George Rodriguez

List of Publications by Year
in descending order

116 papers	3,675 citations	159585 30 h-index	128289 60 g-index
118 all docs	118 docs citations	118 times ranked	3131 citing authors

#	Article	IF	Citations
1	Coherent control of terahertz supercontinuum generation in ultrafast laserâ€“gas interactions. Nature Photonics, 2008, 2, 605-609.	31.4	707
2	Terahertz emission from ultrafast ionizing air in symmetry-broken laser fields. Optics Express, 2007, 15, 4577.	3.4	651
3	Structural Phase Transition of Aluminum Induced by Electronic Excitation. Physical Review Letters, 2000, 84, 4493-4496.	7.8	119
4	Mammalian Stem Cells Reprogramming in Response to Terahertz Radiation. PLoS ONE, 2010, 5, e15806.	2.5	109
5	Nonequilibrium superconductivity and quasiparticle dynamics inYBa2Cu3O7â^'Î´. Physical Review B, 2001, 63, .	3.2	106
6	Simultaneous measurement of two ultrashort laser pulses from a single spectrogram in a single shot. Journal of the Optical Society of America B: Optical Physics, 1997, 14, 935.	2.1	96
7	Determination of n_2 by direct measurement of the optical phase. Optics Letters, 1996, 21, 1812.	3.3	83
8	Scaling behavior of ultrafast two-color terahertz generation in plasma gas targets: energy and pressure dependence. Optics Express, 2010, 18, 15130.	3.4	81
9	Scaling of terahertz radiation via optical rectification in electroâ€optic crystals. Applied Physics Letters, 1995, 66, 121-123.	3.3	79
10	Single-shot terahertz pulse characterization via two-dimensional electro-optic imaging with dual echelons. Optics Letters, 2007, 32, 1968.	3.3	78
11	Specificity and Heterogeneity of Terahertz Radiation Effect on Gene Expression in Mouse Mesenchymal Stem Cells. Scientific Reports, 2013, 3, 1184.	3.3	78
12	High-Power Broadband Terahertz Generation via Two-Color Photoionization in Gases. IEEE Journal of Quantum Electronics, 2012, 48, 797-805.	1.9	76
13	Non-thermal effects of terahertz radiation on gene expression in mouse stem cells. Biomedical Optics Express, 2011, 2, 2679.	2.9	73
14	Ultrafast Dynamics of Electron Thermalization in Gold. Physical Review Letters, 2001, 86, 1638-1641.	7.8	72
15	Screening of the bias field in terahertz generation from photoconductors. Optics Letters, 1996, 21, 1046.	3.3	64
16	Tunable ultrafast extreme ultraviolet source for time- and angle-resolved photoemission spectroscopy. Review of Scientific Instruments, 2010, 81, 073108.	1.3	62
17	In-line holographic imaging and electron density extraction of ultrafast ionized air filaments. Journal of the Optical Society of America B: Optical Physics, 2008, 25, 1988.	2.1	58
18	Conductivity artifacts in optical-pump THz-probe measurements of YBa_2Cu_3O_7. Journal of the Optical Society of America B: Optical Physics, 2000, 17, 327.	2.1	55

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19	Algorithm for high-resolution single-shot THz measurement using in-line spectral interferometry with chirped pulses. Applied Physics Letters, 2005, 87, 211109.	3.3	43
20	Tracing Ultrafast Separation and Coalescence of Carrier Distributions in Graphene with Time-Resolved Photoemission. Journal of Physical Chemistry Letters, 2012, 3, 64-68.	4.6	42
21	Single-shot, interferometric, high-resolution, terahertz field diagnostic. Applied Physics Letters, 2006, 88, 041123.	3.3	41
22	Boundâ†'free emission spectra and photoassociation of 114Cd2 and 64Zn2. Journal of Chemical Physics, 1991, 95, 5539-5552.	3.0	40
23	Measurements of Terahertz Electrical Conductivity of Intense Laser-Heated Dense Aluminum Plasmas. Physical Review Letters, 2008, 100, 135002.	7.8	40
24	Anomalous femtosecond quasiparticle dynamics of hidden order state in URu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Si<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2011, 84, .	3.2	40
25	Volume holographic pulse shaping. Optics Letters, 1992, 17, 610.	3.3	39
26	Possible Bose-condensate behavior in a quantum phase originating in a collective excitation in the chemically and optically doped Mott-Hubbard system UO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn><mml:mo>+</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>. Physical Review B, 2013, 88, .	3.2	39
27	Ultrafast Doping Dynamics of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>5</mml:mn><mml:mi>f</mml:mi></mml:math>Electrons in the Mott Insulator<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>UO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>Studied by Femtosecond Pump-Probe Spectroscopy. Physical Review Letters, 2011, 106, 207402.	7.8	38
28	Generation of terahertz radiation using electroâ€•optic crystal mosaics. Applied Physics Letters, 1995, 66, 10-12.	3.3	37
29	Measurement of Ultrafast Ionization Dynamics of Gases by Multipulse Interferometric Frequency-Resolved Optical Gating. Physical Review Letters, 2001, 87, 263002.	7.8	35
30	Modeling of terahertz radiation from biased photoconductors: transient velocity effects. Optics Letters, 1994, 19, 1994.	3.3	31
31	Coherent ultrafast MI-FROG spectroscopy of optical field ionization in molecular H/sub 2/, N/sub 2/, and O/sub 2/. IEEE Journal of Selected Topics in Quantum Electronics, 2001, 7, 579-591.	2.9	31
32	Vibrational wave packets in the Câ€‰1Îu state of Cs2: Two color pumpâ€“probe experiments. Journal of Chemical Physics, 1995, 103, 10473-10483.	3.0	30
33	Photonic Doppler velocimetry of laser-ablated ultrathin metals. Review of Scientific Instruments, 2007, 78, 013101.	1.3	30
34	Chirped fiber Bragg grating detonation velocity sensing. Review of Scientific Instruments, 2013, 84, 015003.	1.3	28
35	Coherent pulse interrogation system for fiber Bragg grating sensing of strain and pressure in dynamic extremes of materials. Optics Express, 2015, 23, 14219.	3.4	28
36	Dynamics of vibrational wave packets in the C1Îu state of Cs2. Chemical Physics Letters, 1993, 205, 371-379.	2.6	26

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37	Ultrafast Photoemission Spectroscopy of the Uranium Dioxide<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>UO</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Insulator: Evidence for a Robust Energy Gap Structure. Physical Review Letters, 2014, 112, .	7.8	24
38	Fiber Bragg Grating Dilatometry in Extreme Magnetic Field and Cryogenic Conditions. Sensors, 2017, 17, 2572.	3.8	24
39	Ultraviolet ultrafast pumpâ€“probe laser based on a Ti:sapphire laser system. Optics Letters, 1994, 19, 1146.	3.3	21
40	Details of electro-optic terahertz detection with a chirped probe pulse. Optics Express, 2007, 15, 1376.	3.4	21
41	Ultrafast Fiber Bragg Grating Interrogation for Sensing in Detonation and Shock Wave Experiments. Sensors, 2017, 17, 248.	3.8	19
42	Ultrafast, dynamical imaging of surfaces by use of a scanning tunneling microscope with a photoexcited, low-temperature-grown GaAs tip. Journal of the Optical Society of America B: Optical Physics, 2000, 17, 1077.	2.1	18
43	Design, fabrication, and operation of a high-energy liner implosion experiment at 16 megamperes. IEEE Transactions on Plasma Science, 2002, 30, 1777-1788.	1.3	18
44	Detection of high explosive detonation across material interfaces with chirped fiber Bragg gratings. Applied Optics, 2015, 54, 3849.	1.8	18
45	Laser shadowgraph measurements of electromagnetically-driven cylindrical shock-wave implosions in water. Journal of Applied Physics, 2003, 93, 1791-1797.	2.5	15
46	Ultrafast field dynamics in large-aperture photoconductors. Optics Letters, 1997, 22, 715.	3.3	13
47	Fiber Bragg grating sensing of detonation and shock experiments at Los Alamos National Laboratory. Proceedings of SPIE, 2013, , .	0.8	13
48	Possible Demonstration of a Polaronic Bose-Einstein(-Mott) Condensate in UO2(+x) by Ultrafast THz Spectroscopy and Microwave Dissipation. Scientific Reports, 2015, 5, 15278.	3.3	13
49	Measurement of cross-phase modulation in optical materials through the direct measurement of the optical phase change. Optics Letters, 1998, 23, 858.	3.3	12
50	RANCHERO explosive pulsed power experiments. , 0, , .		12
51	Damage growth and recollection in aluminum under axisymmetric convergence using a helical flux compression generator. Journal of Applied Physics, 2014, 115, 023516.	2.5	9
52	Embedded optical probes for simultaneous pressure and temperature measurement of materials in extreme conditions. Journal of Physics: Conference Series, 2014, 500, 142031.	0.4	9
53	Quasiparticle dynamics across the full Brillouin zone of Bi2Sr2CaCu2O8+Î´ traced with ultrafast time and angle-resolved photoemission spectroscopy. Structural Dynamics, 2015, 2, 054501.	2.3	9
54	Embedded fiber Bragg grating pressure measurement during thermal ignition of a high explosive. Applied Physics Letters, 2016, 109, .	3.3	9

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55	The Atlas High-Energy Density Physics Project*. Japanese Journal of Applied Physics, 2001, 40, 930-934.	1.5	8
56	Pulsed-Power Hydrodynamics: An Application of Pulsed-Power and High Magnetic Fields to the Exploration of Material Properties and Problems in Experimental Hydrodynamics. IEEE Transactions on Plasma Science, 2008, 36, 112-124.	1.3	8
57	High pressure sensing and dynamics using high speed fiber Bragg grating interrogation systems. Proceedings of SPIE, 2014, , .	0.8	8
58	High speed laser shadowgraphy for electromagnetically driven cylindrical implosions. Review of Scientific Instruments, 2001, 72, 3230-3236.	1.3	7
59	Fiber Bragg sensing of high explosive detonation experiments at Los Alamos National Laboratory. Journal of Physics: Conference Series, 2014, 500, 142030.	0.4	7
60	Photodissociation of PbI_2 in the ultraviolet: analysis of the A â† X band of PbI. Journal of the Optical Society of America B: Optical Physics, 1996, 13, 1362.	2.1	6
61	Direct measurement of quasiparticle lifetimes in graphene using time-resolved photoemission. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 03D116.	1.2	6
62	Overview of the Atlas project. , 0, , .		5
63	Pegasus II experiments and plans for the Atlas pulsed power facility. , 0, , .		5
64	Closure of the Mott gap and formation of a superthermal metal in the FrÃ¶hlich-type nonequilibrium polaron Bose-Einstein condensate in UO2+x. Physical Review B, 2017, 96, .	3.2	5
65	Influence of electronic temperature and distribution on the second-order surface nonlinear susceptibility of metals. Applied Physics Letters, 2001, 78, 3211-3213.	3.3	4
66	Ultrafast fiber grating sensor systems for velocity, position, pressure, and temperature measurements. Proceedings of SPIE, 2016, , .	0.8	4
67	Using pulsed power for hydrodynamic code validation. , 0, , .		3
68	Development and fielding of high speed laser shadowgraphy for electro-magnetically driven cylindrical implosions. , 0, , .		3
69	Atlas Line-Imaging ORVIS Diagnostic. , 2005, , .		3
70	Topographic imaging and velocity measurements of surface expansion during laser ablation of a metal layer on glass. , 2006, , .		3
71	Magnetoelastic standing waves induced in UO ₂ by microsecond magnetic field pulses. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	3
72	Development of an high pressure diagnostic based on optical Raman backscatter measurements in diamond. , 0, , .		2

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73	Terahertz-frequency electrical conductivity measurements of ultrashort laser-ablated plasmas. , 2006, , .		2
74	A simple machine for isentropic compression experiments (ICE). , 2012, , .		2
75	Nondestructive Calibration of Chirped Fiber Bragg Grating Sensors using a Fiber-Based Ultrafast Laser. , 2012, , .		2
76	Design and operation of high energy liner implosions at 16 MA for studies of converging shocks. , 0, , .		2
77	<title>Ti:sapphire-based ultrafast pump-probe laser source in the violet and ultraviolet</title>. , 1994, 2116, 219.		1
78	Rayleigh-Taylor mix experiment on Pegasus. , 0, , .		1
79	Design and operation of high energy liner implosions at 16 MA for studies of converging shocks. , 0, , .		1
80	Development and fielding of high-speed laser shadowgraphy for electro-magnetically driven cylindrical implosions. , 0, , .		1
81	Dynamic friction experiments at the Atlas Pulsed Power Facility. , 2007, , .		1
82	Experimental series on behavior of post-damage recollected material. , 2007, , .		1
83	Nanoscale topography of dynamic surfaces with ultrafast time resolution. Applied Optics, 2008, 47, 5082.	2.1	1
84	Pump-probe reflectivity study of ultrafast dynamics of strongly correlated 5f electrons in UO₂. Journal of Physics: Conference Series, 2011, 273, 012144.	0.4	1
85	Isentropic compression studies at the Los Alamos National High Magnetic Field Laboratory. , 2011, , .		1
86	Insight into fiber Bragg sensor response at 100-MHz interrogation rates under various dynamic loading conditions. Proceedings of SPIE, 2015, , .	0.8	1
87	Ultrafast photonic systems for FBG sensing in detonation and shock wave experiments. Proceedings of SPIE, 2017, , .	0.8	1
88	Fiber-Based Ultrafast Laser Fabrication System with Application to Chirped Fiber Bragg Grating Sensors. , 2012, , .		1
89	Pegasus liner stability experiments: diagnostics and experimental results. , 0, , .		0
90	Overview of the Pegasus-II experimental program. , 0, , .		0

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91	Ultrafast scanning tunneling microscopy using a photoexcited low-temperature-grown GaAs tip. , 1998, , .		0
92	High-energy density experiments for Atlas. , 0, , .		0
93	Diagnostic development for the Atlas pulsed power facility. , 0, , .		0
94	Nonequilibrium superconductivity and quasiparticle dynamics in YBa/sub 2/Cu/sub 3/O/sub 7-Î´/. , 0, , .		0
95	<title>Using dynamic radiography to determine the volume of an imploding cylinder</title>. , 1999, 3769, 106.		0
96	Watching Really Hot Electrons Relax. Optics and Photonics News, 2001, 12, 68.	0.5	0
97	Liner velocity, current, and symmetry measurements on the 32 megamp flux compression generator experiment ALT-1. , 0, , .		0
98	Direct observation of ultrafast dynamics of electron thermalization in gold using surface SHG. , 0, , .		0
99	Liner velocity, current, and symmetry measurements on the 32 MA flux compression generator experiment ALT-1. , 0, , .		0
100	Spall experiments in convergent geometry using the Atlas pulsed power facility. , 0, , .		0
101	Interferometric diagnostic suite for ultrafast laser ablation of metals. , 2004, , .		0
102	Spall and Damage in Convergent Geometry Using Pulsed Power. , 2006, , .		0
103	Single-shot, high-resolution, THz field reconstruction using phase-retrieval. , 2006, , TuH10.		0
104	Terahertz time-resolved reflection spectroscopy for electrical conductivity measurements in the femtosecond laser-induced ablation dynamics. , 2006, , .		0
105	Optically based velocity and topographic measurement systems in the nano-scale for developing optical initiation. Proceedings of SPIE, 2007, , .	0.8	0
106	Pulsed Power Hydrodynamics: Atlas results and future perspectives. , 2007, , .		0
107	Electrical conductivity measurements of warm dense matter with time-resolved terahertz spectroscopy. , 2007, , .		0
108	Intense Broadband Terahertz Radiation via Quantum Coherent Control. Optics and Photonics News, 2008, 19, 49.	0.5	0

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109	Intense THz supercontinuum generation in femtosecond laser-gas interactions. , 2008, , .		0
110	DAMAGE EXPERIMENTS IN CYLINDRICAL GEOMETRY UPDATE. , 2009, , .		0
111	Parametric studies of two-color ultrafast terahertz generation in gas plasma filaments. , 2010, , .		0
112	Guest Editorial Special Issue in Honor of Professor J. Gary Eden on the Occasion of his 60th Birthday. IEEE Journal of Quantum Electronics, 2012, 48, 737-740.	1.9	0
113	Rheology studies of aluminum with the use of explosive magnetic generators. Doklady Physics, 2013, 58, 20-23.	0.7	0
114	Resolving Ultrafast Dynamics of Electron Thermalization in Gold using Surface SHG. Springer Series in Chemical Physics, 2001, , 413-415.	0.2	0
115	Single-shot, High-resolution, THz Field Reconstruction using Phase-retrieval. Springer Series in Chemical Physics, 2007, , 796-798.	0.2	0
116	Ultrafast X-Ray Probe of Dynamics in Chromium. , 2016, , .		0