Hui Deng

List of Publications by Year
in descending order

116 papers	6,064 citations	147801 31 h-index	82547 72 g-index
118 all docs	118 docs citations	118 times ranked	4727 citing authors

#	Article	IF	Citations
1	Exciton-polariton Bose-Einstein condensation. Reviews of Modern Physics, 2010, 82, 1489-1537.	45.6	1,068
2	Condensation of Semiconductor Microcavity Exciton Polaritons. Science, 2002, 298, 199-202.	12.6	732
3	Mapping photonic entanglement into and out of a quantum memory. Nature, 2008, 452, 67-71.	27.8	467
4	Coherent zero-state and Ï€-state in an excitonâ€“polariton condensate array. Nature, 2007, 450, 529-532.	27.8	366
5	Polariton lasing vs. photon lasing in a semiconductor microcavity. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 15318-15323.	7.1	362
6	Heralded Entanglement between Atomic Ensembles: Preparation, Decoherence, and Scaling. Physical Review Letters, 2007, 99, 180504.	7.8	317
7	Functional Quantum Nodes for Entanglement Distribution over Scalable Quantum Networks. Science, 2007, 316, 1316-1320.	12.6	293
8	Photonic-crystal exciton-polaritons in monolayer semiconductors. Nature Communications, 2018, 9, 713.	12.8	197
9	Room Temperature Ultralow Threshold GaN Nanowire Polariton Laser. Physical Review Letters, 2011, 107, 066405.	7.8	161
10	Quantum Degenerate Exciton-Polaritons in Thermal Equilibrium. Physical Review Letters, 2006, 97, 146402.	7.8	156
11	Spatial Coherence of a Polariton Condensate. Physical Review Letters, 2007, 99, 126403.	7.8	141
12	Interlayer exciton laser of extended spatial coherence in atomically thin heterostructures. Nature, 2019, 576, 80-84.	27.8	120
13	Characterization of Multipartite Entanglement for One Photon Shared Among Four Optical Modes. Science, 2009, 324, 764-768.	12.6	108
14	Van der Waals heterostructure polaritons with moirÃ©-induced nonlinearity. Nature, 2021, 591, 61-65.	27.8	100
15	Room temperature polariton lasing vs photon lasing in a ZnO-based hybrid microcavity. Optics Express, 2012, 20, 5530.	3.4	94
16	Twist-angle dependence of moirÃ© excitons in WS2/MoSe2 heterobilayers. Nature Communications, 2020, 11, 5888.	12.8	87
17	Zero-dimensional polariton laser in a subwavelength grating-based vertical microcavity. Light: Science and Applications, 2014, 3, e135-e135.	16.6	75
18	Emerging exciton physics in transition metal dichalcogenide heterobilayers. Nature Reviews Materials, 2022, 7, 778-795.	48.7	75

#	Article	IF	Citations
19	Semiconductor microcavity as a spin-dependent optoelectronic device. Physical Review B, 2004, 70, .	3.2	68
20	Highly valley-polarized singlet and triplet interlayer excitons in van der Waals heterostructure. Physical Review B, 2019, 100, .	3.2	58
21	Observation of interlayer excitons in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoSe</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">/</mml:mi><mml:msub><mml:mi>WSe</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> single crystals. Physical Review B, 2018, 97, .	3.2	54
22	Coherent Polariton Laser. Physical Review X, 2016, 6, .	8.9	47
23	Single photon emission from site-controlled InGaN/GaN quantum dots. Applied Physics Letters, 2013, 103, .	3.3	44
24	Dispersion Engineering for Vertical Microcavities Using Subwavelength Gratings. Physical Review Letters, 2015, 114, 073601.	7.8	44
25	Investigation of orbital momentum profiles of methylpropane (isobutane) by binary (e,2e) spectroscopy. Journal of Chemical Physics, 2001, 114, 882.	3.0	38
26	Strain-induced red-green-blue wavelength tuning in InGaN quantum wells. Applied Physics Letters, 2016, 108, 071104.	3.3	36
27	Valley-dependent exciton fine structure and Autlerâ€“Townes doublets from Berry phases in monolayer MoSe2. Nature Materials, 2019, 18, 1065-1070.	27.5	34
28	Observation of the polaronic character of excitons in a two-dimensional semiconducting magnet CrI3. Nature Communications, 2020, 11, 4780.	12.8	34
29	Elliptical quantum dots as on-demand single photons sources with deterministic polarization states. Applied Physics Letters, 2015, 107, .	3.3	33
30	How much better are InGaN/GaN nanodisks than quantum wellsâ€”Oscillator strength enhancement and changes in optical properties. Applied Physics Letters, 2014, 104, .	3.3	32
31	Towards experimental entanglement connection with atomic ensembles in the single excitation regime. New Journal of Physics, 2007, 9, 207-207.	2.9	31
32	Verifying multipartite mode entanglement of W states. New Journal of Physics, 2009, 11, 063029.	2.9	31
33	Perfect Absorption by an Atomically Thin Crystal. Physical Review Applied, 2020, 14, .	3.8	29
34	Encapsulation Narrows and Preserves the Excitonic Homogeneous Linewidth of Exfoliated Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>Mo</mml:mi><mml:mi>Se</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math> Physical Review Applied, 2020, 14, .	3.8	29
35	GaAs microcavity excitonâ€polaritons in a trap. Physica Status Solidi (B): Basic Research, 2008, 245, 1076-1080.	1.5	26
36	Site-controlled InGaN/GaN single-photon-emitting diode. Applied Physics Letters, 2016, 108, .	3.3	24

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37	Excitonâ€“polariton lasing in a microcavity. Semiconductor Science and Technology, 2003, 18, S386-S394.	2.0	23
38	High fidelity detection of the orbital angular momentum of light by time mapping. New Journal of Physics, 2013, 15, 113062.	2.9	23
39	Carrier dynamics in site- and structure-controlled InGaN/GaN quantum dots. Physical Review B, 2014, 90, .	3.2	23
40	Engineering radiative coupling of excitons in 2D semiconductors. Optica, 2019, 6, 1443.	9.3	23
41	Plasmonic Enhancement of Single Photon Emission from a Site-Controlled Quantum Dot. ACS Photonics, 2015, 2, 1065-1070.	6.6	22
42	Coupling polariton quantum boxes in sub-wavelength grating microcavities. Applied Physics Letters, 2015, 106, .	3.3	22
43	Self-Hybridized, Polarized Polaritons in ReS₂ Crystals. ACS Photonics, 2020, 7, 3328-3332.	6.6	20
44	Physics and Applications of Highâ€Î² Microâ€•and Nanolasers. Advanced Optical Materials, 2021, 9, 2100415.	7.3	20
45	Characteristics of exciton-polaritons in ZnO-â€˜based hybrid microcavities. Optics Express, 2011, 19, 4101.	3.4	19
46	Monolithic High-Contrast Grating Based Polariton Laser. ACS Photonics, 2019, 6, 18-22.	6.6	18
47	Polariton lasing in a microcavity. Physica Status Solidi A, 2004, 201, 625-632.	1.7	16
48	Photonic crystals for controlling strong coupling in van der Waals materials. Optics Express, 2019, 27, 22700.	3.4	16
49	Large enhancement of second-harmonic generation in MoS2 by one dimensional photonic crystals. Solid State Communications, 2020, 322, 114043.	1.9	15
50	Emergence of microfrequency comb via limit cycles in dissipatively coupled condensates. Physical Review B, 2020, 101, .	3.2	15
51	Direct Generation of Radially Polarized Vector Vortex Beam with an Exciton-Polariton Laser. Physical Review Applied, 2020, 14, .	3.8	14
52	Room-temperature quantum-dot-like luminescence from site-controlled InGaN quantum disks. Applied Physics Letters, 2011, 99, 263105.	3.3	13
53	Polariton Laser in the Bardeen-Cooper-Schrieffer Regime. Physical Review X, 2021, 11, .	8.9	13
54	Imaging dynamic exciton interactions and coupling in transition metal dichalcogenides. Journal of Chemical Physics, 2022, 156, .	3.0	12

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55	The valence shell binding energy spectra and frontier orbital momentum profiles of methylpropane (isobutane) by binary (e, 2e) spectroscopy. Chemical Physics Letters, 1999, 313, 134-138.	2.6	11
56	Charge-tunable indium gallium nitride quantum dots. Physical Review B, 2016, 93, .	3.2	11
57	Steady-state generation of negative-Wigner-function light using feedback. Physical Review A, 2016, 94, .	2.5	10
58	Distribution of sand dunes and sand shifts along the southern fringe of the Mu Us Desert since the Ming Dynasty. Science Bulletin, 2007, 52, 3128-3138.	1.7	9
59	What is the best planar cavity for maximizing coherent exciton-photon coupling. Applied Physics Letters, 2017, 111, 061102.	3.3	9
60	Improving the Radiative Efficiency of InGaN Quantum Dots via an Open Top Cavity. ACS Photonics, 2017, 4, 795-799.	6.6	8
61	Orbital electron densities of ethane: Comparison of electron momentum spectroscopy measurements with near Hartreeâ€“Fock limit and density functional theory calculations. Journal of Chemical Physics, 2002, 117, 4839-4845.	3.0	7
62	A compact orbital angular momentum spectrometer using quantum zeno interrogation. Optics Express, 2011, 19, 11615.	3.4	7
63	Integrated parabolic nanolenses on MicroLED color pixels. Nanotechnology, 2018, 29, 165201.	2.6	7
64	Cooperative light scattering in any dimension. Physical Review A, 2017, 95, .	2.5	6
65	Mechanisms of inhomogeneous broadening in InGaN dot-in-wire structures. Journal of Applied Physics, 2019, 126, 083104.	2.5	6
66	Simultaneous quantification of candesartan and irbesartan in rabbit eye tissues by liquid chromatographyâ€“tandem mass spectrometry. Biomedical Chromatography, 2020, 34, e4808.	1.7	6
67	Magneto-exciton-polariton condensation in a sub-wavelength high contrast grating based vertical microcavity. Applied Physics Letters, 2014, 104, 091117.	3.3	5
68	Recent developments on polariton lasers. Progress in Quantum Electronics, 2022, 83, 100399.	7.0	5
69	Polariton-polariton interaction beyond the Born approximation: A toy model study. Physical Review A, 2020, 102, .	2.5	4
70	Momentum Profile and Final Correlation Effects of Iso-butane Inner Valence by Binary (e, 2e) Spectroscopy. Chinese Physics Letters, 2000, 17, 795-797.	3.3	3
71	Microcavity exciton polaritons. Semiconductors and Semimetals, 2020, 105, 29-87.	0.7	2
72	Enhancement of Spontaneous Emission Rate in an InGaN Quantum Dot Coupled to a Plasmonic Cavity. , 2013, , .		1

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73	Monolithically integrated multi-color InGaN/GaN nanopillar light emitting diodes. , 2015, , .		1
74	Flatland, lineland and dotland. Nature Materials, 2020, 19, 1044-1045.	27.5	1
75	Semiconductor Single-Photon Emitters with Tunable Polarization Output. , 2014, , .		1
76	Measurement of excitation coherence lengths using multi-spatial-mode four-wave mixing. , 2019, , .		1
77	Single-Photon Emission from Rewritable Nanoimprinted Localized Emitter Arrays in Atomically Thin Crystals. ACS Photonics, 2022, 9, 752-757.	6.6	1
78	Quantum Networking with Atomic Ensembles in the Single Excitation Regime. , 2007, , .		0
79	Matter-matter entanglement for quantum networks. , 2009, , .		0
80	Room temperature polariton lasing from a single GaN nanowire microcavity. , 2011, , .		0
81	A one-dimensional hybrid photonic crystal microcavity in the strong coupling regime. , 2011, , .		0
82	Exciton-polaritons study in ZnO-based hybrid microcavities. Proceedings of SPIE, 2012, , .	0.8	0
83	Site-controlled single photon emitters based on InGaN/GaN quantum dots. , 2012, , .		0
84	Blue single photon emission from a single InGaN/GaN quantum dot in nanowire up to 200K. , 2012, , .		0
85	A Practical Orbital Angular Momentum Spectrometer using Time Mapping. , 2012, , .		0
86	Polariton lasing in a ZnO-based microcavity up to 353K. , 2012, , .		0
87	Linewidth reduction of site-controlled InGaN quantum dots by surface passivation. Proceedings of SPIE, 2013, , .	0.8	0
88	Diamagnetic shift and second order coherence for polariton lasing in subwavelength grating based microcavity. , 2013, , .		0
89	Single photon emission from site-controlled InGaN quantum dots up to 90 K. , 2013, , .		0
90	Engineering Dispersion Relation of Photons in Vertical Cavity using High-Contrast Gratings. , 2014, , .		0

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91	Electrically driven single-photon emission from site-controlled InGaN/GaN quantum dots. , 2014, , .		0
92	Single-mode Polariton Laser in a Designable Microcavity. , 2014, , .		0
93	A Coherent Polariton Lasers. , 2015, , .		0
94	Enhanced Single Photon Emission from Quantum Dots Coupled to Localized Surface Plasmons. , 2015, , .		0
95	Coherent Polariton Lasing in a Designable Microcavity. , 2016, , .		0
96	Reducing inhomogeneity in the dynamic properties of quantum dots via self-aligned plasmonic cavities. Nanotechnology, 2018, 29, 015201.	2.6	0
97	Influence of gallium surface saturation on GaN nanowire polytype selection during molecular-beam epitaxy. Applied Physics Letters, 2021, 119, 031601.	3.3	0
98	Dynamic condensation of cavity polaritons. , 2003, , .		0
99	Mapping photonic entanglement into and out of a quantum memory. , 2008, , .		0
100	Characterizing multipartite entanglement with uncertainty relations. , 2009, , .		0
101	An Unconventional Microcavity System for Polaritons. , 2012, , .		0
102	A Hybrid Photonic Crystal Microcavity in Strong Coupling Regime. , 2012, , .		0
103	Polariton lasing in a zero dimensional hybrid photonic crystal cavity. , 2013, , .		0
104	Effects of Strain Relaxation on Luminescent Properties of InGaN/GaN Nanorods from 2D to 0D Transition. , 2013, , .		0
105	Coherence Properties of a Single-Mode Polariton Laser. , 2014, , .		0
106	Momentum Profiles of Iso-butane. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 1999, 15, 676-679.	4.9	0
107	Monolithically Integrated Multi-Color (Blue and Green) Light-Emitting Diode Chips. , 2015, , .		0
108	Dimensional Dependence of Cooperative Emission. , 2015, , .		0

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109	Ultrafast Spontaneous Emission Rate from an InGaN Quantum Dot Coupled to a Silver Plasmonic Cavity. , 2016, , .		0
110	Quantized Charging and Electrical Excitation of Site-Controlled III-Nitride Quantum Dots. , 2016, , .		0
111	Dimension Control of Superradiance. , 2016, , .		0
112	Superradiance in a Two-Dimensional Gas. , 2017, , .		0
113	III-Nitride Semiconductor Single Photon Sources. Series in Optics and Optoelectronics, 2017, , 661-669.	0.0	0
114	Photonic Crystal Polaritons in 2D Materials. , 2019, , .		0
115	Strong Coupling between Quantum-confined Exciton Polaritons. , 2019, , .		0
116	Spatially Coherent Interlayer Exciton Lasing in an Atomically-Thin Heterostructure. , 2019, , .		0