Daniel Wasserman

List of Publications by Year
in descending order

162 papers	4,776 citations	126907 33 h-index	98798 67 g-index
167 all docs	167 docs citations	167 times ranked	4855 citing authors

#	Article	IF	Citations
1	Cascaded InGaSb quantum dot mid-infrared LEDs. Journal of Applied Physics, 2022, 131, 043105.	2.5	1
2	Extending plasmonic response to the mid-wave infrared with all-epitaxial composites. Optics Letters, 2022, 47, 973.	3.3	1
3	High operating temperature plasmonic infrared detectors. Applied Physics Letters, 2022, 120, .	3.3	9
4	All-epitaxial, laterally structured plasmonic materials. Applied Physics Letters, 2022, 120, .	3.3	5
5	Room-Temperature Mid-Wave Infrared Guided-Mode Resonance Detectors. IEEE Photonics Technology Letters, 2022, 34, 615-618.	2.5	8
6	Epitaxial mid-IR nanophotonic optoelectronics. Applied Physics Letters, 2022, 120, .	3.3	3
7	Plasmon-enhanced distributed Bragg reflectors. Infrared Physics and Technology, 2022, , 104236.	2.9	1
8	Guided-Mode Resonance Enhanced Ultra-Thin HOT Mid-Wave Infrared Detectors. , 2021, , .		0
9	The Ballistic Resonance: plasmonic response across IR with III-V semiconductors. , 2021, , .		0
10	Ultra-Thin All-Epitaxial Plasmonically Enhanced Long-Wave Infrared Detectors. , 2021, , .		0
11	Reflecting metagrating-enhanced thin-film organic light emitting devices. Applied Physics Letters, 2021, 118, .	3.3	5
12	All-epitaxial long-range surface plasmon polariton structures with integrated active materials. Journal of Applied Physics, 2021, 129, .	2.5	4
13	Interface structure and luminescence properties of epitaxial PbSe films on InAs(111)A. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	14
14	Measuring Molecular Diffusion Through Thin Polymer Films with Dual-Band Plasmonic Antennas. ACS Nano, 2021, 15, 10393-10405.	14.6	6
15	All-epitaxial guided-mode resonance mid-wave infrared detectors. Applied Physics Letters, 2021, 118, 201102.	3.3	30
16	Low-threshold InP quantum dot and InGaP quantum well visible lasers on silicon (001). Optica, 2021, 8, 1495.	9.3	10
17	Ultra-thin plasmonic detectors. Optica, 2021, 8, 1545.	9.3	22
18	Bright mid-infrared photoluminescence from high dislocation density epitaxial PbSe films on GaAs. APL Materials, 2021, 9, .	5.1	3

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19	Minority carrier lifetimes in digitally-grown, narrow-gap, AlInAsSb alloys. Applied Physics Letters, 2021, 119, .	3.3	1
20	Subdiffraction Limited Photonic Funneling of Light. Advanced Optical Materials, 2020, 8, 2001321.	7.3	1
21	Minority carrier lifetime and photoluminescence of mid-wave infrared InAsSbBi. Applied Physics Letters, 2020, 117, .	3.3	6
22	Far-Field Thermal Emission from Optical Antennas on an Epsilon-Near-Zero Substrate. , 2020, , .		0
23	Guided-Mode Resonance Enhanced Mid-Wave Infrared Detector. , 2020, , .		0
24	Engineering the Spectral Response of Long-Wave Infrared Detectors. , 2020, , .		0
25	Mid-Wave Infrared Quantum Dot Light Emitting Diodes. , 2020, , .		0
26	Photonic Funnels: Subdiffraction Limited Photonic Funneling of Light (Advanced Optical Materials) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	7.3	1
27	InSb pixel loaded microwave resonator for high-speed mid-wave infrared detection. Infrared Physics and Technology, 2020, 109, 103390.	2.9	7
28	Room-Temperature Mid-Infrared Detection via Resonant Microwave Circuits. IEEE Transactions on Electron Devices, 2020, 67, 1632-1638.	3.0	4
29	All-Epitaxial Integration of Long-Wavelength Infrared Plasmonic Materials and Detectors for Enhanced Responsivity. ACS Photonics, 2020, 7, 1950-1956.	6.6	19
30	Mid-infrared electroluminescence from type-II In(Ga)Sb quantum dots. Applied Physics Letters, 2020, 116, .	3.3	6
31	Enhanced emission from ultra-thin long wavelength infrared superlattices on epitaxial plasmonic materials. Applied Physics Letters, 2020, 116, .	3.3	17
32	Hyperbolic Metamaterial Photonic Funnels. , 2020, , .		1
33	Enhanced room temperature infrared LEDs using monolithically integrated plasmonic materials. Optica, 2020, 7, 1355.	9.3	9
34	Plasmonic electro-optic modulator based on degenerate semiconductor interfaces. Nanophotonics, 2020, 9, 1105-1113.	6.0	7
35	Ballistic metamaterials. Optica, 2020, 7, 1773.	9.3	2
36	Monolithically Integrated Resonant Cavity Enhanced Type-II Superlattice Detectors. , 2020, , .		0

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37	Monolithic Semiconductor Plasmonic Devices. , 2020, , .		0
38	Engineering the Berreman mode in mid-infrared polar materials. Optics Express, 2020, 28, 28590.	3.4	14
39	Electrical modulation of degenerate semiconductor plasmonic interfaces. Journal of Applied Physics, 2019, 126, .	2.5	8
40	Phonon-polaritonics: enabling powerful capabilities for infrared photonics. Nanophotonics, 2019, 8, 2129-2175.	6.0	113
41	Nanosecond modulation of thermal emission. Light: Science and Applications, 2019, 8, 68.	16.6	3
42	Design and growth of multi-functional InAsP metamorphic buffers for mid-infrared quantum well lasers on InP. Journal of Applied Physics, 2019, 125, .	2.5	5
43	Probing polaritons in the mid- to far-infrared. Journal of Applied Physics, 2019, 125, .	2.5	48
44	Monochromatic Multimode Antennas on Epsilonâ€Nearâ€Zero Materials. Advanced Optical Materials, 2019, 7, 1800826.	7.3	12
45	Measurement of carrier lifetime in micron-scaled materials using resonant microwave circuits. Nature Communications, 2019, 10, 1625.	12.8	12
46	Mid-Infrared Detection using a Microwave Resonator Photoconductive Architecture. , 2019, , .		0
47	Classical to Quantum Transitions in Multilayer Plasmonic Metamaterials. , 2019, , .		0
48	Ultra-thin enhanced-absorption long-wave infrared detectors. Applied Physics Letters, 2018, 112, .	3.3	18
49	Optical Mapping of RF Field Profiles in Resonant Microwave Circuits. IEEE Photonics Technology Letters, 2018, 30, 331-334.	2.5	7
50	Electrical Readout of Carrier Dynamics in Micro-Scale Infrared Materials. , 2018, , .		0
51	Metal germanides for practical on-chip plasmonics in the mid infrared. Optical Materials Express, 2018, 8, 968.	3.0	4
52	Growth and characterization of In_{1-x}Ga_xAs/InAs_{0.65}Sb_{0.35} strained layer superlattice infrared detectors. Proceedings of SPIE, 2017, , .	0.8	2
53	Engineering carrier lifetimes in type-II In(Ga)Sb/InAs mid-IR emitters. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, 02B101.	1.2	5
54	Next-generation mid-infrared sources. Journal of Optics (United Kingdom), 2017, 19, 123001.	2.2	107

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55	Mid-infrared epsilon-near-zero modes in ultra-thin phononic films. Applied Physics Letters, 2017, 111, .	3.3	37
56	Modified electron beam induced current technique for in(Ga)As/InAsSb superlattice infrared detectors. Journal of Applied Physics, 2017, 122, .	2.5	17
57	Damage-Free Smooth-Sidewall InGaAs Nanopillar Array by Metal-Assisted Chemical Etching. ACS Nano, 2017, 11, 10193-10205.	14.6	36
58	Palladium Germanides for Mid- and Long-Wave Infrared Plasmonics. MRS Advances, 2017, 2, 2385-2390.	0.9	2
59	Mid-infrared quantum well lasers on multi-functional metamorphic buffers. , 2017, , .		0
60	Mid-wave infrared narrow bandwidth guided mode resonance notch filter. Optics Letters, 2017, 42, 223.	3.3	38
61	Special Section Guest Editorial: Plasmonics Systems and Applications. Optical Engineering, 2017, 56, 1.	1.0	2
62	New Sources and Sensors for Mid- to Far-IR Optical Sensing. , 2017, , .		0
63	Enhanced responsivity resonant RF photodetectors. Optics Express, 2016, 24, 26044.	3.4	5
64	Multiplexed infrared photodetection using resonant radio-frequency circuits. Applied Physics Letters, 2016, 108, .	3.3	5
65	Engineering the Reststrahlen band with hybrid plasmon/ phonon excitations. MRS Communications, 2016, 6, 1-8.	1.8	20
66	Room-temperature mid-infrared quantum well lasers on multi-functional metamorphic buffers. Applied Physics Letters, 2016, 109, .	3.3	15
67	Diffusion characterization of In(Ga)As/InAsSb type-II superlattices via electron beam induced current and time-resolved photoluminescence. , 2016, , .		1
68	Optical Transmission: Enhanced Optical Transmission through MacEtchâ€Fabricated Buried Metal Gratings (Adv. Mater. 7/2016). Advanced Materials, 2016, 28, 1440-1440.	21.0	0
69	Epsilon-Near-Zero Photonics Wires. ACS Photonics, 2016, 3, 1045-1052.	6.6	26
70	Correction to Epsilon-Near-Zero Photonics Wires. ACS Photonics, 2016, 3, 2521-2521.	6.6	0
71	High speed mid-infrared detectors based on MEMS resonators and spectrally selective metamaterials. , 2016, , .		4
72	Enhanced Optical Transmission through MacEtchâ€Fabricated Buried Metal Gratings. Advanced Materials, 2016, 28, 1441-1448.	21.0	21

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73	Mid-IR Lasers and LEDs Using Type I and II Materials. , 2016, , .		0
74	Buried Extraordinary Optical Transmission. , 2016, , .		0
75	Epsilon-Near-Zero Photonic Wires. , 2016, , .		0
76	Photonic materials, structures and devices for Reststrahlen optics. Optics Express, 2015, 23, A1418.	3.4	57
77	Mid-infrared electroluminescence from InAs type-I quantum wells grown on InAsP/InP metamorphic buffers. Journal of Applied Physics, 2015, 118, .	2.5	11
78	Direct minority carrier transport characterization of InAs/InAsSb superlattice nBn photodetectors. Applied Physics Letters, 2015, 106, .	3.3	33
79	Localized surface phonon polariton resonances in polar gallium nitride. Applied Physics Letters, 2015, 107, .	3.3	54
80	Review of mid-infrared plasmonic materials. Journal of Nanophotonics, 2015, 9, 093791.	1.0	186
81	Platinum germanides for mid- and long-wave infrared plasmonics. Optics Express, 2015, 23, 3316.	3.4	14
82	Diffusion Characterization Using Electron Beam Induced Current and Time-Resolved Photoluminescence of InAs/InAsSb Type-II Superlattices. , 2015, , .		0
83	Selective absorbers and thermal emitters for far-infrared wavelengths. Applied Physics Letters, 2015, 107, .	3.3	31
84	Special issue on mid-infrared and THz photonics. Journal of Optics (United Kingdom), 2014, 16, 090201.	2.2	9
85	All Semiconductor Negative-Index Plasmonic Absorbers. , 2014, , .		0
86	Mid-infrared emission from In(Ga)Sb layers on InAs(Sb). Optics Express, 2014, 22, 24466.	3.4	12
87	Engineering absorption and blackbody radiation in the far-infrared with surface phonon polaritons on gallium phosphide. Applied Physics Letters, 2014, 104, .	3.3	41
88	Controlling quantum dot energies using submonolayer bandstructure engineering. Applied Physics Letters, 2014, 105, 081103.	3.3	8
89	Doped semiconductors with band-edge plasma frequencies. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, .	1.2	51
90	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Îµ</mml:mi></mml:math>-near-zero enhanced light transmission through a subwavelength slit. Physical Review B, 2014, 89, .	3.2	19

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91	All-Semiconductor Negative-Index Plasmonic Absorbers. Physical Review Letters, 2014, 112, 017401.	7.8	52
92	Making the Mid-IR nano with epitaxial plasmonic devices. , 2014, , .		0
93	Flat mid-infrared composite plasmonic materials using lateral doping-patterned semiconductors. Journal of Optics (United Kingdom), 2014, 16, 094012.	2.2	12
94	Design, Fabrication, and Characterization of Near-IR Gold Bowtie Nanoantenna Arrays. Journal of Physical Chemistry C, 2014, 118, 20553-20558.	3.1	47
95	All-Semiconductor Plasmonic Nano-Antennas. , 2014, , .		0
96	Platinum germanides for long-wavelength infrared plasmonics. , 2014, , .		0
97	All-Semiconductor Plasmonic Nanoantennas for Infrared Sensing. Nano Letters, 2013, 13, 4569-4574.	9.1	154
98	Strong absorption and selective emission from engineered metals with dielectric coatings. Optics Express, 2013, 21, 9113.	3.4	91
99	Near-field infrared absorption of plasmonic semiconductor microparticles studied using atomic force microscope infrared spectroscopy. Applied Physics Letters, 2013, 102, .	3.3	27
100	Wafer-Scale Production of Uniform InAs_{<i>y</i>}P_{1â€“<i>y</i>} Nanowire Array on Silicon for Heterogeneous Integration. ACS Nano, 2013, 7, 5463-5471.	14.6	49
101	Direct observation of minority carrier lifetime improvement in InAs/GaSb type-II superlattice photodiodes via interfacial layer control. Applied Physics Letters, 2013, 102, .	3.3	47
102	Selective thermal emission from thin-film metasurfaces. , 2013, , .		1
103	Degenerately doped InGaBiAs:Si as a highly conductive and transparent contact material in the infrared range. Optical Materials Express, 2013, 3, 1197.	3.0	11
104	Epitaxial growth of engineered metals for mid-infrared plasmonics. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, .	1.2	45
105	Towards nano-scale photonics with micro-scale photons: the opportunities and challenges of mid-infrared plasmonics. Nanophotonics, 2013, 2, 103-130.	6.0	173
106	All-Semiconductor Plasmonic Perfect Absorber. , 2013, , .		0
107	Electroluminescence from quantum dots fabricated with nanosphere lithography. Applied Physics Letters, 2012, 101, .	3.3	7
108	2.8â€‰Î¼m emission from type-I quantum wells grown on InAsxP1â^’x/InP metamorphic graded buffers. Applied Physics Letters, 2012, 101, .	3.3	16

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109	Mid-infrared designer metals. , 2012, , .		3
110	Mid-infrared designer metals. Optics Express, 2012, 20, 12155.	3.4	173
111	Strong Coupling of Molecular and Mid-Infrared Perfect Absorber Resonances. IEEE Photonics Technology Letters, 2012, 24, 31-33.	2.5	64
112	Observation of Rabi Splitting from Surface Plasmon Coupled Conduction State Transitions in Electrically Excited InAs Quantum Dots. Nano Letters, 2011, 11, 338-342.	9.1	25
113	Funneling Light through a Subwavelength Aperture with Epsilon-Near-Zero Materials. Physical Review Letters, 2011, 107, 133901.	7.8	144
114	Multiscale beam evolution and shaping in corrugated plasmonic systems. Optics Express, 2011, 19, 9269.	3.4	13
115	Strong absorption and selective thermal emission from a midinfrared metamaterial. Applied Physics Letters, 2011, 98, .	3.3	225
116	Selective Thermal Emission from Patterned Steel Surfaces. , 2011, , .		0
117	Voltage-controlled active mid-infrared plasmonic devices. Journal of Applied Physics, 2011, 109, 123103.	2.5	27
118	Beam Steering of Mid-Infrared Light with Active Plasmonic Structures. , 2010, , .		0
119	High-optical-quality nanosphere lithographically formed InGaAs quantum dots using molecular beam epitaxy assisted GaAs mass transport and overgrowth. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C3C9-C3C14.	1.2	2
120	Plasmonic mid-infrared beam steering. Applied Physics Letters, 2010, 96, .	3.3	17
121	Selective thermal emission from patterned steel. Optics Express, 2010, 18, 25192.	3.4	29
122	Room temperature midinfrared electroluminescence from InAs quantum dots. Applied Physics Letters, 2009, 94, 061101.	3.3	27
123	Spectral and spatial investigation of midinfrared surface waves on a plasmonic grating. Applied Physics Letters, 2009, 94, .	3.3	9
124	High k-space lasing in a dual-wavelength quantum cascade laser. Nature Photonics, 2009, 3, 50-54.	31.4	11
125	Loss mechanisms in mid-infrared extraordinary optical transmission gratings. Optics Express, 2009, 17, 666.	3.4	3
126	Active control and spatial mapping of mid-infrared propagating surface plasmons. Optics Express, 2009, 17, 7019.	3.4	10

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127	Mid-infrared doping tunable transmission through subwavelength metal hole arrays on InSb. Optics Express, 2009, 17, 10223.	3.4	30
128	Uniform InGaAs quantum dot arrays fabricated using nanosphere lithography. Applied Physics Letters, 2008, 93, 231907.	3.3	31
129	Electrically tunable mid-infrared extraordinary optical transmission gratings. , 2008, , .		0
130	Mid-infrared Beam Propagation and Modulation in Extraordinary Transmission Gratings. , 2008, , .		0
131	Laser action at high k-space values in anti-correlated multi-wavelength quantum cascade lasers. , 2008, , .		0
132	Difference frequency generation from integrated nonlinearities in two-wavelength quantum cascade lasers. , 2007, , .		0
133	DX-like centers in InAsâˆ•GaAs QDIPs observed by polarization-dependent Fourier transform infrared spectroscopy. Journal of Vacuum Science & Technology B, 2007, 25, 1108.	1.3	3
134	Cascaded Emission from a Dual-Wavelength Quantum Cascade Laser. , 2007, , .		0
135	Electrically tunable extraordinary optical transmission gratings. Applied Physics Letters, 2007, 91, 181110.	3.3	42
136	Narrow stripe-width, low-ridge configuration for high power quantum cascade lasers. , 2007, , .		0
137	Evidence of cascaded emission in a dual-wavelength quantum cascade laser. Applied Physics Letters, 2007, 90, 091104.	3.3	12
138	Difference Frequency Generation from Integrated Nonlinearities in Two-Wavelength Quantum Cascade Lasers. , 2007, , .		0
139	High Performance Quantum Cascade Lasers Grown by MOCVD with/without Lateral Regrowth. AIP Conference Proceedings, 2007, , .	0.4	0
140	Midinfrared doping-tunable extraordinary transmission from sub-wavelength Gratings. Applied Physics Letters, 2007, 90, 191102.	3.3	39
141	High-Performance Quantum Cascade Lasers: Optimized Design Through Waveguide and Thermal Modeling. IEEE Journal of Selected Topics in Quantum Electronics, 2007, 13, 1054-1064.	2.9	44
142	Narrow stripe-width, low-ridge high power quantum cascade lasers. Applied Physics Letters, 2007, 90, 141107.	3.3	10
143	Probing dopant incorporation in InAs/GaAs QDIPs by polarization-dependent Fourier transform infrared spectroscopy. Infrared Physics and Technology, 2007, 51, 131-135.	2.9	7
144	Negative refraction in semiconductor metamaterials. Nature Materials, 2007, 6, 946-950.	27.5	763

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145	Room-temperature continuous-wave quantum cascade lasers grown by MOCVD without lateral regrowth. IEEE Photonics Technology Letters, 2006, 18, 1347-1349.	2.5	88
146	Multiple wavelength anisotropically polarized mid-infrared emission from InAs quantum dots. Applied Physics Letters, 2006, 88, 191118.	3.3	17
147	MOCVD-grown room temperature continuous-wave quantum cascade lasers without lateral regrowth. , 2006, , .		0
148	Electronic anti-Stokesâ€"Raman emission in quantum-cascade lasers. Applied Physics Letters, 2005, 87, 261113.	3.3	8
149	Anomalous spin polarization of GaAs two-dimensional hole systems. Physical Review B, 2005, 72, .	3.2	40
150	6 nm half-pitch lines and 0.04 Âµm2static random access memory patterns by nanoimprint lithography. Nanotechnology, 2005, 16, 1058-1061.	2.6	142
151	Characterization of GaAs grown by molecular beam epitaxy on vicinal Ge(100) substrates. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 1893.	1.6	5
152	Scanning nearâ€"field photoluminescence mapping of (110) InAs-GaAs self-assembled quantum dots. Applied Physics Letters, 2004, 85, 2535-2537.	3.3	3
153	(110) InAs Quantum Dots: Growth, Single-Dot Luminescence and Cleaved Edge Alignment. Materials Research Society Symposia Proceedings, 2004, 829, 102.	0.1	0
154	Cleaved-edge overgrowth of aligned quantum dots on strained layers of InGaAs. Applied Physics Letters, 2004, 85, 5352-5354.	3.3	8
155	Fabrication of 5nm linewidth and 14nm pitch features by nanoimprint lithography. Applied Physics Letters, 2004, 84, 5299-5301.	3.3	564
156	Spin splitting in GaAs (100) two-dimensional holes. Physical Review B, 2004, 69, .	3.2	23
157	Gallium arsenide and its ternary alloys (self-assembled quantum dots). Series in Optics and Optoelectronics, 2004, , .	0.0	0
158	Formation of self-assembled InAs quantum dots on (110) GaAs substrates. Applied Physics Letters, 2003, 83, 5050-5052.	3.3	36
159	Midinfrared luminescence from InAs quantum dots in unipolar devices. Applied Physics Letters, 2002, 81, 2848-2850.	3.3	27
160	Mid-Infrared Electroluminescence from InAs Quantum Dots in p-n Junctions and Unipolar Tunneling Structures. Physica Status Solidi (B): Basic Research, 2001, 224, 585-590.	1.5	4
161	Approaches to compact quantum cascade laser modules with integrated coolers. , 0, , .		0
162	Stimulated electronic anti-stokes Raman emission in quantum cascade lasers. , 0, , .		0