

# Eugenio Fazio

## List of Publications by Year in descending order

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134  
papers

1,373  
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394421

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docs citations

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#	ARTICLE	IF	CITATIONS
1	Novel Model Based on Artificial Neural Networks to Predict Short-Term Temperature Evolution in Museum Environment. <i>Sensors</i> , 2022, 22, 615.	3.8	10
2	Recognition of Bio-Structural Anisotropy by Polarization Resolved Imaging. <i>Electronics (Switzerland)</i> , 2022, 11, 255.	3.1	4
3	Sigmoid Type Neuromorphic Activation Function Based on Saturable Absorption Behavior of Graphene/PMMA Composite for Intensity Modulation of Surface Plasmon Polariton Signals. <i>Plasmonics</i> , 2022, 17, 1025-1032.	3.4	7
4	Episodic Memory and Information Recognition Using Solitonic Neural Networks Based on Photorefractive Plasticity. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 5585.	2.5	9
5	A Statistical Approach for A-Posteriori Deployment of Microclimate Sensors in Museums: A Case Study. <i>Sensors</i> , 2022, 22, 4547.	3.8	3
6	Study of magnetic switch for surface plasmon-polariton circuits. <i>AIP Advances</i> , 2021, 11, 045222.	1.3	7
7	To study the Mueller matrix polarimetry for the characterization of wood and Teflon flat samples. <i>Results in Optics</i> , 2021, 4, 100102.	2.0	4
8	Mueller matrix polarimetry for differentiating characteristic features of different materials (wood, Teflon, etc.). <i>Optics Express</i> , 2021, 29, 100102.	2.0	4
9	Multiple scattering by two PEC sphere. <i>Optics Express</i> , 2021, 29, 100102.		0
10	Stigmergic electronic gates and networks. <i>Journal of Computational Electronics</i> , 2021, 20, 2614-2621.	2.5	7
11	Scattering of Light from the Systemic Circulatory System. <i>Diagnostics</i> , 2020, 10, 1026.	2.6	7
12	Addressable Refraction and Curved Soliton Waveguides Using Electric Interfaces. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 347.	2.5	4
13	Solitonic waveguide reflection at an electric interface. <i>Optics Express</i> , 2019, 27, 20273.	3.4	3
14	All-Optical Reinforcement Learning In Solitonic X-Junctions. <i>Scientific Reports</i> , 2018, 8, 5716.	3.3	13
15	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
16	A Road Towards the Photonic Hardware Implementation of Artificial Cognitive Circuits. <i>Journal of Mental Health and Clinical Psychology</i> , 2018, 2, 1-5.	0.5	3
17	Novel paradigm for integrated photonics circuits: transient interconnection network. <i>Optics Express</i> , 2017, 25, 100102.		4
18	Second harmonic generation on self-assembled GaAs/Au nanowires with thickness gradient. <i>Proceedings of SPIE</i> , 2017, 100102.	0.8	1

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19	Optically functionalized biomorphism of bean seeds. Journal of Luminescence, 2017, 182, 189-195.	3.1	1
20	CleAir Monitoring System for Particulate Matter: A Case in the Napoleonic Museum in Rome. Sensors, 2017, 17, 2076.	3.8	2
21	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
22	Chiral Optical Response of Self-Assembled Plasmonic Metasurface Investigated by Linear and Nonlinear Detection Schemes. , 2016, , .		0
23	Chiral light intrinsically couples to extrinsic/pseudo-chiral metasurfaces made of tilted gold nanowires. Scientific Reports, 2016, 6, 31796.	3.3	54
24	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
25	Symmetry breaking in the second harmonic field of self-assembled metallic nanostructures. , 2015, , .		1
26	Second harmonic generation on self-assembled tilted gold nanowires. Faraday Discussions, 2015, 178, 357-362.	3.2	20
27	Influence of iron doping on spatial soliton formation and fixing in lithium niobate crystals. Optical Materials, 2014, 37, 175-180.	3.6	3
28	Analysis of soliton waveguides in lithium niobate at 405nm wavelength. Proceedings of SPIE, 2013, , .	0.8	0
29	Use of quasi-local photorefractive response to generated superficial self-written waveguides in lithium niobate. Optics Express, 2013, 21, 25834.	3.4	2
30	Measurement of the circular dichroism in the second harmonic optical signal produced by Au covered self ordered dielectric nanospheres. , 2013, , .		4
31	Second harmonic circular dichroism from Au covered polystyrene nanospheres. , 2013, , .		0
32	Design of a refractive index sensor based on surface soliton waveguides. Journal of Optics (United Tj ETQq0 0 0 rgBTj/Overlock 10 Tf 50	2.2	2
33	Numerical Analysis of Waveguiding in Luminescence-Induced Spatial Soliton Channels. IEEE Journal of Quantum Electronics, 2012, 48, 1397-1402.	1.9	5
34	Circular Dichroism in the Optical Second-Harmonic Emission of Curved Gold Metal Nanowires. Physical Review Letters, 2011, 107, 257401.	7.8	98
35	Nonlinear circular dichroism in self-organized metal nanowires arrays. , 2011, , .		0
36	Fast writing of soliton waveguides with blue-violet lasers in lithium niobate for coupling of femtosecond infrared laser pulses. , 2011, , .		0

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37	The $\chi^{(3)}$ electro-optic coefficient of Er:LiNbO <sub>3</sub> . Journal of Optics (United Kingdom), 2010, 12, 015206.	2.2	11
38	Self-confined beams in erbium-doped lithium niobate. Journal of Optics (United Kingdom), 2010, 12, 015206.	2.2	10
39	Experimental study of Bloch vector analysis in nonlinear, finite, dissipative systems. Physical Review A, 2010, 81, .	2.5	19
40	Coherent collisions of infrared self-trapped beams in photorefractive InP:Fe. Applied Physics Letters, 2010, 96, 121111.	3.3	15
41	Luminescence-induced photorefractive spatial solitons. Applied Physics Letters, 2010, 96, 091107.	3.3	22
42	Observation of photorefractive solitons in lithium niobate. Optics Express, 2010, 18, 7972.	3.4	7
43	Surface-wave pyroelectric photorefractive solitons. Optics Letters, 2010, 35, 1254.	3.3	29
44	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
45	Soliton waveguide arrays in LiNbO <sub>3</sub> generated with blue-violet lasers for ultrafast parallel coupling. , 2010, , .		0
46	Pyroelectric surface-wave soliton. , 2010, , .		0
47	Bloch Vector Analysis in Nonlinear, Finite, Dissipative Systems: An Experimental Study. , 2010, , .		0
48	Describing third-order nonlinear optical properties of nanocrystalline porous silicon using Bruggeman model. , 2009, , .		0
49	Photorefractive Soliton in Lithium Niobate. , 2009, , .		0
50	Solitonic waveguide laser in erbium doped lithium niobate. , 2009, , .		0
51	Tailored emission properties of second harmonic generation from self-organized metal nanowires arrays. , 2009, , .		0
52	Polarization and configuration dependence of beam self-focusing in photorefractive LiNbO <sub>3</sub> . Journal of the Optical Society of America B: Optical Physics, 2009, 26, 487.	2.1	17
53	Complete spatial and temporal locking in phase-mismatched second-harmonic generation. Optics Express, 2009, 17, 3141.	3.4	41
54	Tailored second harmonic generation from self-organized metal nano-wires arrays. Optics Express, 2009, 17, 3603.	3.4	61

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55	Non linear optical properties of nanostructured metallic surfaces. , 2009, , .		0
56	Coherent soliton collisions in photorefractive semiconductor InP:Fe for reconfigurable optical communications. , 2009, , .		0
57	Fast writing of soliton waveguides in lithium niobate with a low-power blue-violet laser. Proceedings of SPIE, 2009, , .	0.8	2
58	Control of light in bulk photorefractive materials: From waveguides to cavities. , 2009, , .		0
59	3-D Integrated Optical Microcircuits in Lithium Niobate Written by Spatial Solitons. Springer Series in Materials Science, 2009, , 101-134.	0.6	4
60	Logic Functions, Devices, and Circuits Based on Parametric Nonlinear Processes. Journal of Lightwave Technology, 2008, 26, 373-378.	4.6	3
61	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
62	Inhibition of Linear Absorption in Opaque Materials Using Phase-Locked Harmonic Generation. Physical Review Letters, 2008, 101, 113905.	7.8	52
63	Second-harmonic generation from metallodielectric multilayer photonic-band-gap structures. Physical Review A, 2008, 77, .	2.5	36
64	Self-induced waveguides created by second harmonic generation in lithium niobate. , 2007, , .		1
65	<title>Z-Scan measurement of thermal optical nonlinearities</title>. Proceedings of SPIE, 2007, 6785, 380.	0.8	2
66	<title>Second harmonic generation in self-induced waveguides in lithium niobate</title>. Proceedings of SPIE, 2007, , .	0.8	0
67	<title>Electronic and thermal nonlinear refractive indices of SOI and nano-patterned SOI measured by Z-scan method</title>. , 2007, 6785, 186.		2
68	Bright Solitons in Lithium Niobate Generate Volume Waveguides, Basic Elements for 3-D Integrated Circuits. , 2007, , .		0
69	Measurement of pure Kerr nonlinearity in GaN thin films at 800 nm by means of eclipsing Z-scan experiments. Journal of Optics, 2007, 9, L3-L4.	1.5	20
70	Self-trapping of low-energy infrared femtosecond beams in lithium niobate. Physical Review A, 2007, 76, .	2.5	13
71	Nonlinear optical absorption of zinc-phthalocyanines in polymeric matrix. Photonics and Nanostructures - Fundamentals and Applications, 2007, 5, 73-78.	2.0	33
72	Frequency-doubling in self-induced waveguides in lithium niobate. Optics Communications, 2007, 272, 238-241.	2.1	21

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73	3D-soliton waveguides in lithium niobate for femtosecond light pulses. Journal of Optics, 2006, 8, S477-S482.	1.5	15
74	Blue second harmonic generation from aluminum nitride films deposited onto silicon by sputtering technique. Journal of Applied Physics, 2006, 100, 023507.	2.5	20
75	Special section: Selected papers from OMS'05, the 1st Topical Meeting of the European Optical Society on Optical Microsystems (OMS). Journal of Optics, 2006, 8, S405-S406.	1.5	0
76	Photorefractive bright soliton in erbium doped lithium niobate. , 2006, 6183, 280.		0
77	3-D integrated optical interconnect induced by self-focused beam. Electronics Letters, 2006, 42, 463.	1.0	20
78	Chirping compensation of femtosecond pulses by using 1-D photonic crystals anomalous dispersion. , 2006, 6182, 355.		0
79	Femtosecond pulses chirping compensation by using one-dimensional compact multiple-defect photonic crystals. Applied Physics Letters, 2006, 89, 031111.	3.3	19
80	Writing single-mode waveguides in lithium niobate by ultra-low intensity solitons. Applied Surface Science, 2005, 248, 97-102.	6.1	20
81	Laser generated soliton waveguides in photorefractive crystals. Applied Surface Science, 2005, 248, 484-491.	6.1	8
82	<title>Soliton waveguides in photorefractive crystals</title>. , 2005, , .		0
83	Large self-deflection of soliton beams in LiNbO <sub>3</sub> . Optics Letters, 2005, 30, 1977.	3.3	43
84	Complex waveguide trajectories induced by photorefractive solitons in LiNbO <sub>3</sub> : a step toward 3-D optical circuitry. , 2005, , .		0
85	Complex waveguide trajectory induced by spatial soliton in LiNbO <sub>3</sub> . , 2005, , .		0
86	Noncollinear type-II second-harmonic generation in a Al(0.3)Ga(0.7)As/Al <sub>2</sub> O <sub>3</sub> one-dimensional photonic crystal. Applied Physics Letters, 2004, 84, 3010-3012.	3.3	8
87	All-optical parallel Boolean algebra. , 2004, 5453, 305.		0
88	<title>Light polarization dynamics in self-confined beams and solitons propagating in photorefractive media</title>. , 2004, , .		0
89	Screening-photovoltaic bright solitons in lithium niobate and associated single-mode waveguides. Applied Physics Letters, 2004, 85, 2193-2195.	3.3	194
90	Noncollinear type II second harmonic generation in Al (0.3) Ga (0.7) As/Al <sub>2</sub> O <sub>3</sub> one-dimensional photonic bandgap structure. , 2004, , .		0

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91	Generation of bright solitons in LiNbO <sub>3</sub> and their application as programmable monomode waveguides. , 2004, , .		0
92	<title>Polarization evolution of spatial solitons in photorefractive crystals with large optical activity</title>. , 2004, , .		0
93	Self-waveguiding of light pulses in photorefractive BSO crystals: intensity and polarization dynamics. , 2004, , .		0
94	<title>Tissue cutting by ultrashort pulses from a Ti-Zaffire laser system: strong reduction of thermal alteration around the cutting line</title>. , 2004, , .		0
95	(2+1)-dimensional soliton formation in photorefractive Bi <sub>12</sub> SiO <sub>20</sub> crystals. Physical Review E, 2003, 67, 026611.	2.1	28
96	Stationary self-confined beams at 633 nm in Bi <sub>12</sub> SiO <sub>20</sub> crystals. Journal of Optics, 2003, 5, S432-S436.	1.5	16
97	Complete characterization of (2 + 1)D soliton formation in photorefractive crystals with strong optical activity. Journal of Optics, 2003, 5, S119-S123.	1.5	15
98	Spatial solitons in photorefractive crystals with large optical activity and absorption. , 2003, 4829, 944.		0
99	Optical multifunction logic gate based on BSO photorefractive crystal. , 2003, 4987, 310.		0
100	Dynamic Waveguides and Gratings in Photorefractive Crystals. , 2003, , 57-100.		0
101	Solitonlike propagation in photorefractive crystals with large optical activity and absorption. Physical Review E, 2002, 66, 016605.	2.1	17
102	Experimental demonstration of (1+1)D self-confinement and breathing of laser beams in BSO crystals. , 2001, , .		3
103	(2+1)D spatial solitons in photorefractive crystals with strong optical activity and absorption. , 2001, , .		5
104	Experimental demonstration of (1+1)D self-confinement and breathing soliton-like propagation in photorefractive crystals with strong optical activity. Journal of Optics, 2001, 3, 466-469.	1.5	17
105	Solitonic waveguiding in planar glass structures. Optics Communications, 2000, 185, 331-336.	2.1	8
106	Experimental observation of spatial soliton dragging in a planar glass waveguide. Optics Communications, 1999, 168, 399-403.	2.1	7
107	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
108	Phase-driven pulse breaking during perfectly-matched second harmonic generation. Optics Communications, 1998, 148, 427-435.	2.1	5

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109	On the design of multipass dye laser amplifiers. IEEE Journal of Quantum Electronics, 1998, 34, 609-615.	1.9	5
110	Measurements of Third-Order Nonlinearities in Amorphous Materials. , 1997, , 1-16.		0
111	I Nonlinear Propagation of Strong Laser Pulses in Chalcogenide Glass Films. Progress in Optics, 1996, 36, 1-47.	0.6	13
112	Birefringence determination in ion-exchanged waveguides. , 1996, , .		1
113	<title>Engineering of Z-Scan experimental configuration for fast characterization of nonlinear materials</title>. , 1996, , .		2
114	Nonlinear Fabry-Perot cavity with amorphous As <sub>2</sub> S <sub>3</sub> and As <sub>2</sub> Se <sub>3</sub> thin films. , 1995, 2461, 466.		0
115	Porous silicon obtained by anodization in the transition regime. Thin Solid Films, 1995, 255, 152-154.	1.8	25
116	Optical non-linearities and defect generation in a-Si:H thin films. Journal of Non-Crystalline Solids, 1994, 176, 247-252.	3.1	5
117	Optical properties of Rhodamine 6G doped TiO <sub>2</sub> -SiO <sub>2</sub> sol-gel thin films. Journal of Non-Crystalline Solids, 1994, 178, 77-83.	3.1	6
118	On-off resonance femtosecond non-linear absorption of chalcogenide glassy films. Journal of Non-Crystalline Solids, 1994, 168, 213-222.	3.1	15
119	Nonlinearity and photostructural changes in glassy As <sub>2</sub> S <sub>3</sub> thin films. Optics Communications, 1993, 101, 74-78.	2.1	21
120	Optical hysteresis and ultrafast transmission switching in chalcogenide glasses. , 1993, 1807, 126.		3
121	Nonlinear Fabry-Perot cavity with chalcogenide glass thin films. Journal of Applied Physics, 1993, 74, 3024-3027.	2.5	5
122	Luminescence kinetics of semiconductor doped glasses in the long time region. Journal of Applied Physics, 1992, 71, 942-945.	2.5	3
123	Photodeflection method applied to the thermal characterization of CuCl and Cu <sub>2</sub> O glasses. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1991, 9, 433-436.	3.5	0
124	Nonlinear refractive index measurement of CdS <sub>x</sub> Se(1-x) doped glasses. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1991, 9, 441-447.	3.5	1
125	Optothermal characterization of As <sub>2</sub> S <sub>3</sub> chalcogenide glasses. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1991, 9, 459-461.	3.5	3
126	Influence of probe absorption in the photothermal deflection technique. Journal of Applied Physics, 1991, 69, 3421-3425.	2.5	7



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127	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
128	Thermal Nonlinearities Of Semiconductor And Metal Doped Glasses. , 1989, 1128, 252.		0
129	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
130	Efficient spatial soliton formation in BSO photorefractive crystals at 633 nm. , 0, , .		0
131	Intensity and polarization dynamics of spatial solitons in photorefractive crystals with large optical activity. , 0, , .		0
132	Guiding light by soliton waveguides in photorefractive lithium niobate crystals. , 0, , .		0
133	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
134	Self-trapped beams for fabricating 3D integrated optical components. SPIE Newsroom, 0, , .	0.1	0