

Yuan Wang

List of Publications by Year in descending order

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153
papers

21,648
citations

30070

54
h-index

15732

125
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157
all docs

157
docs citations

157
times ranked

22380
citing authors

#	ARTICLE	IF	CITATIONS
1	A non-unitary metasurface enables continuous control of quantum photon-photon interactions from bosonic to fermionic. <i>Nature Photonics</i> , 2021, 15, 267-271.	31.4	41
2	Observation of strong excitonic magneto-chiral anisotropy in twisted bilayer van der Waals crystals. <i>Nature Communications</i> , 2021, 12, 2088.	12.8	7
3	Nonlinear valley phonon scattering under the strong coupling regime. <i>Nature Materials</i> , 2021, 20, 1210-1215.	27.5	32
4	Atomic-scale ion transistor with ultrahigh diffusivity. <i>Science</i> , 2021, 372, 501-503.	12.6	95
5	Biodegradable shape memory alloys: Progress and prospects. <i>Biomaterials</i> , 2021, 279, 121215.	11.4	19
6	Enhanced thermoelectric properties of nanostructured n-type Bi ₂ Te ₃ by suppressing Te vacancy through non-equilibrium fast reaction. <i>Chemical Engineering Journal</i> , 2020, 391, 123513.	12.7	108
7	Electron-hole hybridization in bilayer graphene. <i>National Science Review</i> , 2020, 7, 248-253.	9.5	5
8	Global Co-transcriptional Splicing in Arabidopsis and the Correlation with Splicing Regulation in Mature RNAs. <i>Molecular Plant</i> , 2020, 13, 266-277.	8.3	36
9	Subwavelength pixelated CMOS color sensors based on anti-Hermitian metasurface. <i>Nature Communications</i> , 2020, 11, 3916.	12.8	15
10	Nonresonant Metasurface for Fast Decoding in Acoustic Communications. <i>Physical Review Applied</i> , 2020, 13, .	3.8	27
11	Nonlinear Optics at Excited States of Exciton Polaritons in Two-Dimensional Atomic Crystals. <i>Nano Letters</i> , 2020, 20, 1676-1685.	9.1	20
12	Direct observation of Klein tunneling in phononic crystals. <i>Science</i> , 2020, 370, 1447-1450.	12.6	73
13	Valley-mechanics in a monolayer semiconductor. , 2020, , .		0
14	Oblique-plane single-molecule localization microscopy for tissues and small intact animals. <i>Nature Methods</i> , 2019, 16, 853-857.	19.0	77
15	Driving the magnetic phase transition of graphene nanoribbons with fluctuation fields and doping. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 415003.	2.8	0
16	Topological kink plasmons on magnetic-domain boundaries. <i>Nature Communications</i> , 2019, 10, 4565.	12.8	14
17	Room-Temperature Giant Stark Effect of Single Photon Emitter in van der Waals Material. <i>Nano Letters</i> , 2019, 19, 7100-7105.	9.1	40
18	Observation of Rydberg exciton polaritons and their condensate in a perovskite cavity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 20274-20279.	7.1	49

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19	Stable Casimir equilibria and quantum trapping. <i>Science</i> , 2019, 364, 984-987.	12.6	63
20	Flexible Thermoelectric Materials and Generators: Challenges and Innovations. <i>Advanced Materials</i> , 2019, 31, e1807916.	21.0	419
21	Multiferroicity in atomic van der Waals heterostructures. <i>Nature Communications</i> , 2019, 10, 2657.	12.8	224
22	Observation of acoustic spin. <i>National Science Review</i> , 2019, 6, 707-712.	9.5	76
23	Valley optomechanics in a monolayer semiconductor. <i>Nature Photonics</i> , 2019, 13, 397-401.	31.4	26
24	Phonon heat transfer across a vacuum through quantum fluctuations. <i>Nature</i> , 2019, 576, 243-247.	27.8	74
25	Second harmonic generation spectroscopy on two-dimensional materials [Invited]. <i>Optical Materials Express</i> , 2019, 9, 1136.	3.0	45
26	Probing the excited states of valley polaritons in atomic crystals. , 2019, , .		0
27	Oblique lightsheet STORM for tissue samples. , 2019, , .		0
28	Experimental observation of chiral phonons in monolayer WSe ₂ . , 2019, , .		0
29	Curvature sculptured growth of plasmonic nanostructures by supramolecular recognition. <i>Physical Review Materials</i> , 2019, 3, .	2.4	0
30	Observation of chiral phonons. <i>Science</i> , 2018, 359, 579-582.	12.6	217
31	Nonreciprocal Localization of Photons. <i>Physical Review Letters</i> , 2018, 120, 043901.	7.8	50
32	Quantum coherence-driven self-organized criticality and nonequilibrium light localization. <i>Science Advances</i> , 2018, 4, eaaq0465.	10.3	6
33	Metasurface-Mediated Quantum Entanglement. <i>ACS Photonics</i> , 2018, 5, 971-976.	6.6	47
34	Oblique-Sectional Single-Molecule Microscopy. , 2018, , .		0
35	Nonconventional metasurfaces: from non-Hermitian coupling, quantum interactions, to skin cloak. <i>Nanophotonics</i> , 2018, 7, 1233-1243.	6.0	17
36	Dissipative self-organization in optical space. <i>Nature Photonics</i> , 2018, 12, 739-743.	31.4	20

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37	Experimental Demonstration of Hyperbolic Metamaterial Assisted Illumination Nanoscopy. ACS Nano, 2018, 12, 11316-11322.	14.6	20
38	Spontaneous Exciton Valley Coherence in Transition Metal Dichalcogenide Monolayers Interfaced with an Anisotropic Metasurface. Physical Review Letters, 2018, 121, 116102.	7.8	39
39	Intrinsic Two-Dimensional Ferroelectricity with Dipole Locking. Physical Review Letters, 2018, 120, 227601.	7.8	322
40	Calculation of vectorial diffraction in optical systems. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2018, 35, 526.	1.5	22
41	Mid-IR broadband supercontinuum generation from a suspended silicon waveguide. Optics Letters, 2018, 43, 1387.	3.3	27
42	Asymmetric Free-Space Light Transport at Nonlinear Metasurfaces. Physical Review Letters, 2018, 121, 046101.	7.8	25
43	Comparison of different theories for focusing through a plane interface: comment. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2018, 35, 591.	1.5	2
44	Quantum-coherence-enhanced transient surface plasmon lasing. Journal of Optics (United Kingdom), 2017, 19, 054002.	2.2	7
45	High thermoelectric power factor in two-dimensional crystals of MoS_2 . Physical Review B, 2017, 95, .	3.2	201
46	A thin and conformal metasurface for illusion acoustics of rapidly changing profiles. Applied Physics Letters, 2017, 110, .	3.3	65
47	Janus monolayers of transition metal dichalcogenides. Nature Nanotechnology, 2017, 12, 744-749.	31.5	1,459
48	Discovery of intrinsic ferromagnetism in two-dimensional van der Waals crystals. Nature, 2017, 546, 265-269.	27.8	3,260
49	Emergence of an enslaved phononic bandgap in a non-equilibrium pseudo-crystal. Nature Materials, 2017, 16, 808-813.	27.5	26
50	Observation of acoustic Dirac-like cone and double zero refractive index. Nature Communications, 2017, 8, 14871.	12.8	123
51	Structural phase transition in monolayer MoTe_2 driven by electrostatic doping. Nature, 2017, 550, 487-491.	27.8	548
52	Optical and acoustic metamaterials: superlens, negative refractive index and invisibility cloak. Journal of Optics (United Kingdom), 2017, 19, 084007.	2.2	94
53	Low-loss and energy efficient modulation in silicon photonic waveguides by adiabatic elimination scheme. Applied Physics Letters, 2017, 111, .	3.3	6
54	Three-dimensional nanoscale imaging by plasmonic Brownian microscopy. Nanophotonics, 2017, 7, 489-495.	6.0	1

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55	High-speed acoustic communication by multiplexing orbital angular momentum. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7250-7253.	7.1	220
56	Realization of Translational Symmetry in Trapped Cold Ion Rings. Physical Review Letters, 2017, 118, 053001.	7.8	35
57	Control of Coherently Coupled Exciton Polaritons in Monolayer Tungsten Disulphide. Physical Review Letters, 2017, 119, 027403.	7.8	101
58	Excitons in atomically thin 2D semiconductors and their applications. Nanophotonics, 2017, 6, 1309-1328.	6.0	154
59	Screening effect of graphite and bilayer graphene on excitons in MoSe ₂ monolayer. 2D Materials, 2017, 4, 015021.	4.4	15
60	Valley photonic crystals for control of spin and topology. Nature Materials, 2017, 16, 298-302.	27.5	456
61	Vortex degeneracy lifting and Aharonov-Bohm-like interference in deformed photonic graphene. Optics Letters, 2017, 42, 915.	3.3	9
62	Sensitive method for measuring third order nonlinearities in compact dielectric and hybrid plasmonic waveguides. Optics Express, 2016, 24, 545.	3.4	19
63	Large-scale chemical assembly of atomically thin transistors and circuits. Nature Nanotechnology, 2016, 11, 954-959.	31.5	251
64	Directional excitation without breaking reciprocity. New Journal of Physics, 2016, 18, 095001.	2.9	11
65	Electrical generation and control of the valley carriers in a monolayer transition metal dichalcogenide. Nature Nanotechnology, 2016, 11, 598-602.	31.5	259
66	Unidirectional Perfect Absorber. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 115-120.	2.9	29
67	Athermal Broadband Graphene Optical Modulator with 35 GHz Speed. ACS Photonics, 2016, 3, 1564-1568.	6.6	152
68	Enhanced mechanical properties and thermal stability of PSMA by functionalized graphene nanosheets. RSC Advances, 2016, 6, 68748-68753.	3.6	9
69	Organization of Lithium Cubane Clusters into Three-Dimensional Porous Frameworks by Self-Penetration and Self-Polymerization. Crystal Growth and Design, 2016, 16, 6531-6536.	3.0	11
70	Atomically phase-matched second-harmonic generation in a 2D crystal. Light: Science and Applications, 2016, 5, e16131-e16131.	16.6	165
71	Coherence-Driven Topological Transition in Quantum Metamaterials. Physical Review Letters, 2016, 116, 165502.	7.8	32
72	Lasing and anti-lasing in a single cavity. Nature Photonics, 2016, 10, 796-801.	31.4	276

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73	Accessing the exceptional points of parity-time symmetric acoustics. Nature Communications, 2016, 7, 11110.	12.8	229
74	Scalable Plasmonic Nanolithography: Prototype System Design and Construction. , 2016, , .		2
75	Nonlinear infrared plasmonic waveguide arrays. Nano Research, 2016, 9, 224-229.	10.4	5
76	Experimental Demonstration of Optical Metamaterials with Isotropic Negative Index. , 2016, , .		2
77	Controllable Unidirectional Anti-Laser. , 2016, , .		0
78	PT-Symmetric Laser and Anti-Laser. , 2016, , .		0
79	Unidirectional Perfect Absorber. , 2016, , .		1
80	Macroscale Transformation Optics Enabled by Photoelectrochemical Etching. Advanced Materials, 2015, 27, 6131-6136.	21.0	10
81	Optical modulation of aqueous metamaterial properties at large scale. Optics Express, 2015, 23, 28736.	3.4	4
82	Parity-time optical metamaterial devices. , 2015, , .		0
83	Parity-time optical metamaterials. , 2015, , .		0
84	Nonlinear optical selection rule based on valley-exciton locking in monolayer ws2. Light: Science and Applications, 2015, 4, e366-e366.	16.6	99
85	Experimental Demonstration of In-Plane Negative-Angle Refraction with an Array of Silicon Nanoposts. Nano Letters, 2015, 15, 2055-2060.	9.1	35
86	Adiabatic elimination-based coupling control in densely packed subwavelength waveguides. Nature Communications, 2015, 6, 7565.	12.8	74
87	Metasurface-Enabled Remote Quantum Interference. Physical Review Letters, 2015, 115, 025501.	7.8	116
88	Resolving power in direct oblique plane imaging. Proceedings of SPIE, 2015, , .	0.8	1
89	Quasi-3D plasmonic coupling scheme for near-field optical lithography and imaging. Optics Letters, 2015, 40, 3918.	3.3	16
90	Monolayer excitonic laser. Nature Photonics, 2015, 9, 733-737.	31.4	492

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91	Three-Dimensional Metasurface Carpet Cloak. , 2015, , .		3
92	Experimental Realization of Two Decoupled Directional Couplers in a Subwavelength Packing by Adiabatic Elimination. Nano Letters, 2015, 15, 7383-7387.	9.1	15
93	Adiabatic far-field sub-diffraction imaging. Nature Communications, 2015, 6, 7942.	12.8	29
94	Metamaterials Assembled by Light. , 2015, , .		0
95	Single mode parity-time laser. Proceedings of SPIE, 2015, , .	0.8	0
96	An ultrathin invisibility skin cloak for visible light. Science, 2015, 349, 1310-1314.	12.6	924
97	Observation of piezoelectricity in free-standing monolayer MoS ₂ . Nature Nanotechnology, 2015, 10, 151-155.	31.5	685
98	Electrical Valley Excitation by Spin Injection in Monolayer TMDC. , 2015, , .		0
99	Photon Spin Induced Collective Electron Motion on a Metasurface. , 2015, , .		3
100	<i>PT</i> -symmetric cavities with simultaneous unidirectional lasing and reflectionless modes. , 2015, , .		0
101	Ultrathin Invisibility Skin Cloak. , 2015, , .		0
102	Unidirectional lasing in <i>PT</i> -symmetric cavities. , 2015, , .		0
103	Unidirectional Spectral Singularities. Physical Review Letters, 2014, 113, 263905.	7.8	107
104	Optical resolution in wide-field oblique plane microscopy. , 2014, , .		0
105	Wide-field axial plane optical microscopy. , 2014, , .		0
106	Demonstration of a large-scale optical exceptional point structure. Optics Express, 2014, 22, 1760.	3.4	134
107	Vectorial point spread function and optical transfer function in oblique plane imaging. Optics Express, 2014, 22, 11140.	3.4	21
108	Exciton-dominant electroluminescence from a diode of monolayer MoS ₂ . Applied Physics Letters, 2014, 104, .	3.3	86

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109	A two-stage heating scheme for heat assisted magnetic recording. Journal of Applied Physics, 2014, 115, 17B702.	2.5	15
110	Single-mode laser by parity-time symmetry breaking. Science, 2014, 346, 972-975.	12.6	1,306
111	Interacting dark resonances with plasmonic meta-molecules. Applied Physics Letters, 2014, 105, 111109.	3.3	18
112	Feedback-driven self-assembly of symmetry-breaking optical metamaterials in solution. Nature Nanotechnology, 2014, 9, 1002-1006.	31.5	79
113	Probing excitonic dark states in single-layer tungsten disulphide. Nature, 2014, 513, 214-218.	27.8	835
114	Generation of acoustic self-bending and bottle beams by phase engineering. Nature Communications, 2014, 5, 4316.	12.8	189
115	Axial Plane Optical Microscopy. Scientific Reports, 2014, 4, 7253.	3.3	49
116	Selective Self-assembly of Symmetry-breaking Nanoplasmonic Structures. , 2014, , .		0
117	Electrical Detection of Photonic Spin Hall Effect on Metasurfaces. , 2014, , .		0
118	Greatly enhanced mechanical properties and heat distortion resistance of poly(L-lactic acid) upon compositing with functionalized reduced graphene oxide. Journal of Materials Chemistry A, 2013, 1, 9028.	10.3	36
119	Intracellular delivery of top-down fabricated tunable nano-plasmonic resonators. Nanoscale, 2013, 5, 10179.	5.6	1
120	Giant Suppression of Photobleaching for Single Molecule Detection via the Purcell Effect. Nano Letters, 2013, 13, 5949-5953.	9.1	69
121	Photonic Spin Hall Effect at Metasurfaces. Science, 2013, 339, 1405-1407.	12.6	1,026
122	Lipid Bilayer-Integrated Optoelectronic Tweezers for Nanoparticle Manipulations. Nano Letters, 2013, 13, 2766-2770.	9.1	26
123	Tuning the polarization state of light via time retardation with a microstructured surface. Physical Review B, 2013, 88, .	3.2	22
124	Tunable oscillations in the Purkinje neuron. Physical Review E, 2012, 85, 041905.	2.1	4
125	Mapping the near-field dynamics in plasmon-induced transparency. Physical Review B, 2012, 86, .	3.2	44
126	Anti-Hermitian Plasmon Coupling of an Array of Gold Thin-Film Antennas for Controlling Light at the Nanoscale. Physical Review Letters, 2012, 109, 193902.	7.8	77

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127	Design, fabrication and characterization of indefinite metamaterials of nanowires. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 3434-3446.	3.4	41
128	Maskless Plasmonic Lithography at 22â€¦nm Resolution. Scientific Reports, 2011, 1, 175.	3.3	158
129	Experimental demonstration of low-loss optical waveguiding at deep sub-wavelength scales. Nature Communications, 2011, 2, .	12.8	216
130	Application of Anisotropic Metamaerials: Imaging Visible Light with Slab Lens. , 2010, , .		0
131	Imaging visible light using anisotropic metamaterial slab lens. Optics Express, 2009, 17, 22380.	3.4	44
132	Urban forest landscape patterns in Ma'anshan City, China. International Journal of Sustainable Development and World Ecology, 2009, 16, 346-355.	5.9	10
133	Broad Band Two-Dimensional Manipulation of Surface Plasmons. Nano Letters, 2009, 9, 462-466.	9.1	93
134	Bulky Nanowire Metamaterials for Negative Refraction at Broadband Frequencies from Visible to NIR. , 2009, , .		1
135	Optical Negative Refraction in Bulk Metamaterials of Nanowires. Science, 2008, 321, 930-930.	12.6	798
136	Flying plasmonic lens in the near field for high-speed nanolithography. Nature Nanotechnology, 2008, 3, 733-737.	31.5	298
137	Plasmon-Induced Transparency in Metamaterials. Physical Review Letters, 2008, 101, 047401.	7.8	2,020
138	Synthesis of a gold nanoparticle dimer plasmonic resonator through two-phase-mediated functionalization. Nanotechnology, 2008, 19, 435605.	2.6	29
139	Plasmonic Nearfield Scanning Probe with High Transmission. Nano Letters, 2008, 8, 3041-3045.	9.1	108
140	All Optical platform for Parallel and Spatiotemporal Control of Neuronal Activity. , 2008, , .		0
141	Particle enhanced plasmonic NSOM. , 2007, , .		1
142	All Optical Interface for Parallel, Remote, and Spatiotemporal Control of Neuronal Activity. Nano Letters, 2007, 7, 3859-3863.	9.1	67
143	Resonant and non-resonant generation and focusing of surface plasmons with circular gratings. Optics Express, 2006, 14, 5664.	3.4	131
144	Plasmonic nearfield scanning optical microscopy. , 2006, , .		1

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145	Formation of copper electrodeposits on an untreated insulating substrate. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 695-704.	1.8	12
146	Spontaneous formation of periodic nanostructured film by electrodeposition: Experimental observations and modeling. <i>Physical Review E</i> , 2004, 69, 021607.	2.1	28
147	Synthesis of hydroxyl-terminated copolymer of styrene and 4-vinylpyridine via nitroxide-mediated living radical polymerization. <i>Journal of Applied Polymer Science</i> , 2004, 91, 1842-1847.	2.6	12
148	Growth and characteristics of La ₂ O ₃ gate dielectric prepared by low pressure metalorganic chemical vapor deposition. <i>Applied Surface Science</i> , 2004, 233, 91-98.	6.1	74
149	Growth and characterization of Al ₂ O ₃ gate dielectric films by low-pressure metalorganic chemical vapor deposition. <i>Microelectronic Engineering</i> , 2003, 66, 842-848.	2.4	19
150	Formation of nanostructured copper filaments in electrochemical deposition. <i>Physical Review E</i> , 2003, 67, 061601.	2.1	38
151	SrBi ₄ Ti ₄ O ₁₅ thin films and their ferroelectric fatigue behaviors under varying switching pulse widths and frequencies. <i>Journal of Applied Physics</i> , 2002, 91, 3160-3164.	2.5	48
152	Nanostructured Copper Filaments in Electrochemical Deposition. <i>Physical Review Letters</i> , 2001, 86, 3827-3830.	7.8	93
153	Formation of Arrays of Straight Copper Wires on Solid Substrate by Electrodeposition. <i>Journal of the Physical Society of Japan</i> , 2001, 70, 1452-1455.	1.6	19