Hong Shen

List of Publications by Year
in descending order

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57 papers	3,246 citations	172457 29 h-index	149698 56 g-index
58 all docs	58 docs citations	58 times ranked	4083 citing authors

#	Article	IF	Citations
1	Ultrasensitive and Broadband MoS₂ Photodetector Driven by Ferroelectrics. Advanced Materials, 2015, 27, 6575-6581.	21.0	722
2	Highâ€Performance Photovoltaic Detector Based on MoTe₂/MoS₂ Van der Waals Heterostructure. Small, 2018, 14, 1703293.	10.0	205
3	Highly sensitive visible to infrared MoTe₂photodetectors enhanced by the photogating effect. Nanotechnology, 2016, 27, 445201.	2.6	188
4	Programmable transition metal dichalcogenide homojunctions controlled by nonvolatile ferroelectric domains. Nature Electronics, 2020, 3, 43-50.	26.0	167
5	A Robust Artificial Synapse Based on Organic Ferroelectric Polymer. Advanced Electronic Materials, 2019, 5, 1800600.	5.1	129
6	Ultrasensitive negative capacitance phototransistors. Nature Communications, 2020, 11, 101.	12.8	124
7	MoTe₂ pâ€“n Homojunctions Defined by Ferroelectric Polarization. Advanced Materials, 2020, 32, e1907937.	21.0	115
8	Tunnel electroresistance through organic ferroelectrics. Nature Communications, 2016, 7, 11502.	12.8	104
9	Ferroelectric FET for nonvolatile memory application with two-dimensional MoSe ₂ channels. 2D Materials, 2017, 4, 025036.	4.4	85
10	Visible-light photocatalysis of nitrogen-doped TiO2 nanoparticulate films prepared by low-energy ion implantation. Applied Surface Science, 2007, 253, 7024-7028.	6.1	83
11	Ferroelectric-tuned van der Waals heterojunction with band alignment evolution. Nature Communications, 2021, 12, 4030.	12.8	79
12	Two-dimensional negative capacitance transistor with polyvinylidene fluoride-based ferroelectric polymer gating. Npj 2D Materials and Applications, 2017, 1, .	7.9	77
13	Ultra-sensitive polarization-resolved black phosphorus homojunction photodetector defined by ferroelectric domains. Nature Communications, 2022, 13, .	12.8	77
14	Optoelectronic Properties of Few-Layer MoS₂ FET Gated by Ferroelectric Relaxor Polymer. ACS Applied Materials & Interfaces, 2016, 8, 32083-32088.	8.0	76
15	First-principles calculation of N:H codoping effect on energy gap narrowing of TiO2. Applied Physics Letters, 2007, 90, 171909.	3.3	65
16	Visible to short wavelength infrared In₂Se₃-nanoflake photodetector gated by a ferroelectric polymer. Nanotechnology, 2016, 27, 364002.	2.6	63
17	Ultrasensitive Hybrid MoS₂â€“ZnCdSe Quantum Dot Photodetectors with High Gain. ACS Applied Materials & Interfaces, 2019, 11, 23667-23672.	8.0	62
18	A versatile photodetector assisted by photovoltaic and bolometric effects. Light: Science and Applications, 2020, 9, 160.	16.6	56

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19	Extremely Low Dark Current MoS₂ Photodetector via 2D Halide Perovskite as the Electron Reservoir. Advanced Optical Materials, 2020, 8, 1901402.	7.3	55
20	Largeâ€area high quality PtSe₂ thin film with versatile polarity. InformaÄnÃ-MateriÃ¡ly, 2019, 1, 260-267.	17.3	54
21	Multimechanism Synergistic Photodetectors with Ultrabroad Spectrum Response from 375 nm to 10 Âµm. Advanced Science, 2019, 6, 1901050.	11.2	52
22	Ferroelectric polymer tuned two dimensional layered MoTe₂ photodetector. RSC Advances, 2016, 6, 87416-87421.	3.6	51
23	HgCdTe/black phosphorus van der Waals heterojunction for high-performance polarization-sensitive midwave infrared photodetector. Science Advances, 2022, 8, eabn1811.	10.3	50
24	Transition of the polarization switching from extrinsic to intrinsic in the ultrathin polyvinylidene fluoride homopolymer films. Applied Physics Letters, 2014, 104, .	3.3	46
25	Highly Sensitive InSb Nanosheets Infrared Photodetector Passivated by Ferroelectric Polymer. Advanced Functional Materials, 2020, 30, 2006156.	14.9	41
26	High-performance lead-free two-dimensional perovskite photo transistors assisted by ferroelectric dielectrics. Journal of Materials Chemistry C, 2018, 6, 12714-12720.	5.5	39
27	Ultrahigh photoresponsivity MoS₂ photodetector with tunable photocurrent generation mechanism. Nanotechnology, 2018, 29, 485204.	2.6	35
28	A ferroelectric relaxor polymer-enhanced p-type WSe₂transistor. Nanoscale, 2018, 10, 1727-1734.	5.6	31
29	Space-charge Effect on Electroresistance in Metal-Ferroelectric-Metal capacitors. Scientific Reports, 2016, 5, 18297.	3.3	30
30	Gateâ€Tunable Photodiodes Based on Mixedâ€Đimensional Te/MoTe₂ Van der Waals Heterojunctions. Advanced Electronic Materials, 2021, 7, 2001066.	5.1	29
31	Multifunctional MoS₂ Transistors with Electrolyte Gel Gating. Small, 2020, 16, e2000420.	10.0	23
32	Flexible graphene field effect transistor with ferroelectric polymer gate. Optical and Quantum Electronics, 2016, 48, 1.	3.3	21
33	The ambipolar evolution of a high-performance WSe₂ transistor assisted by a ferroelectric polymer. Nanotechnology, 2018, 29, 105202.	2.6	20
34	Recovery of visible-light photocatalytic efficiency of N-doped TiO2 nanoparticulate films. Journal of Photochemistry and Photobiology A: Chemistry, 2008, 193, 222-227.	3.9	18
35	Electrical characterization of MoS2 field-effect transistors with different dielectric polymer gate. AIP Advances, 2017, 7, .	1.3	15
36	Graphene Dirac point tuned by ferroelectric polarization field. Nanotechnology, 2018, 29, 134002.	2.6	15

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37	Resistance switching study of stoichiometric ZrO2 films for non-volatile memory application. Thin Solid Films, 2010, 518, 5652-5655.	1.8	12
38	Evolution of multiple dielectric responses and relaxor-like behaviors in pure and nitrogen-ion-implanted (Ba, Sr)TiO3 thin films. Applied Physics Letters, 2014, 104, .	3.3	12
39	End-Bonded Contacts of Tellurium Transistors. ACS Applied Materials & Interfaces, 2021, 13, 7766-7772.	8.0	12
40	Generation of nitrogen beams with very high N+/N2+ ratio using hollow cathode discharge. Vacuum, 2005, 77, 157-162.	3.5	10
41	A gate-free MoS₂ phototransistor assisted by ferroelectrics. Journal of Semiconductors, 2019, 40, 092002.	3.7	10
42	Two-dimensional series connected photovoltaic cells defined by ferroelectric domains. Applied Physics Letters, 2020, 116, .	3.3	10
43	Interface engineering of ferroelectric-gated MoS2 phototransistor. Science China Information Sciences, 2021, 64, 1.	4.3	10
44	Ferroelectric properties of gradient doped Y2O3:HfO2 thin films grown by pulsed laser deposition. Applied Physics Letters, 2019, 115, .	3.3	9
45	Photodetectors: Ultrasensitive and Broadband MoS₂ Photodetector Driven by Ferroelectrics (Adv. Mater. 42/2015). Advanced Materials, 2015, 27, 6538-6538.	21.0	8
46	A study on ionic gated MoS2 phototransistors. Science China Information Sciences, 2019, 62, 1.	4.3	8
47	High-performance ReS₂ photodetectors enhanced by a ferroelectric field and strain field. RSC Advances, 2022, 12, 4939-4945.	3.6	8
48	Effect of oxygen to argon ratio on properties of (Ba,Sr)TiO3 thin films prepared on LaNiO3/Si substrates. Journal of Applied Physics, 2009, 105, 061637.	2.5	7
49	Optoelectronics: Highâ€Performance Photovoltaic Detector Based on MoTe₂/MoS₂ Van der Waals Heterostructure (Small 9/2018). Small, 2018, 14, 1870038.	10.0	7
50	Interfacial memristors in Alâ€“LaNiO₃heterostructures. Physical Chemistry Chemical Physics, 2017, 19, 16960-16968.	2.8	6
51	Microstructure and electronic properties of pulsed-discharge-deposited amorphous carbon-nitride films. Diamond and Related Materials, 2005, 14, 1616-1622.	3.9	3
52	Multimode Signal Processor Unit Based on the Ambipolar WSe₂â€“Cr Schottky Junction. ACS Applied Materials & Interfaces, 2019, 11, 38895-38901.	8.0	3
53	Ferroelectric Synapses: A Robust Artificial Synapse Based on Organic Ferroelectric Polymer (Adv.) Tj ETQq1 1 0.784314 rgBT /Overloc	5.1	3
54	Structural, electrical and magnetic properties of (110)-oriented BF-BZT-ST Films. Ceramics International, 2018, 44, 9053-9057.	4.8	2

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55	Ultrabroad-Spectrum Photodetectors: Multimechanism Synergistic Photodetectors with Ultrabroad Spectrum Response from 375 nm to 10 Âμm (Adv. Sci. 15/2019). Advanced Science, 2019, 6, 1970089.	11.2	2
56	Polarization switching in nanoscale ferroelectrics. Ferroelectrics, 2021, 575, 103-116.	0.6	2
57	Electron injection of SrTiO3âˆ•Si interfacial layer. Applied Physics Letters, 2008, 93, 102903.	3.3	0