

Avi Niv

List of Publications by Year in descending order

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66
papers

3,217
citations

236612

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all docs

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docs citations

66
times ranked

2715
citing authors

#	ARTICLE	IF	CITATIONS
1	Strain-induced optoelectronic tunability of fiber grown 2D transition metal dichalcogenides. , 2021, , .		0
2	Pure Nonlinear Optical Response in Plasmonic Nanoantennas. , 2021, , .		0
3	Unique Nonlinear Optical Response from a Deep Subwavelength Bi-Metal Dimer. , 2021, , .		0
4	Shear strain bandgap tuning of monolayer MoS2. Applied Physics Letters, 2020, 117, .	1.5	6
5	Switchable Graphene-Based Bioelectronics Interfaces. Chemosensors, 2020, 8, 45.	1.8	14
6	Second-harmonic generation from subwavelength metal heterodimers. Optics Express, 2020, 28, 31468.	1.7	7
7	Second-harmonic generation of electrostatic origin from extreme nanosized bi-metal structures. Optics Letters, 2018, 43, 3662.	1.7	3
8	Light generated bubble for microparticle propulsion. Scientific Reports, 2017, 7, 2814.	1.6	3
9	Reactive granular optics for passive tracking of the sun. , 2017, , .		0
10	Separation of light confinement and absorption sites for enhancing solar water splitting. Journal of Materials Chemistry A, 2016, 4, 3043-3051.	5.2	4
11	Overcoming the bandgap limitation on solar cell materials. Applied Physics Letters, 2012, 100, .	1.5	31
12	Proposed isotropic negative index in three-dimensional optical metamaterials. Physical Review B, 2012, 85, .	1.1	20
13	Near-Field Electromagnetic Theory for Thin Solar Cells. Physical Review Letters, 2012, 109, 138701.	2.9	42
14	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
15	A new analysis for solar cell efficiency: Rigorous electromagnetic approach. , 2011, , .		0
16	Solar energy enhancement using down-converting particles: A rigorous approach. Journal of Applied Physics, 2011, 109, .	1.1	78
17	A comparison of 3 rd generation solar cell efficiencies using thermodynamic transfer functions: Which method is best?. , 2011, , .		1
18	Spinoptics: spin symmetry breaking in plasmonic nanostructures. Proceedings of SPIE, 2009, , .	0.8	0

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19	Spinoptics: Dynamics of Spinning Light in Nanoscale-Structure. , 2009, , .		0
20	Geometrodynamics of spinning light. Nature Photonics, 2008, 2, 748-753.	15.6	500
21	Observation of the Spin-Based Plasmonic Effect in Nanoscale Structures. Physical Review Letters, 2008, 101, 043903.	2.9	347
22	Highly coherent thermal emission obtained by plasmonic bandgap structures. Applied Physics Letters, 2008, 92, .	1.5	66
23	Topological spin-orbit interaction of light in anisotropic inhomogeneous subwavelength structures. Optics Letters, 2008, 33, 2910.	1.7	43
24	Spinoptics: Spin-Based Plasmonics in Nanostructures. Optics and Photonics News, 2008, 19, 43.	0.4	1
25	Singular polarimetry: Evolution of polarization singularities in electromagnetic waves propagating in a weakly anisotropic medium. Optics Express, 2008, 16, 695.	1.7	54
26	Extraordinary Coherent Thermal Emission From SiC Due to Coupled Resonant Cavities. Journal of Heat Transfer, 2008, 130, .	1.2	49
27	Light manipulation by use of inhomogeneous anisotropic subwavelength structures. , 2008, , .		0
28	Enhanced coherency of thermal emission by coupled resonant cavities supporting surface waves. , 2008, , .		1
29	Coherent control of thermal emission from SiC due to coupled resonant cavity structure. , 2008, , .		1
30	Coherent thermal source formed by periodic microcavities. , 2008, , .		0
31	Enhanced Coherency of Thermal Emission From SiC by Coupled Resonant Cavity Structure. , 2008, , .		0
32	Inhomogeneous anisotropic subwavelength structures for the excitation of single hollow waveguide modes. , 2008, , .		1
33	Enhanced coherency of thermal emission: Beyond the limitation imposed by delocalized surface waves. Physical Review B, 2007, 76, .	1.1	82
34	Enhanced coherent thermal emission of coupled resonant cavities due to surface phonon-polariton excitation. , 2007, , .		0
35	Polychromatic vectorial vortex formed by geometric phase elements. Optics Letters, 2007, 32, 847.	1.7	22
36	Metallic subwavelength structures for a broadband infrared absorption control. Optics Letters, 2007, 32, 994.	1.7	33

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37	Excitation of a single hollow waveguide mode using inhomogeneous anisotropic subwavelength structures. Optics Express, 2007, 15, 13404.	1.7	27
38	Manipulation of polarization-dependent multivortices with quasi-periodic subwavelength structures. Optics Letters, 2006, 31, 1594.	1.7	18
39	Vectorial vortex mode transformation for a hollow waveguide using Pancharatnam-Berry phase optical elements. Optics Letters, 2006, 31, 3252.	1.7	21
40	Manipulation of the Pancharatnam phase in vectorial vortices. Optics Express, 2006, 14, 4208.	1.7	174
41	Vectorial vortices obtained with quantized Pancharatnam-Berry phase optical elements. , 2006, , .		0
42	Space-variant polarization manipulation of a thermal emission by a polar material subwavelength grating supporting surface phonon-polaritons. , 2006, , .		0
43	Space-variant polarization scrambling for image encryption obtained with subwavelength gratings. Optics Communications, 2006, 261, 5-12.	1.0	13
44	Optical properties of polarization-dependent geometric phase elements with partially polarized light. Optics Communications, 2006, 266, 365-375.	1.0	16
45	Formation of discrete space-variant subwavelength dielectric gratings for polarimetric measurements. , 2005, , .		0
46	Spiral phase elements obtained by use of discrete space-variant subwavelength gratings. Optics Communications, 2005, 251, 306-314.	1.0	81
47	Space-variant polarization manipulation. Progress in Optics, 2005, 47, 215-289.	0.4	81
48	Formation of Vectorial Vortices by use of Discretely Oriented Space-Variant Subwavelength Gratings. , 2005, , FThG3.		0
49	Space-variant polarization manipulation of a thermal emission by a SiO ₂ subwavelength grating supporting surface phonon-polaritons. Applied Physics Letters, 2005, 86, 191102.	1.5	59
50	Geometrical phase image encryption obtained with space-variant subwavelength gratings. Optics Letters, 2005, 30, 1096.	1.7	61
51	Space-variant polarization manipulation for far-field polarimetry by use of subwavelength dielectric gratings. Optics Letters, 2005, 30, 2245.	1.7	37
52	Rotating vectorial vortices produced by space-variant subwavelength gratings. Optics Letters, 2005, 30, 2933.	1.7	56
53	Thermal image encryption obtained with a SiO ₂ space-variant subwavelength grating supporting surface phonon-polaritons. Optics Letters, 2005, 30, 3195.	1.7	16
54	Propagation-invariant vectorial Bessel beams obtained by use of quantized Pancharatnam-Berry phase optical elements. Optics Letters, 2004, 29, 238.	1.7	145

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55	Formation of complex wavefronts by use of quasiperiodic subwavelength structures. , 2004, , .		1
56	Formation of linearly polarized light with axial symmetry by use of space-variant subwavelength gratings. Optics Letters, 2003, 28, 510.	1.7	60
57	Computer-generated infrared depolarizer using space-variant subwavelength dielectric gratings. Optics Letters, 2003, 28, 1400.	1.7	25
58	Polarization: Spatial Fourier-Transform Polarimetry By Use of Space-Variant Subwavelength Gratings. Optics and Photonics News, 2003, 14, 34.	0.4	7
59	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
60	Polarization dependent focusing lens by use of quantized Pancharatnamâ€Berry phase diffractive optics. Applied Physics Letters, 2003, 82, 328-330.	1.5	388
61	Space-variant polarization-state manipulation with computer-generated subwavelength gratings. , 2003, 4984, 171.		2
62	Nondiffracting periodically space-variant polarization beams with subwavelength gratings. Applied Physics Letters, 2002, 80, 3685-3687.	1.5	21
63	Formation of helical beams by use of Pancharatnamâ€Berry phase optical elements. Optics Letters, 2002, 27, 1875.	1.7	316
64	Phase Optics: Formation of Pancharatnam- Berry Phase Optical Elements With Space-Variant Subwavelength Gratings. Optics and Photonics News, 2002, 13, 45.	0.4	8
65	Polarization Talbot self-imaging with computer-generated, space-variant subwavelength dielectric gratings. Applied Optics, 2002, 41, 5218.	2.1	11
66	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