

# Avi Niv

## List of Publications by Year in descending order

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66  
papers

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citations

236612

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233125

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g-index

66  
all docs

66  
docs citations

66  
times ranked

2715  
citing authors

#	ARTICLE	IF	CITATIONS
1	Geometrodynamics of spinning light. Nature Photonics, 2008, 2, 748-753.	15.6	500
2	Polarization dependent focusing lens by use of quantized Pancharatnamâ€™Berry phase diffractive optics. Applied Physics Letters, 2003, 82, 328-330.	1.5	388
3	Observation of the Spin-Based Plasmonic Effect in Nanoscale Structures. Physical Review Letters, 2008, 101, 043903.	2.9	347
4	Formation of helical beams by use of Pancharatnamâ€™Berry phase optical elements. Optics Letters, 2002, 27, 1875.	1.7	316
5	Manipulation of the Pancharatnam phase in vectorial vortices. Optics Express, 2006, 14, 4208.	1.7	174
6	Propagation-invariant vectorial Bessel beams obtained by use of quantized Pancharatnamâ€™Berry phase optical elements. Optics Letters, 2004, 29, 238.	1.7	145
7	Polarization beam-splitters and optical switches based on space-variant computer-generated subwavelength quasi-periodic structures. Optics Communications, 2002, 209, 45-54.	1.0	108
8	Enhanced coherency of thermal emission: Beyond the limitation imposed by delocalized surface waves. Physical Review B, 2007, 76, .	1.1	82
9	Spiral phase elements obtained by use of discrete space-variant subwavelength gratings. Optics Communications, 2005, 251, 306-314.	1.0	81
10	Space-variant polarization manipulation. Progress in Optics, 2005, 47, 215-289.	0.4	81
11	Solar energy enhancement using down-converting particles: A rigorous approach. Journal of Applied Physics, 2011, 109, .	1.1	78
12	Highly coherent thermal emission obtained by plasmonic bandgap structures. Applied Physics Letters, 2008, 92, .	1.5	66
13	Geometrical phase image encryption obtained with space-variant subwavelength gratings. Optics Letters, 2005, 30, 1096.	1.7	61
14	Formation of linearly polarized light with axial symmetry by use of space-variant subwavelength gratings. Optics Letters, 2003, 28, 510.	1.7	60
15	Space-variant polarization manipulation of a thermal emission by a SiO <sub>2</sub> subwavelength grating supporting surface phonon-polaritons. Applied Physics Letters, 2005, 86, 191102.	1.5	59
16	Rotating vectorial vortices produced by space-variant subwavelength gratings. Optics Letters, 2005, 30, 2933.	1.7	56
17	Singular polarimetry: Evolution of polarization singularities in electromagnetic waves propagating in a weakly anisotropic medium. Optics Express, 2008, 16, 695.	1.7	54
18	Extraordinary Coherent Thermal Emission From SiC Due to Coupled Resonant Cavities. Journal of Heat Transfer, 2008, 130, .	1.2	49

#	ARTICLE	IF	CITATIONS
19	Topological spin-orbit interaction of light in anisotropic inhomogeneous subwavelength structures. Optics Letters, 2008, 33, 2910.	1.7	43
20	Near-Field Electromagnetic Theory for Thin Solar Cells. Physical Review Letters, 2012, 109, 138701.	2.9	42
21	Space-variant polarization manipulation for far-field polarimetry by use of subwavelength dielectric gratings. Optics Letters, 2005, 30, 2245.	1.7	37
22	Metallic subwavelength structures for a broadband infrared absorption control. Optics Letters, 2007, 32, 994.	1.7	33
23	Near-field Fourier transform polarimetry by use of a discrete space-variant subwavelength grating. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2003, 20, 1940.	0.8	31
24	Overcoming the bandgap limitation on solar cell materials. Applied Physics Letters, 2012, 100, .	1.5	31
25	Excitation of a single hollow waveguide mode using inhomogeneous anisotropic subwavelength structures. Optics Express, 2007, 15, 13404.	1.7	27
26	Computer-generated infrared depolarizer using space-variant subwavelength dielectric gratings. Optics Letters, 2003, 28, 1400.	1.7	25
27	Theoretical efficiency of 3rd generation solar cells: Comparison between carrier multiplication and down-conversion. Solar Energy Materials and Solar Cells, 2012, 99, 308-315.	3.0	25
28	Polychromatic vectorial vortex formed by geometric phase elements. Optics Letters, 2007, 32, 847.	1.7	22
29	Nondiffracting periodically space-variant polarization beams with subwavelength gratings. Applied Physics Letters, 2002, 80, 3685-3687.	1.5	21
30	Vectorial vortex mode transformation for a hollow waveguide using Pancharatnam-Berry phase optical elements. Optics Letters, 2006, 31, 3252.	1.7	21
31	Proposed isotropic negative index in three-dimensional optical metamaterials. Physical Review B, 2012, 85, .	1.1	20
32	Manipulation of polarization-dependent multivortices with quasi-periodic subwavelength structures. Optics Letters, 2006, 31, 1594.	1.7	18
33	Thermal image encryption obtained with a SiO <sub>2</sub> space-variant subwavelength grating supporting surface phonon-polaritons. Optics Letters, 2005, 30, 3195.	1.7	16
34	Optical properties of polarization-dependent geometric phase elements with partially polarized light. Optics Communications, 2006, 266, 365-375.	1.0	16
35	Switchable Graphene-Based Bioelectronics Interfaces. Chemosensors, 2020, 8, 45.	1.8	14
36	Space-variant polarization scrambling for image encryption obtained with subwavelength gratings. Optics Communications, 2006, 261, 5-12.	1.0	13

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37	Polarization Talbot self-imaging with computer-generated, space-variant subwavelength dielectric gratings. Applied Optics, 2002, 41, 5218.	2.1	11
38	Phase Optics: Formation of Pancharatnam- Berry Phase Optical Elements With Space-Variant Subwavelength Gratings. Optics and Photonics News, 2002, 13, 45.	0.4	8
39	Polarization: Spatial Fourier-Transform Polarimetry By Use of Space-Variant Subwavelength Gratings. Optics and Photonics News, 2003, 14, 34.	0.4	7
40	Second-harmonic generation from subwavelength metal heterodimers. Optics Express, 2020, 28, 31468.	1.7	7
41	Shear strain bandgap tuning of monolayer MoS <sub>2</sub> . Applied Physics Letters, 2020, 117, .	1.5	6
42	Separation of light confinement and absorption sites for enhancing solar water splitting. Journal of Materials Chemistry A, 2016, 4, 3043-3051.	5.2	4
43	Light generated bubble for microparticle propulsion. Scientific Reports, 2017, 7, 2814.	1.6	3
44	Second-harmonic generation of electrostatic origin from extreme nanosized bi-metal structures. Optics Letters, 2018, 43, 3662.	1.7	3
45	Space-variant polarization-state manipulation with computer-generated subwavelength gratings. , 2003, 4984, 171.		2
46	Formation of complex wavefronts by use of quasiperiodic subwavelength structures. , 2004, , .		1
47	Spinoptics: Spin-Based Plasmonics in Nanostructures. Optics and Photonics News, 2008, 19, 43.	0.4	1
48	Enhanced coherency of thermal emission by coupled resonant cavities supporting surface waves. , 2008, , .		1
49	Coherent control of thermal emission from SiC due to coupled resonant cavity structure. , 2008, , .		1
50	A comparison of $\text{3rd}$ generation solar cell efficiencies using thermodynamic transfer functions: Which method is best?. , 2011, , .		1
51	Inhomogeneous anisotropic subwavelength structures for the excitation of single hollow waveguide modes. , 2008, , .		1
52	Formation of discrete space-variant subwavelength dielectric gratings for polarimetric measurements. , 2005, , .		0
53	Formation of Vectorial Vortices by use of Discretely Oriented Space-Variant Subwavelength Gratings. , 2005, , FThG3.		0
54	Vectorial vortices obtained with quantized Pancharatnam-Berry phase optical elements. , 2006, , .		0

#	ARTICLE	IF	CITATIONS
55	Space-variant polarization manipulation of a thermal emission by a polar material subwavelength grating supporting surface phonon-polaritons. , 2006, , .		0
56	Enhanced coherent thermal emission of coupled resonant cavities due to surface phonon-polariton excitation. , 2007, , .		0
57	Light manipulation by use of inhomogeneous anisotropic subwavelength structures. , 2008, , .		0
58	Coherent thermal source formed by periodic microcavities. , 2008, , .		0
59	Spinoptics: spin symmetry breaking in plasmonic nanostructures. Proceedings of SPIE, 2009, , .	0.8	0
60	Spinoptics: Dynamics of Spinning Light in Nanoscale-Structure. , 2009, , .		0
61	A new analysis for solar cell efficiency: Rigorous electromagnetic approach. , 2011, , .		0
62	Strain-induced optoelectronic tunability of fiber grown 2D transition metal dichalcogenides. , 2021, , .		0
63	Pure Nonlinear Optical Response in Plasmonic Nanoantennas. , 2021, , .		0
64	Enhanced Coherency of Thermal Emission From SiC by Coupled Resonant Cavity Structure. , 2008, , .		0
65	Reactive granular optics for passive tracking of the sun. , 2017, , .		0
66	Unique Nonlinear Optical Response from a Deep Subwavelength Bi-Metal Dimer. , 2021, , .		0