Xudong Wang

List of Publications by Year in descending order

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Version: 2024-02-01

51 papers	3,093 citations	201674 27 h-index	189892 50 g-index
52 all docs	52 docs citations	52 times ranked	3940 citing authors

#	Article	IF	Citations
1	Ultrasensitive and Broadband MoS₂ Photodetector Driven by Ferroelectrics. Advanced Materials, 2015, 27, 6575-6581.	21.0	722
2	Recent Progress on Localized Field Enhanced Twoâ€dimensional Material Photodetectors from Ultravioletâ€"Visible to Infrared. Small, 2017, 13, 1700894.	10.0	234
3	Highâ€Performance Photovoltaic Detector Based on MoTe₂/MoS₂ Van der Waals Heterostructure. Small, 2018, 14, 1703293.	10.0	205
4	Programmable transition metal dichalcogenide homojunctions controlled by nonvolatile ferroelectric domains. Nature Electronics, 2020, 3, 43-50.	26.0	167
5	When Nanowires Meet Ultrahigh Ferroelectric Fieldâ€"High-Performance Full-Depleted Nanowire Photodetectors. Nano Letters, 2016, 16, 2548-2555.	9.1	135
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	Ferroelectric Negative Capacitance Field Effect Transistor. Advanced Electronic Materials, 2018, 4, 1800231.	5.1	105
9	Controlled Doping of Waferâ€Scale PtSe₂ Films for Device Application. Advanced Functional Materials, 2019, 29, 1805614.	14.9	87
10	Ferroelectric Localized Fieldâ€"Enhanced ZnO Nanosheet Ultraviolet Photodetector with High Sensitivity and Low Dark Current. Small, 2018, 14, e1800492.	10.0	85
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	Optoelectronic Properties of Few-Layer MoS₂ FET Gated by Ferroelectric Relaxor Polymer. ACS Applied Materials & Interfaces, 2016, 8, 32083-32088.	8.0	76
14	Ultrasensitive Hybrid MoS₂â€"ZnCdSe Quantum Dot Photodetectors with High Gain. ACS Applied Materials & Interfaces, 2019, 11, 23667-23672.	8.0	62
15	Ultrabroadband Photodetectors up to 10.6 Âµm Based on 2D Fe₃O₄ Nanosheets. Advanced Materials, 2020, 32, e2002237.	21.0	57
16	A versatile photodetector assisted by photovoltaic and bolometric effects. Light: Science and Applications, 2020, 9, 160.	16.6	56
17	Extremely Low Dark Current MoS₂ Photodetector via 2D Halide Perovskite as the Electron Reservoir. Advanced Optical Materials, 2020, 8, 1901402.	7.3	55
18	Largeâ€area high quality PtSe₂ thin film with versatile polarity. InformaÄnÃ-MateriÃ¡ly, 2019, 1, 260-267.	17.3	54

#	Article	IF	Citations
19	Multimechanism Synergistic Photodetectors with Ultrabroad Spectrum Response from 375 nm to 10 Âμm. Advanced Science, 2019, 6, 1901050.	11.2	52
20	Ferroelectric polymer tuned two dimensional layered MoTe₂ photodetector. RSC Advances, 2016, 6, 87416-87421.	3.6	51
21	HgCdTe/black phosphorus van der Waals heterojunction for high-performance polarization-sensitive midwave infrared photodetector. Science Advances, 2022, 8, eabn1811.	10.3	50
22	Highly Sensitive InSb Nanosheets Infrared Photodetector Passivated by Ferroelectric Polymer. Advanced Functional Materials, 2020, 30, 2006156.	14.9	41
23	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
24	Ultrahigh photoresponsivity MoS₂ photodetector with tunable photocurrent generation mechanism. Nanotechnology, 2018, 29, 485204.	2.6	35
25	High performance top-gated ferroelectric field effect transistors based on two-dimensional ZnO nanosheets. Applied Physics Letters, 2017, 110, .	3.3	34
26	Ferroelectric Enhanced Performance of a GeSn/Ge Dual-Nanowire Photodetector. Nano Letters, 2020, 20, 3872-3879.	9.1	33
27	Gateâ€Tunable Photodiodes Based on Mixedâ€Dimensional Te/MoTe₂ Van der Waals Heterojunctions. Advanced Electronic Materials, 2021, 7, 2001066.	5.1	29
28	Ultrahighâ€Detectivity Photodetectors with Van der Waals Epitaxial CdTe Singleâ€Crystalline Films. Small, 2019, 15, e1900236.	10.0	27
29	Multifunctional MoS₂ Transistors with Electrolyte Gel Gating. Small, 2020, 16, e2000420.	10.0	23
30	Flexible graphene field effect transistor with ferroelectric polymer gate. Optical and Quantum Electronics, 2016, 48, 1.	3.3	21
31	The ambipolar evolution of a high-performance WSe₂ transistor assisted by a ferroelectric polymer. Nanotechnology, 2018, 29, 105202.	2.6	20
32	Electrical characterization of MoS2 field-effect transistors with different dielectric polymer gate. AIP Advances, 2017, 7, .	1.3	15
33	Graphene Dirac point tuned by ferroelectric polarization field. Nanotechnology, 2018, 29, 134002.	2.6	15
34	End-Bonded Contacts of Tellurium Transistors. ACS Applied Materials & Interfaces, 2021, 13, 7766-7772.	8.0	12
35	A gate-free MoS₂ phototransistor assisted by ferroelectrics. Journal of Semiconductors, 2019, 40, 092002.	3.7	10
36	Two-dimensional series connected photovoltaic cells defined by ferroelectric domains. Applied Physics Letters, 2020, 116, .	3.3	10

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37	Interface engineering of ferroelectric-gated MoS2 phototransistor. Science China Information Sciences, 2021, 64, 1.	4.3	10
38	High-Performance Photodetectors with an Ultrahigh Photoswitching Ratio and a Very Fast Response Speed in Self-Powered Cu₂ZnSnS₄/CdS PN Heterojunctions. ACS Applied Electronic Materials, 2021, 3, 4135-4143.	4.3	10
39	Ferroelectric control of magnetism in P(VDFâ€“TrFE)/Co heterostructure. Journal of Materials Science: Materials in Electronics, 2015, 26, 7502-7506.	2.2	9
40	Ferroelectric properties of gradient doped Y2O3:HfO2 thin films grown by pulsed laser deposition. Applied Physics Letters, 2019, 115, .	3.3	9
41	Photodetectors: Ultrasensitive and Broadband MoS₂ Photodetector Driven by Ferroelectrics (Adv. Mater. 42/2015). Advanced Materials, 2015, 27, 6538-6538.	21.0	8
42	A study on ionic gated MoS2 phototransistors. Science China Information Sciences, 2019, 62, 1.	4.3	8
43	Optoelectronics: Highâ€Performance Photovoltaic Detector Based on MoTe₂/MoS₂ Van der Waals Heterostructure (Small 9/2018). Small, 2018, 14, 1870038.	10.0	7
44	Field Effect Transistors: Ferroelectric Negative Capacitance Field Effect Transistor (Adv. Electron.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 4	5.1	7
45	High temperature coefficient of resistance for a ferroelectric tunnel junction. Applied Physics Letters, 2015, 107, 062904.	3.3	3
46	Multimode Signal Processor Unit Based on the Ambipolar WSe₂â€“Cr Schottky Junction. ACS Applied Materials & Interfaces, 2019, 11, 38895-38901.	8.0	3
47	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
48	Cryogenic Test Facility and the Indirect Pre-Cooling Method For HL-LHC MCBRD 4.5K Test At IMP. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.7	2
49	Effect of Aâ€site atom on static corrosion behavior and irradiation damage of Ti₂SC phases. Journal of the American Ceramic Society, 2022, 105, 1386-1393.	3.8	2
50	Test of a Prototype Nb₃Sn Sextupole Coil for 45-GHz ECR Ion Source Using Mirror Structure. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.7	1
51	Novel graphene field effect transistor with BNTM ferroelectric gate. , 2016, , .		0