

Nonvolatile Memories Based on Graphene and Related 2

Advanced Materials

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Scanning near-field optical microscopy based phase-change optical memory. Applied Physics Express, 2019, 12, 095002.	2.4	1
2	Modulating the Charge Transport in 2D Semiconductors via Energyâ€Level Phototuning. Advanced Materials, 2019, 31, 1903402.	21.0	30
3	Electronics from solution-processed 2D semiconductors. Journal of Materials Chemistry C, 2019, 7, 12835-12861.	5.5	24
4	New multilayer graphene-based flash memory. Materials Research Express, 2019, 6, 106306.	1.6	0
5	Scanning probe memory with patterned amorphous carbon layer. Applied Physics Express, 2019, 12, 075012.	2.4	1
6	Non-equilibrium processing of ferromagnetic heavily reduced graphene oxide. Carbon, 2019, 153, 663-673.	10.3	15
7	A Triode Device with a Gate Controllable Schottky Barrier: Germanium Nanowire Transistors and Their Applications. Small, 2019, 15, 1900865.	10.0	2
8	Effect of Annealing Temperature for Ni/AlOx/Pt RRAM Devices Fabricated with Solution-Based Dielectric. Micromachines, 2019, 10, 446.	2.9	33
9	Unconventional Atomic Structure of Graphene Sheets on Solid Substrates. Small, 2019, 15, 1902637.	10.0	2
10	Reliable Nonvolatile Memory Black Phosphorus Ferroelectric Field-Effect Transistors with van der Waals Buffer. ACS Applied Materials & Interfaces, 2019, 11, 42358-42364.	8.0	8
11	Memristive devices based on emerging two-dimensional materials beyond graphene. Nanoscale, 2019, 11, 12413-12435.	5.6	87
12	Multimechanism Synergistic Photodetectors with Ultrabroad Spectrum Response from 375 nm to 10 Åµm. Advanced Science, 2019, 6, 1901050.	11.2	52
13	Oneâ€Transistor Memory Compatible with Siâ€Based Technology with Multilevel Applications. Advanced Electronic Materials, 2019, 5, 1900262.	5.1	3
14	Interfacial graphene modulated energetic behavior of the point-defect at the Au/HfO2 interface. Applied Surface Science, 2019, 489, 608-613.	6.1	4
15	Ternary Memristic Effect of Trilayer-Structured Graphene-Based Memory Devices. Nanomaterials, 2019, 9, 518.	4.1	13
16	2D Atomic Crystals: A Promising Solution for Nextâ€Generation Data Storage. Advanced Electronic Materials, 2019, 5, 1800944.	5.1	28
17	MoS₂ Memtransistors Fabricated by Localized Helium Ion Beam Irradiation. ACS Nano, 2019, 13, 14262-14273.	14.6	99
18	GaSe layered nanorods formed by liquid phase exfoliation for resistive switching memory applications. Journal of Alloys and Compounds, 2020, 823, 153697.	5.5	9

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19	A UV damage-sensing nociceptive device for bionic applications. <i>Nanoscale</i> , 2020, 12, 1484-1494.	5.6	22
20	Artificial synapses with photoelectric plasticity and memory behaviors based on charge trapping memristive system. <i>Materials and Design</i> , 2020, 188, 108415.	7.0	41
21	Hierarchical Hollow-Pore Nanostructure Bilayer Heterojunction Comprising Conjugated Polymers for High-Performance Flash Memory. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 1103-1109.	8.0	18
22	Nonvolatile charge memory with optical controllability in two-terminal pristine In_2Se_3 nanosheets. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 075108.	2.8	9
23	Graphene/Half-Metallic Heusler Alloy: A Novel Heterostructure toward High-Performance Graphene Spintronic Devices. <i>Advanced Materials</i> , 2020, 32, 1905734.	21.0	16
24	Soft eSkin: distributed touch sensing with harmonized energy and computing. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20190156.	3.4	70
25	Memristors Based on 2D Materials as an Artificial Synapse for Neuromorphic Electronics. <i>Advanced Materials</i> , 2020, 32, e2002092.	21.0	241
26	Graphene oxide for nonvolatile memory application by using electrophoretic technique. <i>Materials Today Communications</i> , 2020, 25, 101537.	1.9	3
27	Resistive Switching in Nonperovskite-Phase CsPbI_3 Film-Based Memory Devices. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 9409-9420.	8.0	27
28	Room-Temperature, Solution-Processed SiO_x via Photochemistry Approach for Highly Flexible Resistive Switching Memory. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 56186-56194.	8.0	19
29	Recent advances in optical and optoelectronic data storage based on luminescent nanomaterials. <i>Nanoscale</i> , 2020, 12, 23391-23423.	5.6	47
30	Memtransistors Based on Nanopatterned Graphene Ferroelectric Field-Effect Transistors. <i>Nanomaterials</i> , 2020, 10, 1404.	4.1	9
31	Ink-Based Additive Nanomanufacturing of Functional Materials for Human-Integrated Smart Wearables. <i>Advanced Intelligent Systems</i> , 2020, 2, 2000117.	6.1	17
32	Induced spin polarization in graphene π interactions with halogen doped MoS_2 and MoSe_2 monolayers by DFT calculations. <i>Nanoscale</i> , 2020, 12, 23248-23258.	5.6	13
33	Laser-Assisted Multilevel Non-Volatile Memory Device Based on 2D van der Waals Few-Layer ReS_2 /h-BN/Graphene Heterostructures. <i>Advanced Functional Materials</i> , 2020, 30, 2001688.	14.9	52
34	In-Memory Logic Operations and Neuromorphic Computing in Non-Volatile Random Access Memory. <i>Materials</i> , 2020, 13, 3532.	2.9	31
35	Resistive switching in diamondoid thin films. <i>Scientific Reports</i> , 2020, 10, 19009.	3.3	2
36	Growth and Interlayer Engineering of 2D Layered Semiconductors for Future Electronics. <i>ACS Nano</i> , 2020, 14, 16266-16300.	14.6	30

#	ARTICLE	IF	CITATIONS
37	Understanding the Memory Window Overestimation of 2D Materials Based Floating Gate Type Memory Devices by Measuring Floating Gate Voltage. <i>Small</i> , 2020, 16, e2004907.	10.0	11
38	Reversible Transformation between Bipolar Memory Switching and Bidirectional Threshold Switching in 2D Layered K-Birnessite Nanosheets. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 24133-24140.	8.0	25
39	Black Phosphorus Based Multicolor Light-Modulated Transparent Memristor with Enhanced Resistive Switching Performance. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 25108-25114.	8.0	32
40	Recent advances in organic-based materials for resistive memory applications. <i>Information Materials</i> , 2020, 2, 995-1033.	17.3	125
41	Tuning the Electronic and Optical Properties of Sc ₂ CF ₂ MXene Monolayer Using Biaxial Strain. <i>Journal of Electronic Materials</i> , 2020, 49, 4892-4902.	2.2	16
42	Direct measurements of proximity induced spin polarization in 2D systems. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 343001.	2.8	0
43	Ultralow Power Wearable Heterosynapse with Photoelectric Synergistic Modulation. <i>Advanced Science</i> , 2020, 7, 1903480.	11.2	95
44	Semiconductor Quantum Dots for Memories and Neuromorphic Computing Systems. <i>Chemical Reviews</i> , 2020, 120, 3941-4006.	47.7	203
45	Evolving magneto-electric device technologies. <i>Semiconductor Science and Technology</i> , 2020, 35, 073001.	2.0	17
46	Integration of fluorographene trapping medium in MoS ₂ -based nonvolatile memory device. <i>Journal of Applied Physics</i> , 2020, 127, 245106.	2.5	4
47	Organic and hybrid photoelectroactive polymer for memories and neuromorphic computing. , 2020, , 223-250.		3
48	Application of organic field-effect transistors in memory. <i>Materials Chemistry Frontiers</i> , 2020, 4, 2845-2862.	5.9	40
49	Carbon-Based Band Gap Engineering in the h-BN Analytical Modeling. <i>Materials</i> , 2020, 13, 1026.	2.9	2
50	A generic method to control hysteresis and memory effect in Van der Waals hybrids. <i>Materials Research Express</i> , 2020, 7, 014004.	1.6	12
51	Broadband photoelectric tunable quantum dot based resistive random access memory. <i>Journal of Materials Chemistry C</i> , 2020, 8, 2178-2185.	5.5	37
52	Localized Heating and Switching in MoTe ₂ -Based Resistive Memory Devices. <i>Nano Letters</i> , 2020, 20, 1461-1467.	9.1	38
53	Simultaneous Optical Tuning of Hole and Electron Transport in Ambipolar WSe ₂ Interfaced with a Bicomponent Photochromic Layer: From High-Mobility Transistors to Flexible Multilevel Memories. <i>Advanced Materials</i> , 2020, 32, e1907903.	21.0	29
54	High-performance optoelectronic memory based on bilayer MoS ₂ grown by Au catalyst. <i>Journal of Materials Chemistry C</i> , 2020, 8, 2664-2668.	5.5	9

#	ARTICLE	IF	CITATIONS
55	Low power non-volatile memory switching in monolayer-rich 2D WS ₂ and MoS ₂ devices. AIP Advances, 2020, 10, .	1.3	14
56	Stretchable and Wearable Resistive Switching Random Access Memory. Advanced Intelligent Systems, 2020, 2, 2000007.	6.1	24
57	Recent Advances in Halide Perovskite Memristors: Materials, Structures, Mechanisms, and Applications. Advanced Materials Technologies, 2020, 5, .	5.8	110
58	Negative Thermal Quenching and Size Dependent Optical Characteristics of Highly Luminescent Phosphorene Nanocrystals. Advanced Optical Materials, 2020, 8, 2000180.	7.3	19
59	Memristive Non-Volatile Memory Based on Graphene Materials. Micromachines, 2020, 11, 341.	2.9	36
60	Enhancing interface doping in graphene-metal hybrid devices using H ₂ plasma clean. Applied Surface Science, 2021, 538, 148046.	6.1	9
61	Building Functional Memories and Logic Circuits with 2D Boron Nitride. Advanced Functional Materials, 2021, 31, 2004733.	14.9	22
62	2D Material Based Synaptic Devices for Neuromorphic Computing. Advanced Functional Materials, 2021, 31, 2005443.	14.9	165
63	Wettability Engineering for Studying Ion Transport in 2D Layered Materials. Advanced Materials Interfaces, 2021, 8, 2001453.	3.7	3
64	Fully Light Controlled Memory and Neuromorphic Computation in Layered Black Phosphorus. Advanced Materials, 2021, 33, e2004207.	21.0	147
65	Synaptic Characteristics of an Ultrathin Hexagonal Boron Nitride (h-BN) Diffusive Memristor. Physica Status Solidi - Rapid Research Letters, 2021, 15, .	2.4	30
66	Flexible random resistive access memory devices with ferrocene-rGO nanocomposites for artificial synapses. Journal of Materials Chemistry C, 2021, 9, 5749-5757.	5.5	8
67	Flexible boron nitride-based memristor for in situ digital and analogue neuromorphic computing applications. Materials Horizons, 2021, 8, 538-546.	12.2	73
68	Graphene oxide based synaptic memristor device for neuromorphic computing. Nanotechnology, 2021, 32, 155701.	2.6	42
69	Evolution of low-dimensional material-based field-effect transistors. Nanoscale, 2021, 13, 5162-5186.	5.6	39
70	INTRODUCTION TO TWO-DIMENSIONAL MATERIALS. Surface Review and Letters, 2021, 28, 2140005.	1.1	14
71	Material and Device Structure Designs for 2D Memory Devices Based on the Floating Gate Voltage Trajectory. ACS Nano, 2021, 15, 6658-6668.	14.6	16
72	Valence band offset of ReS ₂ /BN heterojunction measured by X-ray photoelectron spectroscopy. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 392, 127142.	2.1	5

#	ARTICLE	IF	CITATIONS
73	Multiresponsive Nonvolatile Memories Based on Optically Switchable Ferroelectric Organic Field-Effect Transistors. <i>Advanced Materials</i> , 2021, 33, e2007965.	21.0	52
74	MXenes for memristive and tactile sensory systems. <i>Applied Physics Reviews</i> , 2021, 8, .	11.3	25
75	Synthesis of Wafer-Scale Graphene with Chemical Vapor Deposition for Electronic Device Applications. <i>Advanced Materials Technologies</i> , 2021, 6, 2000744.	5.8	46
76	An Ultrafast Nonvolatile Memory with Low Operation Voltage for High-Speed and Low-Power Applications. <i>Advanced Functional Materials</i> , 2021, 31, 2102571.	14.9	27
77	Van der Waals Integration Based on Two-Dimensional Materials for High-Performance Infrared Photodetectors. <i>Advanced Functional Materials</i> , 2021, 31, 2103106.	14.9	112
78	Modeling Photodetection at the Graphene/Ag 2 S Interface. <i>Physica Status Solidi - Rapid Research Letters</i> , 2021, 15, 2100120.	2.4	1
79	Synthesis of wafer-scale ultrathin graphdiyne for flexible optoelectronic memory with over 256 storage levels. <i>CheM</i> , 2021, 7, 1284-1296.	11.7	34
80	Transforming a Two-Dimensional Layered Insulator into a Semiconductor or a Highly Conductive Metal through Transition Metal Ion Intercalation. <i>Chinese Physics Letters</i> , 2021, 38, 057304.	3.3	0
81	Graphene-Based Hybrid Functional Materials. <i>Small</i> , 2021, 17, e2100514.	10.0	31
82	Flexible Graphene-Channel Memory Devices: A Review. <i>ACS Applied Nano Materials</i> , 2021, 4, 6542-6556.	5.0	10
83	Electroforming-free nonvolatile resistive switching of redox-exfoliated MoS ₂ nanoflakes loaded polystyrene thin film with synaptic functionality. <i>Nanotechnology</i> , 2021, 32, 35LT02.	2.6	9
84	Emerging two-dimensional bismuth oxychalcogenides for electronics and optoelectronics. <i>Informa Materials</i> , 2021, 3, 1251-1271.	17.3	51
85	High switching uniformity and 50 fJ/bit energy consumption achieved in amorphous silicon-based memristive device with an AgInSbTe buffer layer. <i>Applied Physics Letters</i> , 2021, 118, 263507.	3.3	3
86	Investigation of the Magnetic and Electronic Properties of Pyrrolic N-doped Graphene Using Density Functional Theory. <i>Journal of Physics: Conference Series</i> , 2021, 1951, 012016.	0.4	0
87	Boron nitride and molybdenum disulfide as 2D composite element selectors with flexible threshold switching. <i>Journal of Alloys and Compounds</i> , 2021, 869, 159321.	5.5	10
88	Oxidations of two-dimensional semiconductors: Fundamentals and applications. <i>Chinese Chemical Letters</i> , 2022, 33, 177-185.	9.0	6
89	A Marr's Three-Level Analytical Framework for Neuromorphic Electronic Systems. <i>Advanced Intelligent Systems</i> , 2021, 3, 2100054.	6.1	3
90	Memristor Based on Inorganic and Organic Two-Dimensional Materials: Mechanisms, Performance, and Synaptic Applications. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 32606-32623.	8.0	86

#	ARTICLE	IF	CITATIONS
91	Grainâ€‘Boundary Engineering of Monolayer MoS ₂ for Energyâ€‘Efficient Lateral Synaptic Devices. Advanced Materials, 2021, 33, e2102435.	21.0	53
92	Two-dimensional group-III nitrides and devices: a critical review. Reports on Progress in Physics, 2021, 84, 086501.	20.1	19
93	Resistance Switching and Failure Behavior of the MoO ₃ /MoS ₂ /C Heterostructure. ACS Applied Materials & Interfaces, 2021, 13, 41857-41865.	8.0	9
94	Outâ€‘ofâ€‘Plane Resistance Switching of 2D Bi ₂ O ₃ /Se at the Nanoscale. Advanced Functional Materials, 2021, 31, 2105795.	14.9	9
95	UV light modulated synaptic behavior of MoTe ₂ /BN heterostructure. Nanotechnology, 2021, 32, 475207.	2.6	3
96	Nanomaterials and their applications on bio-inspired wearable electronics. Nanotechnology, 2021, 32, 472002.	2.6	19
97	Giant Transport Anisotropy in ReS_2 Revealed via Nanoscale Conducting-Path Control. Physical Review Letters, 2021, 127, 136803.	7.8	12
98	Black Phosphorus Nanosheet/Melamine Cyanurate Assemblies as Functional Active Layers for Artificial Synapse Memristors. ACS Applied Nano Materials, 2021, 4, 9584-9594.	5.0	3
99	Two-dimensional triphenylamine-based polymers for ultrastable volatile memory with ultrahigh on/off ratio. Polymer, 2021, 230, 124076.	3.8	10
101	Recent advances on crystalline materials-based flexible memristors for data storage and neuromorphic applications. Science China Materials, 2022, 65, 2110-2127.	6.3	45
102	Memory effect of vertically stacked hBN/QDs/hBN structures based on quantum-dot monolayers sandwiched between hexagonal boron nitride layer. Composites Part B: Engineering, 2021, 225, 109307.	12.0	7
103	Coupling behaviors of large lattice mismatch interfaces between hexagonal ZnO and cubic (001)MgO. Thin Solid Films, 2020, 709, 138074.	1.8	7
104	Coexistence of Bipolar Resistive Switching and the Negative Differential Resistance Effect from a Kesterite Memristor. Journal of Physical Chemistry C, 2021, 125, 923-930.	3.1	23
105	Spray-Coated, Volatile and Nonvolatile, Two-Terminal, Resistive Switching Memory Devices Comprising Liquid-Exfoliated Black Phosphorus and Graphene Layers. IEEE Transactions on Electron Devices, 2020, 67, 5484-5489.	3.0	5
106	2D Materials Based Optoelectronic Memory: Convergence of Electronic Memory and Optical Sensor. Research, 2019, 2019, 9490413.	5.7	85
107	Chemical Vapor Deposition Mediated Phase Engineering for 2D Transition Metal Dichalcogenides: Strategies and Applications. Small Science, 2022, 2, 2100047.	9.9	35
108	Low Optical Writing Energy Multibit Optoelectronic Memory Based on SnS ₂ /hâ€‘BN/Graphene Heterostructure. Small, 2021, 17, e2104459.	10.0	19
109	Neuromorphic computing: Devices, hardware, and system application facilitated by two-dimensional materials. Applied Physics Reviews, 2021, 8, .	11.3	39

#	ARTICLE	IF	CITATIONS
110	A Currentâ€“Voltage Model for Double Schottky Barrier Devices. Advanced Electronic Materials, 2021, 7, 2000979.	5.1	49
111	Switching Operation with Graphene-on-MoS\$_2\$ Heterostructures. Springer Theses, 2020, , 157-170.	0.1	1
112	High-yield exfoliation of MoS2 (WS2) monolayers towards efficient photocatalytic hydrogen evolution. Chemical Engineering Journal, 2022, 431, 133286.	12.7	14
113	Electrically and Optically Controllable p-n Junction Memtransistor Based on an Al\$_{2}\$O\$_{3}\$ Encapsulated 2D Te/ReS\$_{2}\$ van der Waals Heterostructure. Small Methods, 2021, 5, e2101303.	8.6	19
114	Molecular Approach to Engineer Two-Dimensional Devices for CMOS and beyond-CMOS Applications. Chemical Reviews, 2022, 122, 50-131.	47.7	46
115	Roadmap for Ferroelectric Domain Wall Nanoelectronics. Advanced Functional Materials, 2022, 32, 2110263.	14.9	45
116	Opportunities in electrically tunable 2D materials beyond graphene: Recent progress and future outlook. Applied Physics Reviews, 2021, 8, .	11.3	26
117	Electronic and Photoelectronic Memristors Based on 2D Materials. Advanced Electronic Materials, 2022, 8, 2101099.	5.1	28
118	Highly Plasticized Lanthanide Luminescence for Information Storage and Encryption Applications. Advanced Science, 2022, 9, e2105108.	11.2	30
119	WSe2/WS2 Heterobilayer Nonvolatile Memory Device with Boosted Charge Retention. ACS Applied Materials & Interfaces, 2022, 14, 3467-3475.	8.0	4
120	A van der Waals Integrated Damageâ€“Free Memristor Based on Layered 2D Hexagonal Boron Nitride. Small, 2022, 18, e2106253.	10.0	32
121	Two-dimensional reconfigurable electronics enabled by asymmetric floating gate. Nano Research, 2022, 15, 4439-4447.	10.4	6
122	Low energy consumption fiber-type memristor array with integrated sensing-memory. Nanoscale Advances, 2022, 4, 1098-1104.	4.6	2
123	Optical Modification of 2D Materials: Methods and Applications. Advanced Materials, 2022, 34, e2110152.	21.0	29
124	Bottom-up synthesized crystalline boron quantum dots with nonvolatile memory effects through one-step hydrothermal polymerization of ammonium pentaborane and boric acid. CrystEngComm, 2022, 24, 3469-3474.	2.6	5
125	Strain-mediated ferromagnetism and low-field magnetic reversal in Co doped monolayer WS\$_{2}\$. Scientific Reports, 2022, 12, 2593.	3.3	10
126	Interfacial ferroelectricity in marginally twisted 2D semiconductors. Nature Nanotechnology, 2022, 17, 390-395.	31.5	115
127	Theoretical realization of two-dimensional half-metallicity and fully spin-polarized multiple nodal-line fermions in monolayer PrOBr. Physical Review B, 2022, 105, .	3.2	10

#	ARTICLE	IF	CITATIONS
128	Machine Learning for Shape Memory Graphene Nanoribbons and Applications in Biomedical Engineering. Bioengineering, 2022, 9, 90.	3.5	6
129	Amorphous Boron Nitride Memristive Device for High-Density Memory and Neuromorphic Computing Applications. ACS Applied Materials & Interfaces, 2022, 14, 10546-10557.	8.0	39
130	Carrier Trapping in Wrinkled 2D Monolayer MoS ₂ for Ultrathin Memory. ACS Nano, 2022, 16, 6309-6316.	14.6	22
131	Memristive and biological synaptic behavior in transition metal dichalcogenide-WS ₂ nanostructures: A review. Materials Today: Proceedings, 2022, , .	1.8	1
132	Science of 2.5 dimensional materials: paradigm shift of materials science toward future social innovation. Science and Technology of Advanced Materials, 2022, 23, 275-299.	6.1	32
133	Copolymers of 3-arylthieno[3,2-b]thiophenes bearing different substituents: Synthesis, electronic, optical, sensor and memory properties. European Polymer Journal, 2022, 170, 111167.	5.4	14
134	Optical responses to hole defects in functionalized Ti ₃ C ₂ TCF. ACS Applied Materials & Interfaces, 2022, 14, 10546-10557.	6.1	4
135	Two-dimensional materials enabled next-generation low-energy compute and connectivity. MRS Bulletin, 2021, 46, 1211-1228.	3.5	8
136	Tunable Multi-Bit Nonvolatile Memory Based on Ferroelectric Field-Effect Transistors. Advanced Electronic Materials, 2022, 8, .	5.1	7
137	Research Progress of Biomimetic Memristor Flexible Synapse. Coatings, 2022, 12, 21.	2.6	15
138	Quantum-Engineered Devices Based on 2D Materials for Next-Generation Information Processing and Storage. Advanced Materials, 2023, 35, e2109894.	21.0	22
139	Atomic Threshold Switch Based on All-2D Material Heterostructures with Excellent Control Over Filament Growth and Volatility. Advanced Functional Materials, 2022, 32, .	14.9	7
140	Integrated Memory Devices Based on 2D Materials. Advanced Materials, 2022, 34, e2201880.	21.0	33
141	Robust and Low-Power-Consumption Black Phosphorus-Graphene Artificial Synaptic Devices. ACS Applied Materials & Interfaces, 2022, 14, 21242-21252.	8.0	11
142	Gate controlled resistive switching behavior of heterostructure in the Ni-Co layered double hydroxide/graphene oxide transistor. Applied Surface Science, 2022, 596, 153608.	6.1	8
143	Ultrafast Operation of 2D Heterostructured Nonvolatile Memory Devices Provided by the Strong Short-Time Dielectric Breakdown Strength of h-BN. ACS Applied Materials & Interfaces, 2022, 14, 25659-25669.	8.0	4
144	Room temperature giant magnetoresistance in half-metallic Cr ₂ C based two-dimensional tunnel junctions. Nanoscale, 2022, 14, 9409-9418.	5.6	6
145	Optical Memristors: Review of Switching Mechanisms and New Computing Paradigms. , 2022, , 219-244.		3

#	ARTICLE	IF	CITATIONS
146	2D materials: increscent quantum flatland with immense potential for applications. Nano Convergence, 2022, 9, .	12.1	29
147	Asymmetric Ferroelectric-Gated Two-Dimensional Transistor Integrating Self-Rectifying Photoelectric Memory and Artificial Synapse. ACS Nano, 2022, 16, 11218-11226.	14.6	27
148	Resistive switching of self-assembly stacked h-BN polycrystal film. Cell Reports Physical Science, 2022, 3, 100939.	5.6	9
149	Photodetector Arrays Based on MBEâ€Grown GaSe/Graphene Heterostructure. Advanced Optical Materials, 2022, 10, .	7.3	7
150	Integration paths for Xenos. , 2022, , 405-438.		1
151	Carrier Doping Modulates 2D Intrinsic Ferromagnetic Mn₂Ge₂Te₆ Monolayer, High Curie Temperature, Large Magnetic Crystal Anisotropy. Journal of Physical Chemistry C, 2022, 126, 11330-11340.	3.1	9
152	Enhanced Emission from Defect Levels in Multilayer MoS₂. Advanced Optical Materials, 2022, 10, .	7.3	9
153	High-performance memristor based on MoS2 for reliable biological synapse emulation. Materials Today Communications, 2022, 32, 103957.	1.9	9
154	Layered ultra-lightweight MXene based composite films for current conduction. Composites Part A: Applied Science and Manufacturing, 2022, 161, 107114.	7.6	2
155	An epidermal electronic system for physiological information acquisition, processing, and storage with an integrated flash memory array. Science Advances, 2022, 8, .	10.3	19
156	Low-voltage ultrafast nonvolatile memory via direct charge injection through a threshold resistive-switching layer. Nature Communications, 2022, 13, .	12.8	20
157	Atomically Thin Synapse Networks on Van Der Waals Photoâ€Memtransistors. Advanced Materials, 2023, 35, .	21.0	11
158	Multilevel artificial electronic synaptic device of direct grown robust MoS2 based memristor array for in-memory deep neural network. Npj 2D Materials and Applications, 2022, 6, .	7.9	29
159	Correlation of natural honey-based RRAM processing and switching properties by experimental study and machine learning. Solid-State Electronics, 2022, 197, 108463.	1.4	6
160	Introduction toÂ2-Dimensional Materials andÂMoirÃ© Superlattices. Springer Theses, 2022, , 5-28.	0.1	0
161	Impact of Interface Traps in Floating-Gate Memory Based on Monolayer MoS<sub>/>. IEEE Transactions on Electron Devices, 2022, 69, 6121-6126.	3.0	5
162	Resistive Switching Crossbar Arrays Based on Layered Materials. Advanced Materials, 2023, 35, .	21.0	14
163	Graphene and Beyond: Recent Advances in Two-Dimensional Materials Synthesis, Properties, and Devices. ACS Nanoscience Au, 2022, 2, 450-485.	4.8	27

#	ARTICLE	IF	CITATIONS
164	Giant ferroelectric polarization in a bilayer graphene heterostructure. Nature Communications, 2022, 13, .	12.8	20
165	Memristive switching in two-dimensional BiSe crystals. Nano Research, 2023, 16, 3188-3194.	10.4	1
166	Porphyrinâ€Based Metalâ€Organic Frameworks for Neuromorphic Electronics. Small Structures, 2023, 4, .	12.0	18
167	Synthesis of hexagonal boron nitride thin film on Pt substrates for resistive switching memory applications. Current Applied Physics, 2022, 44, 117-122.	2.4	2
168	Resistive switching of two-dimensional NiAl-layered double hydroxides and memory logical functions. Journal of Alloys and Compounds, 2023, 933, 167745.	5.5	3
169	A Highly Crystalline Single Layer 2D Polymer for Low Variability and Excellent Scalability Molecular Memristors. Advanced Materials, 2023, 35, .	21.0	13
170	Stretchable photodetectors based on 2D materials: materials synthesis, fabrications and applications. FlatChem, 2022, 36, 100452.	5.6	10
171	Defect engineering of two-dimensional materials towards next-generation electronics and optoelectronics. Nano Research, 2023, 16, 3104-3124.	10.4	6
174	Full-function logic circuit based on egg albumen resistive memory. Applied Physics Letters, 2022, 121, 243505.	3.3	5
175	Zero to Three Dimension Structure Evolution from Carbon Allotropes to Phosphorus Allotropes. Advanced Materials Interfaces, 2023, 10, .	3.7	7
176	<scp>Vaporâ€Phase Preciseâ€Synthesis</scp> of <scp>2D</scp> Inorganic Materials for Optoelectronics. Chinese Journal of Chemistry, 2023, 41, 825-834.	4.9	2
177	2D heterostructures for advanced logic and memory devices. , 2023, , 141-167.		0
178	Layer-Structured Anisotropic Metal Chalcogenides: Recent Advances in Synthesis, Modulation, and Applications. Chemical Reviews, 2023, 123, 3329-3442.	47.7	23
179	Fabrication of metal/oxide/fluorographene/oxide/silicon capacitors and their charge trapping properties. Japanese Journal of Applied Physics, 2023, 62, SG1035.	1.5	0
180	Pyramid-Patterned Germanium Composite Film Anode for Rechargeable Lithium-Ion Batteries Prepared Using a One-Step Physical Method. Coatings, 2023, 13, 555.	2.6	1
181	Combination of Polymer Gate Dielectric and Two-Dimensional Semiconductor for Emerging Field-Effect Transistors. Polymers, 2023, 15, 1395.	4.5	2
182	On the switching mechanism and optimisation of ion irradiation enabled 2D MoS₂ memristors. Nanoscale, 2023, 15, 6408-6416.	5.6	2
183	Pen Plotter as a Lowâ€Cost Platform for Rapid Device Prototyping with Solutionâ€Processable Nanomaterials. Advanced Engineering Materials, 2023, 25, .	3.5	0

#	ARTICLE	IF	CITATIONS
184	A high linearity and energy-efficient artificial synaptic device based on scalable synthesized MoS ₂ . Journal of Materials Chemistry C, 2023, 11, 5616-5624.	5.5	2
185	Promising Materials and Synthesis Methods for Resistive Switching Memory Devices: A Status Review. ACS Applied Electronic Materials, 2023, 5, 2454-2481.	4.3	10
186	Driving Strategy Based on Artificial Neuron Device for Array Circuits. IEEE Transactions on Electron Devices, 2023, 70, 3378-3381.	3.0	0
187	Accelerate and actualize: Can 2D materials bridge the gap between neuromorphic hardware and the human brain?. Matter, 2023, 6, 1348-1365.	10.0	2
188	In-plane anisotropic photoelectric property of In_2Se_3 based phototransistor. Applied Physics Letters, 2023, 122, .	3.3	1
189	Two-Dimensional Layered Materials Meet Perovskite Oxides: A Combination for High-Performance Electronic Devices. ACS Nano, 2023, 17, 9748-9762.	14.6	4
190	Recent progress in optoelectronic memristors for neuromorphic and in-memory computation. Neuromorphic Computing and Engineering, 2023, 3, 022002.	5.9	8
191	Modulating the Performance of MoS ₂ -Based Nanocrystal Memory via Ag Ion Implantation. ACS Applied Electronic Materials, 2023, 5, 3291-3297.	4.3	0
192	Biomedical application of 2D nanomaterials in neuroscience. Journal of Nanobiotechnology, 2023, 21, .	9.1	4
193	Memory and Synaptic Devices Based on Emerging 2D Ferroelectricity. Advanced Electronic Materials, 2023, 9, .	5.1	3
194	Ferroelectric Polarization in an h-BN-Encapsulated 30°-Twisted Bilayer Graphene Heterostructure. Magnetochemistry, 2023, 9, 116.	2.4	0
195	Design, synthesis, and application of some two-dimensional materials. Chemical Science, 2023, 14, 5266-5290.	7.4	6
196	Performance of Graphene Oxide-based Memristor for Nonvolatile Memory and Neuromorphic Computing. , 2022, , .		0
197	A robust graphene oxide memristor enabled by organic pyridinium intercalation for artificial biosynapse application. Nano Research, 2023, 16, 11278-11287.	10.4	8
198	Resistive random access memory based on graphene oxide with UV-O3 treatment. Journal of the Korean Physical Society, 2023, 83, 38-42.	0.7	0
199	Resistive Switching Behavior Employing the <i>Ipomoea carnea</i> Plant for Biodegradable Rewritable Read-Only Memory Applications. ACS Applied Electronic Materials, 2023, 5, 3685-3697.	4.3	1
200	The trend of synthesized 2D materials toward artificial intelligence: Memory technology and neuromorphic computing. , 2023, 5, 100052.		1
201	Epitaxial Bi ₅ Ti ₃ FeO ₁₅ thin films on Nb-doped SrTiO ₃ substrates. Journal of the American Ceramic Society, 0, , .	3.8	0

#	ARTICLE	IF	CITATIONS
202	Uncovering the Role of Crystal Phase in Determining Nonvolatile Flash Memory Device Performance Fabricated from MoTe ₂ -Based 2D van der Waals Heterostructures. ACS Applied Materials & Interfaces, 2023, 15, 35196-35205.	8.0	0
203	2D Ferroic Materials for Nonvolatile Memory Applications. Advanced Materials, 0, , .	21.0	3
204	Porous crystalline materials for memories and neuromorphic computing systems. Chemical Society Reviews, 2023, 52, 7071-7136.	38.1	14
205	Optically Controlled Charge Trapping Memory Based on Spin Coated Hafnium Diselenide Flakes. , 2023, , .		0
206	Organic Resistive Memories for Neuromorphic Electronics. , 2023, , 60-120.		0
207	Solvent-assisted sulfur vacancy engineering method in MoS ₂ for a neuromorphic synaptic memristor. Nanoscale Horizons, 2023, 8, 1417-1427.	8.0	1
208	Band type engineering using different stacking configurations of anisotropic and isotropic monolayer transition metal dichalcogenides. 2D Materials, 2023, 10, 045032.	4.4	0
209	A Review on Advanced Band-Structure Engineering with Dynamic Control for Nonvolatile Memory based 2D Transistors. Nanotechnology, 0, , .	2.6	0
210	Controllable Friction on Graphene via Adjustable Interfacial Contact Quality. Advanced Science, 0, , .	11.2	1
211	Jahnâ€Teller Effects and Spintronic Behaviors in a Ti-Doped ScSI Monolayer. ACS Applied Electronic Materials, 2023, 5, 5564-5572.	4.3	0
212	An experimental and theoretical framework for identifying the band type and the carrier transport properties of transition metal dichalcogenides heterostructures. , 0, , .		0
213	Resistive switching behaviour of nickel nanoparticles embedded naphthalene sulfonic acid doped polyaniline nanocomposites. Journal Physics D: Applied Physics, 0, , .	2.8	0
214	Recent innovations in 2D magnetic materials and their potential applications in the modern era. Materials Today, 2023, , .	14.2	0
215	Atomically engineered, high-speed non-volatile flash memory device exhibiting multibit data storage operations. Nano Energy, 2024, 119, 109106.	16.0	4
216	Role of oxygen vacancies in ferroelectric or resistive switching hafnium oxide. Nano Convergence, 2023, 10, .	12.1	2
217	Resistive Switching Properties in Memristors for Optoelectronic Synaptic Memristors: Deposition Techniques, Key Performance Parameters, and Applications. ACS Applied Electronic Materials, 0, , .	4.3	0
218	Graphyne and graphdiyne nanoribbons: from their structures and properties to potential applications. Physical Chemistry Chemical Physics, 2024, 26, 1541-1563.	2.8	0
219	Advances in two-dimensional heterojunction for sophisticated memristors. Materials Today Physics, 2024, 41, 101336.	6.0	0

#	ARTICLE	IF	CITATIONS
220	Opto-electrochemical Synaptic Memory in Supramolecularly Engineered Janus 2D MoS ₂ . Advanced Materials, 2024, 36, .	21.0	2
221	Resistive Memory Devices at the Thinnest Limit: Progress and Challenges. Advanced Materials, 2024, 36, .	21.0	0
222	Emerging memory electronics for non-volatile radiofrequency switching technologies. , 2024, 1, 10-23.		0
223	2D van der Waals Heterostructure with Tellurene Floating-Gate for Wide Range and Multi-Bit Optoelectronic Memory. ACS Nano, 2024, 18, 4131-4139.	14.6	0
224	Stable switching behavior of low-temperature ZrO ₂ RRAM devices realized by combustion synthesis-assisted photopatterning. Journal of Materials Science and Technology, 2024, 189, 68-76.	10.7	0
225	Optical readout of charge carriers stored in a 2D memory cell of monolayer WSe ₂ . Nanoscale, 2024, 16, 3668-3675.	5.6	0
226	N-Doped Graphene/MXene Nanocomposite as a Temperature-Adaptive Neuromorphic Memristor. ACS Applied Nano Materials, 2024, 7, 3631-3644.	5.0	0
227	Transfer-Free Analog and Digital Flexible Memristors Based on Boron Nitride Films. Nanomaterials, 2024, 14, 327.	4.1	0
228	Recent progress in emerging two-dimensional organic-inorganic van der Waals heterojunctions. Chemical Society Reviews, 2024, 53, 3096-3133.	38.1	0
229	Ferroelectric Gate Enabled Programmable Photovoltaics in vdWHs for Self-Powered In-Memory Logics. ACS Photonics, 2024, 11, 1557-1564.	6.6	0
230	Design of Mixed-Dimensional QDs/MoS ₂ /TiO ₂ Heterostructured Resistive Random-Access Memory with Interfacial Analog Switching Characteristics for Potential Neuromorphic Computing. ACS Applied Electronic Materials, 2024, 6, 1581-1589.	4.3	0