

Yonatan Sivan

List of Publications by Year in descending order

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Version: 2024-02-01

86
papers

1,993
citations

279487

23
h-index

264894

42
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88
all docs

88
docs citations

88
times ranked

1754
citing authors

#	ARTICLE	IF	CITATIONS
1	Distinguishing Thermal from Nonthermal (‘‘Hot’’) Carriers in Illuminated Molecular Junctions. <i>Nano Letters</i> , 2022, 22, 2127-2133.	4.5	10
2	Photothermal nonlinearity in plasmon-assisted photocatalysis. <i>Nanoscale</i> , 2022, 14, 5022-5032.	2.8	7
3	Distinguishing thermal from non-thermal contributions to plasmonic hydrodefluorination. <i>Nature Catalysis</i> , 2022, 5, 244-246.	16.1	13
4	Resolving the Gibbs phenomenon via a discontinuous basis in a mode solver for open optical systems. <i>Journal of Computational Physics</i> , 2021, 429, 110004.	1.9	9
5	Optimization of second-harmonic generation from touching plasmonic wires. <i>Physical Review B</i> , 2021, 103, .	1.1	5
6	Scattering by lossy anisotropic scatterers: A modal approach. <i>Journal of Applied Physics</i> , 2021, 129, .	1.1	5
7	The Role of Heat Generation and Fluid Flow in Plasmon-Enhanced Reduction–Oxidation Reactions. <i>ACS Photonics</i> , 2021, 8, 1183-1190.	3.2	24
8	Theory of ‘‘Hot’’-Photoluminescence from Drude Metals. <i>ACS Nano</i> , 2021, 15, 8724-8732.	7.3	15
9	Sum frequency generation from touching wires: a transformation optics approach. <i>Optics Letters</i> , 2021, 46, 2079.	1.7	0
10	Recent developments in plasmon-assisted photocatalysis—A personal Perspective. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	32
11	An efficient solver for the generalized normal modes of non-uniform open optical resonators. <i>Journal of Computational Physics</i> , 2020, 422, 109754.	1.9	10
12	Effective Electron Temperature Measurement Using Time-Resolved Anti-Stokes Photoluminescence. <i>Journal of Physical Chemistry A</i> , 2020, 124, 6968-6976.	1.1	21
13	Reply to the ‘‘Comment on ‘‘Thermal effects’’ an alternative mechanism for plasmon-assisted photocatalysis’’ by P. Jain, <i>Chem. Sci.</i> , 2020, 11, DOI: 10.1039/D0SC02914A. <i>Chemical Science</i> , 2020, 11, 9024-9025.		7
14	Stopping light using a transient Bragg grating. <i>Physical Review A</i> , 2020, 101, .	1.0	1
15	Thermal effects ‘‘ an alternative mechanism for plasmon-assisted photocatalysis. <i>Chemical Science</i> , 2020, 11, 5017-5027.	3.7	135
16	Overcoming the bottleneck for quantum computations of complex nanophotonic structures: Purcell and Förster resonant energy transfer calculations using a rigorous mode-hybridization method. <i>Physical Review B</i> , 2020, 101, .	1.1	13
17	Ultrafast Dynamics of Optically Induced Heat Gratings in Metals. <i>ACS Photonics</i> , 2020, 7, 1271-1279.	3.2	26
18	Parametric study of temperature distribution in plasmon-assisted photocatalysis. <i>Nanoscale</i> , 2020, 12, 17821-17832.	2.8	23

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19	Thermo-optic nonlinearity of single metal nanoparticles under intense continuous wave illumination. <i>Physical Review Materials</i> , 2020, 4, .	0.9	16
20	Second-harmonic generation from subwavelength metal heterodimers. <i>Optics Express</i> , 2020, 28, 31468.	1.7	7
21	Experimental practices required to isolate thermal effects in plasmonic photo-catalysis: lessons from recent experiments. <i>OSA Continuum</i> , 2020, 3, 483.	1.8	38
22	Thermo-Optical Nonlinearity of Metallic Nanoparticle(s). , 2020, , .		0
23	Thermal effect in plasmon assisted photocatalyst: a parametric study. , 2020, , .		1
24	Surface second-harmonic generation from metallic-nanoparticle configurations: A transformation-optics approach. <i>Physical Review B</i> , 2019, 99, .	1.1	12
25	“Hot” electrons in metallic nanostructures – non-thermal carriers or heating?. <i>Light: Science and Applications</i> , 2019, 8, 89.	7.7	135
26	Size-dependence of the photothermal response of a single metal nanosphere. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	20
27	Assistance of metal nanoparticles in photocatalysis – nothing more than a classical heat source. <i>Faraday Discussions</i> , 2019, 214, 215-233.	1.6	67
28	Applications in catalysis, photochemistry, and photodetection: general discussion. <i>Faraday Discussions</i> , 2019, 214, 479-499.	1.6	5
29	Theory of hot electrons: general discussion. <i>Faraday Discussions</i> , 2019, 214, 245-281.	1.6	34
30	Tracking ultrafast hot-electron diffusion in space and time by ultrafast thermomodulation microscopy. <i>Science Advances</i> , 2019, 5, eaav8965.	4.7	111
31	Dynamics of hot electron generation in metallic nanostructures: general discussion. <i>Faraday Discussions</i> , 2019, 214, 123-146.	1.6	21
32	New materials for hot electron generation: general discussion. <i>Faraday Discussions</i> , 2019, 214, 365-386.	1.6	9
33	Comment on “Quantifying hot carrier and thermal contributions in plasmonic photocatalysis”. <i>Science</i> , 2019, 364, .	6.0	108
34	Generalizing Normal Mode Expansion of Electromagnetic Green’s Tensor to Open Systems. <i>Physical Review Applied</i> , 2019, 11, .	1.5	37
35	Nanoparticle-Assisted STED Nanoscopy with Gold Nanospheres. <i>ACS Photonics</i> , 2018, 5, 2574-2583.	3.2	24
36	Pulse propagation in the slow and stopped light regime. <i>Optics Express</i> , 2018, 26, 19294.	1.7	5

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37	Nonlinear plasmonics at high temperatures. <i>Nanophotonics</i> , 2017, 6, 317-328.	2.9	53
38	Robust location of optical fiber modes via the argument principle method. <i>Computer Physics Communications</i> , 2017, 214, 105-116.	3.0	20
39	Metal nanospheres under intense continuous-wave illumination: A unique case of nonperturbative nonlinear nanophotonics. <i>Physical Review E</i> , 2017, 96, 012212.	0.8	21
40	Rapid simulation of lossy resonators via a robust spatial map of Green's tensor. , 2017, , .		0
41	Revisiting the boundary conditions for second-harmonic generation at metal-dielectric interfaces. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2017, 34, 1824.	0.9	24
42	Ns-duration transient Bragg gratings in silica fibers. <i>Optics Letters</i> , 2017, 42, 4748.	1.7	4
43	Nanoparticle-Assisted Stimulated Emission Depletion (STED) Super-Resolution Nanoscopy. , 2017, , 247-298.		1
44	Rigorous expansion of electromagnetic Green's tensor of lossy resonators in open systems. , 2017, , .		0
45	Temperature- and roughness-dependent permittivity of annealed/unannealed gold films. <i>Optics Express</i> , 2016, 24, 19254.	1.7	44
46	Nonlinear wave interactions between short pulses of different spatio-temporal extents. <i>Scientific Reports</i> , 2016, 6, 29010.	1.6	10
47	Reinterpreting the magnetoelectric coupling of polarizability tensors of infinite cylinders using symmetry: A simple TM/TE view. <i>Physical Review B</i> , 2016, 94, .	1.1	0
48	Coupled-mode theory for electromagnetic pulse propagation in dispersive media undergoing a spatiotemporal perturbation: Exact derivation, numerical validation, and peculiar wave mixing. <i>Physical Review B</i> , 2016, 93, .	1.1	14
49	Plasmonic Nanoprobes for Stimulated Emission Depletion Nanoscopy. <i>ACS Nano</i> , 2016, 10, 10454-10461.	7.3	29
50	Spontaneously formed autofocusing caustics in a confined self-defocusing medium. <i>Optica</i> , 2015, 2, 1053.	4.8	12
51	Short pulse generation based on ultrafast Transient Bragg Gratings. , 2015, , .		0
52	Nonlinear wave mixing in plasmonic structures: A transformation optics approach. , 2015, , .		0
53	Femtosecond-scale switching based on excited free-carriers. <i>Optics Express</i> , 2015, 23, 16416.	1.7	14
54	Retrieving the polarizability tensor of wire media. , 2015, , .		0

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55	Reinterpreting the magnetoelectric coupling of infinite cylinders using symmetry: a simple TM and TE view. Proceedings of SPIE, 2015, , .	0.8	0
56	Experimental Proof of Concept of Nanoparticle-Assisted STED. Nano Letters, 2014, 14, 4449-4453.	4.5	28
57	Nanoparticle-assisted STED, theory, and experimental demonstration (presentation video). , 2014, , .		0
58	Performance improvement in nanoparticle-assisted stimulated-emission-depletion nanoscopy. Applied Physics Letters, 2012, 101, 021111.	1.5	12
59	Independence of plasmonic near-field enhancements to illumination beam profile. Physical Review B, 2012, 86, .	1.1	10
60	Nanoparticle-Assisted Stimulated-Emission-Depletion Nanoscopy. ACS Nano, 2012, 6, 5291-5296.	7.3	31
61	Plasmonic Sinks for the Selective Removal of Long-Lived States. ACS Nano, 2011, 5, 9958-9965.	7.3	44
62	Broadband time-reversal of optical pulses using a switchable photonic-crystal mirror. Optics Express, 2011, 19, 14502.	1.7	19
63	A quantitative approach to soliton instability. Optics Letters, 2011, 36, 397.	1.7	8
64	Theory of wave-front reversal of short pulses in dynamically tuned zero-gap periodic systems. Physical Review A, 2011, 84, .	1.0	19
65	Time Reversal in Dynamically Tuned Zero-Gap Periodic Systems. Physical Review Letters, 2011, 106, 193902.	2.9	44
66	Frequency-domain modeling of TM wave propagation in optical nanostructures with a third-order nonlinear response. Optics Letters, 2009, 34, 3364.	1.7	9
67	Frequency-domain simulations of a negative-index material with embedded gain. Optics Express, 2009, 17, 24060.	1.7	67
68	Instability of bound states of a nonlinear Schrödinger equation with a Dirac potential. Physica D: Nonlinear Phenomena, 2008, 237, 1103-1128.	1.3	66
69	Qualitative and quantitative analysis of stability and instability dynamics of positive lattice solitons. Physical Review E, 2008, 78, 046602.	0.8	64
70	Analytic theory of narrow lattice solitons. Nonlinearity, 2008, 21, 509-536.	0.6	10
71	Extending Femtosecond Filamentation of High Power Laser Propagating in the Atmosphere. AIP Conference Proceedings, 2008, , .	0.3	0
72	Drift instability and tunneling of lattice solitons. Physical Review E, 2008, 77, 045601.	0.8	11

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73	Control of the filamentation distance and pattern in long range atmospheric propagation. , 2007, , NWB2.		0
74	Interaction-induced localization of self-defocusing discrete solitons. , 2007, , .		0
75	Interaction-induced localization of self-defocusing discrete solitons. , 2007, , .		0
76	Drift instability of multidimensional solitons in inhomogenous Kerr media. , 2007, , .		0
77	Control of the filamentation distance and pattern in long-range atmospheric propagation. Optics Express, 2007, 15, 2779.	1.7	27
78	Drift instability of multidimensional solitons in inhomogeneous Kerr media. , 2007, , .		0
79	Control of the collapse distance in atmospheric propagation. Optics Express, 2006, 14, 4946.	1.7	45
80	Bound states of nonlinear Schrödinger equations with a periodic nonlinear microstructure. Physica D: Nonlinear Phenomena, 2006, 217, 31-57.	1.3	105
81	Copper film deposition rates by a hot refractory anode vacuum arc and magnetically filtered vacuum arc. Surface and Coatings Technology, 2006, 201, 4145-4151.	2.2	8
82	Interaction-Induced Localization of Anomalous Diffracting Nonlinear Waves. Physical Review Letters, 2006, 97, 193901.	2.9	15
83	Waves in Nonlinear Lattices: Ultrashort Optical Pulses and Bose-Einstein Condensates. Physical Review Letters, 2006, 97, 193902.	2.9	96
84	Spatio-temporal Effects in Nonlinear Discrete Media. , 2006, , .		0
85	Plasmonics and hot electrons: feature issue introduction. Optical Materials Express, 0, , .	1.6	0
86	Generalised normal mode expansion method for open and lossy periodic structures. Journal of the Optical Society of America B: Optical Physics, 0, , .	0.9	2