

# Karen Volke-Sepulveda

## List of Publications by Year in descending order

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Version: 2024-02-01

73  
papers

2,350  
citations

331670

21  
h-index

243625

44  
g-index

73  
all docs

73  
docs citations

73  
times ranked

1660  
citing authors

#	ARTICLE	IF	CITATIONS
1	10.1063/5.0041198.1., 2021, , .		0
2	Guiding light with singular beams in nanoplasmonic colloids. Applied Physics Letters, 2021, 118, .	3.3	7
3	Optical tweezers " from calibration to applications: a tutorial. Advances in Optics and Photonics, 2021, 13, 74.	25.5	127
4	Light Confinement with Structured Beams in Gold Nanoparticle Suspensions. Photonics, 2021, 8, 221.	2.0	3
5	Electro-active diffraction gratings for the generation of acoustic vortex beams. , 2021, , .		0
6	Active-spiral Fresnel zone plate with tunable focal length for airborne generation of focused acoustic vortices. Applied Physics Letters, 2020, 116, 114101.	3.3	19
7	Light control through a nonlinear lensing effect in a colloid of biosynthesized gold nanoparticles. Journal of Modern Optics, 2019, 66, 502-511.	1.3	13
8	Creation of optical speckle by randomizing a vortex-lattice. Optics Express, 2019, 27, 4105.	3.4	3
9	Generation of multiple vortex beam by means of active diffraction gratings. Applied Physics Letters, 2018, 112, .	3.3	35
10	Experimental stochastic systems based on optical forces. Journal of Physics: Conference Series, 2018, 1092, 012173.	0.4	0
11	Acoustic analysis of a broadband spiral source for the simultaneous generation of multiple Bessel vortices in air. Journal of the Acoustical Society of America, 2018, 144, 3252-3261.	1.1	10
12	Motion rectification and transport control in 2D optical Brownian ratchets. , 2018, , .		0
13	Underdamped and overdamped dynamics of objects in nonlinear optical potentials. , 2018, , .		0
14	Omnidirectional Transport in Fully Reconfigurable Two Dimensional Optical Ratchets. Physical Review Letters, 2017, 118, 138002.	7.8	46
15	Steering and switching of soliton-like beams via interaction in a nanocolloid with positive polarizability. Optics Letters, 2017, 42, 2487.	3.3	9
16	Formation of Spatial Solitons in a Colloid of Biosynthesized Gold Nanoparticles. , 2017, , .		0
17	A new path to speckle by randomizing a vortex lattice. , 2017, , .		0
18	Nonlinear optical properties of dielectric nanocolloids: Particle size and concentration effects. Journal of Nonlinear Optical Physics and Materials, 2016, 25, 1650048.	1.8	4

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19	Comparative study of optical levitation traps: focused Bessel beam versus Gaussian beams. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 1060.	2.1	20
20	3D micromanipulation at low numerical aperture with a single light beam: the focused-Bessel trap. Optics Letters, 2016, 41, 614.	3.3	22
21	Characterization of optical nonlinearity and formation of Self-Collimated Beams in nanocolloids. , 2016, , .		1
22	Analysis of self-collimated beams in nanocolloids as a function of particle size and concentration. , 2016, , .		0
23	Polarization effects in the interaction between multi-level atoms and two optical fields. Physica Scripta, 2015, 90, 068017.	2.5	6
24	Optical spatial solitons in bidisperse fluorescent nanocolloids. , 2015, , .		0
25	Waveguides in colloidal nanosuspensions. , 2014, , .		2
26	Beam-splitting waveguides induced in nanocolloids. Proceedings of SPIE, 2014, , .	0.8	1
27	Optical sorting of nonspherical and living microobjects in moving interference structures. Optics Express, 2014, 22, 29746.	3.4	22
28	A Macroscopic Tractor Beam with Acoustic Waves. Physics Magazine, 2014, 7, .	0.1	1
29	Guiding and Steering Light With Nanocolloids. , 2014, , .		0
30	Attractive-repulsive dynamics on light-responsive chiral microparticles induced by polarized tweezers. Lab on A Chip, 2013, 13, 459-467.	6.0	56
31	Dynamical analysis of an optical rocking ratchet: Theory and experiment. Physical Review E, 2013, 87, 062910.	2.1	11
32	Quantitative characterization of the energy circulation in helical beams by means of near-field diffraction. Optics Express, 2013, 21, 3379.	3.4	9
33	Steering and guiding light with light in a nanosuspension. Optics Letters, 2013, 38, 5284.	3.3	16
34	Polarization holograms allow highly efficient generation of complex light beams. Optics Express, 2013, 21, 7505.	3.4	19
35	Publisher's Note: Dynamical analysis of an optical rocking ratchet: Theory and experiment [Phys. Rev. E87, 062910 (2013)]. Physical Review E, 2013, 87, .	2.1	0
36	A New Type of Light With Optical Chirality. , 2012, , .		0

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37	Generation of complex beams by means of polarization holograms. Proceedings of SPIE, 2012, , .	0.8	0
38	Light with enhanced optical chirality. Optics Letters, 2012, 37, 3486.	3.3	51
39	Current reversals in a deterministic optical rocking ratchet. , 2012, , .		0
40	Experimental Control of Transport and Current Reversals in a Deterministic Optical Rocking Ratchet. Physical Review Letters, 2011, 106, 168104.	7.8	67
41	Transverse energy flux estimation in optical vortices by single-slit diffraction. Proceedings of SPIE, 2011, , .	0.8	0
42	Angular Momentum in Optics and Acoustics: Complementary Studies. , 2011, , .		1
43	Can diffraction provide quantitative information about energy flux in an optical vortex?. , 2011, , .		0
44	Deterministic optical rocking ratchet: theory and experiment. Proceedings of SPIE, 2010, , .	0.8	0
45	Particles dynamics in travelling optical lattices. , 2010, , .		0
46	Experimental generation of Mathieuâ€™Gauss beams with a phase-only spatial light modulator. Applied Optics, 2010, 49, 6903.	2.1	34
47	Experimental generation and dynamical reconfiguration of different circular optical lattices for applications in atom trapping. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 948.	2.1	15
48	Transfer of Angular Momentum to Matter from Acoustical Vortices in Free Space. Topologica, 2009, 2, 016.	0.3	1
49	Wave fields with a periodic orbital angular momentum gradient along a single axis: a chain of vortices. New Journal of Physics, 2009, 11, 043004.	2.9	11
50	Force mapping of an extended light pattern in an inclined plane: Deterministic regime. Optics Express, 2009, 17, 3429.	3.4	9
51	A demonstration of rotating sound waves in free space and the transfer of their angular momentum to matter. American Journal of Physics, 2009, 77, 209-215.	0.7	40
52	All-optical 3D atomic loops generated with Bessel light fields. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 085303.	1.5	23
53	Transfer of Angular Momentum to Matter from Acoustical Vortices in Free Space. Physical Review Letters, 2008, 100, 024302.	7.8	193
54	Characterization of a periodic optical potential by means of particle dynamics analysis in a deterministic regime. Proceedings of SPIE, 2008, , .	0.8	0

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55	Rotating matter with optical and acoustical wavefields: new aspects of angular momentum transfer. , 2007, , .		0
56	Transverse particle dynamics in a Bessel beam. Optics Express, 2007, 15, 13972.	3.4	80
57	Modulated optical sieve for sorting of polydisperse microparticles. Applied Physics Letters, 2006, 88, 121116.	3.3	64
58	Experimental generation and analysis of first-order TE and TM Bessel modes in free space. Optics Letters, 2006, 31, 1732.	3.3	49
59	Enhanced optical guiding of colloidal particles using a supercontinuum light source. Optics Express, 2006, 14, 5792.	3.4	20
60	General construction and connections of vector propagation invariant optical fields: TE and TM modes and polarization states. Journal of Optics, 2006, 8, 867-877.	1.5	37
61	Transverse electric (TE) and transverse magnetic (TM) vector vortices in free-space: analysis and experimental generation. , 2006, , .		3
62	Enhanced particle guiding using supercontinuum radiation. , 2006, , .		0
63	Characterization of an interferometric optical sieve for particle sorting. , 2006, , .		0
64	Hollow spheres as individual movable micromirrors in optical tweezers. Optics Express, 2005, 13, 968.	3.4	4
65	Three-dimensional optical forces and transfer of orbital angular momentum from multiringed light beams to spherical microparticles. Journal of the Optical Society of America B: Optical Physics, 2004, 21, 1749.	2.1	66
66	Optical guiding using Gaussian and Bessel light beams. , 2003, 5121, 68.		1
67	Continuous motion of interference patterns using the angular Doppler effect. , 2003, 5121, 98.		1
68	Moving interference patterns created using the angular Doppler-effect. Optics Express, 2002, 10, 844.	3.4	36
69	Transfer of orbital angular momentum to an optically trapped low-index particle. Physical Review A, 2002, 66, .	2.5	156
70	Orbital angular momentum of a high-order Bessel light beam. Journal of Optics B: Quantum and Semiclassical Optics, 2002, 4, S82-S89.	1.4	357
71	Creation and Manipulation of Three-Dimensional Optically Trapped Structures. Science, 2002, 296, 1101-1103.	12.6	481
72	Revolving interference patterns for the rotation of optically trapped particles. Optics Communications, 2002, 201, 21-28.	2.1	88

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73	Controlled rotation of trapped particles in a spiral interference pattern. , 2001, , .		0