Dongxia Shi

List of Publications by Year
in descending order

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116 papers	9,877 citations	53660 45 h-index	34900 98 g-index
118 all docs	118 docs citations	118 times ranked	14132 citing authors

#	Article	IF	Citations
1	Epitaxial growth of single-domain graphene on hexagonal boron nitride. Nature Materials, 2013, 12, 792-797.	13.3	882
2	Super-Elastic Graphene Ripples for Flexible Strain Sensors. ACS Nano, 2011, 5, 3645-3650.	7.3	621
3	Wafer-Scale Growth and Transfer of Highly-Oriented Monolayer MoS₂ Continuous Films. ACS Nano, 2017, 11, 12001-12007.	7.3	397
4	Highly Ordered, Millimeterâ€Scale, Continuous, Singleâ€Crystalline Graphene Monolayer Formed on Ru (0001). Advanced Materials, 2009, 21, 2777-2780.	11.1	389
5	Correlated states in twisted double bilayer graphene. Nature Physics, 2020, 16, 520-525.	6.5	374
6	Argon Plasma Induced Phase Transition in Monolayer MoS₂. Journal of the American Chemical Society, 2017, 139, 10216-10219.	6.6	332
7	Oxygen-Assisted Chemical Vapor Deposition Growth of Large Single-Crystal and High-Quality Monolayer MoS₂. Journal of the American Chemical Society, 2015, 137, 15632-15635.	6.6	301
8	Ultra-sensitive strain sensors based on piezoresistive nanographene films. Applied Physics Letters, 2012, 101, 063112.	1.5	270
9	Scalable Growth of High-Quality Polycrystalline MoS₂ Monolayers on SiO₂ with Tunable Grain Sizes. ACS Nano, 2014, 8, 6024-6030.	7.3	263
10	Boundary activated hydrogen evolution reaction on monolayer MoS2. Nature Communications, 2019, 10, 1348.	5.8	263
11	Formation of Silver Nanoparticles and Self-Assembled Two-Dimensional Ordered Superlattice. Langmuir, 2001, 17, 1571-1575.	1.6	255
12	Large-scale flexible and transparent electronics based on monolayer molybdenum disulfide field-effect transistors. Nature Electronics, 2020, 3, 711-717.	13.1	255
13	Tunable Piezoresistivity of Nanographene Films for Strain Sensing. ACS Nano, 2015, 9, 1622-1629.	7.3	246
14	An Anisotropic Etching Effect in the Graphene Basal Plane. Advanced Materials, 2010, 22, 4014-4019.	11.1	242
15	Current-driven magnetization switching in a van der Waals ferromagnet Fe ₃ GeTe ₂. Science Advances, 2019, 5, eaaw8904.	4.7	239
16	Restoration of graphene from graphene oxide by defect repair. Carbon, 2012, 50, 2581-2587.	5.4	235
17	Highly Ordered Self-Assembly with Large Area of Fe3O4 Nanoparticles and the Magnetic Properties. Journal of Physical Chemistry B, 2005, 109, 23233-23236.	1.2	225
18	Observation of Strong Interlayer Coupling in MoS₂/WS₂ Heterostructures. Advanced Materials, 2016, 28, 1950-1956.	11.1	225

#	Article	IF	Citations
19	Catalyst-free growth of nanographene films on various substrates. Nano Research, 2011, 4, 315-321.	5.8	220
20	Grapheneâ€Contacted Ultrashort Channel Monolayer MoS₂ Transistors. Advanced Materials, 2017, 29, 1702522.	11.1	218
21	Patterning Graphene with Zigzag Edges by Selfâ€Aligned Anisotropic Etching. Advanced Materials, 2011, 23, 3061-3065.	11.1	167
22	Wafer-Scale Highly Oriented Monolayer MoS₂ with Large Domain Sizes. Nano Letters, 2020, 20, 7193-7199.	4.5	160
23	Thermally Induced Graphene Rotation on Hexagonal Boron Nitride. Physical Review Letters, 2016, 116, 126101.	2.9	142
24	Precise control of the interlayer twist angle in large scale MoS2 homostructures. Nature Communications, 2020, 11, 2153.	5.8	142
25	Multilevel Resistive Switching in Planar Graphene/SiO₂ Nanogap Structures. ACS Nano, 2012, 6, 4214-4221.	7.3	114
26	Ultra-low friction and edge-pinning effect in large-lattice-mismatch van der Waals heterostructures. Nature Materials, 2022, 21, 47-53.	13.3	110
27	Precisely Aligned Monolayer MoS₂ Epitaxially Grown on hâ€BN basal Plane. Small, 2017, 13, 1603005.	5.2	91
28	Twist angle-dependent conductivities across MoS2/graphene heterojunctions. Nature Communications, 2018, 9, 4068.	5.8	90
29	Growth, Characterization, and Properties of Nanographene. Small, 2012, 8, 1429-1435.	5.2	88
30	Artificial Synapse Based on van der Waals Heterostructures with Tunable Synaptic Functions for Neuromorphic Computing. ACS Applied Materials & Interfaces, 2020, 12, 11945-11954.	4.0	75
31	Reversible, Erasable, and Rewritable Nanorecording on an H2 Rotaxane Thin Film. Journal of the American Chemical Society, 2007, 129, 2204-2205.	6.6	73
32	Lattice Dynamics, Phonon Chirality, and Spinâ€“Phonon Coupling in 2D Itinerant Ferromagnet Fe₃GeTe₂. Advanced Functional Materials, 2019, 29, 1904734.	7.8	70
33	Tunable Electroluminescence in Planar Graphene/SiO₂ Memristors. Advanced Materials, 2013, 25, 5593-5598.	11.1	67
34	Gate tunable MoS ₂ â€“black phosphorus heterojunction devices. 2D Materials, 2015, 2, 034009.	2.0	61
35	From Type-II Triply Degenerate Nodal Points and Three-Band Nodal Rings to Type-II Dirac Points in Centrosymmetric Zirconium Oxide. Journal of Physical Chemistry Letters, 2017, 8, 5792-5797.	2.1	61
36	Rolling Up a Monolayer MoS₂Sheet. Small, 2016, 12, 3770-3774.	5.2	60

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37	Gate tunable WSe₂â€“BP van der Waals heterojunction devices. Nanoscale, 2016, 8, 3254-3258.	2.8	60
38	Observation of Raman G-Peak Split for Graphene Nanoribbons with Hydrogen-Terminated Zigzag Edges. Nano Letters, 2011, 11, 4083-4088.	4.5	56
39	Studies of graphene-based nanoelectromechanical switches. Nano Research, 2012, 5, 82-87.	5.8	54
40	In Situ Oxygen Doping of Monolayer MoS₂ for Novel Electronics. Small, 2020, 16, e2004276.	5.2	54
41	A Reliable Allâ€2D Materials Artificial Synapse for High Energyâ€Efficient Neuromorphic Computing. Advanced Functional Materials, 2021, 31, 2011083.	7.8	53
42	Graphene Edge Lithography. Nano Letters, 2012, 12, 4642-4646.	4.5	49
43	Isolated nanographene crystals for nano-floating gate in charge trapping memory. Scientific Reports, 2013, 3, 2126.	1.6	48
44	New Floating Gate Memory with Excellent Retention Characteristics. Advanced Electronic Materials, 2019, 5, 1800726.	2.6	48
45	Gate-tunable large-scale flexible monolayer MoS2 devices for photodetectors and optoelectronic synapses. Nano Research, 2022, 15, 5418-5424.	5.8	48
46	A General Route Towards Defect and Pore Engineering in Graphene. Small, 2014, 10, 2280-2284.	5.2	46
47	Two-step growth of graphene with separate controlling nucleation and edge growth directly on SiO2 substrates. Carbon, 2014, 72, 387-392.	5.4	45
48	Modulating PL and electronic structures of MoS2/graphene heterostructures via interlayer twisting angle. Applied Physics Letters, 2017, 111, .	1.5	41
49	Layer-by-layer epitaxy of multi-layer MoS2 wafers. National Science Review, 2022, 9, .	4.6	41
50	Integrated Flexible and Highâ€Quality Thin Film Transistors Based on Monolayer MoS₂. Advanced Electronic Materials, 2016, 2, 1500379.	2.6	40
51	Identification of structural defects in graphitic materials by gas-phase anisotropic etching. Nanoscale, 2012, 4, 2005.	2.8	37
52	Hofstadter Butterfly and Many-Body Effects in Epitaxial Graphene Superlattice. Nano Letters, 2016, 16, 2387-2392.	4.5	36
53	Vapour-phase graphene epitaxy at low temperatures. Nano Research, 2012, 5, 258-264.	5.8	35
54	A Route toward Digital Manipulation of Water Nanodroplets on Surfaces. ACS Nano, 2014, 8, 3955-3960.	7.3	35

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55	Patterned Peeling 2D MoS₂ off the Substrate. ACS Applied Materials & Interfaces, 2016, 8, 16546-16550.	4.0	30
56	Strongly enhanced exciton-phonon coupling in two-dimensional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>WS</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2018, 97, .	1.1	30
57	Waferâ€Scale Oxygenâ€Doped MoS₂ Monolayer. Small Methods, 2021, 5, e2100091.	4.6	30
58	Epitaxial fabrication of two-dimensional NiSe2 on Ni(111) substrate. Applied Physics Letters, 2017, 111, .	1.5	29
59	Magnetotransport Properties of Graphene Nanoribbons with Zigzag Edges. Physical Review Letters, 2018, 120, 216601.	2.9	28
60	Robust spin-valley polarization in commensurate <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mo</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> /graphene heterostructures. Physical Review B, 2018, 97, .	1.1	27
61	Bandgap broadening at grain boundaries in single-layer MoS2. Nano Research, 2018, 11, 6102-6109.	5.8	26
62	Atomic Layer Deposition of Al₂O₃ Directly on 2D Materials for Highâ€Performance Electronics. Advanced Materials Interfaces, 2019, 6, 1802055.	1.9	25
63	Temperature-driven evolution of critical points, interlayer coupling, and layer polarization in bilayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mo</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2018, 97, .	1.1	23
64	Investigation on interface related charge trap and loss characteristics of high-k based trapping structures by electrostatic force microscopy. Applied Physics Letters, 2011, 99, 223504.	1.5	22
65	Graphene nanoribbons epitaxy on boron nitride. Applied Physics Letters, 2016, 108, .	1.5	21
66	Competitive Growth and Etching of Epitaxial Graphene. Journal of Physical Chemistry C, 2012, 116, 26929-26931.	1.5	20
67	Fabrication of high-quality all-graphene devices with low contact resistances. Nano Research, 2014, 7, 1449-1456.	5.8	20
68	Patterning monolayer graphene with zigzag edges on hexagonal boron nitride by anisotropic etching. Applied Physics Letters, 2016, 109, .	1.5	20
69	Vertical Integration of 2D Building Blocks for Allâ€2D Electronics. Advanced Electronic Materials, 2020, 6, 2000550.	2.6	20
70	Emergence of Chern Insulating States in Non-Magic Angle Twisted Bilayer Graphene. Chinese Physics Letters, 2021, 38, 047301.	1.3	20
71	Synthesis, characterization and self-assemblies of magnetite nanoparticles. Surface and Interface Analysis, 2006, 38, 1063-1067.	0.8	19
72	The Effect of Twin Grain Boundary Tuned by Temperature on the Electrical Transport Properties of Monolayer MoS2. Crystals, 2016, 6, 115.	1.0	18

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73	Two-dimensional self-organization of 1-nonanethiol-capped gold nanoparticles. Science Bulletin, 2001, 46, 996-998.	1.7	17
74	Strong and tunable interlayer coupling of infrared-active phonons to excitons in van der Waals heterostructures. Physical Review B, 2019, 99, .	1.1	17
75	Giant Valley Coherence at Room Temperature in 3R WS ₂ with Broken Inversion Symmetry. Research, 2019, 2019, 6494565.	2.8	17
76	Strongly distinct electrical response between circular and valley polarization in bilayer transition metal dichalcogenides. Physical Review B, 2019, 99, .	1.1	16
77	A review of experimental advances in twisted graphene moirÃ© superlattice*. Chinese Physics B, 2020, 29, 128104.	0.7	12
78	Manipulation and four-probe analysis of nanowires in UHV by application of four tunneling microscope tips: a new method for the investigation of electrical transport through nanowires. Surface and Interface Analysis, 2006, 38, 1096-1102.	0.8	11
79	Electronic structure-dependent magneto-optical Raman effect in atomically thin WS ₂. 2D Materials, 2018, 5, 035028.	2.0	11
80	Robust circular polarization of indirect Q-K transitions in bilayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>3</mml:mn><mml:mi>R</mml:mi><mml:mo>â^’</mml:m mathvariant="normal">W</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2019, 100, .	1.1	11
81	Scratching lithography for wafer-scale MoS₂ monolayers. 2D Materials, 2020, 7, 045028.	2.0	11
82	Spatially indirect intervalley excitons in bilayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">W</mml:mi><mml:msub><mml:mi>Se</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math Physical Review B, 2022, 105, .	1.1	11
83	Interlayer exciton complexes in bilayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></ Physical Review B, 2022, 105, .	1.1	10
84	Synthesis and characterization of C3N4 hard films. Science in China Series A: Mathematics, 2000, 43, 185-198.	0.5	9
85	Alternating the Crystalline Structural Transition of Coronene Molecular Overlayers on Ag(110) through Temperature Increase. Journal of Physical Chemistry C, 2009, 113, 17643-17647.	1.5	9
86	A review of nanographene: growth and applications. Modern Physics Letters B, 2014, 28, 1430009.	1.0	9
87	Band evolution of two-dimensional transition metal dichalcogenides under electric fields. Applied Physics Letters, 2019, 115, 083104.	1.5	9
88	Structural Transition and Thermal Stability of a Coronene Molecular Monolayer on Cu(110). Journal of Physical Chemistry C, 2010, 114, 11180-11184.	1.5	8
89	Nonvolatile Memory: New Floating Gate Memory with Excellent Retention Characteristics (Adv.) Tj ETQq1 1 0.784314 rgBT /Overlock	2.6	8
90	Highly Stretchable MoS₂â€Based Transistors with Optoâ€Synaptic Functionalities. Advanced Electronic Materials, 2022, 8, .	2.6	8

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91	A facile and efficient dry transfer technique for two-dimensional Van derWaals heterostructure. Chinese Physics B, 2017, 26, 087306.	0.7	7
92	High-order minibands and interband Landau level reconstruction in graphene moirÃ© superlattices. Physical Review B, 2020, 102, .	1.1	7
93	A new model of phycobilisome inSpirulina platensis. Science in China Series C: Life Sciences, 1999, 42, 74-79.	1.3	6
94	Processing of an atomically smooth Ge(001) surface on a large scale. Nanotechnology, 2006, 17, 2396-2398.	1.3	6
95	Observation of logarithmic Kohn anomaly in monolayer graphene. Physical Review B, 2020, 102, .	1.1	6
96	Enhanced critical field and anomalous metallic state in two-dimensional centrosymmetric <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:msup><mml:mi>T</mml:mi><mml:mo mathvariant="normal">W</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2022, 105, .	1.1	6
97	Scanning tunneling microscope study of polyacrylonitrile-based carbon fibers. Journal of Materials Research, 1997, 12, 2543-2547.	1.2	5
98	Identifying Multiple Configurations of Complex Molecules on Metal Surfaces. Small, 2012, 8, 796-806.	5.2	5
99	Nanographene charge trapping memory with a large memory window. Nanotechnology, 2015, 26, 455704.	1.3	5
100	Pressure-mediated contact quality improvement between monolayer MoS ₂ and graphite. Chinese Physics B, 2019, 28, 017301.	0.7	5
101	Defect-enhanced coupling between graphene and SiO2 substrate. Applied Physics Letters, 2014, 105, 063113.	1.5	4
102	Thermally induced band hybridization in bilayer-bilayer MoS₂/WS₂ heterostructure*. Chinese Physics B, 2021, 30, 057801.	0.7	4
103	Photoluminescence Enhancement in Monolayer Molybdenum Disulfide by Annealing in Air. Acta Chimica Sinica, 2015, 73, 954.	0.5	3
104	Atomic Layer Deposition: Atomic Layer Deposition of Al₂O₃ Directly on 2D Materials for Highâ€Performance Electronics (Adv. Mater. Interfaces 10/2019). Advanced Materials Interfaces, 2019, 6, 1970065.	1.9	2
105	Artificial Synapses: A Reliable Allâ€2D Materials Artificial Synapse for High Energyâ€Efficient Neuromorphic Computing (Adv. Funct. Mater. 27/2021). Advanced Functional Materials, 2021, 31, 2170197.	7.8	2
106	Rail-to-Rail MoS₂ Inverters. ACS Applied Electronic Materials, 2022, 4, 2636-2640.	2.0	2
107	Study on surface and interface structures of nanocrystalline silicon by scanning tunneling microscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 1313.	1.6	1
108	Molecular CloisonnÃ©: Multicomponent Organic Alternating Nanostructures at Vicinal Surfaces with Tunable Length Scales. Small, 2012, 8, 535-540.	5.2	1

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109	Surfaces: Identifying Multiple Configurations of Complex Molecules on Metal Surfaces (Small 6/2012). Small, 2012, 8, 795-795.	5.2	1
110	Scanning tunneling microscopy using dynamic laser heating. , 0, , .		0
111	Investigation of charge trap and loss characteristics for charge trap memory by electrostatic force microscopy. , 2011, , .		0
112	Reducing the contact resistance of SiNW devices by employing a heavily doped carrier injection layer. Nanotechnology, 2012, 23, 305701.	1.3	0
113	High Performance MAHAHOS Memory Devices: Charge Trapping and Distribution in Bandgap Engineered Structure. , 2012, , .		0
114	Employing defected monolayer MoS₂ as charge storage materials. Nanotechnology, 2020, 31, 235710.	1.3	0
115	Inside Back Cover: Waferâ€Scale Oxygenâ€Doped MoS₂ Monolayer (Small Methods 6/2021). Small Methods, 2021, 5, 2170026.	4.6	0
116	Hot-Pressed Two-Dimensional Amorphous Metals and Their Electronic Properties. Crystals, 2022, 12, 616.	1.0	0