of SPIE, 2016, , .	0.8	9
56	Resonant nonlinear refraction of 4.3-Î¼m light in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="normal">CO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> gas. Physical Review A, 2019, 100, .	2.5	9
57	Low-threshold supercontinuum generation in polycrystalline media. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 1625.	2.1	9
58	Mid-infrared light emission from a Fe2+:ZnSe polycrystal using quantum cascade laser pumping. Applied Physics Letters, 2014, 105, 141108.	3.3	8
59	Spectroscopy of GR1 centers in synthetic diamonds. Optical Materials Express, 2021, 11, 757.	3.0	8
60	Lasing in 15 atm CO2 cell optically pumped by a Fe:ZnSe laser. Optics Express, 2021, 29, 31455.	3.4	8
61	Amplification of narrow line <mml:math altimg="si6.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/x	2.1	7
62	Electrical, spectroscopic, and laser characterization of Î³-irradiated transition metal doped II-VI semiconductors. Optical Materials Express, 2013, 3, 777.	3.0	7
63	Limitations of Adenoviral Vector-Mediated Delivery of Gold Nanoparticles to Tumors for Hyperthermia Induction. The Open Nanomedicine Journal, 2009, 2, 27-35.	1.6	5
64	Gain dynamics in a CO2 active medium optically pumped at 4.3â€‰Î¼m. Journal of Applied Physics, 2020, 128, .	2.5	4
65	Recent progress in mechanically Q-switched 2.94 um Er:YAG â€“ promising pump source for 4-um room temperature Fe:ZnSe lasers. , 2020, , .		4
66	In-plane spectroscopy of microfluidic systems made in photosensitive glass. Microsystem Technologies, 2013, 19, 173-177.	2.0	3
67	Resonant nonlinear refraction of 4â€“5â^Î¼m light in CO and CO2 gas. Physical Review A, 2021, 104, .	2.5	2
68	Focus issue introduction: advanced solid-state lasers. Optics Express, 2019, 27, 20938.	3.4	2
69	In-plane spectroscopy of microfluidic channels using photosensitive glass. , 2012, , .		1
70	Spectroscopic characterization of Cr2+ions in ZnSe/ZnS crystals under visible excitation. , 2015, , .		1
71	Feature issue introduction: shaping and patterning crystals for optics. Optical Materials Express, 2017, 7, 3466.	3.0	1
72	Focus issue introduction: Advanced Solid-State Lasers 2020. Optical Materials Express, 2021, 11, 952.	3.0	1

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73	Laser spectroscopic and saturation properties of GR1 centers in synthetic diamond. , 2020, , .		1
74	Cross-section of electrical impact excitation in bulk n-type monocrystalline Al:Cr:ZnSe. Optical Materials Express, 2020, 10, 2135.	3.0	1
75	Optical Frequency Comb Based on Cr:ZnS Laser. , 2020, , .		1
76	Feature issue introduction: advanced solid-state lasers. Optics Express, 2022, 30, 20762.	3.4	1
77	Broadly tunable continuous-wave Cr/sup 2+/:ZnS laser. , 0, , .		0
78	Distribution of Polycyclic Aromatic Hydrocarbons among Sediment Size Fractions Determined by Thermal Desorption Gas Chromatography Mass Spectrometry. Proceedings of the Water Environment Federation, 2008, 2008, 6669-6687.	0.0	0
79	Pulsed Laser Deposition of Epitaxial ZnSxSe1-x Thin Films for Waveguiding Applications in Mid-IR Active Multilayered Structures. MRS Advances, 2017, 2, 315-321.	0.9	0
80	Feature issue introduction: Advanced Solid-State Lasers 2017. Optics Express, 2018, 26, 11018.	3.4	0
81	Long-wave IR femtosecond supercontinuum generation with Cr:ZnS lasers. , 2020, , .		0
82	Room temperature hot-pressed Fe:ZnSe ceramic laser. , 2021, , .		0
83	Focus issue introduction: Advanced Solid-State Lasers 2020. Optics Express, 2021, 29, 8365.	3.4	0
84	Focus issue introduction: Advanced Solid-State Lasers 2020. Optical Materials Express, 2021, 11, 952.	3.0	0
85	2-cycle Cr:ZnS Laser with Intrinsic Nonlinear Interferometry. , 2019, , .		0
86	Focus issue introduction: advanced solid-state lasers. Optical Materials Express, 2019, 9, 3306.	3.0	0
87	High Energy Mechanically Q-switched 2.94 Î¼m Er:YAG Laser. , 2020, , .		0
88	Advanced Solid-State Lasers 2019: focus issue introduction. Optics Express, 2020, 28, 15035.	3.4	0
89	The fast resonant rovibrational nonlinearity of CO and CO2 in the mid-IR. , 2020, , .		0
90	Gain switched hot-pressed Fe:ZnSe ceramic laser. , 2020, , .		0

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91	Fe:ZnSe hot-pressed ceramic laser. , 2020, , .		0
92	Room Temperature, Nanosecond, 60 mJ/pulse Fe:ZnSe Master Oscillator Power Amplifier System Operating over 3.6-5.2 Âµm. , 2020, , .		0
93	Advanced Solid-State Lasers 2019: focus issue introduction. Optical Materials Express, 2020, 10, 1303.	3.0	0
94	Vector Solitons in a Kerr-lens Mode-locked Laser Oscillator. , 2021, , .		0
95	Dual Frequency-Comb Spectroscopy with Cr:ZnS Lasers. , 2021, , .		0
96	Feature issue introduction: advanced solid-state lasers. Optical Materials Express, 2022, 12, 2283.	3.0	0