

Antonio Lucianetti

List of Publications by Year in descending order

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papers

3,391
citations

201674

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docs citations

127
times ranked

3132
citing authors

#	ARTICLE	IF	CITATIONS
1	Diode pumped cryogenic Yb:Lu ₃ Al ₅ O ₁₂ laser in continuous-wave and pulsed regime. Optics and Laser Technology, 2021, 135, 106720.	4.6	6
2	Monoclinic zinc monotungstate Yb ³⁺ ,Li ⁺ :ZnWO ₄ : Part II. Polarized spectroscopy and laser operation. Journal of Luminescence, 2021, 231, 117811.	3.1	5
3	Towards rapid large-scale LIPSS fabrication by 4-beam ps DLIP. Optics and Laser Technology, 2021, 133, 106532.	4.6	28
4	Diode-pumped, electro-optically Q-switched, cryogenic Tm:YAG laser operating at 1.88 μ m. High Power Laser Science and Engineering, 2021, 9, .	4.6	7
5	Faraday Rotation of Dy ₂ O ₃ , CeF ₃ and Y ₃ Fe ₅ O ₁₂ at the Mid-Infrared Wavelengths. Materials, 2020, 13, 5324.	2.9	18
6	Micromachining of Invar with 784 Beams Using 1.3 ps Laser Source at 515 nm. Materials, 2020, 13, 2962.	2.9	14
7	Large-Beam Picosecond Interference Patterning of Metallic Substrates. Materials, 2020, 13, 4676.	2.9	13
8	Spectroscopy and diode-pumped continuous-wave laser operation of Tm:Y ₂ O ₃ transparent ceramic at cryogenic temperatures. Applied Physics B: Lasers and Optics, 2020, 126, 1.	2.2	10
9	Experimental Study of Nanosecond Laser-Generated Plasma Channels. Applied Sciences (Switzerland), 2020, 10, 4082.	2.5	1
10	Experimental study on compression of 216-W laser pulses below 2â€‰ps at 1030â€‰nm with chirped volume Bragg grating. Applied Optics, 2020, 59, 7938.	1.8	10
11	Numerical analysis of beam distortion induced by thermal effects in chirped volume Bragg grating compressors for high-power lasers. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 3874.	2.1	5
12	Verdet constant of potassium terbium fluoride crystal as a function of wavelength and temperature. Optics Letters, 2020, 45, 1683.	3.3	19
13	Tensor-to-matrix mapping in elasto-optics. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 1090.	2.1	3
14	Multiple pulse picosecond laser induced damage threshold on hybrid mirrors. , 2020, , .		0
15	Numerical study of sum frequency ultrashort pulse compression in borate crystals. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 3229.	2.1	2
16	Verdet Constant of Magneto-Active Materials Developed for High-Power Faraday Devices. Applied Sciences (Switzerland), 2019, 9, 3160.	2.5	77
17	Numerical Analysis of Thermal Effects in a Concept of a Cryogenically Cooled Yb: YAG Multislab 10 J/100-Hz Laser Amplifier. IEEE Journal of Quantum Electronics, 2019, 55, 1-8.	1.9	5
18	Efficient diode pumped Yb:Y ₂ O ₃ cryogenic laser. Applied Physics B: Lasers and Optics, 2019, 125, 1.	2.2	7

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19	Characterization of the Verdet Constant of Dy ₂ O ₃ Ceramics in the Two-Micron Spectral Range. , 2019, , .		0
20	Diode “ Pumped Efficient Cryogenic Yb:Y ₂ O ₃ Transparent Ceramic Laser. , 2019, , .		0
21	Spectroscopy, Continuous-Wave and Passively Q-Switched Laser Operation of Transparent Tm:LuAG Ceramics. , 2019, , .		0
22	Spectroscopy of Tm:Y ₂ O ₃ Transparent Ceramic at Cryogenic Temperatures. , 2019, , .		0
23	Effect of Gd ³⁺ /Ga ³⁺ on Yb ³⁺ emission in mixed YAG at cryogenic temperature. Ceramics International, 2019, 45, 9418-9422.	4.8	5
24	Design of a 10 J, 100 Hz diode-pumped solid state laser. , 2019, , .		2
25	Novel unstable resonator configuration for highly efficient cryogenically cooled Yb:YAG Q-switched laser. Optics Express, 2019, 27, 21622.	3.4	8
26	Temperature-wavelength dependence of Verdet constant of Dy ₂ O ₃ ceramics. Optical Materials Express, 2019, 9, 2971.	3.0	28
27	Laser performances of diode pumped Yb:Lu ₂ O ₃ transparent ceramic at cryogenic temperatures. Optical Materials Express, 2019, 9, 4669.	3.0	8
28	Synthesis, Spectroscopy and Efficient Laser Operation of Tm:Lu ₃ Al ₅ O ₁₂ Transparent Ceramics. , 2019, , .		0
29	Thermo-optical Study of 10 J/ 100 Hz Cryogenically Cooled Yb:YAG Diode Pumped Laser System. , 2019, , .		0
30	Highly efficient, cryogenically cooled Yb:YAG q-switch laser based on a gain modulated unstable resonator design. , 2019, , .		0
31	Monocrystalline materials for high-power ultrafast lasers. , 2019, , .		0
32	Diode-pumped cryogenic Tm:LiYF ₄ laser. , 2019, , .		1
33	Comparison of multipulse nanosecond LIDT of HR coated YAG and glass substrates at 1030 nm. , 2019, , .		0
34	Highly Efficient, Compact Tm ³⁺ :RE ₂ O ₃ (RE = Y, Lu, Sc) Sesquioxide Lasers Based on Thermal Guiding. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-13.	2.9	40
35	Faraday effect measurements of holmium oxide (Ho ₂ O ₃) ceramics-based magneto-optical materials. High Power Laser Science and Engineering, 2018, 6, .	4.6	28
36	Crystal growth, low-temperature spectroscopy and multi-watt laser operation of Yb:Ca ₃ NbGa ₃ Si ₂ O ₁₄ . Journal of Luminescence, 2018, 197, 90-97.	3.1	9

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37	Overview of ytterbium based transparent ceramics for diode pumped high energy solid-state lasers. High Power Laser Science and Engineering, 2018, 6, .	4.6	14
38	Passive Q switching of Yb:CNCS lasers by Cr ⁴⁺ :YAG and V ³⁺ :YAG saturable absorbers. Applied Optics, 2018, 57, 8236.	1.8	2
39	Spectroscopic investigations of thulium doped YAG and YAP crystals between 77â€°K and 300â€°K for short-wavelength infrared lasers. Journal of Luminescence, 2018, 202, 427-437.	3.1	26
40	Efficient diode-pumped Er:KLu(WO ₄) ₂ laser at $\lambda=1611\text{nm}$. Optics Letters, 2018, 43, 218.	3.3	6
41	Fs-laser-written erbium-doped double tungstate waveguide laser. Optics Express, 2018, 26, 30826.	3.4	9
42	100J-level nanosecond pulsed Yb:YAG cryo-cooled DPSSL amplifier. , 2018, , .		1
43	Characterization of Bivoj/DiPOLE 100: HiLASE 100-J/10-Hz diode pumped solid state laser. , 2018, , .		3
44	Wavefront correction with photo-controlled deformable mirror. , 2018, , .		0
45	High-energy subpicosecond 2.1-um fiber laser. , 2018, , .		0
46	Laser induced damage in optical glasses using nanosecond pulses at 1030 nm. , 2018, , .		0
47	Multiple pulse nanosecond laser-induced damage threshold on AR coated YAG crystals. , 2018, , .		1
48	A 100 J-level nanosecond DPSSL for high energy density experiments. Proceedings of SPIE, 2017, , .	0.8	1
49	Commissioning of a kW-class nanosecond pulsed DPSSL operating at 105 J, 10 Hz. Proceedings of SPIE, 2017, , .	0.8	2
50	Temperature dependent spectroscopic characterization of Tm:YAG crystals as potential laser medium for pulsed high energy laser amplifiers. , 2017, , .		1
51	Verdet constant dispersion of CeF ₃ in the visible and near-infrared spectral range. Optical Engineering, 2017, 56, 067105.	1.0	15
52	The first kilowatt average power 100J-level DPSSL. , 2017, , .		0
53	Continuous-wave and passively Q-switched cryogenic Yb:KLu(WO ₄) ₂ laser. Optics Express, 2017, 25, 25886.	3.4	4
54	Cryogenic Yb:YGAG ceramic laser pumped at 940 nm and zero-phonon-line: a comparative study. Optical Materials Express, 2017, 7, 477.	3.0	0

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55	Kilowatt average power 100â€‰J-level diode pumped solid state laser. Optica, 2017, 4, 438.	9.3	152
56	kW-class picosecond and nanosecond lasers at Hilase for hi-tech industrial applications. , 2017, , .		0
57	The first multi-joule DPSSL with 1 kW average power. , 2017, , .		0
58	Microchip Yb:CaLnAlO ₄ lasers with up to 91% slope efficiency. Optics Letters, 2017, 42, 2431.	3.3	57
59	Multiple pulse nanosecond laser induced damage threshold on hybrid mirrors. , 2017, , .		2
60	Temperature-wavelength dependence of terbium gallium garnet ceramics Verdet constant. Optical Materials Express, 2016, 6, 3683.	3.0	63
61	Laser induced damage threshold of optical fibers under ns pulses. Proceedings of SPIE, 2016, , .	0.8	1
62	Design of deformable mirrors for high power lasers. High Power Laser Science and Engineering, 2016, 4, .	4.6	10
63	Microchip laser operation of Yb-doped gallium garnets. Optical Materials Express, 2016, 6, 46.	3.0	31
64	Comparative LIDT measurements of optical components for high-energy HiLASE lasers. High Power Laser Science and Engineering, 2016, 4, .	4.6	11
65	Cryogenic Yb:YAG Laser Pumped by VBG-Stabilized Narrowband Laser Diode at 969 nm. IEEE Photonics Technology Letters, 2016, 28, 1328-1331.	2.5	14
66	Design of an Optimized Adaptive Optics System With a Photo-Controlled Deformable Mirror. IEEE Photonics Technology Letters, 2016, 28, 1422-1425.	2.5	3
67	100â€‰J-level nanosecond pulsed diode pumped solid state laser. Optics Letters, 2016, 41, 2089.	3.3	73
68	Zero-phonon-line pumped cryogenic Yb:YAG passively Q-switched by Cr:YAG. Proceedings of SPIE, 2016, , .	0.8	0
69	Diode pumped compact cryogenic Yb:YAG/Cr:YAG pulsed laser. Proceedings of SPIE, 2016, , .	0.8	4
70	Status of the High Average Power Diode-Pumped Solid State Laser Development at HiLASE. Applied Sciences (Switzerland), 2015, 5, 637-665.	2.5	65
71	Temperature dependent absorption measurement of various transition metal doped laser materials. Proceedings of SPIE, 2015, , .	0.8	2
72	Wavelength tunability of laser based on Yb-doped YGAG ceramics. , 2015, , .		2

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73	Thermally induced depolarization in terbium gallium garnet ceramics rod with natural convection cooling. Journal of Optics (United Kingdom), 2015, 17, 065610.	2.2	8
74	Assessment of high-power kW-class single-diode bars for use in highly efficient pulsed solid state laser systems. , 2015, , .		0
75	Experimental and theoretical study of deformable mirror actuator arrays. Proceedings of SPIE, 2015, , .	0.8	0
76	Wavefront control in high average-power multi-slab laser system. , 2015, , .		1
77	HiLASE Project: high intensity lasers for industrial and scientific applications. , 2015, , .		0
78	Graphene Q-Switched Compact Yb:YAG Laser. IEEE Photonics Journal, 2015, 7, 1-7.	2.0	15
79	Wavelength dependence of magneto-optic properties of terbium gallium garnet ceramics. Optics Express, 2015, 23, 13641.	3.4	42
80	1-J operation of monolithic composite ceramics with Yb:YAG thin layers: multi-TRAM at 10-Hz repetition rate and prospects for 100-Hz operation. Optics Letters, 2015, 40, 855.	3.3	24
81	Spectroscopic and lasing characteristics of Yb:YGAG ceramic at cryogenic temperatures. Optical Materials Express, 2015, 5, 1289.	3.0	19
82	Recent Advances on the J-KAREN laser upgrade. , 2015, , .		0
83	Joule-Class 940-nm Diode Laser Bars for Millisecond Pulse Applications. IEEE Photonics Technology Letters, 2015, 27, 1663-1666.	2.5	7
84	High-Contrast, High-Intensity Petawatt-Class Laser and Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 232-249.	2.9	60
85	Microchip Laser Operation of Yb-Doped Gallium Garnets. , 2015, , .		0
86	Design of a kJ-class HiLASE laser as a driver for inertial fusion energy. High Power Laser Science and Engineering, 2014, 2, .	4.6	15
87	Design of kJ-class HiLASE laser as a driver for inertial fusion energy “ CORRIGENDUM. High Power Laser Science and Engineering, 2014, 2, .	4.6	0
88	Cryogenic laser performance of Yb:YAG diode-pumped at 940 nm and 969 nm for high power lasers. , 2014, , .		0
89	Design and optimization of an adaptive optics system for a high-average-power multi-slab laser (HiLASE): erratum. Applied Optics, 2014, 53, 7877.	2.1	0
90	Active wavefront control in Hilase multislabs high-average-power laser system. , 2014, , .		1

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91	Characterization of diode-laser stacks for high-energy-class solid state lasers. Proceedings of SPIE, 2014, , .	0.8	1
92	Spectroscopic characterization of Yb ³⁺ -doped laser materials at cryogenic temperatures. Applied Physics B: Lasers and Optics, 2014, 116, 75-81.	2.2	70
93	Design and optimization of an adaptive optics system for a high-average-power multi-slab laser (HiLASE). Applied Optics, 2014, 53, 3255.	1.8	18
94	Efficient ASE Management in Disk Laser Amplifiers With Variable Absorbing Clads. IEEE Journal of Quantum Electronics, 2014, 50, 1-9.	1.9	11
95	HiLASE: Development of Fully Diode-Pumped, kW-Class Pulsed Lasers for High-Tech Applications. The Review of Laser Engineering, 2014, 42, 145.	0.0	0
96	Development of the estimation method for thermo-optics effects in the TGG ceramics rod. , 2014, , .		0
97	Optimization of Wavefront Distortions and Thermal-Stress Induced Birefringence in a Cryogenically-Cooled Multislab Laser Amplifier. IEEE Journal of Quantum Electronics, 2013, 49, 960-966.	1.9	46
98	Spectroscopic characterization of various Yb ³⁺ -doped laser materials at cryogenic temperatures for the development of high energy class diode pumped solid state lasers. Proceedings of SPIE, 2013, , .	0.8	13
99	HiLASE cryogenically-cooled diode-pumped laser prototype for inertial fusion energy. Proceedings of SPIE, 2013, , .	0.8	7
100	Design of high-energy-class cryogenically cooled Yb ³⁺ :YAG multislab laser system with low wavefront distortion. Optical Engineering, 2013, 52, 064201.	1.0	20
101	Simulation of performance of wavefront correction using deformable mirror in high-average-power laser systems. , 2013, , .		6
102	Effect of amplified spontaneous emission and parasitic oscillations on the performance of cryogenically-cooled slab amplifiers. Laser and Particle Beams, 2013, 31, 553-560.	1.0	8
103	Low Pressure Helium Cooled Active Mirror Amplifiers for HiPER KiloJoule Beamlines. Plasma and Fusion Research, 2013, 8, 3404043-3404043.	0.7	2
104	High-vacuum-compatible high-power Faraday isolators for gravitational-wave interferometers. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 1784.	2.1	25
105	Thermal effects in the Input Optics of the Enhanced Laser Interferometer Gravitational-Wave Observatory interferometers. Review of Scientific Instruments, 2012, 83, 033109.	1.3	24
106	Modeling of amplified spontaneous emission, heat deposition, and energy extraction in cryogenically cooled multislab Yb ³⁺ :YAG laser amplifier for the HiLASE Project. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 1270.	2.1	45
107	Comparative design study of 100 J cryogenically cooled Yb:YAG multi-slab amplifiers operating at 10 Hz. , 2012, , .		2
108	Performance of a 100J cryogenically cooled multi-slab amplifier with respect to the pump beam parameters and geometry. Proceedings of SPIE, 2012, , .	0.8	2

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109	Active-mirror-laser-amplifier thermal management with tunable helium pressure at cryogenic temperatures. Optics Express, 2011, 19, 12766.	3.4	35
110	Directional Limits on Persistent Gravitational Waves Using LIGO S5 Science Data. Physical Review Letters, 2011, 107, 271102.	7.8	94
111	SEARCH FOR GRAVITATIONAL-WAVE BURSTS ASSOCIATED WITH GAMMA-RAY BURSTS USING DATA FROM LIGO SCIENCE RUN 5 AND VIRGO SCIENCE RUN 1. Astrophysical Journal, 2010, 715, 1438-1452.	4.5	60
112	FIRST SEARCH FOR GRAVITATIONAL WAVES FROM THE YOUNGEST KNOWN NEUTRON STAR. Astrophysical Journal, 2010, 722, 1504-1513.	4.5	104
113	SEARCHES FOR GRAVITATIONAL WAVES FROM KNOWN PULSARS WITH SCIENCE RUN 5 LIGO DATA. Astrophysical Journal, 2010, 713, 671-685.	4.5	155
114	Predictions for the rates of compact binary coalescences observable by ground-based gravitational-wave detectors. Classical and Quantum Gravity, 2010, 27, 173001.	4.0	956
115	SEARCH FOR GRAVITATIONAL-WAVE INSPIRAL SIGNALS ASSOCIATED WITH SHORT GAMMA-RAY BURSTS DURING LIGO'S FIFTH AND VIRGO'S FIRST SCIENCE RUN. Astrophysical Journal, 2010, 715, 1453-1461.	4.5	90
116	All-Sky LIGO Search for Periodic Gravitational Waves in the Early Fifth-Science-Run Data. Physical Review Letters, 2009, 102, 111102.	7.8	83
117	On a Sturm Liouville periodic boundary values problem. Integral Transforms and Special Functions, 2009, 20, 353-364.	1.2	4
118	STACKED SEARCH FOR GRAVITATIONAL WAVES FROM THE 2006 SGR 1900+14 STORM. Astrophysical Journal, 2009, 701, L68-L74.	4.5	45
119	Astrophysically triggered searches for gravitational waves: status and prospects. Classical and Quantum Gravity, 2008, 25, 114051.	4.0	26
120	First joint search for gravitational-wave bursts in LIGO and GEO 600 data. Classical and Quantum Gravity, 2008, 25, 245008.	4.0	22
121	Search for Gravitational-Wave Bursts from Soft Gamma Repeaters. Physical Review Letters, 2008, 101, 211102.	7.8	69
122	Beating the Spin-Down Limit on Gravitational Wave Emission from the Crab Pulsar. Astrophysical Journal, 2008, 683, L45-L49.	4.5	160
123	Transverse spatial coherence of a transient nickellike silver soft-x-ray laser pumped by a single picosecond laser pulse. Optics Letters, 2004, 29, 881.	3.3	15
124	<title>Ablative capillary discharge plasma as a preformed medium for soft x-ray laser</title>. , 2001, 4505, 7.		0
125	Thermo-optical properties of transversely pumped composite YAG rods with a Nd-doped core. IEEE Journal of Quantum Electronics, 2000, 36, 220-227.	1.9	19
126	Beam-quality improvement of a passively Q-switched Nd:YAG laser with a core-doped rod. Applied Optics, 1999, 38, 1777.	2.1	16