

Roberto Caputo

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95
papers

1,567
citations

23
h-index

35
g-index

116
ext. papers

1,818
ext. citations

3.3
avg, IF

4.57
L-index

#	Paper	IF	Citations
95	Development of a new kind of switchable holographic grating made of liquid-crystal films separated by slices of polymeric material. <i>Optics Letters</i> , 2004 , 29, 1261-3	3	161
94	Color-tunable organic microcavity laser array using distributed feedback. <i>Physical Review Letters</i> , 2005 , 94, 063903	7.4	87
93	Growing gold nanoparticles on a flexible substrate to enable simple mechanical control of their plasmonic coupling. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 7927-7933	7.1	69
92	Tunable integrated optical filter made of a glass ion-exchanged waveguide and an electro-optic composite holographic grating. <i>Optics Express</i> , 2008 , 16, 9254-60	3.3	53
91	Model for the photoinduced formation of diffraction gratings in liquid-crystalline composite materials. <i>Applied Physics Letters</i> , 2004 , 84, 3492-3494	3.4	53
90	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		50
89	Characterization of the diffraction efficiency of new holographic gratings with a nematic film-polymer-slice sequence structure. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2004 , 21, 1939	1.7	44
88	Flexible terahertz wire grid polarizer with high extinction ratio and low loss. <i>Optics Letters</i> , 2016 , 41, 2009-12	3	44
87	Mass transfer processes induced by inhomogeneous photo-polymerisation in a multicomponent medium. <i>Chemical Physics</i> , 2001 , 271, 323-335	2.3	42
86	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, 3721-7	1.7	40
85	Electro-optic properties of switchable gratings made of polymer and nematic liquid-crystal slices. <i>Optics Letters</i> , 2004 , 29, 1405-7	3	40
84	Broad- and Narrow-Line Terahertz Filtering in Frequency-Selective Surfaces Patterned on Thin Low-Loss Polymer Substrates. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2017 , 23, 1-8	3.8	36
83	The beginnings of plasmomechanics: towards plasmonic strain sensors. <i>Frontiers of Materials Science</i> , 2015 , 9, 170-177	2.5	35
82	Double active control of the plasmonic resonance of a gold nanoparticle array. <i>Nanoscale</i> , 2012 , 4, 7619-23	2.7	30
81	POLICRYPS structures as switchable optical phase modulators. <i>Optics Express</i> , 2008 , 16, 7619-24	3.3	30
80	Efficiency dynamics of diffraction gratings recorded in liquid crystalline composite materials by a UV interference pattern. <i>Chemical Physics</i> , 1999 , 245, 463-471	2.3	30
79	Leveraging on ENZ Metamaterials to Achieve 2D and 3D Hyper-Resolution in Two-Photon Direct Laser Writing. <i>Advanced Materials</i> , 2021 , 33, e2008644	24	29

78	Broad band tuning of the plasmonic resonance of gold nanoparticles hosted in self-organized soft materials. <i>Journal of Materials Chemistry</i> , 2011 , 21, 18967		28
77	Two-Color Single Hybrid Plasmonic Nanoemitters with Real Time Switchable Dominant Emission Wavelength. <i>Nano Letters</i> , 2015 , 15, 7458-66	11.5	27
76	Guided-mode resonant narrowband terahertz filtering by periodic metallic stripe and patch arrays on cyclo-olefin substrates. <i>Scientific Reports</i> , 2018 , 8, 17272	4.9	26
75	Angular plasmon response of gold nanoparticles arrays: approaching the Rayleigh limit. <i>Nanophotonics</i> , 2017 , 6, 279-288	6.3	25
74	Kogelnik-like model for the diffraction efficiency of POLICRYPS gratings. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2005 , 22, 735	1.7	25
73	. <i>Journal of Display Technology</i> , 2006 , 2, 38-51		24
72	Flexible thermo-plasmonics: an opto-mechanical control of the heat generated at the nanoscale. <i>Nanoscale</i> , 2018 , 10, 16556-16561	7.7	22
71	Formation of a grating of submicron nematic layers by photopolymerization of nematic-containing mixtures. <i>Journal of Experimental and Theoretical Physics</i> , 2000 , 91, 1190-1197	1	22
70	Dense Brushes of Tilted Metallic Nanorods Grown onto Stretchable Substrates for Optical Strain Sensing. <i>ACS Applied Nano Materials</i> , 2018 , 1, 2347-2355	5.6	21
69	Periodic and aperiodic liquid crystal-polymer composite structures realized via spatial light modulator direct holography. <i>Optics Express</i> , 2012 , 20, 23138-43	3.3	21
68	In Depth Investigation of Lattice Plasmon Modes in Substrate-Supported Gratings of Metal Monomers and Dimers. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 2388-2401	3.8	20
67	Short period holographic structures for backlight display applications. <i>Optics Express</i> , 2007 , 15, 10540-52	3.3	20
66	A command layer for anisotropic plasmonic photo-thermal effects in liquid crystal. <i>Liquid Crystals</i> , 2018 , 45, 2214-2220	2.3	17
65	Angle-resolved and polarization-dependent investigation of cross-shaped frequency-selective surface terahertz filters. <i>Applied Physics Letters</i> , 2017 , 110, 141107	3.4	16
64	Periodical Elements as Low-Cost Building Blocks for Tunable Terahertz Filters. <i>IEEE Photonics Technology Letters</i> , 2016 , 28, 2459-2462	2.2	16
63	Directional Emission of Fluorescent Dye-Doped Dielectric Nanogratings for Lighting Applications. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 24750-24757	9.5	16
62	Opto-mechanical control of flexible plasmonic materials. <i>Journal of Applied Physics</i> , 2019 , 125, 082533	2.5	15
61	Color Gamut Behavior in Epsilon Near-Zero Nanocavities during Propagation of Gap Surface Plasmons. <i>Advanced Optical Materials</i> , 2020 , 8, 2000487	8.1	15

60	In situ polarized micro-Raman investigation of periodic structures realized in liquid-crystalline composite materials. <i>Optics Express</i> , 2011 , 19, 10494-500	3.3	15
59	Switching the second harmonic generation by a dielectric metasurface via tunable liquid crystal. <i>Optics Express</i> , 2020 , 28, 12037-12046	3.3	15
58	Characterization of an active control system for holographic setup stabilization. <i>Applied Optics</i> , 2008 , 47, 1363-7	1.7	14
57	Observation of two-wave coupling during the formation of POLICRYPS diffraction gratings. <i>Optics Letters</i> , 2005 , 30, 1840-2	3	14
56	Dynamical behaviour of holographic gratings with a nematic film–Polymer slice sequence structure. <i>European Physical Journal E</i> , 2004 , 15, 47-52	1.5	14
55	Integration of Nanoemitters onto Photonic Structures by Guided Evanescent-Wave Nano-Photopolymerization. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 14669-14676	3.8	13
54	Conformal Silk-Azobenzene Composite for Optically Switchable Diffractive Structures. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 30951-30957	9.5	13
53	Jones matrix analysis of dichroic phase retarders realized in soft matter composite materials. <i>Optics Express</i> , 2010 , 18, 5776-84	3.3	13
52	Distributed feedback micro-laser array: helixed liquid crystals embedded in holographically sculptured polymeric microcavities. <i>Optics Express</i> , 2006 , 14, 2695-705	3.3	13
51	A comprehensive optical analysis of nanoscale structures: from thin films to asymmetric nanocavities.. <i>RSC Advances</i> , 2019 , 9, 21429-21437	3.7	11
50	Optical Characterization at Wavelengths of 632.8 NM and 1549 NM of Policryps Switchable Diffraction Gratings. <i>Molecular Crystals and Liquid Crystals</i> , 2003 , 398, 223-233	0.5	10
49	Plasmomechanics: A Colour-Changing Device Based on the Plasmonic Coupling of Gold Nanoparticles. <i>Molecular Crystals and Liquid Crystals</i> , 2015 , 614, 20-29	0.5	9
48	Characterization of the diffraction efficiency of polymer-liquid-crystal-polymer-slices gratings at all incidence angles. <i>Optics Express</i> , 2008 , 16, 14532-43	3.3	9
47	POLICRYPS composite structures: realization, characterization and exploitation for electro-optical and all-optical applications. <i>Liquid Crystals Reviews</i> , 2013 , 1, 2-19	2.8	8
46	POLYCRYPS visible curing for spatial light modulator based holography. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012 , 29, 3170	1.7	8
45	Tensile control of the thermal flow in plasmonic heaters realized on flexible substrates. <i>Journal of Chemical Physics</i> , 2019 , 151, 244707	3.9	8
44	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	5.6	7
43	Opto-mechanically induced thermoplasmonic response of unclonable flexible tags with hotspot fingerprint. <i>Journal of Applied Physics</i> , 2020 , 128, 093107	2.5	7

42	Band edge and defect modes lasing due to confinement of helixed liquid crystals in cylindrical microcavities. <i>Applied Physics Letters</i> , 2005 , 87, 221108	3.4	6
41	Liquid Crystals as an Active Medium: Novel Possibilities in Plasmonics. <i>Nanospectroscopy</i> , 2015 , 1,		5
40	From Cartesian to polar: a new POLICRYPS geometry for realizing circular optical diffraction gratings. <i>Optics Letters</i> , 2014 , 39, 6201-4	3	5
39	Fabrication and Characterization of Stretchable PDMS Structures Doped With Au Nanoparticles. <i>Molecular Crystals and Liquid Crystals</i> , 2012 , 558, 22-27	0.5	5
38	A New Kind of Photo-Polymerisation Induced Diffraction Gratings in Liquid Crystalline Composite Materials. <i>Molecular Crystals and Liquid Crystals</i> , 2002 , 372, 263-274	0.5	5
37	Investigations of dual-frequency nematic liquid crystals doped with dichroic dye. <i>Liquid Crystals</i> , 2019 , 46, 1001-1012	2.3	5
36	Active Plasmonics in Self-organized Soft Materials. <i>Nano-optics and Nanophotonics</i> , 2013 , 307-326	0	4
35	Holographic grating based high sensitivity device for refractive index measurements. <i>Optics Express</i> , 2010 , 18, 15236-41	3.3	4
34	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	0.8	4
33	Realization and Characterization of POLICRYPS-like Structures Including Metallic Subentities. <i>Molecular Crystals and Liquid Crystals</i> , 2012 , 553, 111-117	0.5	4
32	Model for two-beam coupling during the formation of holographic gratings with a nematic film-polymer-slice sequence structure. <i>Applied Physics Letters</i> , 2005 , 87, 141108	3.4	4
31	Dynamics of mass transfer caused by the photoinduced spatially inhomogeneous modulation of mobility in a multicomponent medium. <i>Journal of Experimental and Theoretical Physics</i> , 2001 , 92, 28-36	1	4
30	Optical properties of gold nanorods macro-structure: a numerical study. <i>Photonics Letters of Poland</i> , 2017 , 9, 23	2.1	4
29	Efficient Photothermal Generation by Nanoscale Light Trapping in a Forest of Silicon Nanowires. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 14134-14140	3.8	4
28	Tailoring of plasmonic functionalized metastructures to enhance local heating release. <i>Nanophotonics</i> , 2021 ,	6.3	4
27	Plasmon Resonance Tunability of Gold Nanoparticles Embedded in a Confined Cholesteric Liquid Crystal Host. <i>Molecular Crystals and Liquid Crystals</i> , 2012 , 559, 194-201	0.5	3
26	Phase Modulator Behavior of a Wedge-Shaped POLICRYPS Diffraction Grating. <i>Molecular Crystals and Liquid Crystals</i> , 2011 , 549, 29-36	0.5	3
25	Two-Wave Coupling during the Formation of POLICRYPS Diffraction Gratings: Experimental Results Theoretical Model. <i>Molecular Crystals and Liquid Crystals</i> , 2006 , 454, 273/[675]-284/[686]	0.5	3

24	Diffractive grating structures for colour-separating backlights 2006 , 6196, 251		3
23	Terahertz polarizing component on cyclo-olefin polymer. <i>Photonics Letters of Poland</i> , 2017 , 9, 2	2.1	3
22	Upcycling of biomass waste into photothermal superhydrophobic coating for efficient anti-icing and deicing. <i>Materials Today Physics</i> , 2022 , 100683	8	3
21	Ultraflexible Photothermal Superhydrophobic Coating with Multifunctional Applications Based on Plasmonic TiN Nanoparticles. <i>Advanced Optical Materials</i> , 2200168	8.1	3
20	Conceptual Implementation of a PhotonicPlasmonic Transistor onto a Structured Nano-Guided Hybrid System. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020 , 217, 1900911	1.6	2
19	Polar POLICRYPS diffractive structures generate cylindrical vector beams. <i>Applied Physics Letters</i> , 2015 , 107, 201101	3.4	2
18	Enhanced adhesion of electron beam resist by grafted monolayer poly(methylmethacrylate-co-methacrylic acid) brush. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2015 , 33, 06FD06	1.3	2
17	Realization of an Optical Filter Using POLICRYPS Holographic Gratings on Glass Waveguides. <i>Molecular Crystals and Liquid Crystals</i> , 2008 , 486, 31/[1073]-37/[1079]	0.5	2
16	Realization of POLICRYPS Gratings: Optical and Electro-Optical Properties. <i>Molecular Crystals and Liquid Crystals</i> , 2005 , 441, 111-129	0.5	2
15	DISTINCT DYNAMIC REGIMES IN A MATERIAL SYSTEM WITH OPTICALLY MODULATED DIFFUSIVITY. <i>Journal of Nonlinear Optical Physics and Materials</i> , 2002 , 11, 25-30	0.8	2
14	Molecular Orientation of E7 Liquid Crystal in POLICRYPS Holographic Gratings: A Micro-Raman Spectroscopic Analysis. <i>Molecular Crystals and Liquid Crystals</i> , 2012 , 558, 46-53	0.5	1
13	POLICRYPS Composite Materials: Features and Applications 2011 ,		1
12	Theoretical Characterization of the Holographic Recording of Diffraction Grating in Multicomponent Media. <i>Molecular Crystals and Liquid Crystals</i> , 2007 , 465, 187-192	0.5	1
11	The POLICRYPS liquid-crystalline structure for optical applications. <i>Advanced Optical Technologies</i> , 2018 , 7, 273-289	0.9	1
10	Optical properties of a waveguide-fed plasmonic nano-array through approximated scattering theory 2021 ,		1
9	Investigation of Lattice Plasmon Modes in 2D Arrays of Au Nanoantennas. <i>Crystals</i> , 2022 , 12, 336	2.3	0
8	CHAPTER 5: Inhomogeneous Photopolymerization in Multicomponent Media. <i>RSC Smart Materials</i> , 2014 , 87-102	0.6	
7	Hybrid PhotonicPlasmonic Metastructures 2021 , 1-14		

6 Metastructures-Induced Hyper-Resolution in Two-Photon Direct Laser Writing **2021**, 1-16

5 Metasurfaces: Theoretical Basis and Application Overview **2021**, 1-20

4 Photothermal Metastructure Platforms toward Precision Biomedical Applications **2021**, 1-26

3 Liquid Crystals Order in Polymeric Microchannels **2015**, 1-14

2 Plasmon-mediated discrete diffraction behaviour of an array of responsive waveguides. *Nanoscale*, **2019**, 11, 17931-17938 7·7

1 Optical properties and far field radiation of periodic nanostructures fed by an optical waveguide for applications in fluorescence and Raman scattering. *Optical and Quantum Electronics*, **2022**, 54, 1 2·4