Huizhen Wu

List of Publications by Year
in descending order

92 papers	1,441 citations	361413 20 h-index	414414 32 g-index
93 all docs	93 docs citations	93 times ranked	2066 citing authors

#	Article	IF	Citations
1	Annealing effects of In2O3 thin films on electrical properties and application in thin film transistors. Thin Solid Films, 2011, 519, 3254-3258.	1.8	86
2	Optical properties of pH-sensitive carbon-dots with different modifications. Journal of Luminescence, 2014, 148, 238-242.	3.1	79
3	A Potential Checkmate to Lead: Bismuth in Organometal Halide Perovskites, Structure, Properties, and Applications. Advanced Science, 2020, 7, 1903143.	11.2	60
4	Multiphonon resonant Raman scattering in Nâ€doped ZnO. Journal of Raman Spectroscopy, 2009, 40, 2155-2161.	2.5	57
5	Oxygen Intercalation Induced by Photocatalysis on the Surface of Hybrid Lead Halide Perovskites. Journal of Physical Chemistry C, 2016, 120, 7606-7611.	3.1	52
6	Tunable electrical properties of NiO thin films and p-type thin-film transistors. Thin Solid Films, 2015, 592, 195-199.	1.8	49
7	An overview of the decompositions in organo-metal halide perovskites and shielding with 2-dimensional perovskites. Renewable and Sustainable Energy Reviews, 2019, 109, 160-186.	16.4	42
8	Observation of phonon modes in epitaxial PbTe films grown by molecular beam epitaxy. Journal of Applied Physics, 2007, 101, 103505.	2.5	35
9	Experimental determination of valence band offset at PbTe/CdTe(111) heterojunction interface by x-ray photoelectron spectroscopy. Applied Physics Letters, 2008, 93, 202101.	3.3	34
10	The effect of annealing and photoactivation on the optical transitions of bandâ€“band and surface trap states of colloidal quantum dots in PMMA. Nanotechnology, 2011, 22, 125202.	2.6	34
11	Enhanced stability in cesium assisted hybrid 2D/3D-perovskite thin films and solar cells prepared in ambient humidity. Solar Energy, 2019, 189, 325-332.	6.1	29
12	Two-dimensional electron gas at the metastable twisted interfaces of CdTe/PbTe (111) single heterojunctions. Physical Review B, 2013, 87, .	3.2	27
13	Large Rashba splitting in highly asymmetric CdTe/PbTe/PbSrTe quantum well structures. Applied Physics Letters, 2009, 95, .	3.3	26
14	Transparent Thin-Film Transistors Using ZnMgO as Dielectrics and Channel. IEEE Transactions on Electron Devices, 2007, 54, 2856-2859.	3.0	25
15	Quantum Oscillations in a Two-Dimensional Electron Gas at the Rocksalt/Zincblende Interface of PbTe/CdTe (111) Heterostructures. Nano Letters, 2015, 15, 4381-4386.	9.1	25
16	Lead-Free Antimony Halide Perovskite with Heterovalent Mn²⁺ Doping. Inorganic Chemistry, 2020, 59, 15289-15294.	4.0	25
17	Experimental determination of deformation potentials and band nonparabolicity parameters for PbSe. Physical Review B, 2002, 66, .	3.2	24
18	Plasmon-Enhanced Surface-State Emission of CdSe Quantum Dots and Its Application to Microscale Luminescence Patterns. Journal of Physical Chemistry C, 2012, 116, 11283-11291.	3.1	24

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19	Self-trapped exciton emission in an Sn(<scp>ii</scp>)-doped all-inorganic zero-dimensional zinc halide perovskite variant. Nanoscale, 2021, 13, 15285-15291.	5.6	23
20	A new strategy to improve the performance of MoS2-based 2D photodetector by synergism of colloidal CuInS2 quantum dots and surface plasma resonance of noble metal nanoparticles. Journal of Alloys and Compounds, 2021, 856, 158179.	5.5	23
21	Comparison of Photoresponse of Si-Based BIB THz Detectors. IEEE Transactions on Electron Devices, 2017, 64, 1094-1099.	3.0	22
22	Photoluminescence enhancement in wide spectral range excitation in CsPbBr₃ nanocrystal/Ag nanostructure via surface plasmon coupling. Optics Letters, 2019, 44, 658.	3.3	20
23	Phonon blocking by two dimensional electron gas in polar CdTe/PbTe heterojunctions. Applied Physics Letters, 2014, 104, 161601.	3.3	19
24	Water-processed carbon nanotube/graphene hybrids with enhanced field emission properties. AIP Advances, 2015, 5, .	1.3	19
25	Aqueous phase fabrication and conversion of Pb(OH)Br into a CH₃NH₃PbBr₃ perovskite and its application in resistive memory switching devices. Green Chemistry, 2020, 22, 3608-3614.	9.0	19
26	Enhanced Field-Emission Performance from Carbon Nanotube Emitters on Nickel Foam Cathodes. Journal of Electronic Materials, 2016, 45, 2299-2304.	2.2	18
27	Ge-based mid-infrared blocked-impurity-band photodetectors. Infrared Physics and Technology, 2018, 92, 13-17.	2.9	18
28	The effect of dodecylammonium chloride on the film morphology, crystallinity, and performance of lead-free Bi-based solution-processed photovoltaics devices. Solar Energy, 2020, 207, 1356-1363.	6.1	18
29	Synthesis of large two-dimensional lead-free bismuthâ€“silver double perovskite microplatelets and their application for field-effect transistors. Chemical Communications, 2020, 56, 7917-7920.	4.1	18
30	Annealing effect on electrical properties of high-kMgZnO film on silicon. Semiconductor Science and Technology, 2005, 20, L15-L19.	2.0	17
31	Designable Luminescence with Quantum Dotâ€“Silver Plasmon Coupler. Small, 2014, 10, 3099-3109.	10.0	17
32	Enhanced photoluminescence properties of bismuth sulfide nanocrystals with core-shell Ag@SiO_2. Optics Letters, 2016, 41, 1466.	3.3	16
33	Gate Tuning of FÃ¶rster Resonance Energy Transfer in a Graphene - Quantum Dot FET Photo-Detector. Scientific Reports, 2016, 6, 28224.	3.3	16
34	Hybrid Structure of 2D Layered GaTe with Au Nanoparticles for Ultrasensitive Detection of Aromatic Molecules. ACS Applied Materials & Interfaces, 2018, 10, 1356-1362.	8.0	16
35	Realization of a New Topological Crystalline Insulator and Lifshitz Transition in PbTe. Advanced Functional Materials, 2018, 28, 1803188.	14.9	16
36	Effects of external magnetic field and out-of-plane strain on magneto-optical Kerr spectra in CrI3 monolayer. Journal of Physics Condensed Matter, 2018, 30, 285303.	1.8	16

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37	Lattice-Mismatched PbTe/ZnTe Heterostructure with High-Speed Midinfrared Photoresponses. ACS Applied Materials & Interfaces, 2019, 11, 39342-39350.	8.0	16
38	Plasmon-enhanced mid-infrared luminescence from polar and lattice-structure-mismatched CdTe/PbTe single heterojunctions. Applied Physics Letters, 2012, 100, 182104.	3.3	15
39	Electron energy transfer effect in Au NS/CH_3NH_3PbI_3-xCl_x heterostructures via localized surface plasmon resonance coupling. Optics Letters, 2016, 41, 4297.	3.3	15
40	IVâ€“VI Semiconductor growth on silicon substrates and new mid-infrared laser fabrication methods. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 1999, 55, 1999-2005.	3.9	14
41	Observation of regular defects formed on the surface of PbTe thin films grown by molecular beam epitaxy. Applied Surface Science, 2011, 257, 1986-1989.	6.1	14
42	Twisted ZBâ€“CdTe/RSâ€“PbTe (111) heterojunction as a metastable interface structure. New Journal of Physics, 2012, 14, 113021.	2.9	13
43	Plasmon enhanced fluorescence from quaternary CuInZnS quantum dots. Applied Surface Science, 2015, 327, 394-399.	6.1	13
44	The effect of infrared plasmon on the performance of Si-based THz detectors. Journal of Materials Science: Materials in Electronics, 2017, 28, 839-844.	2.2	13
45	Surface plasmon enhanced Si-based BIB terahertz detectors. Applied Physics Letters, 2017, 111, .	3.3	13
46	Physical approaches to tuning the luminescence color patterns of colloidal quantum dots. New Journal of Physics, 2012, 14, 013059.	2.9	12
47	Resonant nature of intrinsic defect energy levels in PbTe revealed by infrared photoreflectance spectroscopy. Applied Physics Letters, 2014, 105, 022109.	3.3	11
48	Enhancement of Two-Photon Fluorescence and Low Threshold Amplification of Spontaneous Emission of Zn-processed CuInS2 Quantum Dots. ACS Photonics, 2018, 5, 1310-1317.	6.6	11
49	Influence of size and surface state emission on photoluminescence of CdSe quantum dots under UV irradiation. Journal of Luminescence, 2016, 177, 306-313.	3.1	10
50	Ultrathin, highly flexible and optically transparent terahertz polarizer based on transparent conducting oxide. Journal Physics D: Applied Physics, 2020, 53, 125109.	2.8	10
51	Nontoxic and Less Toxic Hybrid Perovskites: a Synergistic Strategy for Sustainable Photovoltaic Devices. Solar Rrl, 2021, 5, 2100212.	5.8	10
52	Bright luminescence of Sb doping in all-inorganic zinc halide perovskite variant. Journal of Alloys and Compounds, 2022, 895, 162610.	5.5	10
53	Controllable Synthesis of Ordered ZnO Nanodots Arrays by Nanosphere Lithography. Crystal Growth and Design, 2008, 8, 2917-2920.	3.0	9
54	Band alignment of ZnO/CdSe quantum dots heterojunction determined by ultraviolet photoelectron spectroscopy using synchrotron radiation. Applied Surface Science, 2013, 276, 258-261.	6.1	9

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55	Molecular beam epitaxy and characterizations of PbTe grown on GaAs(211) substrates using CdTe/ZnTe buffers. Journal of Crystal Growth, 2015, 420, 17-21.	1.5	9
56	Ge-based triple-band infrared photodetector. Applied Physics Express, 2018, 11, 114102.	2.4	9
57	Band alignment at the interface of PbTe/SnTe heterojunction determined by X-ray photoelectron spectroscopy. Europhysics Letters, 2016, 116, 37006.	2.0	8
58	Plasmon-enhanced luminescence in novel complex conjugated polymer nanoparticles. Optics Letters, 2017, 42, 3789.	3.3	8
59	Enhancement of light emission from nanostructured In_2O_3 via surface plasmons. Optics Express, 2010, 18, 23385.	3.4	7
60	Impact of the Structural Parameters on the Photoresponse of Terahertz Blocked-Impurity-Band Detectors With Planar Structure. IEEE Transactions on Terahertz Science and Technology, 2020, 10, 358-362.	3.1	7
61	Ultra-broadband and multiband infrared/terahertz photodetectors with high sensitivity. Photonics Research, 0, , .	7.0	7
62	White light-emitting quantum dot diodes and tuning of luminescence processes. Applied Physics A: Materials Science and Processing, 2014, 116, 941-945.	2.3	6
63	Electronic band structure of epitaxial PbTe (111) thin films observed by angle-resolved photoemission spectroscopy. Physical Review B, 2017, 95, .	3.2	6
64	Hybrid AgNPs/MEH-PPV nanocomplexes with enhanced optical absorption and photoluminescence properties. New Journal of Chemistry, 2018, 42, 18991-18999.	2.8	6
65	Design and fabrication of plasmonic tuned THz detectors by periodic hole structures. Infrared Physics and Technology, 2019, 99, 45-48.	2.9	6
66	Temperature-sensitive mechanism for silicon blocked-impurity-band photodetectors. Applied Physics Letters, 2021, 119, .	3.3	6
67	Progress of IV-VI Semiconductor Research in China. , 2006, , .		5
68	Ultrafast dynamics of pure many-body effect and its competition with bandgap widening via electronâ€“phonon coupling in PbTe thin films. Semiconductor Science and Technology, 2019, 34, 105011.	2.0	5
69	Ultrahigh-Speed Mid-Infrared Photodetectors With 2-D Electron Gas in a CdTe/PbTe Heterojunction. IEEE Transactions on Electron Devices, 2020, 67, 2432-2436.	3.0	5
70	Broadband, optically transparent and highly flexible multispectral beam splitter based on Ag nanowires/graphene composite film for hybrid optical systems. Journal Physics D: Applied Physics, 2021, 54, 295102.	2.8	5
71	Dark-Current-Blocking Mechanism in BIB Far-Infrared Detectors by Interfacial Barriers. IEEE Transactions on Electron Devices, 2021, 68, 2804-2809.	3.0	5
72	Annealing-induced bimodal size distribution of small CdSe quantum dots with white-light emission. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1726-1733.	1.8	4

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73	Controllable synthesis and growth mechanism of dual size distributed PbSe quantum dots. RSC Advances, 2015, 5, 1961-1967.	3.6	4
74	A dry method to synthesize dendritic Ag2Se nanostructures utilizing CdSe quantum dots and Ag thin films. Nanotechnology, 2015, 26, 015601.	2.6	4
75	Theoretical study of the strain influence on lead-free bismuth-based halide perovskites. Journal of Materials Science, 2021, 56, 11377-11385.	3.7	4
76	An overview of the pressure- and strain-induced changes in the structural and optoelectronic properties of organometal halide perovskites. Solar Energy, 2022, 239, 198-220.	6.1	4
77	Atomic Ordering in Self-assembled Epitaxial II-VI and IV-VI Compound Semiconductor Quantum Dot Systems. Materials Research Society Symposia Proceedings, 2002, 749, 1.	0.1	3
78	Cubic MgxZn1âˆ’xO films grown on SiO2 substrates. Optical Materials, 2006, 28, 271-275.	3.6	3
79	Luminescence enhancement of plasma-etched InAsPâˆ•InGaAsP quantum wells. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2008, 26, 219-223.	2.1	3
80	Extended storage of multiple excitons in trap states of semiconductor nanocrystals. Applied Physics Letters, 2016, 108, .	3.3	3
81	Determination of band alignment at the CdTe/SnTe heterojunction interface for CdTe thin-film solar cells. Europhysics Letters, 2019, 127, 37003.	2.0	3
82	Electricâ€Field Control of Dirac Twoâ€Dimensional Electron Gas in PbTe/CdTe Heterostructures. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800551.	2.4	3
83	Lateral photovoltaic mid-infrared detector with a two-dimensional electron gas at the heterojunction interface. Optica, 2020, 7, 1394.	9.3	3
84	Luminescent properties of annealed and directly wafer-bonded InAsP/InGaAsP multiple quantum wells. Semiconductor Science and Technology, 2005, 20, 615-620.	2.0	2
85	Surface-enhanced Raman scattering on sandwiched structures with gallium telluride. Journal of Materials Science, 2020, 55, 10047-10055.	3.7	2
86	Investigation of resistive switching in lead-free bismuthâ€“silver halide double perovskite. Semiconductor Science and Technology, 2022, 37, 065011.	2.0	2
87	Observation of gain operation mode in Ge:B BIB THz detector. AIP Advances, 2021, 11, 055015.	1.3	1
88	Enhancement of mid-infrared luminescence from polar CdTe/PbTe heterostructures. , 2012, , .		0
89	Quantum-dot blue light emitting diodes utilizing organic/inorganic hybrid structures. Japanese Journal of Applied Physics, 2015, 54, 02BC03.	1.5	0
90	Response to â€œComment on â€˜Water-processed carbon nanotube/graphene hybrids with enhanced field emission propertiesâ€™â€•[AIP Advances 8, 039101 (2018)]. AIP Advances, 2018, 8, .	1.3	0

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91	Plasmon-enhanced luminescence in novel complex conjugated polymer nanoparticles: publisherâ€™s note. Optics Letters, 2018, 43, 231.	3.3	0
92	Towards single-molecule detection: A novel hybrid system with two-dimensional GaTe sandwiched between Au nanoparticles and hole array. Journal of Alloys and Compounds, 2021, 856, 157445.	5.5	0