Luis Carretero

List of Publications by Year in Descending Order

104 papers	743 citations	15 h-index	21 g-index
123 ext. papers	843 ext. citations	2.3 avg, IF	3.43 L-index

#	Paper	IF	Citations
104	Generation of Huygens' dipoles for any spherical nanoparticle excited by counter-propagating plane waves: study of scattered helicity.. *Optics Express*, **2022**, 30, 1081-1088	3.3	
103	Extraordinary spin to orbital angular momentum conversion on guided zone plates. *Scientific Reports*, **2021**, 11, 8073	4.9	1
102	Dynamic of Si nanoparticles inside of a quadrupolar trap: Analysis of the angular momentum transfer. *Results in Physics*, **2020**, 19, 103520	3.7	
101	Vectorial analysis of Airy-Airy bullets generated by high aperture binary micro zonal plate. *Optics and Lasers in Engineering*, **2020**, 124, 105802	4.6	5
100	Existence of periodic solutions for a scalar differential equation modelling optical conveyor belts. *Journal of Mathematical Analysis and Applications*, **2019**, 480, 123385	1.1	2
99	Optical Conveyor Belts for Chiral Discrimination: Influence of De-Phasing Parameter. *Applied Sciences (Switzerland)*, **2019**, 9, 1304	2.6	0
98	Kerker conditions for chiral particles: Enhanced spin-to-orbital angular momentum conversion of the scattered light. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2019**, 222-223, 60-64	2.1	
97	Chiral Rayleigh particles discrimination in dynamic dual optical traps. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2017**, 201, 209-215	2.1	6
96	Design of an optical conveyor for selective separation of a mixture of enantiomers. *Optics Express*, **2017**, 25, 32290	3.3	10
95	Saturable absorber theory with a modulated pump beam. *Laser Physics Letters*, **2016**, 13, 085604	1.5	
94	Spatio-temporal study of non-degenerate two-wave mixing in bacteriorhodopsin films. *Optics Express*, **2016**, 24, 25565-25581	3.3	2
93	Helical tractor beam: analytical solution of Rayleigh particle dynamics. *Optics Express*, **2015**, 23, 20529-39	3.3	6
92	Periodic Trajectories Obtained With an Active Tractor Beam Using Azimuthal Polarization: Design of Particle Exchanger. *IEEE Photonics Journal*, **2015**, 7, 1-12	1.8	12
91	Real-time UV-visible spectroscopy analysis of purple membrane-polyacrylamide film formation taking into account Fano line shapes and scattering. *PLoS ONE*, **2014**, 9, e110518	3.7	
90	Three-dimensional analysis of optical forces generated by an active tractor beam using radial polarization. *Optics Express*, **2014**, 22, 3284-95	3.3	11
89	Theoretical and experimental analysis of pulse delay in bacteriorhodopsin films by a saturable absorber theory. *Optics Express*, **2014**, 22, 11600-9	3.3	2
88	Group-Delay Control in Two-Port Devices With Dual Input. *IEEE Photonics Journal*, **2013**, 5, 7900610-7900610	1.8	1

87	Diffraction of convergent spherical waves with all possible polarization states using the Luneburg integral method. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2013**, 30, 733-40	1.8	3
86	Generation of High-Quality Tunable One-Dimensional Airy Beams Using the Aberrations of a Single Lens. *IEEE Photonics Journal*, **2012**, 4, 1273-1280	1.8	3
85	Rigorous analysis of the propagation of sinusoidal pulses in bacteriorhodopsin films. *Optics Express*, **2012**, 20, 25497-512	3.3	3
84	Near-Field Electromagnetic Analysis of Perfect Black Fresnel Zone Plates Using Radial Polarization. *Journal of Lightwave Technology*, **2011**, 29, 2585-2591	4	8
83	Coupled wave analysis of holographically induced transparency (HIT) generated by two multiplexed volume gratings. *Optics Express*, **2011**, 19, 7094-105	3.3	2
82	Analysis of the addition of a crosslinking agent in pyrromethene-HEMA based photopolymerizable holographic recording materials **2011**,		1
81	An explanation for the non-uniform grating effects during recording of diffraction gratings in photopolymers. *Optics Express*, **2010**, 18, 799-808	3.3	10
80	Role of multipole moments in electric-field-induced order of dense molecular systems. *ChemPhysChem*, **2010**, 11, 2158-66	3.2	
79	Design of periodic binary fiber gratings for single and multiple flat-top pulse generation. *Journal of Modern Optics*, **2009**, 56, 1874-1879	1.1	
78	A comparative review of silver halide photopolymerizable system and sol-gel holographic materials **2009**,		2
77	Nonparaxial diffraction analysis of Airy and SAiry beams. *Optics Express*, **2009**, 17, 22432-41	3.3	33
76	Efficient Computation of Longitudinal Lasing Modes in Arbitrary Active Cavities: The Bidirectional Time Evolution Method. *Journal of Lightwave Technology*, **2009**, 27, 3000-3009	4	
75	Analysis of nonuniform transmission gratings recorded in photopolymerizable silica glass materials. *Journal of Applied Physics*, **2008**, 104, 063109	2.5	5
74	Comment on "Resolving the wave vector and the refractive index from the coefficient of reflectance". *Optics Letters*, **2008**, 33, 1828; discussion 1829	3	5
73	Optical singularities and power flux in the near-field region of planar evanescent-field superlenses. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2008**, 25, 2865-74	1.8	8
72	Theoretical approach to photoinduced inhomogeneous anisotropy in bacteriorhodopsin films. *Physical Review E*, **2007**, 76, 016608	2.4	5
71	Polynomial fixed-point algorithm applied to the electromagnetic analysis of one-dimensional continuous structures. *Journal of the Optical Society of America B: Optical Physics*, **2007**, 24, 1354	1.7	2
70	Holographic reflection gratings in photopolymerizable solgel materials. *Optics Letters*, **2006**, 31, 2317-9	3	7

69	Matrix method for the study of wave propagation in one-dimensional general media. *Optics Express*, **2006**, 14, 11385-91	3.3	17
68	Experimental study of multiplexed holographic gratings recorded in a photopolymerizable silica glass. *Applied Physics B: Lasers and Optics*, **2006**, 83, 619-622	1.9	4
67	Bidimensional chromophores for photorefractive polymers with working wavelength in the near IR. *Optics Express*, **2005**, 13, 8296-307	3.3	2
66	Application of the Fixed Point Theorem for the solution of the 1D wave equation: comparison with exact Mathieu solutions. *Optics Express*, **2005**, 13, 9078-84	3.3	3
65	Analysis of the diffusion processes in dry photopolymerizable holographic recording materials **2005** ,		3
64	Hologram multiplexing in a highly photosensitive photopolymerizable material in a sol-gel matrix. *Applied Physics B: Lasers and Optics*, **2005**, 81, 167-169	1.9	11
63	Upper limits of dielectric permittivity modulation in bacteriorhodopsin films. *Physical Review E*, **2005**, 72, 011909	2.4	2
62	High T(g) photorefractive polymers: influence of the chromophores' beta tensor. *Journal of Chemical Physics*, **2004**, 121, 8602-10	3.9	1
61	Large enhancement of electronic first hyperpolarizability in Donor1Donor2 chromophores with charge defects. *Chemical Physics Letters*, **2004**, 394, 76-79	2.5	4
60	Diffraction gratings and diffusion coefficient determination of acrylamide and polyacrylamide in sol-gel glass. *Applied Physics Letters*, **2004**, 84, 4765-4767	3.4	11
59	Acrylamide-N,N'-methylenebisacrylamide silica glass holographic recording material. *Optics Express*, **2004**, 12, 1780-7	3.3	25
58	Multiplexed holographic gratings for fabricating 3D photonic crystals in BB640 photographic emulsions. *Optics Express*, **2004**, 12, 2903-8	3.3	4
57	One-dimensional photonic crystals with an amplitude-modulated dielectric constant in the unit cell. *Applied Optics*, **2004**, 43, 2895-9	1.7	3
56	Full characterization of holographic reflection gratings recorded on BB640 emulsions. *Applied Optics*, **2004**, 43, 4219-24	1.7	1
55	One-dimensional, two-dimensional, and three-dimensional photonic crystals fabricated with interferometric techniques on ultrafine-grain silver halide emulsions **2004**,		3
54	Theoretical study of second-order non-linear optical properties of pyrromethene dyes for photonic application. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2003**, 36, 2445-2454	1.3	10
53	Photopolymerization model for holographic gratings formation in photopolymers. *Applied Physics B: Lasers and Optics*, **2003**, 77, 639-662	1.9	40
52	Pyrromethene-HEMA-based photopolymerizable holographic recording material. *Optics Communications*, **2003**, 228, 55-61	2	20

51	DipyrrometheneBF_2 complexes with optimized electrooptic properties. *Chemical Physics Letters*, **2003**, 382, 489-495	2.5	11
50	Ab initio study of absorption and emission spectra of PM567. *Chemical Physics Letters*, **2003**, 374, 206-214	2.5	15
49	Optimization of a photopolymerizable holographic recording material based on polyvinylalcohol using angular responses. *Optical Materials*, **2003**, 23, 529-538	3.3	15
48	Nonlinear effects on holographic reflection gratings recorded with BB640 emulsions. *Optics Express* , **2003**, 11, 1906-17	3.3	9
47	Multiple band holographic reflection gratings recorded in new ultra-fine grain emulsion BBVPan. *Optics Express*, **2003**, 11, 3385-92	3.3	13
46	Purple membrane-polyacrilamide films as holographic recording materials. *Optics Express*, **2003**, 11, 3438-44	3.3	4
45	Holographic study of chain length in photopolymerizable compositions. *Applied Physics B: Lasers and Optics*, **2002**, 74, 243-251	1.9	8
44	New photopolymerizable holographic recording material based on polyvinylalcohol and 2-hydroxiethylmethacrylate (HEMA). *Applied Physics B: Lasers and Optics*, **2002**, 74, 603-605	1.9	6
43	Study of Effect of Bifunctional Crosslinking Agent in Polyvinylalcohol-Based Photopolymerizable Holographic Recording Material Using Angular Responses. *Japanese Journal of Applied Physics*, **2002**, 41, 3730-3736	1.4	7
42	Comparison of direct, rehalogenating, and solvent bleaching processes with BB-640 plates. *Applied Optics*, **2002**, 41, 4120-3	1.7	4
41	Real time study of the response of ascorbic as developer agent in holographic emulsions: superadditivity effects. *Optics Communications*, **2001**, 199, 317-324	2	3
40	Two-wave mixing in acrilamyde-based photopolymers **2001**,		2
39	Study of angular responses of mixed amplitude--phase holographic gratings: shifted Borrmann effect. *Optics Letters*, **2001**, 26, 786-8	3	28
38	Real time study of development process in holographic emulsions. *Optics Communications*, **2000**, 173, 195-201	2	2
37	Theoretical model of holographic grating formation in photopolymerizable dry films in slanted geometry. *Optics Communications*, **2000**, 173, 423-433	2	12
36	Dynamical behaviour of the optical properties of photopolymers and the lorentz-Lorenz formula. *Journal of Modern Optics*, **2000**, 47, 1419-1433	1.1	5
35	Hypersensitization in reflection holograms recorded in Agfa-Gevaert 8E75HD plates. *Journal of Modern Optics*, **2000**, 47, 81-89	1.1	
34	A mixture of mono-, bi- and trifunctional acrylates with eosine O-benzoyl-□oxooxime: Advances in holographic copolymerizable composition. *Journal of Modern Optics*, **1999**, 46, 559-566	1.1	4

33	Holography as a technique for the study of photopolymerization kinetics in dry polymeric films with a nonlinear response. *Applied Optics*, **1999**, 38, 955-62	1.7	24
32	A theoretical model for noise gratings recorded in acrylamide photopolymer materials used in real-time holography. *Journal of Modern Optics*, **1998**, 45, 2345-2354	1.1	17
31	Theoretical and experimental study of the bleaching of a dye in a film-polymerization process. *Applied Optics*, **1998**, 37, 4496-9	1.7	23
30	Optimization of an acrylamide-based dry film used for holographic recording. *Applied Optics*, **1998**, 37, 7604-10	1.7	42
29	Highly sensitive photopolymerizable dry film for use in real time holography. *Applied Physics Letters* , **1998**, 73, 1628-1630	3.4	31
28	Quantum yield and molar absorptivity for a dye photobleaching in a holographic recording material **1998**, 3294, 91		3
27	Axial irradiance and entropy of holographic optical elements under illumination with quasi-monochromatic light. *Journal of Modern Optics*, **1997**, 44, 431-438	1.1	
26	Optimum bending factor of intraocular lenses in pseudophakic eyes with high myopia. *Journal of Modern Optics*, **1997**, 44, 941-952	1.1	6
25	Accuracy of Topcon CM-1000 Videokeratoscope on Spherical Test Surfaces. *Journal of Refractive Surgery*, **1997**, 13, 663-668	3.3	1
24	Holographic optical elements in the presence of spherical aberration and focus error: Some remarks on imaging quality. *Journal of Modern Optics*, **1996**, 43, 1435-1450	1.1	
23	Real-time transmittance function in photopolymers of acrylamide composition: noise gratings **1996** ,		2
22	Influence of chromatic aberration on image quality in pseudophakic eyes with high myopia **1996**,		2
21	Experimental evaluation of entropy for transmission holographic optical elements. *Applied Physics B: Lasers and Optics*, **1996**, 62, 45-50	1.9	3
20	Nonlinear Response of Photopolymers for Holography: Copolymerization Process. *Journal of Modern Optics*, **1995**, 42, 1351-1354	1.1	1
19	The computation and statistical analysis of aberrational diffraction patterns in holographic optical elements. *Journal of Optics*, **1995**, 26, 161-174		2
18	Noise sources in silver halide volume diffuse-object holograms. *Optical Engineering*, **1995**, 34, 1108	1.1	10
17	Self-induced phase gratings due to the inhomogeneous structure of acrylamide photopolymer systems used as holographic recording materials. *Applied Physics Letters*, **1995**, 67, 3856-3858	3.4	18
16	Triplet design as an intraocular lens for high myopia. *Applied Optics*, **1995**, 34, 2898-907	1.7	0

15	Diffuse-object Holograms in Silver Halide Sensitized Gelatin. *Journal of Modern Optics*, **1994**, 41, 649-653	1.1	5
14	Experimental evaluation of shearing effects in volume holograms formed in bleached photographic emulsions. *Optics and Laser Technology*, **1994**, 26, 341-349	4.2	1
13	Nonlinear recording of amplitude holograms in agfa 8E75HD: comparison of two developers. *Optics Communications*, **1994**, 111, 225-232	2	7
12	Entropy-based study of imaging quality in holographic optical elements. *Optics Letters*, **1994**, 19, 1355-7	3	9
11	Axial irradiance for spherically aberrated holographic optical elements. *Optics Letters*, **1994**, 19, 1477-9	3	4
10	Holographic optical elements recorded on spherical surfaces with photopolymers. *Applied Optics*, **1994**, 33, 3633-4	1.7	5
9	Signal-to-noise ratio of nonlinearity recorded holograms of diffuse objects. *Applied Optics*, **1994**, 33, 7606-10	1.7	
8	Statistical Model for Noise Gratings Recorded in Volume Holograms. *Journal of Modern Optics*, **1993**, 40, 1299-1308	1.1	4
7	Holographic Noise Gratings for Analysing and Optimizing Photochemical Processings in Bleached Silver Halide Emulsions. *Journal of Modern Optics*, **1993**, 40, 687-697	1.1	10
6	The use of partially coherent light to reduce the efficiency of silver halide noise gratings. *Optics Communications*, **1993**, 98, 236-240	2	25
5	Application of the Ronchi test to intraocular lenses: A comparison of theoretical and measured results. *Applied Optics*, **1993**, 32, 4132-7	1.7	6
4	Polarization influences on the efficiency of noise gratings recorded in silver halide holograms. *Applied Optics*, **1993**, 32, 7155-63	1.7	3
3	Measurement of spherical aberration of intraocular lenses with the Ronchi test. *Optometry and Vision Science*, **1992**, 69, 190-2	2.1	4
2	Volume influence on intermodulation noise of dielectric diffuse-object holograms. *Applied Optics*, **1992**, 31, 2408-9	1.7	5
1	Transformation of wavefront aberrations of holographic lenses for a general position of the exit pupil. *Journal of Optics*, **1991**, 22, 163-173		2