

Eugenio Fazio

List of Publications by Year in descending order

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134
papers

1,373
citations

394421

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395702

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139
all docs

139
docs citations

139
times ranked

854
citing authors

#	ARTICLE	IF	CITATIONS
1	Screening-photovoltaic bright solitons in lithium niobate and associated single-mode waveguides. Applied Physics Letters, 2004, 85, 2193-2195.	3.3	194
2	Circular Dichroism in the Optical Second-Harmonic Emission of Curved Gold Metal Nanowires. Physical Review Letters, 2011, 107, 257401.	7.8	98
3	Tailored second harmonic generation from self-organized metal nano-wires arrays. Optics Express, 2009, 17, 3603.	3.4	61
4	Chiral light intrinsically couples to extrinsic/pseudo-chiral metasurfaces made of tilted gold nanowires. Scientific Reports, 2016, 6, 31796.	3.3	54
5	Inhibition of Linear Absorption in Opaque Materials Using Phase-Locked Harmonic Generation. Physical Review Letters, 2008, 101, 113905.	7.8	52
6	Large self-deflection of soliton beams in LiNbO ₃ . Optics Letters, 2005, 30, 1977.	3.3	43
7	Complete spatial and temporal locking in phase-mismatched second-harmonic generation. Optics Express, 2009, 17, 3141.	3.4	41
8	Second-harmonic generation from metallodielectric multilayer photonic-band-gap structures. Physical Review A, 2008, 77, .	2.5	36
9	Nonlinear optical absorption of zinc-phthalocyanines in polymeric matrix. Photonics and Nanostructures - Fundamentals and Applications, 2007, 5, 73-78.	2.0	33
10	Surface-wave pyroelectric photorefractive solitons. Optics Letters, 2010, 35, 1254.	3.3	29
11	(2+1)-dimensional soliton formation in photorefractive Bi ₁₂ SiO ₂₀ crystals. Physical Review E, 2003, 67, 026611.	2.1	28
12	Dynamics of second-harmonic generation in a photovoltaic photorefractive quadratic medium. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 1.	2.1	26
13	Porous silicon obtained by anodization in the transition regime. Thin Solid Films, 1995, 255, 152-154.	1.8	25
14	All-optical NOR gate based on the interaction between cosine-shaped input beams of orthogonal polarization. Journal of the Optical Society of America B: Optical Physics, 1999, 16, 214.	2.1	22
15	Luminescence-induced photorefractive spatial solitons. Applied Physics Letters, 2010, 96, 091107.	3.3	22
16	Nonlinearity and photostructural changes in glassy As ₂ S ₃ thin films. Optics Communications, 1993, 101, 74-78.	2.1	21
17	Frequency-doubling in self-induced waveguides in lithium niobate. Optics Communications, 2007, 272, 238-241.	2.1	21
18	Writing single-mode waveguides in lithium niobate by ultra-low intensity solitons. Applied Surface Science, 2005, 248, 97-102.	6.1	20

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19	Blue second harmonic generation from aluminum nitride films deposited onto silicon by sputtering technique. <i>Journal of Applied Physics</i> , 2006, 100, 023507.	2.5	20
20	3-D integrated optical interconnect induced by self-focused beam. <i>Electronics Letters</i> , 2006, 42, 463.	1.0	20
21	Measurement of pure Kerr nonlinearity in GaN thin films at 800 nm by means of eclipsing Z-scan experiments. <i>Journal of Optics</i> , 2007, 9, L3-L4.	1.5	20
22	Second harmonic generation on self-assembled tilted gold nanowires. <i>Faraday Discussions</i> , 2015, 178, 357-362.	3.2	20
23	Femtosecond pulses chirping compensation by using one-dimensional compact multiple-defect photonic crystals. <i>Applied Physics Letters</i> , 2006, 89, 031111.	3.3	19
24	Experimental study of Bloch vector analysis in nonlinear, finite, dissipative systems. <i>Physical Review A</i> , 2010, 81, .	2.5	19
25	Experimental demonstration of (1+1)D self-confinement and breathing soliton-like propagation in photorefractive crystals with strong optical activity. <i>Journal of Optics</i> , 2001, 3, 466-469.	1.5	17
26	Solitonlike propagation in photorefractive crystals with large optical activity and absorption. <i>Physical Review E</i> , 2002, 66, 016605.	2.1	17
27	Polarization and configuration dependence of beam self-focusing in photorefractive LiNbO ₃ . <i>Journal of the Optical Society of America B: Optical Physics</i> , 2009, 26, 487.	2.1	17
28	Stationary self-confined beams at 633 nm in Bi ₁₂ SiO ₂₀ crystals. <i>Journal of Optics</i> , 2003, 5, S432-S436.	1.5	16
29	On-off resonance femtosecond non-linear absorption of chalcogenide glassy films. <i>Journal of Non-Crystalline Solids</i> , 1994, 168, 213-222.	3.1	15
30	Complete characterization of (2 + 1)D soliton formation in photorefractive crystals with strong optical activity. <i>Journal of Optics</i> , 2003, 5, S119-S123.	1.5	15
31	3D-soliton waveguides in lithium niobate for femtosecond light pulses. <i>Journal of Optics</i> , 2006, 8, S477-S482.	1.5	15
32	Coherent collisions of infrared self-trapped beams in photorefractive InP:Fe. <i>Applied Physics Letters</i> , 2010, 96, 121111.	3.3	15
33	I Nonlinear Propagation of Strong Laser Pulses in Chalcogenide Glass Films. <i>Progress in Optics</i> , 1996, 36, 1-47.	0.6	13
34	Self-trapping of low-energy infrared femtosecond beams in lithium niobate. <i>Physical Review A</i> , 2007, 76, .	2.5	13
35	All-Optical Reinforcement Learning In Solitonic X-Junctions. <i>Scientific Reports</i> , 2018, 8, 5716.	3.3	13
36	Cluster analysis of microclimate data to optimize the number of sensors for the assessment of indoor environment within museums. <i>Environmental Science and Pollution Research</i> , 2018, 25, 28787-28797.	5.3	12

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37	The r_{33} electro-optic coefficient of Er:LiNbO ₃ . Journal of Optics (United Kingdom), 2010, 12, 015206.	2.2	11
38	Supervised and unsupervised learning using a fully-plastic all-optical unit of artificial intelligence based on solitonic waveguides. Neural Computing and Applications, 0, , 1.	5.6	11
39	Self-confined beams in erbium-doped lithium niobate. Journal of Optics (United Kingdom), 2010, 12, 015206.	2.2	10
40	Novel Model Based on Artificial Neural Networks to Predict Short-Term Temperature Evolution in Museum Environment. Sensors, 2022, 22, 615.	3.8	10
41	Episodic Memory and Information Recognition Using Solitonic Neural Networks Based on Photorefractive Plasticity. Applied Sciences (Switzerland), 2022, 12, 5585.	2.5	9
42	Solitonic waveguiding in planar glass structures. Optics Communications, 2000, 185, 331-336.	2.1	8
43	Noncollinear type-II second-harmonic generation in a Al(0.3)Ga(0.7)As/Al ₂ O ₃ one-dimensional photonic crystal. Applied Physics Letters, 2004, 84, 3010-3012.	3.3	8
44	Laser generated soliton waveguides in photorefractive crystals. Applied Surface Science, 2005, 248, 484-491.	6.1	8
45	Ultraweak Photon Emission from the Seed Coat in Response to Temperature and Humidity—A Potential Mechanism for Environmental Signal Transduction in the Soil Seed Bank. Photochemistry and Photobiology, 2016, 92, 678-687.	2.5	8
46	Influence of probe absorption in the photothermal deflection technique. Journal of Applied Physics, 1991, 69, 3421-3425.	2.5	7
47	Experimental observation of spatial soliton dragging in a planar glass waveguide. Optics Communications, 1999, 168, 399-403.	2.1	7
48	Observation of photorefractive simultons in lithium niobate. Optics Express, 2010, 18, 7972.	3.4	7
49	Scattering of Light from the Systemic Circulatory System. Diagnostics, 2020, 10, 1026.	2.6	7
50	Study of magnetic switch for surface plasmon-polariton circuits. AIP Advances, 2021, 11, 045222.	1.3	7
51	Stigmergic electronic gates and networks. Journal of Computational Electronics, 2021, 20, 2614-2621.	2.5	7
52	Sigmoid Type Neuromorphic Activation Function Based on Saturable Absorption Behavior of Graphene/PMMA Composite for Intensity Modulation of Surface Plasmon Polariton Signals. Plasmonics, 2022, 17, 1025-1032.	3.4	7
53	Optical properties of Rhodamine 6G doped TiO ₂ -SiO ₂ sol-gel thin films. Journal of Non-Crystalline Solids, 1994, 178, 77-83.	3.1	6
54	Nonlinear Fabry-Perot cavity with chalcogenide glass thin films. Journal of Applied Physics, 1993, 74, 3024-3027.	2.5	5

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55	Optical non-linearities and defect generation in a-Si:H thin films. Journal of Non-Crystalline Solids, 1994, 176, 247-252.	3.1	5
56	Phase-driven pulse breaking during perfectly-matched second harmonic generation. Optics Communications, 1998, 148, 427-435.	2.1	5
57	On the design of multipass dye laser amplifiers. IEEE Journal of Quantum Electronics, 1998, 34, 609-615.	1.9	5
58	(2+1)D spatial solitons in photorefractive crystals with strong optical activity and absorption. , 2001, , .		5
59	Numerical Analysis of Waveguiding in Luminescence-Induced Spatial Soliton Channels. IEEE Journal of Quantum Electronics, 2012, 48, 1397-1402.	1.9	5
60	Thermal non-linearities of semiconductor-doped glasses in the near-IR region. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1990, 5, 143-145.	3.5	4
61	Measurement of the circular dichroism in the second harmonic optical signal produced by Au covered self ordered dielectric nanospheres. , 2013, , .		4
62	Novel paradigm for integrated photonics circuits: transient interconnection network. , 2017, , .		4
63	Addressable Refraction and Curved Soliton Waveguides Using Electric Interfaces. Applied Sciences (Switzerland), 2019, 9, 347.	2.5	4
64	To study the Mueller matrix polarimetry for the characterization of wood and Teflon flat samples. Results in Optics, 2021, 4, 100102.	2.0	4
65	3-D Integrated Optical Microcircuits in Lithium Niobate Written by Spatial Solitons. Springer Series in Materials Science, 2009, , 101-134.	0.6	4
66	Recognition of Bio-Structural Anisotropy by Polarization Resolved Imaging. Electronics (Switzerland), 2022, 11, 255.	3.1	4
67	Optothermal characterization of As ₂ S ₃ chalcogenide glasses. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1991, 9, 459-461.	3.5	3
68	Luminescence kinetics of semiconductor doped glasses in the long time region. Journal of Applied Physics, 1992, 71, 942-945.	2.5	3
69	Optical hysteresis and ultrafast transmission switching in chalcogenide glasses. , 1993, 1807, 126.		3
70	Experimental demonstration of (1+1)D self-confinement and breathing of laser beams in BSO crystals. , 2001, , .		3
71	Logic Functions, Devices, and Circuits Based on Parametric Nonlinear Processes. Journal of Lightwave Technology, 2008, 26, 373-378.	4.6	3
72	Influence of iron doping on spatial soliton formation and fixing in lithium niobate crystals. Optical Materials, 2014, 37, 175-180.	3.6	3

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73	Solitonic waveguide reflection at an electric interface. Optics Express, 2019, 27, 20273.	3.4	3
74	A Road Towards the Photonic Hardware Implementation of Artificial Cognitive Circuits. Journal of Mental Health and Clinical Psychology, 2018, 2, 1-5.	0.5	3
75	A Statistical Approach for A-Posteriori Deployment of Microclimate Sensors in Museums: A Case Study. Sensors, 2022, 22, 4547.	3.8	3
76	<title>Engineering of Z-Scan experimental configuration for fast characterization of nonlinear materials</title>., 1996, , .		2
77	<title>Z-Scan measurement of thermal optical nonlinearities</title>. Proceedings of SPIE, 2007, 6785, 380.	0.8	2
78	<title>Electronic and thermal nonlinear refractive indices of SOI and nano-patterned SOI measured by Z-scan method</title>., 2007, 6785, 186.		2
79	Fast writing of soliton waveguides in lithium niobate with a low-power blue-violet laser. Proceedings of SPIE, 2009, , .	0.8	2
80	Use of quasi-local photorefractive response to generated superficial self-written waveguides in lithium niobate. Optics Express, 2013, 21, 25834.	3.4	2
81	Design of a refractive index sensor based on surface soliton waveguides. Journal of Optics (United Tj ETQq1 1 0.784314 rgBT /Overlo	2.2	2
82	CleAir Monitoring System for Particulate Matter: A Case in the Napoleonic Museum in Rome. Sensors, 2017, 17, 2076.	3.8	2
83	Optical nonlinearities in lyotropic liquid crystals. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1988, 10, 1353-1361.	0.4	1
84	Nonlinear refractive index measurement of CdSxSe(1-x) doped glasses. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1991, 9, 441-447.	3.5	1
85	Birefringence determination in ion-exchanged waveguides. , 1996, , .		1
86	Self-induced waveguides created by second harmonic generation in lithium niobate. , 2007, , .		1
87	Symmetry breaking in the second harmonic field of self-assembled metallic nanostructures. , 2015, , .		1
88	Second harmonic generation on self-assembled GaAs/Au nanowires with thickness gradient. Proceedings of SPIE, 2017, , .	0.8	1
89	Optically functionalized biomorphism of bean seeds. Journal of Luminescence, 2017, 182, 189-195.	3.1	1
90	Thermal Nonlinearities Of Semiconductor And Metal Doped Glasses. , 1989, 1128, 252.		0

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91	Photodeflection method applied to the thermal characterization of CuCl and Cu ₂ O glasses. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1991, 9, 433-436.	3.5	0
92	Nonlinear Fabry-Perot cavity with amorphous As ₂ S ₃ and As ₂ Se ₃ thin films. , 1995, 2461, 466.		0
93	Efficient spatial soliton formation in BSO photorefractive crystals at 633 nm. , 0, , .		0
94	Intensity and polarization dynamics of spatial solitons in photorefractive crystals with large optical activity. , 0, , .		0
95	Spatial solitons in photorefractive crystals with large optical activity and absorption. , 2003, 4829, 944.		0
96	Optical multifunction logic gate based on BSO photorefractive crystal. , 2003, 4987, 310.		0
97	Dynamic Waveguides and Gratings in Photorefractive Crystals. , 2003, , 57-100.		0
98	All-optical parallel Boolean algebra. , 2004, 5453, 305.		0
99	<title>Light polarization dynamics in self-confined beams and solitons propagating in photorefractive media</title>. , 2004, , .		0
100	Noncollinear type II second harmonic generation in Al (0.3) Ga (0.7) As/Al ₂ O ₃ one-dimensional photonic bandgap structure. , 2004, , .		0
101	Generation of bright solitons in LiNbO ₃ and their application as programmable monomode waveguides. , 2004, , .		0
102	<title>Polarization evolution of spatial solitons in photorefractive crystals with large optical activity</title>. , 2004, , .		0
103	Self-waveguiding of light pulses in photorefractive BSO crystals: intensity and polarization dynamics. , 2004, , .		0
104	<title>Tissue cutting by ultrashort pulses from a Ti-Zaffire laser system: strong reduction of thermal alteration around the cutting line</title>. , 2004, , .		0
105	Guiding light by soliton waveguides in photorefractive lithium niobate crystals. , 0, , .		0
106	<title>Soliton waveguides in photorefractive crystals</title>. , 2005, , .		0
107	Special section: Selected papers from OMS'05, the 1st Topical Meeting of the European Optical Society on Optical Microsystems (OMS). <i>Journal of Optics</i> , 2006, 8, S405-S406.	1.5	0
108	Photorefractive bright soliton in erbium doped lithium niobate. , 2006, 6183, 280.		0

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109	Chirping compensation of femtosecond pulses by using 1-D photonic crystals anomalous dispersion. , 2006, 6182, 355.		0
110	<title>Second harmonic generation in self-induced waveguides in lithium niobate</title>. Proceedings of SPIE, 2007, , .	0.8	0
111	Bright Solitons in Lithium Niobate Generate Volume Waveguides, Basic Elements for 3-D Integrated Circuits. , 2007, , .		0
112	Selected Papers from OMS'07, the 2nd Topical Meeting of the European Optical Society on Optical Microsystems (OMS). Journal of Optics, 2008, 10, 060201.	1.5	0
113	Describing third-order nonlinear optical properties of nanocrystalline porous silicon using Bruggeman model. , 2009, , .		0
114	Photorefractive Simulton in Lithium Niobate. , 2009, , .		0
115	Soliton waveguide laser in erbium doped lithium niobate. , 2009, , .		0
116	Tailored emission properties of second harmonic generation from self-organized metal nanowires arrays. , 2009, , .		0
117	Non linear optical properties of nanostructured metallic surfaces. , 2009, , .		0
118	Coherent soliton collisions in photorefractive semiconductor InP:Fe for reconfigurable optical communications. , 2009, , .		0
119	Control of light in bulk photorefractive materials: From waveguides to cavities. , 2009, , .		0
120	Soliton waveguide arrays in LiNbO_3 generated with blue-violet lasers for ultrafast parallel coupling. , 2010, , .		0
121	Nonlinear circular dichroism in self-organized metal nanowires arrays. , 2011, , .		0
122	Fast writing of soliton waveguides with blue-violet lasers in lithium niobate for coupling of femtosecond infrared laser pulses. , 2011, , .		0
123	Analysis of soliton waveguides in lithium niobate at 405nm wavelength. Proceedings of SPIE, 2013, , .	0.8	0
124	Second harmonic circular dichroism from Au covered polystyrene nanospheres. , 2013, , .		0
125	Effective chiral behavior on self-assembled tilted gold nanowires metasurface by means of linear and nonlinear optical techniques. Proceedings of SPIE, 2016, , .	0.8	0
126	Chiral Optical Response of Self-Assembled Plasmonic Metasurface Investigated by Linear and Nonlinear Detection Schemes. , 2016, , .		0

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127	Mueller matrix polarimetry for differentiating characteristic features of different materials (wood,) Tj ETQq1 1 0.784314 rgBT ₀ /Overlo		
128	Multiple scattering by two PEC sphere. , 2021, , .		0
129	Complex waveguide trajectories induced by photorefractive solitons in LiNbO3: a step toward 3-D optical circuitry. , 2005, , .		0
130	Complex waveguide trajectory induced by spatial soliton in LiNbO3. , 2005, , .		0
131	Pyroelectric surface-wave soliton. , 2010, , .		0
132	Bloch Vector Analysis in Nonlinear, Finite, Dissipative Systems: An Experimental Study. , 2010, , .		0
133	Self-trapped beams for fabricating 3D integrated optical components. SPIE Newsroom, 0, , .	0.1	0
134	Measurements of Third-Order Nonlinearities in Amorphous Materials. , 1997, , 1-16.		0