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	Single-Photon Emission from Rewritable Nanoimprinted Localized Emitter Arrays in Atomically Thin Crystals. ACS Photonics, 2022, 9, 752-757.	6.6	1
2	Imaging dynamic exciton interactions and coupling in transition metal dichalcogenides. Journal of Chemical Physics, 2022, 156, .	3.0	12
3	Emerging exciton physics in transition metal dichalcogenide heterobilayers. Nature Reviews Materials, 2022, 7, 778-795.	48.7	75
4	Recent developments on polariton lasers. Progress in Quantum Electronics, 2022, 83, 100399.	7.0	5
5	Van der Waals heterostructure polaritons with moirÃ©-induced nonlinearity. Nature, 2021, 591, 61-65.	27.8	100
6	Physics and Applications of Highâ€Î² Microâ€•and Nanolasers. Advanced Optical Materials, 2021, 9, 2100415.	7.3	20
7	Influence of gallium surface saturation on GaN nanowire polytype selection during molecular-beam epitaxy. Applied Physics Letters, 2021, 119, 031601.	3.3	0
8	Polariton Laser in the Bardeen-Cooper-Schrieffer Regime. Physical Review X, 2021, 11, .	8.9	13
9	Direct Generation of Radially Polarized Vector Vortex Beam with an Exciton-Polariton Laser. Physical Review Applied, 2020, 14, .	3.8	14
10	Flatland, lineland and dotland. Nature Materials, 2020, 19, 1044-1045.	27.5	1
11	Microcavity exciton polaritons. Semiconductors and Semimetals, 2020, 105, 29-87.	0.7	2
12	Twist-angle dependence of moirÃ© excitons in WS2/MoSe2 heterobilayers. Nature Communications, 2020, 11, 5888.	12.8	87
13	Self-Hybridized, Polarized Polaritons in ReS₂ Crystals. ACS Photonics, 2020, 7, 3328-3332.	6.6	20
14	Perfect Absorption by an Atomically Thin Crystal. Physical Review Applied, 2020, 14, .	3.8	29
15	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></m Physical Review Applied, 2020, 14, .	3.8	29
16	Large enhancement of second-harmonic generation in MoS2 by one dimensional photonic crystals. Solid State Communications, 2020, 322, 114043.	1.9	15
17	Observation of the polaronic character of excitons in a two-dimensional semiconducting magnet CrI3. Nature Communications, 2020, 11, 4780.	12.8	34
18	Emergence of microfrequency comb via limit cycles in dissipatively coupled condensates. Physical Review B, 2020, 101, .	3.2	15

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19	Simultaneous quantification of candesartan and irbesartan in rabbit eye tissues by liquid chromatographyâ€“tandem mass spectrometry. Biomedical Chromatography, 2020, 34, e4808.	1.7	6
20	Polariton-polariton interaction beyond the Born approximation: A toy model study. Physical Review A, 2020, 102, .	2.5	4
21	Valley-dependent exciton fine structure and Autlerâ€“Townes doublets from Berry phases in monolayer MoSe2. Nature Materials, 2019, 18, 1065-1070.	27.5	34
22	Highly valley-polarized singlet and triplet interlayer excitons in van der Waals heterostructure. Physical Review B, 2019, 100, .	3.2	58
23	Mechanisms of inhomogeneous broadening in InGaN dot-in-wire structures. Journal of Applied Physics, 2019, 126, 083104.	2.5	6
24	Interlayer exciton laser of extended spatial coherence in atomically thin heterostructures. Nature, 2019, 576, 80-84.	27.8	120
25	Monolithic High-Contrast Grating Based Polariton Laser. ACS Photonics, 2019, 6, 18-22.	6.6	18
26	Measurement of excitation coherence lengths using multi-spatial-mode four-wave mixing. , 2019, , .		1
27	Photonic crystals for controlling strong coupling in van der Waals materials. Optics Express, 2019, 27, 22700.	3.4	16
28	Engineering radiative coupling of excitons in 2D semiconductors. Optica, 2019, 6, 1443.	9.3	23
29	Photonic Crystal Polaritons in 2D Materials. , 2019, , .		0
30	Strong Coupling between Quantum-confined Exciton Polaritons. , 2019, , .		0
31	Spatially Coherent Interlayer Exciton Lasing in an Atomically-Thin Heterostructure. , 2019, , .		0
32	Integrated parabolic nanolenses on MicroLED color pixels. Nanotechnology, 2018, 29, 165201.	2.6	7
33	Photonic-crystal exciton-polaritons in monolayer semiconductors. Nature Communications, 2018, 9, 713.	12.8	197
34	Reducing inhomogeneity in the dynamic properties of quantum dots via self-aligned plasmonic cavities. Nanotechnology, 2018, 29, 015201.	2.6	0
35	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></m single crystals. Physical Review B, 2018, 97, .	3.2	54
36	Improving the Radiative Efficiency of InGaN Quantum Dots via an Open Top Cavity. ACS Photonics, 2017, 4, 795-799.	6.6	8

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37	Cooperative light scattering in any dimension. Physical Review A, 2017, 95, .	2.5	6
38	What is the best planar cavity for maximizing coherent exciton-photon coupling. Applied Physics Letters, 2017, 111, 061102.	3.3	9
39	Superradiance in a Two-Dimensional Gas. , 2017, , .		0
40	III-Nitride Semiconductor Single Photon Sources. Series in Optics and Optoelectronics, 2017, , 661-669.	0.0	0
41	Coherent Polariton Lasing in a Designable Microcavity. , 2016, , .		0
42	Steady-state generation of negative-Wigner-function light using feedback. Physical Review A, 2016, 94, .	2.5	10
43	Strain-induced red-green-blue wavelength tuning in InGaN quantum wells. Applied Physics Letters, 2016, 108, 071104.	3.3	36
44	Site-controlled InGaN/GaN single-photon-emitting diode. Applied Physics Letters, 2016, 108, .	3.3	24
45	Charge-tunable indium gallium nitride quantum dots. Physical Review B, 2016, 93, .	3.2	11
46	Coherent Polariton Laser. Physical Review X, 2016, 6, .	8.9	47
47	Ultrafast Spontaneous Emission Rate from an InGaN Quantum Dot Coupled to a Silver Plasmonic Cavity. , 2016, , .		0
48	Quantized Charging and Electrical Excitation of Site-Controlled III-Nitride Quantum Dots. , 2016, , .		0
49	Dimension Control of Superradiance. , 2016, , .		0
50	Elliptical quantum dots as on-demand single photons sources with deterministic polarization states. Applied Physics Letters, 2015, 107, .	3.3	33
51	Dispersion Engineering for Vertical Microcavities Using Subwavelength Gratings. Physical Review Letters, 2015, 114, 073601.	7.8	44
52	Plasmonic Enhancement of Single Photon Emission from a Site-Controlled Quantum Dot. ACS Photonics, 2015, 2, 1065-1070.	6.6	22
53	Coupling polariton quantum boxes in sub-wavelength grating microcavities. Applied Physics Letters, 2015, 106, .	3.3	22
54	A Coherent Polariton Lasers. , 2015, , .		0

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55	Enhanced Single Photon Emission from Quantum Dots Coupled to Localized Surface Plasmons. , 2015, , .		0
56	Monolithically integrated multi-color InGaN/GaN nanopillar light emitting diodes. , 2015, , .		1
57	Monolithically Integrated Multi-Color (Blue and Green) Light-Emitting Diode Chips. , 2015, , .		0
58	Dimensional Dependence of Cooperative Emission. , 2015, , .		0
59	Engineering Dispersion Relation of Photons in Vertical Cavity using High-Contrast Gratings. , 2014, , .		0
60	Carrier dynamics in site- and structure-controlled InGaN/GaN quantum dots. Physical Review B, 2014, 90, .	3.2	23
61	Zero-dimensional polariton laser in a subwavelength grating-based vertical microcavity. Light: Science and Applications, 2014, 3, e135-e135.	16.6	75
62	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
63	Electrically driven single-photon emission from site-controlled InGaN/GaN quantum dots. , 2014, , .		0
64	Single-mode Polariton Laser in a Designable Microcavity. , 2014, , .		0
65	Magneto-exciton-polariton condensation in a sub-wavelength high contrast grating based vertical microcavity. Applied Physics Letters, 2014, 104, 091117.	3.3	5
66	Semiconductor Single-Photon Emitters with Tunable Polarization Output. , 2014, , .		1
67	Coherence Properties of a Single-Mode Polariton Laser. , 2014, , .		0
68	Linewidth reduction of site-controlled InGaN quantum dots by surface passivation. Proceedings of SPIE, 2013, , .	0.8	0
69	Single photon emission from site-controlled InGaN/GaN quantum dots. Applied Physics Letters, 2013, 103, .	3.3	44
70	Diamagnetic shift and second order coherence for polariton lasing in subwavelength grating based microcavity. , 2013, , .		0
71	High fidelity detection of the orbital angular momentum of light by time mapping. New Journal of Physics, 2013, 15, 113062.	2.9	23
72	Single photon emission from site-controlled InGaN quantum dots up to 90 K. , 2013, , .		0

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73	Enhancement of Spontaneous Emission Rate in an InGaN Quantum Dot Coupled to a Plasmonic Cavity. , 2013, , .		1
74	Polariton lasing in a zero dimensional hybrid photonic crystal cavity. , 2013, , .		0
75	Effects of Strain Relaxation on Luminescent Properties of InGaN/GaN Nanorods from 2D to 0D Transition. , 2013, , .		0
76	Exciton-polaritons study in ZnO-based hybrid microcavities. Proceedings of SPIE, 2012, , .	0.8	0
77	Room temperature polariton lasing vs photon lasing in a ZnO-based hybrid microcavity. Optics Express, 2012, 20, 5530.	3.4	94
78	Site-controlled single photon emitters based on InGaN/GaN quantum dots. , 2012, , .		0
79	Blue single photon emission from a single InGaN/GaN quantum dot in nanowire up to 200K. , 2012, , .		0
80	A Practical Orbital Angular Momentum Spectrometer using Time Mapping. , 2012, , .		0
81	Polariton lasing in a ZnO-based microcavity up to 353K. , 2012, , .		0
82	An Unconventional Microcavity System for Polaritons. , 2012, , .		0
83	A Hybrid Photonic Crystal Microcavity in Strong Coupling Regime. , 2012, , .		0
84	Room temperature polariton lasing from a single GaN nanowire microcavity. , 2011, , .		0
85	Characteristics of exciton-polaritons in ZnO-â€based hybrid microcavities. Optics Express, 2011, 19, 4101.	3.4	19
86	A compact orbital angular momentum spectrometer using quantum zeno interrogation. Optics Express, 2011, 19, 11615.	3.4	7
87	Room Temperature Ultralow Threshold GaN Nanowire Polariton Laser. Physical Review Letters, 2011, 107, 066405.	7.8	161
88	A one-dimensional hybrid photonic crystal microcavity in the strong coupling regime. , 2011, , .		0
89	Room-temperature quantum-dot-like luminescence from site-controlled InGaN quantum disks. Applied Physics Letters, 2011, 99, 263105.	3.3	13
90	Exciton-polariton Bose-Einstein condensation. Reviews of Modern Physics, 2010, 82, 1489-1537.	45.6	1,068

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91	Verifying multipartite mode entanglement of W states. New Journal of Physics, 2009, 11, 063029.	2.9	31
92	Matter-matter entanglement for quantum networks. , 2009, , .		0
93	Characterization of Multipartite Entanglement for One Photon Shared Among Four Optical Modes. Science, 2009, 324, 764-768.	12.6	108
94	Characterizing multipartite entanglement with uncertainty relations. , 2009, , .		0
95	GaAs microcavity excitonâ€polaritons in a trap. Physica Status Solidi (B): Basic Research, 2008, 245, 1076-1080.	1.5	26
96	Mapping photonic entanglement into and out of a quantum memory. Nature, 2008, 452, 67-71.	27.8	467
97	Mapping photonic entanglement into and out of a quantum memory. , 2008, , .		0
98	Towards experimental entanglement connection with atomic ensembles in the single excitation regime. New Journal of Physics, 2007, 9, 207-207.	2.9	31
99	Spatial Coherence of a Polariton Condensate. Physical Review Letters, 2007, 99, 126403.	7.8	141
100	Quantum Networking with Atomic Ensembles in the Single Excitation Regime. , 2007, , .		0
101	Heralded Entanglement between Atomic Ensembles: Preparation, Decoherence, and Scaling. Physical Review Letters, 2007, 99, 180504.	7.8	317
102	Functional Quantum Nodes for Entanglement Distribution over Scalable Quantum Networks. Science, 2007, 316, 1316-1320.	12.6	293
103	Coherent zero-state and Ï€-state in an excitonâ€“polariton condensate array. Nature, 2007, 450, 529-532.	27.8	366
104	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
105	Quantum Degenerate Exciton-Polaritons in Thermal Equilibrium. Physical Review Letters, 2006, 97, 146402.	7.8	156
106	Polariton lasing in a microcavity. Physica Status Solidi A, 2004, 201, 625-632.	1.7	16
107	Semiconductor microcavity as a spin-dependent optoelectronic device. Physical Review B, 2004, 70, .	3.2	68
108	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

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109	Excitonâ€"polariton lasing in a microcavity. Semiconductor Science and Technology, 2003, 18, S386-S394.	2.0	23
110	Dynamic condensation of cavity polaritons. , 2003, , .		0
111	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
112	Condensation of Semiconductor Microcavity Exciton Polaritons. Science, 2002, 298, 199-202.	12.6	732
113	Investigation of orbital momentum profiles of methylpropane (isobutane) by binary (e,2e) spectroscopy. Journal of Chemical Physics, 2001, 114, 882.	3.0	38
114	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
115	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
116	Momentum Profiles of Iso-butane. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 1999, 15, 676-679.	4.9	0