

Alessandro Belardini

List of Publications by Year in descending order

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107
papers

1,476
citations

257450

24
h-index

395702

33
g-index

107
all docs

107
docs citations

107
times ranked

1536
citing authors

#	ARTICLE	IF	CITATIONS
1	Circular Dichroism in the Optical Second-Harmonic Emission of Curved Gold Metal Nanowires. <i>Physical Review Letters</i> , 2011, 107, 257401.	7.8	98
2	Tailored second harmonic generation from self-organized metal nano-wires arrays. <i>Optics Express</i> , 2009, 17, 3603.	3.4	61
3	Characterization of second and third order optical nonlinearities of ZnO sputtered films. <i>Applied Physics B: Lasers and Optics</i> , 2006, 82, 431-437.	2.2	58
4	Chiral light intrinsically couples to extrinsic/pseudo-chiral metasurfaces made of tilted gold nanowires. <i>Scientific Reports</i> , 2016, 6, 31796.	3.3	54
5	Second Harmonic Generation Circular Dichroism from Self-Ordered Hybrid Plasmonic-Photonic Nanosurfaces. <i>Advanced Optical Materials</i> , 2014, 2, 208-213.	7.3	46
6	Electronic Properties of a Functionalized Noble Metal Nanoparticles Covalent Network. <i>Journal of Physical Chemistry C</i> , 2017, 121, 18110-18119.	3.1	44
7	Measurement of the electro-optic properties of poled polymers at $\lambda = 1.55 \mu\text{m}$ by means of sandwich structures with zinc oxide transparent electrode. <i>Applied Physics Letters</i> , 2003, 83, 4477-4479.	3.3	41
8	Complete spatial and temporal locking in phase-mismatched second-harmonic generation. <i>Optics Express</i> , 2009, 17, 3141.	3.4	41
9	Infrared properties of randomly oriented silver nanowires. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	37
10	Second-harmonic generation from metallodielectric multilayer photonic-band-gap structures. <i>Physical Review A</i> , 2008, 77, .	2.5	36
11	Evidence of Optical Circular Dichroism in GaAs-Based Nanowires Partially Covered with Gold. <i>Advanced Optical Materials</i> , 2017, 5, 1601063.	7.3	35
12	Nonlinear optical absorption of zinc-phthalocyanines in polymeric matrix. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2007, 5, 73-78.	2.0	33
13	Photo-acoustic spectroscopy revealing resonant absorption of self-assembled GaAs-based nanowires. <i>Scientific Reports</i> , 2017, 7, 2833.	3.3	31
14	Photo-acoustic detection of chirality in metal-polystyrene metasurfaces. <i>Applied Physics Letters</i> , 2019, 114, 053101.	3.3	31
15	Diatom frustules decorated with zinc oxide nanoparticles for enhanced optical properties. <i>Nanotechnology</i> , 2017, 28, 375704.	2.6	29
16	(2+1)-dimensional soliton formation in photorefractive Bi ₁₂ SiO ₂₀ crystals. <i>Physical Review E</i> , 2003, 67, 026611.	2.1	28
17	Optical limiting behavior of zinc phthalocyanines in polymeric matrix. <i>Journal of Applied Physics</i> , 2007, 101, 033116.	2.5	28
18	Second order nonlinear optical properties of zinc oxide films deposited by low temperature dual ion beam sputtering. <i>Journal of Applied Physics</i> , 2005, 97, 023501.	2.5	27

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19	Second harmonic circular dichroism by self-assembled metasurfaces [Invited]. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 1287.	2.1	27
20	Precise detection of circular dichroism in a cluster of nano-helices by photoacoustic measurements. Scientific Reports, 2017, 7, 5257.	3.3	27
21	Electron microscopy reveals a soluble hybrid network of individual nanocrystals self-anchored by bifunctional thiol fluorescent bridges. Nanoscale, 2016, 8, 18161-18169.	5.6	26
22	Use of sandwich structures with ZnO:Al transparent electrodes for the measurement of the electro-optic properties of standard and fluorinated poled copolymers at $\lambda = 1.55 \mu\text{m}$. Journal of Non-Crystalline Solids, 2006, 352, 2339-2342.	3.1	25
23	Photoacoustic Spectroscopy Investigation of Zinc Oxide/Diatom Frustules Hybrid Powders. International Journal of Thermophysics, 2018, 39, 1.	2.1	25
24	Second harmonic generation in AlGa _N , GaN and Al _x Ga _{1-x} N/GaN multiple quantum well structures. Applied Physics B: Lasers and Optics, 2004, 79, 611-615.	2.2	24
25	Evidence of anomalous refraction of self-assembled curved gold nanowires. Applied Physics Letters, 2012, 100, .	3.3	23
26	Chiral near-field manipulation in Au-GaAs hybrid hexagonal nanowires. Optics Express, 2017, 25, 14148.	3.4	22
27	Asymmetric transmission and anomalous refraction in metal nanowires metasurface. Journal of the European Optical Society-Rapid Publications, 0, 7, .	1.9	21
28	Circular Dichroism in Low-Cost Plasmonics: 2D Arrays of Nanoholes in Silver. Applied Sciences (Switzerland), 2020, 10, 1316.	2.5	21
29	Blue second harmonic generation from aluminum nitride films deposited onto silicon by sputtering technique. Journal of Applied Physics, 2006, 100, 023507.	2.5	20
30	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
31	Second harmonic generation on self-assembled tilted gold nanowires. Faraday Discussions, 2015, 178, 357-362.	3.2	20
32	Femtosecond pulses chirping compensation by using one-dimensional compact multiple-defect photonic crystals. Applied Physics Letters, 2006, 89, 031111.	3.3	19
33	Experimental study of Bloch vector analysis in nonlinear, finite, dissipative systems. Physical Review A, 2010, 81, .	2.5	19
34	Midinfrared thermal emission properties of finite arrays of gold dipole nanoantennas. Physical Review B, 2015, 92, .	3.2	19
35	New Self-Organization Route to Tunable Narrowband Optical Filters and Polarizers Demonstrated with ZnO/ZnWO ₄ Eutectic Composite. Advanced Optical Materials, 2020, 8, 1901617.	7.3	19
36	Applications of plasmonics: general discussion. Faraday Discussions, 2015, 178, 435-466.	3.2	17

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37	Chiral effects in low-cost plasmonic arrays of elliptic nanoholes. <i>Optical and Quantum Electronics</i> , 2020, 52, 1.	3.3	17
38	Mapping the nonlinear optical susceptibility by noncollinear second-harmonic generation. <i>Optics Letters</i> , 2009, 34, 2189.	3.3	16
39	Self-Assembled Silver-Germanium Nanolayer Metamaterial with the Enhanced Nonlinear Response. <i>Advanced Optical Materials</i> , 2017, 5, 1700753.	7.3	16
40	Rich Near-Infrared Chiral Behavior in Diffractive Metasurfaces. <i>Physical Review Applied</i> , 2021, 16, .	3.8	16
41	Diffracted Beams from Metasurfaces: High Chiral Detectivity by Photothermal Deflection Technique. <i>Advanced Optical Materials</i> , 2021, 9, 2100670.	7.3	16
42	Pre-fractal multilayer structure for polarization- insensitive temporally and spatially coherent thermal emitter. <i>Optics Express</i> , 2013, 21, A576.	3.4	14
43	Resonant Absorption in GaAs-Based Nanowires by Means of Photo-Acoustic Spectroscopy. <i>International Journal of Thermophysics</i> , 2018, 39, 1.	2.1	14
44	Photo-Acoustic Spectroscopy Reveals Extrinsic Optical Chirality in GaAs-Based Nanowires Partially Covered with Gold. <i>International Journal of Thermophysics</i> , 2018, 39, 1.	2.1	14
45	All-Optical Reinforcement Learning In Solitonic X-Junctions. <i>Scientific Reports</i> , 2018, 8, 5716.	3.3	13
46	Second harmonic generation in GaN _{0.5} Al _{0.5} Ga _{0.5} N _{0.5} films deposited by metal-organic chemical vapor deposition. <i>Applied Physics Letters</i> , 2006, 89, 131105.	3.3	12
47	Optical chirality of bacteriorhodopsin films via second harmonic Maker's fringes measurements. <i>Applied Physics Letters</i> , 2010, 96, 221108.	3.3	12
48	Numerical tailoring of linear response from plasmonic nano-resonators grown on a layer of polystyrene spheres. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	12
49	Evaluation of the optical axis tilt of zinc oxide films via noncollinear second harmonic generation. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	9
50	Realization and characterization of tetra(tert-butyl) zinc phthalocyanine poly(methyl methacrylate) films for optical limiting applications. <i>Journal of Applied Physics</i> , 2008, 104, 073109.	2.5	8
51	Semiconductor-metal phase transition of vanadium dioxide nanostructures on silicon substrate: Applications for thermal control of spacecraft. <i>AIP Conference Proceedings</i> , 2014, .	0.4	8
52	Circular Dichroism in the Second Harmonic Field Evidenced by Asymmetric Au Coated GaAs Nanowires. <i>Micromachines</i> , 2020, 11, 225.	2.9	8
53	Broadband optical spin dependent reflection in self-assembled GaAs-based nanowires asymmetrically hybridized with Au. <i>Scientific Reports</i> , 2021, 11, 4316.	3.3	8
54	Concentration dependence of the optical nonlinearity in extremely doped fluorinated organic copolymers. <i>Journal of Applied Physics</i> , 2005, 98, 093521.	2.5	7

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55	Optical polarization based logic functions (XOR or XNOR) with nonlinear Gallium nitride nanoslab. Optics Express, 2009, 17, 19337.	3.4	7
56	Observation of photorefractive solitons in lithium niobate. Optics Express, 2010, 18, 7972.	3.4	7
57	Micro-cavity organic light emitting diodes for biochip applications. Journal of Non-Crystalline Solids, 2006, 352, 2476-2479.	3.1	6
58	Determination of the aggregation degree of zinc-phthalocyanines derivatives into polymeric films via the characterization of the linear-optical absorption. Laser Physics, 2008, 18, 1371-1377.	1.2	6
59	Bound and free waves in non-collinear second harmonic generation. Optics Express, 2009, 17, 17000.	3.4	6
60	Nanostructured materials for circular dichroism and chirality at the nanoscale: towards unconventional characterization. Optical Materials Express, 0, , .	3.0	6
61	Photoconducting polymer liquid crystal structure studied by electroreflectance. Journal of Applied Physics, 2004, 95, 1141-1147.	2.5	5
62	Preparation and characterization of silver nanowires films for infrared radiation shielding. Proceedings of SPIE, 2013, , .	0.8	5
63	Self-Phase-Matched Second-Harmonic and White-Light Generation in a Biaxial Zinc Tungstate Single Crystal. Scientific Reports, 2017, 7, 45247.	3.3	5
64	Polarization Conversion in Vertically Coupled Si ₃ N ₄ /SiO ₂ Microring Resonators. AIP Conference Proceedings, 2004, , .	0.4	4
65	Enhanced stability of the second order optical properties of high-Tg fluorinated electro-optic copolymer. Applied Physics Letters, 2006, 89, 231110.	3.3	4
66	Measurement of the circular dichroism in the second harmonic optical signal produced by Au covered self ordered dielectric nanospheres. , 2013, , .		4
67	Novel paradigm for integrated photonics circuits: transient interconnection network. , 2017, , .		4
68	Addressable Refraction and Curved Soliton Waveguides Using Electric Interfaces. Applied Sciences (Switzerland), 2019, 9, 347.	2.5	4
69	Fluorescence Spectroscopy of Enantiomeric Amide Compounds Enforced by Chiral Light. Applied Sciences (Switzerland), 2021, 11, 11375.	2.5	4
70	Characterization of Chirality in Diffractive Metasurfaces by Photothermal Deflection Technique. Applied Sciences (Switzerland), 2022, 12, 1109.	2.5	4
71	Second order optical nonlinearity of ZnO•ZnO:Al bilayers deposited on glass by low temperature radio frequency sputtering. Applied Physics Letters, 2007, 90, 181110.	3.3	3
72	Temperature Stability of the Electro-Optic Response of Highly Fluorinated Side Chain Organic Copolymers. Ferroelectrics, 2007, 352, 35-41.	0.6	3

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73	Fluorinated and Non-Fluorinated Electro-Optic Copolymers: Determination of the Time and Temperature Stability of the Induced Electro-Optic Coefficient. Applied Sciences (Switzerland), 2012, 2, 682-708.	2.5	3
74	Influence of iron doping on spatial soliton formation and fixing in lithium niobate crystals. Optical Materials, 2014, 37, 175-180.	3.6	3
75	Charge injection and trapping contributions to the electro-optic response of mesoscopic polymer systems. AIP Conference Proceedings, 2004, , .	0.4	2
76	Optical axis misalignment detection by noncollinear second-harmonic generation. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 26.	2.1	2
77	Tailoring of the circular dichroism produced by Au covered self-ordered dielectric nanospheres. Proceedings of SPIE, 2014, , .	0.8	2
78	Porous silicon technology, a breakthrough for silicon photonics: From packaging to monolithic integration. , 2014, , .		2
79	Symmetry breaking in the second harmonic field of self-assembled metallic nanostructures. , 2015, , .		1
80	Second harmonic generation on self-assembled GaAs/Au nanowires with thickness gradient. Proceedings of SPIE, 2017, , .	0.8	1
81	Anomalous refraction of self assembled gold nanowires studied by the generalized Snell's law. Photonics Letters of Poland, 2013, 5, .	0.4	1
82	Spatial solitons in photorefractive crystals with large optical activity and absorption. , 2003, 4829, 944.		0
83	Direct E-Beam writing of electro-optic polymer channel waveguides. AIP Conference Proceedings, 2004, , .	0.4	0
84	Characterisation of the Nonlinear Coefficients of AlGaIn/GaN Crystalline Thin Films Via SHG Measurements. AIP Conference Proceedings, 2004, , .	0.4	0
85	Chirping compensation of femtosecond pulses by using 1-D photonic crystals anomalous dispersion. , 2006, 6182, 355.		0
86	Photorefractive Simulton in Lithium Niobate. , 2009, , .		0
87	Tailored emission properties of second harmonic generation from self-organized metal nanowires arrays. , 2009, , .		0
88	Second harmonic generation from multilayer structures. , 2009, , .		0
89	Properties of quadratic noncollinear interaction of GaN based structures. , 2009, , .		0
90	Nonlinear circular dichroism in self-organized metal nanowires arrays. , 2011, , .		0

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91	Study of the anomalous refraction produced by self assembled gold nanowires. , 2013, , .		0
92	Second harmonic circular dichroism from Au covered polystyrene nanospheres. , 2013, , .		0
93	Tailoring of linear response from plasmonic nano-resonators grown on a polystyrene. , 2014, , .		0
94	On nonlinear optical properties of chiral materials. , 2014, , .		0
95	Second harmonic generation from artificial metasurfaces. , 2015, , .		0
96	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
97	Hybrid metal-organic conductive network with plasmonic nanoparticles and fluorene (Conference) Tj ETQq1 1 0.784314 rgBT ₀ /Overlook		0
98	GaAs-based nanowires partially covered with gold give rise to optical circular dichroism. , 2017, , .		0
99	Extrinsic optical chirality and resonant absorption in GaAs-based nanowires investigated by photo-acoustic spectroscopy. , 2017, , .		0
100	Second Harmonic Generation Circul Dichroism in Au Coated Gaas-based Nanowires. , 2018, , .		0
101	Hybrid Metal-Polystyrene Metasurfaces: Circular Dichroism Evidenced by Means of Photo-Acoustic Technique. , 2019, , .		0
102	Nonlinear Chiroptical Response of GaAs Nanowires Partially Covered by Au. , 2019, , .		0
103	Photo-deflection technique for characterization of chirality in diffractive metasurfaces. , 2021, , .		0
104	Rich Broadband Chiral Behavior in Low-cost Plasmonic Nanostructures. , 2021, , .		0
105	Bloch Vector Analysis in Nonlinear, Finite, Dissipative Systems: An Experimental Study. , 2010, , .		0
106	Photoacoustic detection of circular dichroism in a square array of nano-helices. , 2015, , .		0
107	Photo-acoustic Spectroscopy of Resonant Absorption in III-V Semiconductor Nanowires. , 2017, , .		0