

# Antonio De Luca

## List of Publications by Year in descending order

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121  
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172207

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124  
docs citations

124  
times ranked

3479  
citing authors

#	ARTICLE	IF	CITATIONS
1	Helical plasma filaments from the self-channeling of intense femtosecond laser pulses in optical fibers. <i>Optics Letters</i> , 2022, 47, 1.	1.7	17
2	High-Resolution 3D Fabrication of Glass Fiber-Reinforced Polymer Nanocomposite (FRPN) Objects by Two-Photon Direct Laser Writing. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, , .	4.0	1
3	Multiphoton ionization of standard optical fibers. <i>Photonics Research</i> , 2022, 10, 1394.	3.4	14
4	Tailoring Resonant Energy Transfer Processes for Sustainable and Bio-Inspired Sensing. <i>Sustainability</i> , 2022, 14, 5337.	1.6	0
5	Leveraging on ENZ Metamaterials to Achieve 2D and 3D Hyper-Resolution in Two-Photon Direct Laser Writing. <i>Advanced Materials</i> , 2021, 33, e2008644.	11.1	57
6	Ultrafast opto-acoustic modulation of light reflectance in metal-insulator-metal epsilon-near-zero nanocavities. , 2021, , .		0
7	Stability of Film-Forming Dispersions: Affects the Morphology and Optical Properties of Polymeric Films. <i>Polymers</i> , 2021, 13, 1464.	2.0	19
8	One-Dimensional Epsilon-Near-Zero Crystals. <i>Advanced Photonics Research</i> , 2021, 2, 2100053.	1.7	7
9	Plasmonic Metasurfaces Based on Pyramidal Nanoholes for High-Efficiency SERS Biosensing. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 43715-43725.	4.0	45
10	Femtosecond nonlinear losses in multimode optical fibers. <i>Photonics Research</i> , 2021, 9, 2443.	3.4	22
11	Hybrid Metastructures in the Epsilon-Near-Zero Regime. , 2021, , 1-28.		0
12	Hybrid Plasmonic/Photonic Nanoscale Strategy for Multilevel Anticounterfeit Labels. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 49172-49183.	4.0	24
13	Envisioning Quantum Electrodynamical Frameworks Based on Bio-Photonic Cavities. <i>Photonics</i> , 2021, 8, 470.	0.9	4
14	Strong Light-Matter Interaction and Spontaneous Emission Reshaping via Pseudo-Cavity Modes. <i>Advanced Optical Materials</i> , 2021, 9, 2101076.	3.6	2
15	Near-field enhancement in oxidized close gap aluminum dimers. <i>Nanotechnology</i> , 2021, 32, 025305.	1.3	3
16	Understanding and Controlling Mode Hybridization in Multicavity Optical Resonators Using Quantum Theory and the Surface Forces Apparatus. <i>ACS Photonics</i> , 2021, 8, 3517-3525.	3.2	8
17	Inter-Cavity Coupling Strength Control in Metal/Insulator Multilayers for Hydrogen Sensing. <i>Photonics</i> , 2021, 8, 537.	0.9	2
18	Ultrafast all-optical switching enabled by epsilon-near-zero-tailored absorption in metal-insulator nanocavities. <i>Communications Physics</i> , 2020, 3, .	2.0	47

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19	Opto-mechanically induced thermoplasmonic response of unclonable flexible tags with hotspot fingerprint. <i>Journal of Applied Physics</i> , 2020, 128, 093107.	1.1	16
20	Near- and Mid-Infrared Graphene-Based Photonic Architectures for Ultrafast and Low-Power Electro-Optical Switching and Ultra-High Resolution Imaging. <i>ACS Applied Nano Materials</i> , 2020, 3, 12218-12230.	2.4	20
21	Biomolecular Sensing at the Interface between Chiral Metasurfaces and Hyperbolic Metamaterials. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 30181-30188.	4.0	55
22	Color Gamut Behavior in Epsilon Near-Zero Nanocavities during Propagation of Gap Surface Plasmons. <i>Advanced Optical Materials</i> , 2020, 8, 2000487.	3.6	29
23	A Wireless Sensor Network based on Laser-annealed ZnO Nanostructures for Advance Monitoring in Precise Agriculture. , 2020, , .		1
24	Metal/Photoemissive-Blend Hyperbolic Metamaterials for Controlling the Topological Transition. <i>Progress in Optical Science and Photonics</i> , 2019, , 117-128.	0.3	0
25	A comprehensive optical analysis of nanoscale structures: from thin films to asymmetric nanocavities. <i>RSC Advances</i> , 2019, 9, 21429-21437.	1.7	20
26	Guided Modes of Hyperbolic Metamaterial and Their Applications. <i>Progress in Optical Science and Photonics</i> , 2019, , 129-158.	0.3	0
27	Graphene and Topological Insulator-Based Active THz Hyperbolic Metamaterials. <i>Progress in Optical Science and Photonics</i> , 2019, , 159-172.	0.3	1
28	Perfect Light Absorption in Thin and Ultra-Thin Films and Its Applications. <i>Progress in Optical Science and Photonics</i> , 2019, , 3-27.	0.3	0
29	New Directions in Thin Film Nanophotonics. <i>Progress in Optical Science and Photonics</i> , 2019, , .	0.3	6
30	Coherent backscattering of light by an anisotropic biological network. <i>Interface Focus</i> , 2019, 9, 20180050.	1.5	23
31	Opto-mechanical control of flexible plasmonic materials. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	24
32	Resonant Coupling and Gain Singularities in Metal/Dielectric Multishells: Quasi-Static Versus T-Matrix Calculations. <i>Journal of Physical Chemistry C</i> , 2019, 123, 29291-29297.	1.5	6
33	Tensile control of the thermal flow in plasmonic heaters realized on flexible substrates. <i>Journal of Chemical Physics</i> , 2019, 151, 244707.	1.2	14
34	Plasmon-mediated discrete diffraction behaviour of an array of responsive waveguides. <i>Nanoscale</i> , 2019, 11, 17931-17938.	2.8	0
35	Realization of Point-of-Darkness and Extreme Phase Singularity in Nanophotonic Cavities. <i>Progress in Optical Science and Photonics</i> , 2019, , 29-44.	0.3	0
36	Resonant Gain Singularities in Hyperbolic Metamaterials. <i>Progress in Optical Science and Photonics</i> , 2019, , 103-115.	0.3	0

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37	Environmental Control of the Topological Transition in Metal/Photoemissive Blend Metamaterials. <i>Advanced Optical Materials</i> , 2018, 6, 1701380.	3.6	7
38	Extraordinary Effects in Quasi-Periodic Gold Nanocavities: Enhanced Transmission and Polarization Control of Cavity Modes. <i>ACS Nano</i> , 2018, 12, 504-512.	7.3	17
39	The POLICRYPS liquid-crystalline structure for optical applications. <i>Advanced Optical Technologies</i> , 2018, 7, 273-289.	0.9	2
40	A command layer for anisotropic plasmonic photo-thermal effects in liquid crystal. <i>Liquid Crystals</i> , 2018, 45, 2214-2220.	0.9	23
41	Optical vortices generated by edge dislocations in electro-convective instability arrays of nematic liquid crystals. <i>Optics Letters</i> , 2018, 43, 1947.	1.7	2
42	Flexible thermo-plasmonics: an opto-mechanical control of the heat generated at the nanoscale. <i>Nanoscale</i> , 2018, 10, 16556-16561.	2.8	30
43	Tailoring Electromagnetic Hot Spots toward Visible Frequencies in Ultra-Narrow Gap Al/Al <sub>2</sub> O <sub>3</sub> Bowtie Nanoantennas. <i>ACS Photonics</i> , 2018, 5, 3399-3407.	3.2	20
44	Assessment of EtQxBox complexation in solution by steady-state and time-resolved fluorescence spectroscopy. <i>RSC Advances</i> , 2018, 8, 16314-16318.	1.7	3
45	Mid-Infrared Plasmonic Excitation in Indium Tin Oxide Microhole Arrays. <i>ACS Photonics</i> , 2018, 5, 2431-2436.	3.2	22
46	Resonant Gain Singularities in 1D and 3D Metal/Dielectric Multilayered Nanostructures. <i>ACS Nano</i> , 2017, 11, 1012-1025.	7.3	48
47	Thermoplasmonic Effects in Gain-Assisted Nanoparticle Solutions. <i>Journal of Physical Chemistry C</i> , 2017, 121, 24185-24191.	1.5	14
48	Photo-thermal study of a layer of randomly distributed gold nanoparticles: from nano-localization to macro-scale effects. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 435302.	1.3	23
49	Thermo-plasmonic effects on E7 nematic liquid crystal. <i>Molecular Crystals and Liquid Crystals</i> , 2017, 649, 45-49.	0.4	6
50	Plasmon-mediated cancer phototherapy: the combined effect of thermal and photodynamic processes. <i>Nanoscale</i> , 2017, 9, 19279-19289.	2.8	33
51	Photo-Thermal Effects in 1D Gratings of Gold Nanoparticles. <i>Crystals</i> , 2017, 7, 14.	1.0	21
52	Control of the optically induced heating of gold nanoparticles. <i>Photonics Letters of Poland</i> , 2017, 9, 17.	0.2	0
53	Plasmon-Exciton Resonant Energy Transfer: Across Scales Hybrid Systems. <i>Journal of Nanomaterials</i> , 2016, 2016, 1-21.	1.5	27
54	Broadband optical transparency in plasmonic nanocomposite polymer films via exciton-plasmon energy transfer. <i>Optics Express</i> , 2016, 24, 14632.	1.7	4

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55	Dielectric singularity in hyperbolic metamaterials: the inversion point of coexisting anisotropies. Scientific Reports, 2016, 6, 20002.	1.6	54
56	Metal-semiconductor-oxide extreme hyperbolic metamaterials for selectable canalization wavelength. Journal Physics D: Applied Physics, 2016, 49, 08LT01.	1.3	19
57	Extreme sensitivity biosensing platform based on hyperbolic metamaterials. Nature Materials, 2016, 15, 621-627.	13.3	609
58	Battling absorptive losses by plasmon-exciton coupling in multimeric nanostructures. RSC Advances, 2015, 5, 53245-53254.	1.7	12
59	From Life to Life: through new materials and plasmonics. Rendiconti Lincei, 2015, 26, 127-128.	1.0	1
60	Interface of Physics and Biology: Engineering Virus-Based Nanoparticles for Biophotonics. Bioconjugate Chemistry, 2015, 26, 51-62.	1.8	53
61	Hyperbolic Metamaterials: Design, Fabrication, and Applications of Ultra-Anisotropic Nanomaterials. Nanoscience and Technology, 2015, , 447-467.	1.5	2
62	Gain-assisted plasmonic metamaterials: mimicking nature to go across scales. Rendiconti Lincei, 2015, 26, 161-174.	1.0	12
63	Experimental evidence of exciton-plasmon coupling in densely packed dye doped core-shell nanoparticles obtained via microfluidic technique. Journal of Applied Physics, 2014, 116, .	1.1	3
64	Double strong exciton-plasmon coupling in gold nanoshells infiltrated with fluorophores. Applied Physics Letters, 2014, 104, 103103.	1.5	30
65	Optical and electrical characterization of a gold nanoparticle dispersion in a chiral liquid crystal matrix. Journal of Materials Science, 2014, 49, 1805-1811.	1.7	19
66	Improved transmittance in metal-dielectric metamaterials using diffraction grating. Applied Physics Letters, 2014, 104, 171904.	1.5	3
67	Excitation of volume plasmon polaritons in metal-dielectric metamaterials using 1D and 2D diffraction gratings. Journal of Optics (United Kingdom), 2014, 16, 105103.	1.0	28
68	Loss-Mitigated Collective Resonances in Gain-Assisted Plasmonic Mesocapsules. ACS Photonics, 2014, 1, 371-376.	3.2	29
69	Large spontaneous emission rate enhancement in grating coupled hyperbolic metamaterials. Scientific Reports, 2014, 4, 6340.	1.6	80
70	Negative refraction in graphene-based hyperbolic metamaterials. Applied Physics Letters, 2013, 103, .	1.5	135
71	Experimental demonstration of surface and bulk plasmon polaritons in hypergratings. Scientific Reports, 2013, 3, 3291.	1.6	105
72	Effects of Gold Nanoparticle Dispersion in a Chiral Liquid Crystal Matrix. Molecular Crystals and Liquid Crystals, 2013, 572, 59-65.	0.4	10

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73	Plasmon mediated super-absorber flexible nanocomposites for metamaterials. <i>Nanoscale</i> , 2013, 5, 6097.	2.8	13
74	POLICRYPS composite structures: realization, characterization and exploitation for electro-optical and all-optical applications. <i>Liquid Crystals Reviews</i> , 2013, 1, 2-19.	1.1	12
75	Periodic and aperiodic liquid crystal-polymer composite structures realized via spatial light modulator direct holography. <i>Optics Express</i> , 2012, 20, 23138.	1.7	34
76	POLYCRYPS visible curing for spatial light modulator based holography. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012, 29, 3170.	0.9	10
77	Electro-switchable polydimethylsiloxane-based optofluidics. <i>Lab on A Chip</i> , 2012, 12, 3760.	3.1	13
78	Gain functionalized core-shell nanoparticles: the way to selectively compensate absorptive losses. <i>Journal of Materials Chemistry</i> , 2012, 22, 8846.	6.7	28
79	Dispersed and Encapsulated Gain Medium in Plasmonic Nanoparticles: a Multipronged Approach to Mitigate Optical Losses. <i>ACS Nano</i> , 2011, 5, 5823-5829.	7.3	66
80	Gain induced optical transparency in metamaterials. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	45
81	Blue-shifted random-laser-mode selection in gain-assisted anisotropic complex fluids. <i>Physical Review E</i> , 2011, 83, 041711.	0.8	5
82	Silicon oxide deposition for enhanced optical switching in polydimethylsiloxane-liquid crystal hybrids. <i>Optics Express</i> , 2011, 19, 23532.	1.7	17
83	Publisher's Note: Blue-shifted random-laser-mode selection in gain-assisted anisotropic complex fluids [Phys. Rev. E83, 041711 (2011)]. <i>Physical Review E</i> , 2011, 83, .	0.8	0
84	Observation of hysteresis effects in POLICRYPS holographic gratings. <i>Optics Express</i> , 2010, 18, 31.	1.7	0
85	Direct Measurement of Surface-Induced Orientational Order Parameter Profile above the Nematic-Isotropic Phase Transition Temperature. <i>Physical Review Letters</i> , 2009, 102, 167801.	2.9	20
86	LASER ACTION IN DYE DOPED LIQUID CRYSTALS: FROM PERIODIC STRUCTURES TO RANDOM MEDIA. <i>Journal of Nonlinear Optical Physics and Materials</i> , 2009, 18, 349-365.	1.1	4
87	POLICRYPS: a liquid crystal composed nano/microstructure with a wide range of optical and electro-optical applications. <i>Journal of Optics</i> , 2009, 11, 024017.	1.5	55
88	Thermo-recurrent nematic random laser. <i>Optics Express</i> , 2009, 17, 2042.	1.7	43
89	Coherent backscattering and dynamical light localization in liquid crystals driven throughout chaotic regimes. <i>Optics Express</i> , 2009, 17, 13435.	1.7	5
90	Optical nanotomography of anisotropic fluids. <i>Nature Physics</i> , 2008, 4, 869-872.	6.5	20

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91	Random lasing in freely suspended dye-doped nematic liquid crystals. <i>Optics Letters</i> , 2008, 33, 557.	1.7	48
92	Different reorientational regimes in a liquid crystalline medium undergoing multiple irradiation. , 2008, , .		0
93	Nanoscale alignment and optical nanoimaging of a birefringent liquid. <i>Nanotechnology</i> , 2008, 19, 325709.	1.3	11
94	Statistical analysis of random lasing emission properties in nematic liquid crystals. <i>Physical Review E</i> , 2008, 78, 011707.	0.8	25
95	MODEL FOR MOLECULAR DIRECTOR CONFIGURATION IN A LIQUID CRYSTAL CELL WITH MULTIPLE INTERFACES. <i>Journal of Nonlinear Optical Physics and Materials</i> , 2007, 16, 199-206.	1.1	5
96	Rayleigh-Taylor Instability Experiments with Precise and Arbitrary Control of the Initial Interface Shape. <i>Physical Review Letters</i> , 2007, 99, 204502.	2.9	31
97	Non-Linear Effects in NLC Media Undergoing Two Beams Irradiation. <i>Molecular Crystals and Liquid Crystals</i> , 2007, 465, 71-80.	0.4	1
98	Random lasing in dye doped nematic liquid crystals: the role of confinement geometry. , 2007, 6587, 170.		3
99	Nematic liquid crystal cells for optical spatial solitons (Nematicons). , 2007, , .		0
100	Different reorientational regimes in a liquid crystalline medium undergoing multiple irradiation. <i>Optics Express</i> , 2007, 15, 1663.	1.7	6
101	Distributed feedback micro-laser array: helixed liquid crystals embedded in holographically sculptured polymeric microcavities. <i>Optics Express</i> , 2006, 14, 2695.	1.7	16
102	Realization of particular liquid crystal cells for propagation and characterization of optical spatial soliton. <i>Optics Express</i> , 2006, 14, 5548.	1.7	6
103	Random lasing and weak localization of light in dye-doped nematic liquid crystals. <i>Optics Express</i> , 2006, 14, 7737.	1.7	139
104	In situ optical control and stabilization of the curing process of holographic gratings with a nematic film-polymer-slice sequence structure. <i>Applied Optics</i> , 2006, 45, 3721.	2.1	45
105	Thermal behavior of random lasing in dye doped nematic liquid crystals. <i>Applied Physics Letters</i> , 2006, 89, 121109.	1.5	42
106	Walking anisotropic spatial solitons and their steering in nematic liquid crystals. , 2005, , FA1.		0
107	Color-Tunable Organic Microcavity Laser Array Using Distributed Feedback. <i>Physical Review Letters</i> , 2005, 94, 063903.	2.9	97
108	Self-healing generation of spatial solitons in liquid crystals. <i>Optics Letters</i> , 2005, 30, 1381.	1.7	40

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109	Band edge and defect modes lasing due to confinement of helixed liquid crystals in cylindrical microcavities. Applied Physics Letters, 2005, 87, 221108.	1.5	7
110	Transverse dynamics of anisotropic nematicons. , 2005, , .		0
111	Routing of anisotropic spatial solitons and modulational instability in liquid crystals. Nature, 2004, 432, 733-737.	13.7	350
112	Realisation of a liquid crystal based prototype for duration measurement of picosecond pulses. Optics and Lasers in Engineering, 2003, 39, 379-387.	2.0	0
113	Observation of cancellation and second light-induced Fr�edericksz transition in nematic liquid crystals. Optics Letters, 2003, 28, 108.	1.7	4
114	NONLOCAL OPTICAL PROPAGATION IN NONLINEAR NEMATIC LIQUID CRYSTALS. Journal of Nonlinear Optical Physics and Materials, 2003, 12, 525-538.	1.1	51
115	Nonlinear Wave Propagation and Spatial Solitons in Nematic Liquid Crystals. Journal of Nonlinear Optical Physics and Materials, 2003, 12, 123-134.	1.1	76
116	All-optical switching and logic gating with spatial solitons in liquid crystals. Applied Physics Letters, 2002, 81, 3335-3337.	1.5	217
117	Coherent and Incoherent Spatial Solitons in Bulk Nematic Liquid Crystals. Molecular Crystals and Liquid Crystals, 2002, 375, 617-629.	0.4	4
118	Electrically assisted self-confinement and waveguiding in planar nematic liquid crystal cells. Applied Physics Letters, 2000, 77, 7-9.	1.5	365
119	Light self-confinement in planar cells containing nematic liquid crystals. , 0, , .		0
120	Anisotropic spatial solitons and their routing in nematic liquid crystals. , 0, , .		0
121	Coexisting and Competing Light-Matter Interaction Regimes in Meta-Voltaic Systems. , 0, , .		0