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 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. Nature, 2017, 546, 265-269.	27.8	3,260
2	Plasmon-Induced Transparency in Metamaterials. Physical Review Letters, 2008, 101, 047401.	7.8	2,020
3	Janus monolayers of transition metal dichalcogenides. Nature Nanotechnology, 2017, 12, 744-749.	31.5	1,459
4	Single-mode laser by parity-time symmetry breaking. Science, 2014, 346, 972-975.	12.6	1,306
5	Photonic Spin Hall Effect at Metasurfaces. Science, 2013, 339, 1405-1407.	12.6	1,026
6	An ultrathin invisibility skin cloak for visible light. Science, 2015, 349, 1310-1314.	12.6	924
7	Probing excitonic dark states in single-layer tungsten disulphide. Nature, 2014, 513, 214-218.	27.8	835
8	Optical Negative Refraction in Bulk Metamaterials of Nanowires. Science, 2008, 321, 930-930.	12.6	798
9	Observation of piezoelectricity in free-standing monolayer MoS2. Nature Nanotechnology, 2015, 10, 151-155.	31.5	685
10	Structural phase transition in monolayer MoTe2 driven by electrostatic doping. Nature, 2017, 550, 487-491.	27.8	548
11	Monolayer excitonic laser. Nature Photonics, 2015, 9, 733-737.	31.4	492
12	Valley photonic crystals for control of spin andÂtopology. Nature Materials, 2017, 16, 298-302.	27.5	456
13	Flexible Thermoelectric Materials and Generators: Challenges and Innovations. Advanced Materials, 2019, 31, e1807916.	21.0	419
14	Intrinsic Two-Dimensional Ferroelectricity with Dipole Locking. Physical Review Letters, 2018, 120, 227601.	7.8	322
15	Flying plasmonic lens in the near field for high-speed nanolithography. Nature Nanotechnology, 2008, 3, 733-737.	31.5	298
16	Lasing and anti-lasing in a single cavity. Nature Photonics, 2016, 10, 796-801.	31.4	276
17	Electrical generation and control of the valley carriers in a monolayer transition metal dichalcogenide. Nature Nanotechnology, 2016, 11, 598-602.	31.5	259
18	Large-scale chemical assembly of atomically thin transistors and circuits. Nature Nanotechnology, 2016, 11, 954-959.	31.5	251

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19	Accessing the exceptional points of parity-time symmetric acoustics. Nature Communications, 2016, 7, 11110.	12.8	229
20	Multiferroicity in atomic van der Waals heterostructures. Nature Communications, 2019, 10, 2657.	12.8	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.	7.1	220
22	Observation of chiral phonons. Science, 2018, 359, 579-582.	12.6	217
23	Experimental demonstration of low-loss optical waveguiding at deep sub-wavelength scales. Nature Communications, 2011, 2, .	12.8	216
24	High thermoelectric power factor in two-dimensional crystals of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mo</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2017, 95, .	3.2	201
25	Generation of acoustic self-bending and bottle beams by phase engineering. Nature Communications, 2014, 5, 4316.	12.8	189
26	Atomically phase-matched second-harmonic generation in a 2D crystal. Light: Science and Applications, 2016, 5, e16131-e16131.	16.6	165
27	Maskless Plasmonic Lithography at 22â€...nm Resolution. Scientific Reports, 2011, 1, 175.	3.3	158
28	Excitons in atomically thin 2D semiconductors and their applications. Nanophotonics, 2017, 6, 1309-1328.	6.0	154
29	Athermal Broadband Graphene Optical Modulator with 35 GHz Speed. ACS Photonics, 2016, 3, 1564-1568.	6.6	152
30	Demonstration of a large-scale optical exceptional point structure. Optics Express, 2014, 22, 1760.	3.4	134
31	Resonant and non-resonant generation and focusing of surface plasmons with circular gratings. Optics Express, 2006, 14, 5664.	3.4	131
32	Observation of acoustic Dirac-like cone and double zero refractive index. Nature Communications, 2017, 8, 14871.	12.8	123
33	Metasurface-Enabled Remote Quantum Interference. Physical Review Letters, 2015, 115, 025501.	7.8	116
34	Plasmonic Nearfield Scanning Probe with High Transmission. Nano Letters, 2008, 8, 3041-3045.	9.1	108
35	Enhanced thermoelectric properties of nanostructured n-type Bi2Te3 by suppressing Te vacancy through non-equilibrium fast reaction. Chemical Engineering Journal, 2020, 391, 123513.	12.7	108
36	Unidirectional Spectral Singularities. Physical Review Letters, 2014, 113, 263905.	7.8	107

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37	Control of Coherently Coupled Exciton Polaritons in Monolayer Tungsten Disulphide. Physical Review Letters, 2017, 119, 027403.	7.8	101
38	Nonlinear optical selection rule based on valley-exciton locking in monolayer ws2. Light: Science and Applications, 2015, 4, e366-e366.	16.6	99
39	Atomic-scale ion transistor with ultrahigh diffusivity. Science, 2021, 372, 501-503.	12.6	95
40	Optical and acoustic metamaterials: superlens, negative refractive index and invisibility cloak. Journal of Optics (United Kingdom), 2017, 19, 084007.	2.2	94
41	Nanostructured Copper Filaments in Electrochemical Deposition. Physical Review Letters, 2001, 86, 3827-3830.	7.8	93
42	Broad Band Two-Dimensional Manipulation of Surface Plasmons. Nano Letters, 2009, 9, 462-466.	9.1	93
43	Exciton-dominant electroluminescence from a diode of monolayer MoS2. Applied Physics Letters, 2014, 104, .	3.3	86
44	Feedback-driven self-assembly of symmetry-breaking optical metamaterials in solution. Nature Nanotechnology, 2014, 9, 1002-1006.	31.5	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.	7.8	77
46	Oblique-plane single-molecule localization microscopy for tissues and small intact animals. Nature Methods, 2019, 16, 853-857.	19.0	77
47	Observation of acoustic spin. National Science Review, 2019, 6, 707-712.	9.5	76
48	Growth and characteristics of La2O3 gate dielectric prepared by low pressure metalorganic chemical vapor deposition. Applied Surface Science, 2004, 233, 91-98.	6.1	74
49	Adiabatic elimination-based coupling control in densely packed subwavelength waveguides. Nature Communications, 2015, 6, 7565.	12.8	74
50	Phonon heat transfer across a vacuum through quantum fluctuations. Nature, 2019, 576, 243-247.	27.8	74
51	Direct observation of Klein tunneling in phononic crystals. Science, 2020, 370, 1447-1450.	12.6	73
52	Giant Suppression of Photobleaching for Single Molecule Detection via the Purcell Effect. Nano Letters, 2013, 13, 5949-5953.	9.1	69
53	All Optical Interface for Parallel, Remote, and Spatiotemporal Control of Neuronal Activity. Nano Letters, 2007, 7, 3859-3863.	9.1	67
54	A thin and conformal metasurface for illusion acoustics of rapidly changing profiles. Applied Physics Letters, 2017, 110, .	3.3	65

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55	Stable Casimir equilibria and quantum trapping. Science, 2019, 364, 984-987.	12.6	63
56	Nonreciprocal Localization of Photons. Physical Review Letters, 2018, 120, 043901.	7.8	50
57	Axial Plane Optical Microscopy. Scientific Reports, 2014, 4, 7253.	3.3	49
58	Observation of Rydberg exciton polaritons and their condensate in a perovskite cavity. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20274-20279.	7.1	49
59	SrBi4Ti4O15 thin films and their ferroelectric fatigue behaviors under varying switching pulse widths and frequencies. Journal of Applied Physics, 2002, 91, 3160-3164.	2.5	48
60	Metasurface-Mediated Quantum Entanglement. ACS Photonics, 2018, 5, 971-976.	6.6	47
61	Second harmonic generation spectroscopy on two-dimensional materials [Invited]. Optical Materials Express, 2019, 9, 1136.	3.0	45
62	Imaging visible light using anisotropic metamaterial slab lens. Optics Express, 2009, 17, 22380.	3.4	44
63	Mapping the near-field dynamics in plasmon-induced transparency. Physical Review B, 2012, 86, .	3.2	44
64	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
65	A non-unitary metasurface enables continuous control of quantum photonâ€“photon interactions from bosonic to fermionic. Nature Photonics, 2021, 15, 267-271.	31.4	41
66	Room-Temperature Giant Stark Effect of Single Photon Emitter in van der Waals Material. Nano Letters, 2019, 19, 7100-7105.	9.1	40
67	Spontaneous Exciton Valley Coherence in Transition Metal Dichalcogenide Monolayers Interfaced with an Anisotropic Metasurface. Physical Review Letters, 2018, 121, 116102.	7.8	39
68	Formation of nanostructured copper filaments in electrochemical deposition. Physical Review E, 2003, 67, 061601.	2.1	38
69	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
70	Global Co-transcriptional Splicing in Arabidopsis and the Correlation with Splicing Regulation in Mature RNAs. Molecular Plant, 2020, 13, 266-277.	8.3	36
71	Experimental Demonstration of In-Plane Negative-Angle Refraction with an Array of Silicon Nanoposts. Nano Letters, 2015, 15, 2055-2060.	9.1	35
72	Realization of Translational Symmetry in Trapped Cold Ion Rings. Physical Review Letters, 2017, 118, 053001.	7.8	35

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73	Coherence-Driven Topological Transition in Quantum Metamaterials. Physical Review Letters, 2016, 116, 165502.	7.8	32
74	Nonlinear valley phonon scattering under the strong coupling regime. Nature Materials, 2021, 20, 1210-1215.	27.5	32
75	Synthesis of a gold nanoparticle dimer plasmonic resonator through two-phase-mediated functionalization. Nanotechnology, 2008, 19, 435605.	2.6	29
76	Adiabatic far-field sub-diffraction imaging. Nature Communications, 2015, 6, 7942.	12.8	29
77	Unidirectional Perfect Absorber. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 115-120.	2.9	29
78	Spontaneous formation of periodic nanostructured film by electrodeposition: Experimental observations and modeling. Physical Review E, 2004, 69, 021607.	2.1	28
79	Mid-IR broadband supercontinuum generation from a suspended silicon waveguide. Optics Letters, 2018, 43, 1387.	3.3	27
80	Nonresonant Metasurface for Fast Decoding in Acoustic Communications. Physical Review Applied, 2020, 13, .	3.8	27
81	Lipid Bilayer-Integrated Optoelectronic Tweezers for Nanoparticle Manipulations. Nano Letters, 2013, 13, 2766-2770.	9.1	26
82	Emergence of an enslaved phononic bandgap in a non-equilibrium pseudo-crystal. Nature Materials, 2017, 16, 808-813.	27.5	26
83	Valley optomechanics in a monolayer semiconductor. Nature Photonics, 2019, 13, 397-401.	31.4	26
84	Asymmetric Free-Space Light Transport at Nonlinear Metasurfaces. Physical Review Letters, 2018, 121, 046101.	7.8	25
85	Tuning the polarization state of light via time retardation with a microstructured surface. Physical Review B, 2013, 88, .	3.2	22
86	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
87	Vectorial point spread function and optical transfer function in oblique plane imaging. Optics Express, 2014, 22, 11140.	3.4	21
88	Dissipative self-organization in optical space. Nature Photonics, 2018, 12, 739-743.	31.4	20
89	Experimental Demonstration of Hyperbolic Metamaterial Assisted Illumination Nanoscopy. ACS Nano, 2018, 12, 11316-11322.	14.6	20
90	Nonlinear Optics at Excited States of Exciton Polaritons in Two-Dimensional Atomic Crystals. Nano Letters, 2020, 20, 1676-1685.	9.1	20

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91	Formation of Arrays of Straight Copper Wires on Solid Substrate by Electrodeposition. Journal of the Physical Society of Japan, 2001, 70, 1452-1455.	1.6	19
92	Growth and characterization of Al2O3 gate dielectric films by low-pressure metalorganic chemical vapor deposition. Microelectronic Engineering, 2003, 66, 842-848.	2.4	19
93	Sensitive method for measuring third order nonlinearities in compact dielectric and hybrid plasmonic waveguides. Optics Express, 2016, 24, 545.	3.4	19
94	Biodegradable shape memory alloys: Progress and prospects. Biomaterials, 2021, 279, 121215.	11.4	19
95	Interacting dark resonances with plasmonic meta-molecules. Applied Physics Letters, 2014, 105, 111109.	3.3	18
96	Nonconventional metasurfaces: from non-Hermitian coupling, quantum interactions, to skin cloak. Nanophotonics, 2018, 7, 1233-1243.	6.0	17
97	Quasi-3D plasmonic coupling scheme for near-field optical lithography and imaging. Optics Letters, 2015, 40, 3918.	3.3	16
98	A two-stage heating scheme for heat assisted magnetic recording. Journal of Applied Physics, 2014, 115, 17B702.	2.5	15
99	Experimental Realization of Two Decoupled Directional Couplers in a Subwavelength Packing by Adiabatic Elimination. Nano Letters, 2015, 15, 7383-7387.	9.1	15
100	Screening effect of graphite and bilayer graphene on excitons in MoSe ₂ monolayer. 2D Materials, 2017, 4, 015021.	4.4	15
101	Subwavelength pixelated CMOS color sensors based on anti-Hermitian metasurface. Nature Communications, 2020, 11, 3916.	12.8	15
102	Topological kink plasmons on magnetic-domain boundaries. Nature Communications, 2019, 10, 4565.	12.8	14
103	Formation of copper electrodeposits on an untreated insulating substrate. Journal of Physics Condensed Matter, 2004, 16, 695-704.	1.8	12
104	Synthesis of hydroxyl-terminated copolymer of styrene and 4-vinylpyridine via nitroxide-mediated living radical polymerization. Journal of Applied Polymer Science, 2004, 91, 1842-1847.	2.6	12
105	Directional excitation without breaking reciprocity. New Journal of Physics, 2016, 18, 095001.	2.9	11
106	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
107	Urban forest landscape patterns in Ma'anshan City, China. International Journal of Sustainable Development and World Ecology, 2009, 16, 346-355.	5.9	10
108	Macroscale Transformation Optics Enabled by Photoelectrochemical Etching. Advanced Materials, 2015, 27, 6131-6136.	21.0	10

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109	Enhanced mechanical properties and thermal stability of PSMA by functionalized graphene nanosheets. RSC Advances, 2016, 6, 68748-68753.	3.6	9
110	Vortex degeneracy lifting and Aharonovâ€“Bohm-like interference in deformed photonic graphene. Optics Letters, 2017, 42, 915.	3.3	9
111	Quantum-coherence-enhanced transient surface plasmon lasing. Journal of Optics (United Kingdom), 2017, 19, 054002.	2.2	7
112	Observation of strong excitonic magneto-chiral anisotropy in twisted bilayer van der Waals crystals. Nature Communications, 2021, 12, 2088.	12.8	7
113	Low-loss and energy efficient modulation in silicon photonic waveguides by adiabatic elimination scheme. Applied Physics Letters, 2017, 111, .	3.3	6
114	Quantum coherenceâ€“driven self-organized criticality and nonequilibrium light localization. Science Advances, 2018, 4, eaaq0465.	10.3	6
115	Nonlinear infrared plasmonic waveguide arrays. Nano Research, 2016, 9, 224-229.	10.4	5
116	Electron-hole hybridization in bilayer graphene. National Science Review, 2020, 7, 248-253.	9.5	5
117	Tunable oscillations in the Purkinje neuron. Physical Review E, 2012, 85, 041905.	2.1	4
118	Optical modulation of aqueous metamaterial properties at large scale. Optics Express, 2015, 23, 28736.	3.4	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.	1.5	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.	5.6	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.	6.0	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.	2.8	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	PT-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, .	2.4	0
153	Valley-mechanics in a monolayer semiconductor. , 2020, , .		0