Luciano De Sio

List of Publications by Citations

104 papers	1,737 citations	24 h-index	36 g-index
115 ext. papers	2,031 ext. citations	4.3 avg, IF	4.74 L-index

#	Paper	IF	Citations
104	Development of a new kind of switchable holographic grating made of liquid-crystal films separated by slices of polymeric material. *Optics Letters*, **2004**, 29, 1261-3	3	161
103	Optofluidic modulator based on peristaltic nematogen microflows. *Nature Photonics*, **2011**, 5, 234-238	33.9	86
102	Digital polarization holography advancing geometrical phase optics. *Optics Express*, **2016**, 24, 18297-306	3.3	67
101	Polymer-Based Nanomaterials for Photothermal Therapy: From Light-Responsive to Multifunctional Nanoplatforms for Synergistically Combined Technologies. *Biomacromolecules*, **2018**, 19, 4147-4167	6.9	63
100	Short pitch cholesteric electro-optical device based on periodic polymer structures. *Applied Physics Letters*, **2009**, 95, 011102	3.4	55
99	Tunable integrated optical filter made of a glass ion-exchanged waveguide and an electro-optic composite holographic grating. *Optics Express*, **2008**, 16, 9254-60	3.3	53
98	Composite holographic gratings containing light-responsive liquid crystals for visible bichromatic switching. *Advanced Materials*, **2010**, 22, 2316-9	24	48
97	Next-generation thermo-plasmonic technologies and plasmonic nanoparticles in optoelectronics. *Progress in Quantum Electronics*, **2015**, 41, 23-70	9.1	45
96	Hidden Gratings in Holographic Liquid Crystal Polymer-Dispersed Liquid Crystal Films. *ACS Applied Materials & Interfaces*, **2018**, 10, 13107-13112	9.5	42
95	Multifunctional Platform Based on Electrospun Nanofibers and Plasmonic Hydrogel: A Smart Nanostructured Pillow for Near-Infrared Light-Driven Biomedical Applications. *ACS Applied Materials & Interfaces*, **2020**, 12, 54328-54342	9.5	41
94	Photo-thermal effects in gold nanoparticles dispersed in thermotropic nematic liquid crystals. *Physical Chemistry Chemical Physics*, **2015**, 17, 20281-7	3.6	40
93	In situ optical control and stabilization of the curing process of holographic gratings with a nematic film-polymer-slice sequence structure. *Applied Optics*, **2006**, 45, 3721-7	1.7	40
92	All-optical switching of holographic gratings made of polymer-liquid-crystal-polymer slices containing azo-compounds. *Applied Physics Letters*, **2008**, 93, 181115	3.4	34
91	Universal soft matter template for photonic applications. *Soft Matter*, **2011**, 7, 3739	3.6	33
90	Beam shaping diffractive wave plates [Invited]. *Applied Optics*, **2018**, 57, A118-A121	1.7	32
89	Nano-Localized Heating Source for Photonics and Plasmonics. *Advanced Optical Materials*, **2013**, 1, 899-904	8.1	32
88	Double active control of the plasmonic resonance of a gold nanoparticle array. *Nanoscale*, **2012**, 4, 7619-23	7.7	30

87	POLICRYPS structures as switchable optical phase modulators. *Optics Express*, **2008**, 16, 7619-24	3.3	30
86	Personalized Reusable Face Masks with Smart Nano-Assisted Destruction of Pathogens for COVID-19: A Visionary Road. *Chemistry - A European Journal*, **2021**, 27, 6112-6130	4.8	29
85	All-optical control of localized plasmonic resonance realized by photoalignment of liquid crystals. *Journal of Materials Chemistry C*, **2013**, 1, 7483	7.1	28
84	Broad band tuning of the plasmonic resonance of gold nanoparticles hosted in self-organized soft materials. *Journal of Materials Chemistry*, **2011**, 21, 18967		28
83	Observation of tunable optical filtering in photosensitive composite structures containing liquid crystals. *Optics Letters*, **2011**, 36, 4755-7	3	25
82	All-optical switching in an optofluidic polydimethylsiloxane: Liquid crystal grating defined by cast-molding. *Applied Physics Letters*, **2010**, 96, 131112	3.4	25
81	Mesogenic versus non-mesogenic azo dye confined in a soft-matter template for realization of optically switchable diffraction gratings. *Journal of Materials Chemistry*, **2011**, 21, 6811		24
80	. *Journal of Display Technology*, **2006**, 2, 38-51		24
79	Photo-sensitive liquid crystals for optically controlled diffraction gratings. *Journal of Materials Chemistry*, **2012**, 22, 6669		22
78	Short period holographic structures for backlight display applications. *Optics Express*, **2007**, 15, 10540-52	3.3	20
77	Electro-/All-Optical Light Extraction in Gold Photonic Quasi-crystals Layered with Photosensitive Liquid Crystals. *Advanced Optical Materials*, **2014**, 2, 950-955	8.1	19
76	Advances in Transparent Planar Optics: Enabling Large Aperture, Ultrathin Lenses. *Advanced Optical Materials*, **2021**, 9, 2001692	8.1	19
75	Stimuli-responsive nanoparticle-assisted immunotherapy: a new weapon against solid tumours. *Journal of Materials Chemistry B*, **2020**, 8, 1823-1840	7.3	18
74	Parallel sorting of orbital and spin angular momenta of light in a record large number of channels. *Optics Letters*, **2018**, 43, 2256-2259	3	17
73	Dynamic Photonic Materials Based on Liquid Crystals. *Progress in Optics*, **2013**, 1-64	3.4	17
72	Thermoplasmonic-Activated Hydrogel Based Dynamic Light Attenuator. *Advanced Optical Materials*, **2020**, 8, 2000324	8.1	17
71	A command layer for anisotropic plasmonic photo-thermal effects in liquid crystal. *Liquid Crystals*, **2018**, 45, 2214-2220	2.3	17
70	Nanotechnology-Assisted RNA Delivery: From Nucleic Acid Therapeutics to COVID-19 Vaccines. *Small Methods*, **2021**, 5, 2100402	12.8	17

69	Thermo-Plasmonic Killing of TG1 Bacteria. *Materials*, **2019**, 12,	3.5	16
68	Silicon oxide deposition for enhanced optical switching in polydimethylsiloxane-liquid crystal hybrids. *Optics Express*, **2011**, 19, 23532-7	3.3	16
67	Biomimetic keratin gold nanoparticle-mediated photothermal therapy on glioblastoma multiforme. *Nanomedicine*, **2021**, 16, 121-138	5.6	16
66	Ultra-fast solid state electro-optical modulator based on liquid crystal polymer and liquid crystal composites. *Applied Physics Letters*, **2014**, 105, 231122	3.4	15
65	In situ polarized micro-Raman investigation of periodic structures realized in liquid-crystalline composite materials. *Optics Express*, **2011**, 19, 10494-500	3.3	15
64	Characterization of an active control system for holographic setup stabilization. *Applied Optics*, **2008**, 47, 1363-7	1.7	14
63	Observation of two-wave coupling during the formation of POLICRYPS diffraction gratings. *Optics Letters*, **2005**, 30, 1840-2	3	14
62	Chameleon-inspired multifunctional plasmonic nanoplatforms for biosensing applications. *NPG Asia Materials*, **2022**, 14,	10.3	14
61	Antimicrobial Effects of Chemically Functionalized and/or Photo-Heated Nanoparticles. *Materials*, **2019**, 12,	3.5	13
60	Conformal Silk-Azobenzene Composite for Optically Switchable Diffractive Structures. *ACS Applied Materials & Interfaces*, **2017**, 9, 30951-30957	9.5	13
59	POLICRYPS-based electrically switchable Bragg reflector. *Optics Express*, **2015**, 23, 32696-702	3.3	13
58	Electro-switchable polydimethylsiloxane-based optofluidics. *Lab on A Chip*, **2012**, 12, 3760-5	7.2	13
57	Optically controlled holographic beam splitter. *Applied Physics Letters*, **2010**, 97, 183507	3.4	13
56	Jones matrix analysis of dichroic phase retarders realized in soft matter composite materials. *Optics Express*, **2010**, 18, 5776-84	3.3	13
55	Optical control of plasmonic heating effects using reversible photo-alignment of nematic liquid crystals. *Applied Physics Letters*, **2016**, 109, 191906	3.4	13
54	Tuneable broadband optical filter based on soft-composite materials. *Journal of Optics (United Kingdom)*, **2014**, 16, 065703	1.7	12
53	Plasmonic Thermometer Based on Thermotropic Liquid Crystals. *Molecular Crystals and Liquid Crystals*, **2015**, 614, 93-99	0.5	11
52	Directed organization of DNA filaments in a soft matter template. *Langmuir*, **2013**, 29, 3398-403	4	11

51	Thermoplasmonic Activated Reverse-Mode Liquid Crystal Gratings. *ACS Applied Nano Materials*, **2019**, 2, 3315-3322	5.6	10
50	Self-aligning liquid crystals in polymer composite systems. *Journal of Polymer Science, Part B: Polymer Physics*, **2014**, 52, 158-162	2.6	10
49	Characterization of the diffraction efficiency of polymer-liquid-crystal-polymer-slices gratings at all incidence angles. *Optics Express*, **2008**, 16, 14532-43	3.3	9
48	Developing novel liquid crystal technologies for display and photonic applications. *Displays*, **2015**, 36, 21-29	3.4	8
47	Electro and pressure tunable cholesteric liquid crystal devices based on ion-implanted flexible substrates. *Journal of Materials Chemistry C*, **2013**, 1, 7798	7.1	8
46	Soft periodic microstructures containing liquid crystals. *Journal of Physical Chemistry B*, **2013**, 117, 1176-85	3.4	8
45	POLICRYPS composite structures: realization, characterization and exploitation for electro-optical and all-optical applications. *Liquid Crystals Reviews*, **2013**, 1, 2-19	2.8	8
44	Optical interrogation system based on holographic soft matter filter. *Applied Physics Letters*, **2011**, 98, 151103	3.4	8
43	Dynamic optical properties of gold nanoparticles/cholesteric liquid crystal arrays. *MRS Communications*, **2018**, 8, 550-555	2.7	7
42	Nanosecond switching of photo-responsive liquid crystal diffraction gratings. *Journal of Materials Chemistry C*, **2014**, 2, 3532	7.1	7
41	Dual-mode control of light by two-dimensional periodic structures realized in liquid-crystalline composite materials. *Optics Letters*, **2010**, 35, 2759-61	3	7
40	Chapter 5:Polymer Dispersed Liquid Crystals. *RSC Soft Matter*, **2019**, 61-104	0.5	7
39	Stimuli responsive diffraction gratings in soft-composite materials. *Journal Physics D: Applied Physics*, **2019**, 52, 053001	3	7
38	Liquid Crystals as an Active Medium: Novel Possibilities in Plasmonics. *Nanospectroscopy*, **2015**, 1,		5
37	Spontaneous radial liquid crystals alignment on curved polymeric surfaces. *Applied Physics Letters*, **2014**, 104, 221112	3.4	5
36	Templating gold nanorods with liquid crystalline DNA. *Journal of Optics (United Kingdom)*, **2015**, 17, 025001	1.7	5
35	Cycloidal diffractive waveplates fabricated using a high-power diode-pumped solid-state laser operating at 532□hm. *Journal of the Optical Society of America B: Optical Physics*, **2019**, 36, D136	1.7	5
34	Thermoplasmonics with Gold Nanoparticles: A New Weapon in Modern Optics and Biomedicine. *Advanced Photonics Research*, **2021**, 2, 2000198	1.9	5

33	Applications of nanomaterials in modern medicine. *Rendiconti Lincei*, **2015**, 26, 231-237	1.7	4
32	Photo-thermal effects in gold nanorods/DNA complexes. *Micro and Nano Systems Letters*, **2015**, 3,	2	4
31	Light-addressable liquid crystal polymer dispersed liquid crystal. *Optical Materials Express*, **2017**, 7, 1581	2.6	4
30	Active Plasmonics in Self-organized Soft Materials. *Nano-optics and Nanophotonics*, **2013**, 307-326	0	4
29	Model for two-beam coupling during the formation of holographic gratings with a nematic film-polymer-slice sequence structure. *Applied Physics Letters*, **2005**, 87, 141108	3.4	4
28	Flexible Structures Based on a Short Pitch Cholesteric Liquid Crystals. *Molecular Crystals and Liquid Crystals*, **2015**, 619, 35-41	0.5	3
27	Optofluidic Microstructures Containing Liquid Crystals. *Molecular Crystals and Liquid Crystals*, **2013**, 576, 135-140	0.5	3
26	Fast Electro-Optical Device Based on Chiral Liquid Crystals Encapsulated in Periodic Polymer Channels. *Molecular Crystals and Liquid Crystals*, **2010**, 525, 41-49	0.5	3
25	Light Sensitive Liquid Crystals for All-Optical Photonic Devices. *Molecular Crystals and Liquid Crystals*, **2012**, 560, 143-148	0.5	3
24	Plasmonic photoheating of gold nanorods in thermo-responsive chiral liquid crystals. *Journal of Optics (United Kingdom)*, **2016**, 18, 125005	1.7	3
23	Nematic liquid crystals used to control photo-thermal effects in gold nanoparticles **2016**,		2
22	Realization of an Optical Filter Using POLICRYPS Holographic Gratings on Glass Waveguides. *Molecular Crystals and Liquid Crystals*, **2008**, 486, 31/[1073]-37/[1079]	0.5	2
21	Geometric phase diffractive waveplate singularity arrays [Invited]. *Journal of the Optical Society of America B: Optical Physics*, **2019**, 36, D126	1.7	2
20	Frontispiece: Personalized Reusable Face Masks with Smart Nano-Assisted Destruction of Pathogens for COVID-19: A Visionary Road. *Chemistry - A European Journal*, **2021**, 27,	4.8	2
19	The transfer and amplification of cyanostilbene molecular function to advanced flexible optical paints through self-crosslinkable side-chain liquid crystal polysiloxanes. *Materials Horizons*, **2021**, 8, 1561-1569	14.4	2
18	Chirped POLICRYPS gratings containing self-aligning liquid crystals. *Materials Research Express*, **2017**, 4, 055303	1.7	1
17	Plasmonics Meets Biology through Optics. *Nanomaterials*, **2015**, 5, 1022-1033	5.4	1
16	Molecular Orientation of E7 Liquid Crystal in POLICRYPS Holographic Gratings: A Micro-Raman Spectroscopic Analysis. *Molecular Crystals and Liquid Crystals*, **2012**, 558, 46-53	0.5	1

15	General Purpose Soft Template for Photonic Applications: From All-Optical to Electrical Reconfigurability. *Molecular Crystals and Liquid Crystals*, **2012**, 553, 147-152	0.5	1
14	Realization of Photoresponsive Diffractive Beam Splitters. *Molecular Crystals and Liquid Crystals*, **2011**, 549, 57-61	0.5	1
13	Full Optical Control of Holographic Gratings Realized in Composite Materials Containing Photosensitive Liquid Crystals. *Molecular Crystals and Liquid Crystals*, **2010**, 526, 101-107	0.5	1
12	HOLOGRAPHIC GRATING DESIGNED FOR THE STABILITY CONTROL OF AN ACTIVE INTERFEROMETRIC SETUP. *Journal of Nonlinear Optical Physics and Materials*, **2011**, 20, 15-21	0.8	1
11	Crystal Engineering of Amphiphilic Organic Dye for Metallic Coloration. *Crystal Growth and Design*, **2020**, 20, 5896-5902	3.5	1
10	Control of the plasmonic resonance of a graphene coated plasmonic nanoparticle array combined with a nematic liquid crystal. *AIP Advances*, **2016**, 6, 075114	1.5	1
9	The POLICRYPS liquid-crystalline structure for optical applications. *Advanced Optical Technologies*, **2018**, 7, 273-289	0.9	1
8	Biocompatible and biomimetic keratin capped Au nanoparticles enable the inactivation of mesophilic bacteria via photo-thermal therapy. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2021**, 625, 126950	5.1	1
7	Photo-Aligned Nematic Liquid Crystals Enable the Modulation of Thermoplasmonic Heating. *Applied Sciences (Switzerland)*, **2021**, 11, 6272	2.6	0
6	Observation of hysteresis effects in POLICRYPS holographic gratings. *Optics Express*, **2010**, 18, 31-6	3.3	
5	LIGHT MODULATION ENABLED BY LIQUID CRYSTAL MICROFLOWS. *Journal of Nonlinear Optical Physics and Materials*, **2011**, 20, 397-404	0.8	
4	Liquid Crystals Order in Polymeric Microchannels **2015**, 1-14		
3	Liquid crystalline DNA: A smart polymer with a variety of applications ranging from photonics to plasmonics **2017**, 409-421		
2	Plasmon-mediated discrete diffraction behaviour of an array of responsive waveguides. *Nanoscale*, **2019**, 11, 17931-17938	7.7	
1	Thermoplasmonics with Gold Nanoparticles: A New Weapon in Modern Optics and Biomedicine. *Advanced Photonics Research*, **2021**, 2, 2170027	1.9	