

# Roberto Caputo

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/2425911/roberto-caputo-publications-by-year.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Investigation of Lattice Plasmon Modes in 2D Arrays of Au Nanoantennas. <i>Crystals</i> , <b>2022</b> , 12, 336	2.3	0
94	Upcycling of biomass waste into photothermal superhydrophobic coating for efficient anti-icing and deicing. <i>Materials Today Physics</i> , <b>2022</b> , 100683	8	3
93	Optical properties and far field radiation of periodic nanostructures fed by an optical waveguide for applications in fluorescence and Raman scattering. <i>Optical and Quantum Electronics</i> , <b>2022</b> , 54, 1	2.4	
92	Hybrid Photonic-Plasmonic Metastructures <b>2021</b> , 1-14		
91	Metastructures-Induced Hyper-Resolution in Two-Photon Direct Laser Writing <b>2021</b> , 1-16		
90	Metasurfaces: Theoretical Basis and Application Overview <b>2021</b> , 1-20		
89	Photothermal Metastructure Platforms toward Precision Biomedical Applications <b>2021</b> , 1-26		
88	Leveraging on ENZ Metamaterials to Achieve 2D and 3D Hyper-Resolution in Two-Photon Direct Laser Writing. <i>Advanced Materials</i> , <b>2021</b> , 33, e2008644	24	29
87	Efficient Photothermal Generation by Nanoscale Light Trapping in a Forest of Silicon Nanowires. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 14134-14140	3.8	4
86	Optical properties of a waveguide-fed plasmonic nano-array through approximated scattering theory <b>2021</b> ,		1
85	Tailoring of plasmonic functionalized metastructures to enhance local heating release. <i>Nanophotonics</i> , <b>2021</b> ,	6.3	4
84	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> , <b>2020</b> , 3, 12218-12230	5.6	7
83	Conceptual Implementation of a Photonic-Plasmonic Transistor onto a Structured Nano-Guided Hybrid System. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2020</b> , 217, 1900911	1.6	2
82	Color Gamut Behavior in Epsilon Near-Zero Nanocavities during Propagation of Gap Surface Plasmons. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 2000487	8.1	15
81	Switching the second harmonic generation by a dielectric metasurface via tunable liquid crystal. <i>Optics Express</i> , <b>2020</b> , 28, 12037-12046	3.3	15
80	Opto-mechanically induced thermoplasmonic response of unclonable flexible tags with hotspot fingerprint. <i>Journal of Applied Physics</i> , <b>2020</b> , 128, 093107	2.5	7
79	Integration of Nanoemitters onto Photonic Structures by Guided Evanescent-Wave Nano-Photopolymerization. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 14669-14676	3.8	13

78	Opto-mechanical control of flexible plasmonic materials. <i>Journal of Applied Physics</i> , <b>2019</b> , 125, 082533	2.5	15
77	A comprehensive optical analysis of nanoscale structures: from thin films to asymmetric nanocavities.. <i>RSC Advances</i> , <b>2019</b> , 9, 21429-21437	3.7	11
76	Tensile control of the thermal flow in plasmonic heaters realized on flexible substrates. <i>Journal of Chemical Physics</i> , <b>2019</b> , 151, 244707	3.9	8
75	Plasmon-mediated discrete diffraction behaviour of an array of responsive waveguides. <i>Nanoscale</i> , <b>2019</b> , 11, 17931-17938	7.7	
74	Investigations of dual-frequency nematic liquid crystals doped with dichroic dye. <i>Liquid Crystals</i> , <b>2019</b> , 46, 1001-1012	2.3	5
73	Dense Brushes of Tilted Metallic Nanorods Grown onto Stretchable Substrates for Optical Strain Sensing. <i>ACS Applied Nano Materials</i> , <b>2018</b> , 1, 2347-2355	5.6	21
72	Flexible thermo-plasmonics: an opto-mechanical control of the heat generated at the nanoscale. <i>Nanoscale</i> , <b>2018</b> , 10, 16556-16561	7.7	22
71	Directional Emission of Fluorescent Dye-Doped Dielectric Nanogratings for Lighting Applications. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 24750-24757	9.5	16
70	Guided-mode resonant narrowband terahertz filtering by periodic metallic stripe and patch arrays on cyclo-olefin substrates. <i>Scientific Reports</i> , <b>2018</b> , 8, 17272	4.9	26
69	The POLICRYPS liquid-crystalline structure for optical applications. <i>Advanced Optical Technologies</i> , <b>2018</b> , 7, 273-289	0.9	1
68	A command layer for anisotropic plasmonic photo-thermal effects in liquid crystal. <i>Liquid Crystals</i> , <b>2018</b> , 45, 2214-2220	2.3	17
67	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> , <b>2017</b> , 23, 1-8	3.8	36
66	Angle-resolved and polarization-dependent investigation of cross-shaped frequency-selective surface terahertz filters. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 141107	3.4	16
65	In Depth Investigation of Lattice Plasmon Modes in Substrate-Supported Gratings of Metal Monomers and Dimers. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 2388-2401	3.8	20
64	Conformal Silk-Azobenzene Composite for Optically Switchable Diffractive Structures. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 30951-30957	9.5	13
63	Angular plasmon response of gold nanoparticles arrays: approaching the Rayleigh limit. <i>Nanophotonics</i> , <b>2017</b> , 6, 279-288	6.3	25
62	Terahertz polarizing component on cyclo-olefin polymer. <i>Photonics Letters of Poland</i> , <b>2017</b> , 9, 2	2.1	3
61	Optical properties of gold nanorods macro-structure: a numerical study. <i>Photonics Letters of Poland</i> , <b>2017</b> , 9, 23	2.1	4

60	Periodical Elements as Low-Cost Building Blocks for Tunable Terahertz Filters. <i>IEEE Photonics Technology Letters</i> , <b>2016</b> , 28, 2459-2462	2.2	16
59	Flexible terahertz wire grid polarizer with high extinction ratio and low loss. <i>Optics Letters</i> , <b>2016</b> , 41, 2009-12	3	44
58	The beginnings of plasmomechanics: towards plasmonic strain sensors. <i>Frontiers of Materials Science</i> , <b>2015</b> , 9, 170-177	2.5	35
57	Two-Color Single Hybrid Plasmonic Nanoemitters with Real Time Switchable Dominant Emission Wavelength. <i>Nano Letters</i> , <b>2015</b> , 15, 7458-66	11.5	27
56	Liquid Crystals as an Active Medium: Novel Possibilities in Plasmonics. <i>Nanospectroscopy</i> , <b>2015</b> , 1,		5
55	Plasmomechanics: A Colour-Changing Device Based on the Plasmonic Coupling of Gold Nanoparticles. <i>Molecular Crystals and Liquid Crystals</i> , <b>2015</b> , 614, 20-29	0.5	9
54	Polar POLICRYPS diffractive structures generate cylindrical vector beams. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 201101	3.4	2
53	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> , <b>2015</b> , 33, 06FD06	1.3	2
52	Liquid Crystals Order in Polymeric Microchannels <b>2015</b> , 1-14		
51	Growing gold nanoparticles on a flexible substrate to enable simple mechanical control of their plasmonic coupling. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 7927-7933	7.1	69
50	CHAPTER 5: Inhomogeneous Photopolymerization in Multicomponent Media. <i>RSC Smart Materials</i> , <b>2014</b> , 87-102	0.6	
49	From Cartesian to polar: a new POLICRYPS geometry for realizing circular optical diffraction gratings. <i>Optics Letters</i> , <b>2014</b> , 39, 6201-4	3	5
48	Active Plasmonics in Self-organized Soft Materials. <i>Nano-optics and Nanophotonics</i> , <b>2013</b> , 307-326	0	4
47	POLICRYPS composite structures: realization, characterization and exploitation for electro-optical and all-optical applications. <i>Liquid Crystals Reviews</i> , <b>2013</b> , 1, 2-19	2.8	8
46	Molecular Orientation of E7 Liquid Crystal in POLICRYPS Holographic Gratings: A Micro-Raman Spectroscopic Analysis. <i>Molecular Crystals and Liquid Crystals</i> , <b>2012</b> , 558, 46-53	0.5	1
45	Double active control of the plasmonic resonance of a gold nanoparticle array. <i>Nanoscale</i> , <b>2012</b> , 4, 7619-7623	7.7	30
44	Plasmon Resonance Tunability of Gold Nanoparticles Embedded in a Confined Cholesteric Liquid Crystal Host. <i>Molecular Crystals and Liquid Crystals</i> , <b>2012</b> , 559, 194-201	0.5	3
43	Periodic and aperiodic liquid crystal-polymer composite structures realized via spatial light modulator direct holography. <i>Optics Express</i> , <b>2012</b> , 20, 23138-43	3.3	21

42	POLYCRYPS visible curing for spatial light modulator based holography. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2012</b> , 29, 3170	1.7	8
41	Fabrication and Characterization of Stretchable PDMS Structures Doped With Au Nanoparticles. <i>Molecular Crystals and Liquid Crystals</i> , <b>2012</b> , 558, 22-27	0.5	5
40	Realization and Characterization of POLICRYPS-like Structures Including Metallic Subentities. <i>Molecular Crystals and Liquid Crystals</i> , <b>2012</b> , 553, 111-117	0.5	4
39	In situ polarized micro-Raman investigation of periodic structures realized in liquid-crystalline composite materials. <i>Optics Express</i> , <b>2011</b> , 19, 10494-500	3.3	15
38	POLICRYPS Composite Materials: Features and Applications <b>2011</b> ,		1
37	Broad band tuning of the plasmonic resonance of gold nanoparticles hosted in self-organized soft materials. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 18967		28
36	Phase Modulator Behavior of a Wedge-Shaped POLICRYPS Diffraction Grating. <i>Molecular Crystals and Liquid Crystals</i> , <b>2011</b> , 549, 29-36	0.5	3
35	Jones matrix analysis of dichroic phase retarders realized in soft matter composite materials. <i>Optics Express</i> , <b>2010</b> , 18, 5776-84	3.3	13
34	Holographic grating based high sensitivity device for refractive index measurements. <i>Optics Express</i> , <b>2010</b> , 18, 15236-41	3.3	4
33	LASER ACTION IN DYE DOPED LIQUID CRYSTALS: FROM PERIODIC STRUCTURES TO RANDOM MEDIA. <i>Journal of Nonlinear Optical Physics and Materials</i> , <b>2009</b> , 18, 349-365	0.8	4
32	POLICRYPS: a liquid crystal composed nano/microstructure with a wide range of optical and electro-optical applications. <i>Journal of Optics</i> , <b>2009</b> , 11, 024017		50
31	Characterization of an active control system for holographic setup stabilization. <i>Applied Optics</i> , <b>2008</b> , 47, 1363-7	1.7	14
30	POLICRYPS structures as switchable optical phase modulators. <i>Optics Express</i> , <b>2008</b> , 16, 7619-24	3.3	30
29	Tunable integrated optical filter made of a glass ion-exchanged waveguide and an electro-optic composite holographic grating. <i>Optics Express</i> , <b>2008</b> , 16, 9254-60	3.3	53
28	Characterization of the diffraction efficiency of polymer-liquid-crystal-polymer-slices gratings at all incidence angles. <i>Optics Express</i> , <b>2008</b> , 16, 14532-43	3.3	9
27	Realization of an Optical Filter Using POLICRYPS Holographic Gratings on Glass Waveguides. <i>Molecular Crystals and Liquid Crystals</i> , <b>2008</b> , 486, 31/[1073]-37/[1079]	0.5	2
26	Theoretical Characterization of the Holographic Recording of Diffraction Grating in Multicomponent Media. <i>Molecular Crystals and Liquid Crystals</i> , <b>2007</b> , 465, 187-192	0.5	1
25	Short period holographic structures for backlight display applications. <i>Optics Express</i> , <b>2007</b> , 15, 10540-52,3		20

24	Two-Wave Coupling during the Formation of POLICRYPS Diffraction Gratings: Experimental Results Theoretical Model. <i>Molecular Crystals and Liquid Crystals</i> , <b>2006</b> , 454, 273/[675]-284/[686]	0.5	3
23	Distributed feedback micro-laser array: helixed liquid crystals embedded in holographically sculptured polymeric microcavities. <i>Optics Express</i> , <b>2006</b> , 14, 2695-705	3.3	13
22	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> , <b>2006</b> , 45, 3721-7	1.7	40
21	. <i>Journal of Display Technology</i> , <b>2006</b> , 2, 38-51		24
20	Diffraction grating structures for colour-separating backlights <b>2006</b> , 6196, 251		3
19	Color-tunable organic microcavity laser array using distributed feedback. <i>Physical Review Letters</i> , <b>2005</b> , 94, 063903	7.4	87
18	Kogelnik-like model for the diffraction efficiency of POLICRYPS gratings. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2005</b> , 22, 735	1.7	25
17	Observation of two-wave coupling during the formation of POLICRYPS diffraction gratings. <i>Optics Letters</i> , <b>2005</b> , 30, 1840-2	3	14
16	Band edge and defect modes lasing due to confinement of helixed liquid crystals in cylindrical microcavities. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 221108	3.4	6
15	Model for two-beam coupling during the formation of holographic gratings with a nematic film-polymer-slice sequence structure. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 141108	3.4	4
14	Realization of POLICRYPS Gratings: Optical and Electro-Optical Properties. <i>Molecular Crystals and Liquid Crystals</i> , <b>2005</b> , 441, 111-129	0.5	2
13	Dynamical behaviour of holographic gratings with a nematic film-Polymer slice sequence structure. <i>European Physical Journal E</i> , <b>2004</b> , 15, 47-52	1.5	14
12	Model for the photoinduced formation of diffraction gratings in liquid-crystalline composite materials. <i>Applied Physics Letters</i> , <b>2004</b> , 84, 3492-3494	3.4	53
11	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> , <b>2004</b> , 21, 1939	1.7	44
10	Development of a new kind of switchable holographic grating made of liquid-crystal films separated by slices of polymeric material. <i>Optics Letters</i> , <b>2004</b> , 29, 1261-3	3	161
9	Electro-optic properties of switchable gratings made of polymer and nematic liquid-crystal slices. <i>Optics Letters</i> , <b>2004</b> , 29, 1405-7	3	40
8	Optical Characterization at Wavelengths of 632.8 NM and 1549 NM of Policryps Switchable Diffraction Gratings. <i>Molecular Crystals and Liquid Crystals</i> , <b>2003</b> , 398, 223-233	0.5	10
7	DISTINCT DYNAMIC REGIMES IN A MATERIAL SYSTEM WITH OPTICALLY MODULATED DIFFUSIVITY. <i>Journal of Nonlinear Optical Physics and Materials</i> , <b>2002</b> , 11, 25-30	0.8	2

6	A New Kind of Photo-Polymerisation Induced Diffraction Gratings in Liquid Crystalline Composite Materials. <i>Molecular Crystals and Liquid Crystals</i> , <b>2002</b> , 372, 263-274	0.5	5
5	Mass transfer processes induced by inhomogeneous photo-polymerisation in a multicomponent medium. <i>Chemical Physics</i> , <b>2001</b> , 271, 323-335	2.3	42
4	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> , <b>2001</b> , 92, 28-36	1	4
3	Formation of a grating of submicron nematic layers by photopolymerization of nematic-containing mixtures. <i>Journal of Experimental and Theoretical Physics</i> , <b>2000</b> , 91, 1190-1197	1	22
2	Efficiency dynamics of diffraction gratings recorded in liquid crystalline composite materials by a UV interference pattern. <i>Chemical Physics</i> , <b>1999</b> , 245, 463-471	2.3	30
1	Ultraflexible Photothermal Superhydrophobic Coating with Multifunctional Applications Based on Plasmonic TiN Nanoparticles. <i>Advanced Optical Materials</i> , 2200168	8.1	3