

# Ivan Biaggio

## List of Publications by Year in descending order

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105  
papers

3,071  
citations

172207

29  
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161609

54  
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106  
all docs

106  
docs citations

106  
times ranked

3185  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Appeal of Small Molecules for Practical Nonlinear Optics. Chemistry - A European Journal, 2022, 28, .	1.7	12
2	Dual-core optical fibers for efficient mid-infrared generation via third-order frequency mixing and coupling-length phase matching. Journal of the Optical Society of America B: Optical Physics, 2022, 39, 729.	0.9	1
3	Electrically poled vapor-deposited organic glasses for integrated electro-optics. Optics Letters, 2022, 47, 1924.	1.7	1
4	Geminate exciton fusion fluorescence as a probe of triplet exciton transport after singlet fission. Physical Review B, 2021, 103, .	1.1	11
5	On the connection between bound and scattering states of finite square-well potentials: a unified approach. European Journal of Physics, 2021, 42, 025405.	0.3	0
6	Electrically Poled Vapor Deposited Organic Glasses for Integrated Electro-optics. , 2021, , .		0
7	Fluorescence Quantum Beats due to Long-Lived Entangled Triplet Excitons in Rubrene Crystals. , 2020, , .		0
8	Optical Traps and Colloidal Phase Transitions for Ultra-Broadband Optical Limiting. , 2020, , .		0
9	Transient Triplet Exciton Gratings in Rubrene Single Crystals. , 2020, , .		0
10	Broadband Third-Order Frequency Downconversion in Dual-Core Fibers via CLPM. , 2020, , .		0
11	Routes to singlet exciton fission in rubrene crystals and amorphous films. AIP Advances, 2019, 9, 095027.	0.6	28
12	Dielectrophoresis and colloidal phase transitions for ultra-broadband optical limiting. Optics Letters, 2019, 44, 3801.	1.7	1
13	Quantum beats of a multiexciton state in rubrene single crystals. Applied Physics Letters, 2018, 112, .	1.5	19
14	Diffusivity of the interstitial hydrogen shallow donor in In2O3. Journal of Applied Physics, 2018, 123, .	1.1	5
15	Kinetics of photo-dissolution within Ag/As2S3 heterostructure. Journal of Non-Crystalline Solids, 2018, 500, 468-474.	1.5	9
16	Introduction: Nonlinear Optics (NLO) 2017 feature issue. Optics Express, 2018, 26, 3577.	1.7	0
17	Introduction: nonlinear optics (NLO) 2017 feature issue. Optical Materials Express, 2018, 8, 491.	1.6	0
18	Nonlinear optics near the fundamental limit: introduction. Journal of the Optical Society of America B: Optical Physics, 2016, 33, NOF1.	0.9	2

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19	Optimum conjugation length in donor-acceptor molecules for third-order nonlinear optics. Journal of the Optical Society of America B: Optical Physics, 2016, 33, E130.	0.9	14
20	Defect density dependent photoluminescence yield and triplet diffusion length in rubrene. Applied Physics Letters, 2016, 108, .	1.5	14
21	Optical determination of the charge carrier mobility in Sn <sub>2</sub> P <sub>2</sub> S <sub>6</sub> . Applied Physics Letters, 2016, 109, .	1.5	6
22	Two-photon absorption and spectroscopy of the lowest two-photon transition in small donor-acceptor-substituted organic molecules. Physical Review A, 2015, 91, .	1.0	20
23	Nanosecond pump and probe observation of bimolecular exciton effects in rubrene single crystals. Applied Physics Letters, 2015, 106, .	1.5	13
24	Coupling-length phase matching for nonlinear optical frequency conversion in parallel waveguides. Physical Review A, 2014, 90, .	1.0	15
25	Two-photon absorption spectroscopy of rubrene single crystals. Physical Review B, 2014, 89, .	1.1	5
26	Donor-Acceptor (D-A)-Substituted Polyyne Chromophores: Modulation of Their Optoelectronic Properties by Varying the Length of the Acetylene Spacer. Chemistry - A European Journal, 2013, 19, 12693-12704.	1.7	61
27	Noncollinear third-harmonic Maker fringes for the determination of third-order nonlinear optical susceptibilities. Optics Letters, 2013, 38, 4461.	1.7	1
28	Extremely efficient exciton fission and fusion and its dominant contribution to the photoluminescence yield in rubrene single crystals. Applied Physics Letters, 2013, 103, .	1.5	30
29	Spectroscopy of Anisotropic Optical Absorption and Luminescence in Rubrene Single Crystals. , 2013, , .		0
30	Phase Matched Three-Color Wave Mixing for the Determination of Refractive Index Dispersion. , 2013, , .		0
31	Specific Third-Order Polarizability and Extended Conjugation in DA-Substituted Molecules for Third-Order Nonlinear Optics. , 2013, , .		0
32	Non-Collinear Maker Fringes for the Determination of Third-order Susceptibilities. , 2013, , .		0
33	Exciton Dynamics in the Rubrene Single Crystal. , 2013, , .		0
34	Compact TCBD based molecules and supramolecular assemblies for third-order nonlinear optics. Optical Materials Express, 2012, 2, 294.	1.6	31
35	Absorption and photoluminescence spectroscopy of rubrene single crystals. Physical Review B, 2012, 86, .	1.1	100
36	Fast excited state diffusion in a-As <sub>2</sub> Se <sub>3</sub> chalcogenide films. Applied Physics Letters, 2012, 101, 061911.	1.5	11

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37	$\pi$ -Dicyanoquinone Diimide-Derived Donor-Acceptor Chromophores: Conformational Analysis and Optoelectronic Properties. <i>Organic Letters</i> , 2012, 14, 54-57.	2.4	27
38	Stress Fiber Organization and Dynamics in Cells Adhered to Substrates of Varying Stiffness. <i>Biophysical Journal</i> , 2012, 102, 694a.	0.2	0
39	1,1-Dicyano-4-(4-(diethylamino)phenyl)buta-1,3-dienes: Structure-Property Relationships. <i>European Journal of Organic Chemistry</i> , 2012, 2012, 2756-2765.	1.2	202
40	Direct Imaging of Anisotropic Exciton Diffusion and Triplet Diffusion Length in Rubrene Single Crystals. <i>Physical Review Letters</i> , 2011, 107, 017402.	2.9	163
41	Dense Small Molecule Assemblies for Third-Order Nonlinear Optics: DDMEBT. , 2011, , .		1
42	Comparison of CC Triple and Double Bonds as Spacers in Push-Pull Chromophores. <i>European Journal of Organic Chemistry</i> , 2011, 2011, 4307-4317.	1.2	33
43	Triplet exciton dynamics in rubrene single crystals. <i>Physical Review B</i> , 2011, 84, .	1.1	105
44	Two-photon spectroscopy of Rubrene single crystals. , 2011, , .		0
45	Nonplanar Push-Pull Chromophores for Opto-Electronic Applications. <i>Chimia</i> , 2010, 64, 409.	0.3	14
46	Chiral and Achiral Charge-Transfer Chromophores with a Dendralene-Type Backbone by Electronically Controlled Cycloaddition/Cycloreversion Cascades. <i>European Journal of Organic Chemistry</i> , 2010, 2010, 2487-2503.	1.2	36
47	Homokonjugierte Push-pull- und Spirosysteme: intramolekulare Charge-Transfer-Wechselwirkungen und nichtlineare optische Eigenschaften dritter Ordnung. <i>Angewandte Chemie</i> , 2010, 122, 6343-6347.	1.6	16
48	Homoconjugated Push-Pull and Spiro Systems: Intramolecular Charge-Transfer Interactions and Third-Order Optical Nonlinearities. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 6207-6211.	7.2	49
49	Three-color nonlinear optical mixing for the determination of the refractive index dispersion of a tellurite glass. <i>Applied Physics Letters</i> , 2010, 97, 131104.	1.5	3
50	Two mechanisms of exciton dissociation in rubrene single crystals. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	14
51	Silicon Organic Hybrid Technology-A Platform for Practical Nonlinear Optics. <i>Proceedings of the IEEE</i> , 2009, 97, 1304-1316.	16.4	145
52	Optical properties of highly nonlinear silicon-organic hybrid (SOH) waveguide geometries. <i>Optics Express</i> , 2009, 17, 17357.	1.7	102
53	Vapor deposited small molecules as an organic nonlinear optical cladding for silicon on insulator technology. , 2009, , .		0
54	A High-Optical Quality Supramolecular Assembly for Third-Order Nonlinear Optics. , 2009, , .		0

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55	A High-Optical Quality Supramolecular Assembly for Third-Order Integrated Nonlinear Optics. <i>Advanced Materials</i> , 2008, 20, 4584-4587.	11.1	138
56	Investigating the origin of the high photoconductivity of rubrene single crystals. <i>Physical Review B</i> , 2008, 77, .	1.1	28
57	Top-emitting 230dots-in. active-matrix polymer light-emitting diode displays on flexible metal foil substrates. <i>Applied Physics Letters</i> , 2007, 90, 151114.	1.5	19
58	Highly Efficient Two-Photon Absorption Cross-Sections and Their Frequency Dependence in Small Organic Molecules. , 2007, , .		0
59	Highly efficient two-photon absorption cross-sections and their frequency dependence in small organic molecules. , 2007, , .		0
60	Extended conjugation and donor-acceptor substitution to improve the third-order optical nonlinearity of small molecules. <i>Applied Physics Letters</i> , 2007, 90, 251106.	1.5	88
61	Property Tuning in Charge-Transfer Chromophores by Systematic Modulation of the Spacer between Donor and Acceptor. <i>Chemistry - A European Journal</i> , 2007, 13, 5378-5387.	1.7	119
62	Recording Speed and Determination of Basic Materials Properties. , 2007, , 51-81.		4
63	Photoexcitation and Charge Transport in Organic Molecular Crystals. , 2007, , .		0
64	Ferroelectric Materials. , 2006, , 6-1-6-66.		3
65	Optimizing specific third-order polarizabilities and approaching the fundamental limit in donor substituted cyanoethynylethene (CEE) molecules. , 2006, 6331, 633101.		3
66	Process Technology for High-Resolution AM-LED Displays on Flexible Metal Foil Substrates. <i>ECS Transactions</i> , 2006, 3, 349-359.	0.3	0
67	Primary Photoexcitations and the Origin of the Photocurrent in Rubrene Single Crystals. <i>Physical Review Letters</i> , 2006, 96, 056604.	2.9	83
68	Large specific third order polarizabilities in organic molecules for vapor deposition. , 2006, , .		0
69	Exciton dissociation by a static electric field followed by nanoscale charge transport in PPV polymer films. <i>Physical Review B</i> , 2006, 73, .	1.1	13
70	A New Class of Organic Donor-Acceptor Molecules with Large Third-Order Optical Nonlinearities.. <i>ChemInform</i> , 2005, 36, no.	0.1	2
71	A new class of organic donor-acceptor molecules with large third-order optical nonlinearities. <i>Chemical Communications</i> , 2005, , 737-739.	2.2	240
72	Highly efficient third-order optical nonlinearities in donor-substituted cyanoethynylethene molecules. <i>Optics Letters</i> , 2005, 30, 3057.	1.7	75

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73	Space-charge and trap-filling effects in organic thin film field-effect transistors. Physical Review B, 2004, 70, .	1.1	34
74	Transparent ferroelectric glass-ceramics for second harmonic generation and electro-optic device applications. , 2004, , .		1
75	Terahertz-induced lensing and its use for the detection of terahertz pulses in a birefringent crystal. Applied Physics Letters, 2004, 84, 2229-2231.	1.5	92
76	Synthesis and properties of a ROMP backbone polymer with efficient, laterally appended nonlinear optical chromophores. Journal of Materials Chemistry, 2004, 14, 292-295.	6.7	22
77	Optimized generation of THz pulses via optical rectification in the organic salt DAST. Optics Communications, 2003, 224, 337-341.	1.0	39
78	Influence of diffusion, trapping, and state filling on charge injection and transport in organic insulators. Physical Review B, 2003, 68, .	1.1	31
79	Temperature-dependent electron mobility and large polaron interpretation in Bi <sub>12</sub> SiO <sub>20</sub> . Physical Review B, 2003, 67, .	1.1	12
80	Holographic Time of Flight. , 2003, , 101-120.		1
81	Method for generating solitons sustained by competing nonlinearities by use of optical rectification. Optics Letters, 2002, 27, 1631.	1.7	9
82	Tunable self-action of light in optical rectification. Optics Communications, 2002, 213, 351-356.	1.0	12
83	Self-Assembly Growth of Organic Thin Films and Nanostructures by Molecular Beam Deposition. ACS Symposium Series, 2001, , 34-49.	0.5	3
84	Ultra-high vacuum reveals interface dependent and impurity-gas dependent charge injection in organic light-emitting diodes. , 2001, 4105, 290.		2
85	Impurity-gas-dependent charge injection properties at the electrode-organic interface in organic light-emitting diodes. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 85, 144-148.	1.7	16
86	Electrical properties of organic light-emitting diodes (OLEDs) studied by impedance spectroscopy in ultra-high vacuum. , 2001, 4105, 299.		1
87	Degenerate four-wave mixing in noncentrosymmetric materials. Physical Review A, 2001, 64, .	1.0	10
88	Piezoelectric contributions to pulsed degenerate four-wave mixing. Applied Physics Letters, 2001, 78, 1861-1863.	1.5	14
89	Interface dependent electrical properties of organic light emitting devices in ultra high vacuum. Synthetic Metals, 2000, 111-112, 307-310.	2.1	8
90	Nonlocal Contributions to Degenerate Four-Wave Mixing in Noncentrosymmetric Materials. Physical Review Letters, 1999, 82, 193-196.	2.9	28

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91	Mobility of an electron in a multimode polar lattice. <i>Physical Review B</i> , 1999, 60, 299-307.	1.1	66
92	Oblique Incidence Organic Molecular Beam Deposition and Nonlinear Optical Properties of Organic Thin Films with a Stable In-Plane Directional Order. <i>Advanced Materials</i> , 1999, 11, 745-749.	11.1	34
93	Interband transitions in bismuth germanate crystals grown from the melts of several [Ge/Bi] ratios. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1999, 16, 1243.	0.9	9
94	Characterization of the bipolar mobility in polar materials by interband photoexcitation. <i>Physical Review B</i> , 1997, 56, 12196-12200.	1.1	9
95	Potassium Niobate (KNbO <sub>3</sub> )., 1997, , 821-843.		0
96	Anisotropy of the Electron and Hole Drift Mobility in KNbO <sub>3</sub> and BaTiO <sub>3</sub> . <i>Physical Review Letters</i> , 1997, 78, 106-109.	2.9	50
97	Band Mobility of Photoexcited Electrons in Bi <sub>12</sub> SiO <sub>20</sub> . <i>Physical Review Letters</i> , 1997, 78, 891-894.	2.9	53
98	Influence of shallow traps on the enhancement of the photorefractive grating amplitude by a high-frequency alternating electric field: a probabilistic analysis. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1996, 13, 2306.	0.9	14
99	Eye-safe large field of view homodyne detection using a photorefractive CdTe:V crystal. <i>Optics Communications</i> , 1996, 129, 293-300.	1.0	34
100	<title>Detection of ultrasonic vibrations on rough surfaces through the photorefractive effect</title>. , 1996, 2782, 464.		10
101	Optical image processing by an atomic vapour. <i>Nature</i> , 1994, 371, 318-320.	13.7	19
102	Optical correlator that uses cesium vapor. <i>Optics Letters</i> , 1994, 19, 1765.	1.7	8
103	Refractive indices of orthorhombic KNbO <sub>3</sub> I Dispersion and temperature dependence. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1992, 9, 380.	0.9	156
104	Refractive indices of orthorhombic KNbO <sub>3</sub> II Phase-matching configurations for nonlinear-optical interactions. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1992, 9, 507.	0.9	137
105	Intracavity Frequency Doubling Of A Diode Pumped Nd:YAG Laser Using A KNbO <sub>3</sub> Crystal. <i>Proceedings of SPIE</i> , 1989, 1017, 159.	0.8	0