

Yuan Wang

List of Publications by Year in descending order

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153
papers

21,648
citations

30047

54
h-index

15716

125
g-index

157
all docs

157
docs citations

157
times ranked

22380
citing authors

#	ARTICLE	IF	CITATIONS
1	Discovery of intrinsic ferromagnetism in two-dimensional van der Waals crystals. <i>Nature</i> , 2017, 546, 265-269.	13.7	3,260
2	Plasmon-Induced Transparency in Metamaterials. <i>Physical Review Letters</i> , 2008, 101, 047401.	2.9	2,020
3	Janus monolayers of transition metal dichalcogenides. <i>Nature Nanotechnology</i> , 2017, 12, 744-749.	15.6	1,459
4	Single-mode laser by parity-time symmetry breaking. <i>Science</i> , 2014, 346, 972-975.	6.0	1,306
5	Photonic Spin Hall Effect at Metasurfaces. <i>Science</i> , 2013, 339, 1405-1407.	6.0	1,026
6	An ultrathin invisibility skin cloak for visible light. <i>Science</i> , 2015, 349, 1310-1314.	6.0	924
7	Probing excitonic dark states in single-layer tungsten disulphide. <i>Nature</i> , 2014, 513, 214-218.	13.7	835
8	Optical Negative Refraction in Bulk Metamaterials of Nanowires. <i>Science</i> , 2008, 321, 930-930.	6.0	798
9	Observation of piezoelectricity in free-standing monolayer MoS ₂ . <i>Nature Nanotechnology</i> , 2015, 10, 151-155.	15.6	685
10	Structural phase transition in monolayer MoTe ₂ driven by electrostatic doping. <i>Nature</i> , 2017, 550, 487-491.	13.7	548
11	Monolayer excitonic laser. <i>Nature Photonics</i> , 2015, 9, 733-737.	15.6	492
12	Valley photonic crystals for control of spin and topology. <i>Nature Materials</i> , 2017, 16, 298-302.	13.3	456
13	Flexible Thermoelectric Materials and Generators: Challenges and Innovations. <i>Advanced Materials</i> , 2019, 31, e1807916.	11.1	419
14	Intrinsic Two-Dimensional Ferroelectricity with Dipole Locking. <i>Physical Review Letters</i> , 2018, 120, 227601.	2.9	322
15	Flying plasmonic lens in the near field for high-speed nanolithography. <i>Nature Nanotechnology</i> , 2008, 3, 733-737.	15.6	298
16	Lasing and anti-lasing in a single cavity. <i>Nature Photonics</i> , 2016, 10, 796-801.	15.6	276
17	Electrical generation and control of the valley carriers in a monolayer transition metal dichalcogenide. <i>Nature Nanotechnology</i> , 2016, 11, 598-602.	15.6	259
18	Large-scale chemical assembly of atomically thin transistors and circuits. <i>Nature Nanotechnology</i> , 2016, 11, 954-959.	15.6	251

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19	Accessing the exceptional points of parity-time symmetric acoustics. Nature Communications, 2016, 7, 11110.	5.8	229
20	Multiferroicity in atomic van der Waals heterostructures. Nature Communications, 2019, 10, 2657.	5.8	224
21	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.	3.3	220
22	Observation of chiral phonons. Science, 2018, 359, 579-582.	6.0	217
23	Experimental demonstration of low-loss optical waveguiding at deep sub-wavelength scales. Nature Communications, 2011, 2, .	5.8	216
24	High thermoelectric power factor in two-dimensional crystals of MoS_2 . Physical Review B, 2017, 95, .	1.1	201
25	Generation of acoustic self-bending and bottle beams by phase engineering. Nature Communications, 2014, 5, 4316.	5.8	189
26	Atomically phase-matched second-harmonic generation in a 2D crystal. Light: Science and Applications, 2016, 5, e16131-e16131.	7.7	165
27	Maskless Plasmonic Lithography at 22-nm Resolution. Scientific Reports, 2011, 1, 175.	1.6	158
28	Excitons in atomically thin 2D semiconductors and their applications. Nanophotonics, 2017, 6, 1309-1328.	2.9	154
29	Athermal Broadband Graphene Optical Modulator with 35 GHz Speed. ACS Photonics, 2016, 3, 1564-1568.	3.2	152
30	Demonstration of a large-scale optical exceptional point structure. Optics Express, 2014, 22, 1760.	1.7	134
31	Resonant and non-resonant generation and focusing of surface plasmons with circular gratings. Optics Express, 2006, 14, 5664.	1.7	131
32	Observation of acoustic Dirac-like cone and double zero refractive index. Nature Communications, 2017, 8, 14871.	5.8	123
33	Metasurface-Enabled Remote Quantum Interference. Physical Review Letters, 2015, 115, 025501.	2.9	116
34	Plasmonic Nearfield Scanning Probe with High Transmission. Nano Letters, 2008, 8, 3041-3045.	4.5	108
35	Enhanced thermoelectric properties of nanostructured n-type Bi ₂ Te ₃ by suppressing Te vacancy through non-equilibrium fast reaction. Chemical Engineering Journal, 2020, 391, 123513.	6.6	108
36	Unidirectional Spectral Singularities. Physical Review Letters, 2014, 113, 263905.	2.9	107

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37	Control of Coherently Coupled Exciton Polaritons in Monolayer Tungsten Disulphide. Physical Review Letters, 2017, 119, 027403.	2.9	101
38	Nonlinear optical selection rule based on valley-exciton locking in monolayer ws2. Light: Science and Applications, 2015, 4, e366-e366.	7.7	99
39	Atomic-scale ion transistor with ultrahigh diffusivity. Science, 2021, 372, 501-503.	6.0	95
40	Optical and acoustic metamaterials: superlens, negative refractive index and invisibility cloak. Journal of Optics (United Kingdom), 2017, 19, 084007.	1.0	94
41	Nanostructured Copper Filaments in Electrochemical Deposition. Physical Review Letters, 2001, 86, 3827-3830.	2.9	93
42	Broad Band Two-Dimensional Manipulation of Surface Plasmons. Nano Letters, 2009, 9, 462-466.	4.5	93
43	Exciton-dominant electroluminescence from a diode of monolayer MoS2. Applied Physics Letters, 2014, 104, .	1.5	86
44	Feedback-driven self-assembly of symmetry-breaking optical metamaterials in solution. Nature Nanotechnology, 2014, 9, 1002-1006.	15.6	79
45	Anti-Hermitian Plasmon Coupling of an Array of Gold Thin-Film Antennas for Controlling Light at the Nanoscale. Physical Review Letters, 2012, 109, 193902.	2.9	77
46	Oblique-plane single-molecule localization microscopy for tissues and small intact animals. Nature Methods, 2019, 16, 853-857.	9.0	77
47	Observation of acoustic spin. National Science Review, 2019, 6, 707-712.	4.6	76
48	Growth and characteristics of La2O3 gate dielectric prepared by low pressure metalorganic chemical vapor deposition. Applied Surface Science, 2004, 233, 91-98.	3.1	74
49	Adiabatic elimination-based coupling control in densely packed subwavelength waveguides. Nature Communications, 2015, 6, 7565.	5.8	74
50	Phonon heat transfer across a vacuum through quantum fluctuations. Nature, 2019, 576, 243-247.	13.7	74
51	Direct observation of Klein tunneling in phononic crystals. Science, 2020, 370, 1447-1450.	6.0	73
52	Giant Suppression of Photobleaching for Single Molecule Detection via the Purcell Effect. Nano Letters, 2013, 13, 5949-5953.	4.5	69
53	All Optical Interface for Parallel, Remote, and Spatiotemporal Control of Neuronal Activity. Nano Letters, 2007, 7, 3859-3863.	4.5	67
54	A thin and conformal metasurface for illusion acoustics of rapidly changing profiles. Applied Physics Letters, 2017, 110, .	1.5	65

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55	Stable Casimir equilibria and quantum trapping. <i>Science</i> , 2019, 364, 984-987.	6.0	63
56	Nonreciprocal Localization of Photons. <i>Physical Review Letters</i> , 2018, 120, 043901.	2.9	50
57	Axial Plane Optical Microscopy. <i>Scientific Reports</i> , 2014, 4, 7253.	1.6	49
58	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.	3.3	49
59	SrBi4Ti4O15 thin films and their ferroelectric fatigue behaviors under varying switching pulse widths and frequencies. <i>Journal of Applied Physics</i> , 2002, 91, 3160-3164.	1.1	48
60	Metasurface-Mediated Quantum Entanglement. <i>ACS Photonics</i> , 2018, 5, 971-976.	3.2	47
61	Second harmonic generation spectroscopy on two-dimensional materials [Invited]. <i>Optical Materials Express</i> , 2019, 9, 1136.	1.6	45
62	Imaging visible light using anisotropic metamaterial slab lens. <i>Optics Express</i> , 2009, 17, 22380.	1.7	44
63	Mapping the near-field dynamics in plasmon-induced transparency. <i>Physical Review B</i> , 2012, 86, .	1.1	44
64	Design, fabrication and characterization of indefinite metamaterials of nanowires. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 3434-3446.	1.6	41
65	A non-unitary metasurface enables continuous control of quantum photon-photon interactions from bosonic to fermionic. <i>Nature Photonics</i> , 2021, 15, 267-271.	15.6	41
66	Room-Temperature Giant Stark Effect of Single Photon Emitter in van der Waals Material. <i>Nano Letters</i> , 2019, 19, 7100-7105.	4.5	40
67	Spontaneous Exciton Valley Coherence in Transition Metal Dichalcogenide Monolayers Interfaced with an Anisotropic Metasurface. <i>Physical Review Letters</i> , 2018, 121, 116102.	2.9	39
68	Formation of nanostructured copper filaments in electrochemical deposition. <i>Physical Review E</i> , 2003, 67, 061601.	0.8	38
69	Greatly enhanced mechanical properties and heat distortion resistance of poly(l-lactic acid) upon compositing with functionalized reduced graphene oxide. <i>Journal of Materials Chemistry A</i> , 2013, 1, 9028.	5.2	36
70	Global Co-transcriptional Splicing in Arabidopsis and the Correlation with Splicing Regulation in Mature RNAs. <i>Molecular Plant</i> , 2020, 13, 266-277.	3.9	36
71	Experimental Demonstration of In-Plane Negative-Angle Refraction with an Array of Silicon Nanoposts. <i>Nano Letters</i> , 2015, 15, 2055-2060.	4.5	35
72	Realization of Translational Symmetry in Trapped Cold Ion Rings. <i>Physical Review Letters</i> , 2017, 118, 053001.	2.9	35

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73	Coherence-Driven Topological Transition in Quantum Metamaterials. <i>Physical Review Letters</i> , 2016, 116, 165502.	2.9	32
74	Nonlinear valley phonon scattering under the strong coupling regime. <i>Nature Materials</i> , 2021, 20, 1210-1215.	13.3	32
75	Synthesis of a gold nanoparticle dimer plasmonic resonator through two-phase-mediated functionalization. <i>Nanotechnology</i> , 2008, 19, 435605.	1.3	29
76	Adiabatic far-field sub-diffraction imaging. <i>Nature Communications</i> , 2015, 6, 7942.	5.8	29
77	Unidirectional Perfect Absorber. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2016, 22, 115-120.	1.9	29
78	Spontaneous formation of periodic nanostructured film by electrodeposition: Experimental observations and modeling. <i>Physical Review E</i> , 2004, 69, 021607.	0.8	28
79	Mid-IR broadband supercontinuum generation from a suspended silicon waveguide. <i>Optics Letters</i> , 2018, 43, 1387.	1.7	27
80	Nonresonant Metasurface for Fast Decoding in Acoustic Communications. <i>Physical Review Applied</i> , 2020, 13, .	1.5	27
81	Lipid Bilayer-Integrated Optoelectronic Tweezers for Nanoparticle Manipulations. <i>Nano Letters</i> , 2013, 13, 2766-2770.	4.5	26
82	Emergence of an enslaved phononic bandgap in a non-equilibrium pseudo-crystal. <i>Nature Materials</i> , 2017, 16, 808-813.	13.3	26
83	Valley optomechanics in a monolayer semiconductor. <i>Nature Photonics</i> , 2019, 13, 397-401.	15.6	26
84	Asymmetric Free-Space Light Transport at Nonlinear Metasurfaces. <i>Physical Review Letters</i> , 2018, 121, 046101.	2.9	25
85	Tuning the polarization state of light via time retardation with a microstructured surface. <i>Physical Review B</i> , 2013, 88, .	1.1	22
86	Calculation of vectorial diffraction in optical systems. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2018, 35, 526.	0.8	22
87	Vectorial point spread function and optical transfer function in oblique plane imaging. <i>Optics Express</i> , 2014, 22, 11140.	1.7	21
88	Dissipative self-organization in optical space. <i>Nature Photonics</i> , 2018, 12, 739-743.	15.6	20
89	Experimental Demonstration of Hyperbolic Metamaterial Assisted Illumination Nanoscopy. <i>ACS Nano</i> , 2018, 12, 11316-11322.	7.3	20
90	Nonlinear Optics at Excited States of Exciton Polaritons in Two-Dimensional Atomic Crystals. <i>Nano Letters</i> , 2020, 20, 1676-1685.	4.5	20

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91	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.	0.7	19
92	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.	1.1	19
93	Sensitive method for measuring third order nonlinearities in compact dielectric and hybrid plasmonic waveguides. <i>Optics Express</i> , 2016, 24, 545.	1.7	19
94	Biodegradable shape memory alloys: Progress and prospects. <i>Biomaterials</i> , 2021, 279, 121215.	5.7	19
95	Interacting dark resonances with plasmonic meta-molecules. <i>Applied Physics Letters</i> , 2014, 105, 111109.	1.5	18
96	Nonconventional metasurfaces: from non-Hermitian coupling, quantum interactions, to skin cloak. <i>Nanophotonics</i> , 2018, 7, 1233-1243.	2.9	17
97	Quasi-3D plasmonic coupling scheme for near-field optical lithography and imaging. <i>Optics Letters</i> , 2015, 40, 3918.	1.7	16
98	A two-stage heating scheme for heat assisted magnetic recording. <i>Journal of Applied Physics</i> , 2014, 115, 17B702.	1.1	15
99	Experimental Realization of Two Decoupled Directional Couplers in a Subwavelength Packing by Adiabatic Elimination. <i>Nano Letters</i> , 2015, 15, 7383-7387.	4.5	15
100	Screening effect of graphite and bilayer graphene on excitons in MoSe ₂ monolayer. <i>2D Materials</i> , 2017, 4, 015021.	2.0	15
101	Subwavelength pixelated CMOS color sensors based on anti-Hermitian metasurface. <i>Nature Communications</i> , 2020, 11, 3916.	5.8	15
102	Topological kink plasmons on magnetic-domain boundaries. <i>Nature Communications</i> , 2019, 10, 4565.	5.8	14
103	Formation of copper electrodeposits on an untreated insulating substrate. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 695-704.	0.7	12
104	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.	1.3	12
105	Directional excitation without breaking reciprocity. <i>New Journal of Physics</i> , 2016, 18, 095001.	1.2	11
106	Organization of Lithium Cubane Clusters into Three-Dimensional Porous Frameworks by Self-Penetration and Self-Polymerization. <i>Crystal Growth and Design</i> , 2016, 16, 6531-6536.	1.4	11
107	Urban forest landscape patterns in Ma'anshan City, China. <i>International Journal of Sustainable Development and World Ecology</i> , 2009, 16, 346-355.	3.2	10
108	Macroscale Transformation Optics Enabled by Photoelectrochemical Etching. <i>Advanced Materials</i> , 2015, 27, 6131-6136.	11.1	10

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109	Enhanced mechanical properties and thermal stability of PSMA by functionalized graphene nanosheets. RSC Advances, 2016, 6, 68748-68753.	1.7	9
110	Vortex degeneracy lifting and Aharonov-Bohm-like interference in deformed photonic graphene. Optics Letters, 2017, 42, 915.	1.7	9
111	Quantum-coherence-enhanced transient surface plasmon lasing. Journal of Optics (United Kingdom), 2017, 19, 054002.	1.0	7
112	Observation of strong excitonic magneto-chiral anisotropy in twisted bilayer van der Waals crystals. Nature Communications, 2021, 12, 2088.	5.8	7
113	Low-loss and energy efficient modulation in silicon photonic waveguides by adiabatic elimination scheme. Applied Physics Letters, 2017, 111, .	1.5	6
114	Quantum coherence-driven self-organized criticality and nonequilibrium light localization. Science Advances, 2018, 4, eaaq0465.	4.7	6
115	Nonlinear infrared plasmonic waveguide arrays. Nano Research, 2016, 9, 224-229.	5.8	5
116	Electron-hole hybridization in bilayer graphene. National Science Review, 2020, 7, 248-253.	4.6	5
117	Tunable oscillations in the Purkinje neuron. Physical Review E, 2012, 85, 041905.	0.8	4
118	Optical modulation of aqueous metamaterial properties at large scale. Optics Express, 2015, 23, 28736.	1.7	4
119	Three-Dimensional Metasurface Carpet Cloak. , 2015, , .		3
120	Photon Spin Induced Collective Electron Motion on a Metasurface. , 2015, , .		3
121	Scalable Plasmonic Nanolithography: Prototype System Design and Construction. , 2016, , .		2
122	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.	0.8	2
123	Experimental Demonstration of Optical Metamaterials with Isotropic Negative Index. , 2016, , .		2
124	Plasmonic nearfield scanning optical microscopy. , 2006, , .		1
125	Particle enhanced plasmonic NSOM. , 2007, , .		1
126	Intracellular delivery of top-down fabricated tunable nano-plasmonic resonators. Nanoscale, 2013, 5, 10179.	2.8	1

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127	Resolving power in direct oblique plane imaging. Proceedings of SPIE, 2015, , .	0.8	1
128	Three-dimensional nanoscale imaging by plasmonic Brownian microscopy. Nanophotonics, 2017, 7, 489-495.	2.9	1
129	Bulky Nanowire Metamaterials for Negative Refraction at Broadband Frequencies from Visible to NIR. , 2009, , .		1
130	Unidirectional Perfect Absorber. , 2016, , .		1
131	Optical resolution in wide-field oblique plane microscopy. , 2014, , .		0
132	Wide-field axial plane optical microscopy. , 2014, , .		0
133	Parity-time optical metamaterial devices. , 2015, , .		0
134	Parity-time optical metamaterials. , 2015, , .		0
135	Metamaterials Assembled by Light. , 2015, , .		0
136	Single mode parity-time laser. Proceedings of SPIE, 2015, , .	0.8	0
137	Oblique-Sectional Single-Molecule Microscopy. , 2018, , .		0
138	Driving the magnetic phase transition of graphene nanoribbons with fluctuation fields and doping. Journal Physics D: Applied Physics, 2019, 52, 415003.	1.3	0
139	All Optical platform for Parallel and Spatiotemporal Control of Neuronal Activity. , 2008, , .		0
140	Application of Anisotropic Metamaerials: Imaging Visible Light with Slab Lens. , 2010, , .		0
141	Selective Self-assembly of Symmetry-breaking Nanoplasmonic Structures. , 2014, , .		0
142	Electrical Detection of Photonic Spin Hall Effect on Metasurfaces. , 2014, , .		0
143	Electrical Valley Excitation by Spin Injection in Monolayer TMDC. , 2015, , .		0
144	<i>PT</i>-symmetric cavities with simultaneous unidirectional lasing and reflectionless modes. , 2015, , .		0

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145	Ultrathin Invisibility Skin Cloak. , 2015, , .		0
146	Unidirectional lasing in P T-symmetric cavities. , 2015, , .		0
147	Controllable Unidirectional Anti-Laser. , 2016, , .		0
148	PT-Symmetric Laser and Anti-Laser. , 2016, , .		0
149	Probing the excited states of valley polaritons in atomic crystals. , 2019, , .		0
150	Oblique lightsheet STORM for tissue samples. , 2019, , .		0
151	Experimental observation of chiral phonons in monolayer WSe2. , 2019, , .		0
152	Curvature sculptured growth of plasmonic nanostructures by supramolecular recognition. Physical Review Materials, 2019, 3, .	0.9	0
153	Valley-mechanics in a monolayer semiconductor. , 2020, , .		0