William Donaldson

List of Publications by Year
in descending order

63	1,004	623734	434195
papers	citations	14 h-index	31 g-index

63	63	63	704
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Directâ€drive laserâ€fusion experiments with the OMEGA, 60â€beam, >40 kJ, ultraviolet laser system. Physics of Plasmas, 1996, 3, 2108-2112.	1.9	182
2	What is the Temporal Analog of Reflection and Refraction of Optical Beams?. Physical Review Letters, 2015, 115, 183901.	7.8	102
3	Experimental investigation of smoothing by spectral dispersion. Journal of the Optical Society of America B: Optical Physics, 2000, 17, 1483.	2.1	101
4	Urea optical parametric oscillator. Applied Physics Letters, 1984, 44, 25-27.	3.3	91
5	Performance of 1-THz-bandwidth, two-dimensional smoothing by spectral dispersion and polarization smoothing of high-power, solid-state laser beams. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 998.	2.1	80
6	Interaction of picosecond optical pulses with highTcsuperconducting films. Applied Physics Letters, 1989, 54, 2470-2472.	3.3	78
7	Picosecond response of gallium-nitride metalâ€“semiconductorâ€“metal photodetectors. Applied Physics Letters, 2004, 84, 2091-2093.	3.3	42
8	Temporal waveguides for optical pulses. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 1112.	2.1	35
9	A self-calibrating, multichannel streak camera for inertial confinement fusion applications. Review of Scientific Instruments, 2002, 73, 2606-2615.	1.3	33
10	A Study of Geometry Effects on the Performance of Ballistic Deflection Transistor. IEEE Nanotechnology Magazine, 2010, 9, 723-733.	2.0	23
11	Ultrafast UV AlGaN Metalâ€“Semiconductorâ€“Metal Photodetector With a Response Time Below 25 ps. IEEE Journal of Quantum Electronics, 2020, 56, 1-7.	1.9	21
12	Electroâ€optic imaging of the internal fields in a GaAs photoconductive switch. Journal of Applied Physics, 1990, 68, 6453-6457.	2.5	20
13	Cross-phase-modulation-induced temporal reflection and waveguiding of optical pulses. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 436.	2.1	19
14	Spectral Splitting of Optical Pulses Inside a Dispersive Medium at a Temporal Boundary. IEEE Journal of Quantum Electronics, 2016, 52, 1-8.	1.9	15
15	Response analysis on AlGaN metalâ€“semiconductorâ€“metal photodetectors in a perspective of experiment and theory and the persistent photoconductivity effect. Journal of Materials Research, 2018, 33, 2627-2636.	2.6	11
16	Power balancing the multibeam OMEGA laser. Applied Optics, 2018, 57, 9571.	1.8	11
17	Reverse Intersystem Crossing in Rose Bengal. II. Fluence Dependence of Fluorescence Following 532 nm Laser ExcitationÂ¶. Photochemistry and Photobiology, 2002, 75, 221.	2.5	11
18	Averaging of Replicated Pulses for Enhanced-Dynamic-Range Single-Shot Measurement of Nanosecond Optical Pulses. IEEE Photonics Technology Letters, 2007, 19, 1344-1346.	2.5	10

#	Article	IF	Citations
19	An Optical Replicator for Single-Shot Measurements at 10 GHz With a Dynamic Range of 1800:1. IEEE Journal of Quantum Electronics, 2010, 46, 191-196.	1.9	10
20	Temporal reflection and refraction of optical pulses inside a dispersive medium: an analytic approach. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 997.	2.1	10
21	The streak camera development program at LLE. , 2005, , .		9
22	Spectral changes induced by a phase modulator acting as a time lens. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 1550.	2.1	9
23	Time-domain Fabryâ€“Perot resonators formed inside a dispersive medium. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 2376.	2.1	9
24	Single-pulse interference caused by temporal reflection at moving refractive-index boundaries. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 2274.	2.1	7
25	Picosecond electrical characterization of xâ€ray microchannelâ€plate detectors used in diagnosing inertial confinement fusion experiments. Review of Scientific Instruments, 1993, 64, 3285-3288.	1.3	6
26	A picosecond beam-timing system for the OMEGA laser. Review of Scientific Instruments, 2016, 87, 053511.	1.3	6
27	Optically activated opening switches. , 1992, 1632, 190.		5
28	Impact of the boundaryâ€™s sharpness on temporal reflection in dispersive media. Optics Letters, 2021, 46, 4053.	3.3	5
29	Temporal reflection of an optical pulse from a short soliton: impact of Raman scattering. Journal of the Optical Society of America B: Optical Physics, 2022, 39, 1950.	2.1	5
30	A single-shot, multiwavelength electro-optic data-acquisition system for inertial confinement fusion applications (invited). Review of Scientific Instruments, 2012, 83, 10D726.	1.3	4
31	A multichannel, high-resolution, UV spectrometer for laser-fusion applications. Review of Scientific Instruments, 2005, 76, 073106.	1.3	3
32	Mach-Zehnder modulator performance using the Comet laser facility and implications for use on NIF. , 2012, , .		3
33	Inferred UV fluence focal-spot profiles from soft x-ray pinhole-camera measurements on OMEGA. Review of Scientific Instruments, 2020, 91, 023505.	1.3	3
34	Boosting the External Quantum Efficiency of AlGaN-Based Metalâ€“Semiconductorâ€“Metal Ultraviolet Photodiodes by Electrode Geometry Variation. IEEE Journal of Quantum Electronics, 2021, 57, 1-8.	1.9	3
35	Optical Probes For The Characterization Of Surface Breakdown. Proceedings of SPIE, 1988, 0871, 157.	0.8	2
36	Rapid flux motion and critical state dynamics in a superconducting disk. Journal of Applied Physics, 1995, 78, 372-379.	2.5	2

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37	A study of effects of deflector position variation on leakage currents in ballistic deflection transistors. , 2009, , .		2
38	The multiple-pulse driver line on the OMEGA laser. Proceedings of SPIE, 2015, , .	0.8	2
39	Enhancements to the timing of the OMEGA laser system to improve illumination uniformity. , 2016, , .		2
40	Sputtered High-Tc Superconducting Films as Fast Optically Triggered Switches. , 1990, , 685-693.		2
41	Interdigitated electrode geometry variation and external quantum efficiency of GaN/AlGaN-based metal-semiconductor-metal UV photodetectors. , 2022, , .		2
42	OMEGA experimental program and recent results. , 1997, , .		1
43	<title>UV power balance on the OMEGA laser</title>. , 1999, 3609, 121.		1
44	Enhanced-Dynamic-Range, Single-Shot Measurement of Nanosecond Pulses via Optical Replication. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	1
45	Single-shot, electro-optic measurements at 10 GHz with a dynamic range of 2400:1. , 2008, , .		1
46	Measurement of the self-phase modulation-induced bandwidth in a 30kJ class laser amplifier chain. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 445.	2.1	1
47	Mach-Zehnder modulator performance on the NIF South Pole Bang Time diagnostic. Proceedings of SPIE, 2013, , .	0.8	1
48	A time-to-frequency converter for measuring the shape of short optical pulses. Review of Scientific Instruments, 2019, 90, 083106.	1.3	1
49	Laser and X-Ray Irradiation Diagnostics that have Paved the Path to Significantly Improved ICF Target Performance. , 2002, , 181-188.		1
50	<title>Omega experiments and preparation for direct-drive ignition on NIF</title>. , 2001, 4424, 27.		0
51	Characterization of single and double fiber-coupled diffusing spheres. Applied Optics, 2004, 43, 3967.	2.1	0
52	8.5-GHz pulse-shape control with a 700:1 Dynamic range on a frequency-tripled multiterawatt solid-state laser. , 2006, , .		0
53	Measurement of the Self-Phase-Modulation-Induced Bandwidth in a 30-kJ-Class Laser-Amplifier Chain. , 2007, , .		0
54	Femtosecond laser-pumped source of entangled photons for quantum cryptography applications. , 2007, , .		0

#	Article	IF	Citations
55	Multi-eavelength electro-optic pulse characterization. , 2008, , .		0
56	A new electro-optic sampling method using two/multiple wavelengths. , 2009, , .		0
57	A 15-GHz electro-optic measurement system for noisy environments. , 2014, , .		0
58	Mach-Zehnder detector system issues and enhancements for use on the National Ignition Facility DANTE x-ray diagnostic. , 2014, , .		0
59	3Ï‰ beam timing diagnostic for the OMEGA laser facility. , 2015, , .		0
60	Subpicosecond Electro-optic Imaging Using Interferometric And Polarimetric Apparatus. , 1997, , .		0
61	Removing pulse jitter with temporal waveguides. , 2016, , .		0
62	Ultrafast UV Metalâ€“Seminconductorâ€“Metal Photodetector Based on AlGaN with a Response Time Below 20 ps. , 2019, , .		0
63	Co-timing UV and IR laser pulses on the OMEGA EP laser system. , 2019, , .		0