Sung-Yool Choi

List of Publications by Year
in descending order

168	9,409	38742 50	40979 93
papers	citations	h-index	g-index

173	173	173	14187
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Switching terahertz waves with gate-controlled active graphene metamaterials. Nature Materials, 2012, 11, 936-941.	27.5	777
2	Graphene Oxide Thin Films for Flexible Nonvolatile Memory Applications. Nano Letters, 2010, 10, 4381-4386.	9.1	554
3	Effective Liquid-Phase Exfoliation and Sodium Ion Battery Application of MoS₂ Nanosheets. ACS Applied Materials & Interfaces, 2014, 6, 7084-7089.	8.0	443
4	Versatile Carbon Hybrid Films Composed of Vertical Carbon Nanotubes Grown on Mechanically Compliant Graphene Films. Advanced Materials, 2010, 22, 1247-1252.	21.0	307
5	Flexible room-temperature NO2 gas sensors based on carbon nanotubes/reduced graphene hybrid films. Applied Physics Letters, 2010, 96, .	3.3	255
6	Flexible Memristive Memory Array on Plastic Substrates. Nano Letters, 2011, 11, 5438-5442.	9.1	250
7	Room-temperature semiconductor gas sensor based on nonstoichiometric tungsten oxide nanorod film. Applied Physics Letters, 2005, 86, 213105.	3.3	239
8	Nonvolatile Memories Based on Graphene and Related 2D Materials. Advanced Materials, 2019, 31, e1806663.	21.0	230
9	Patterned selective growth of carbon nanotubes and large field emission from vertically well-aligned carbon nanotube field emitter arrays. Applied Physics Letters, 2001, 78, 901-903.	3.3	212
10	Large-Area Single-Layer MoSe₂ and Its van der Waals Heterostructures. ACS Nano, 2014, 8, 6655-6662.	14.6	206
11	Ambient Pressure Syntheses of Size-Controlled Corundum-type In2O3Nanocubes. Journal of the American Chemical Society, 2006, 128, 9326-9327.	13.7	185
12	An Electrochemically Reduced Graphene Oxide-Based Electrochemical Immunosensing Platform for Ultrasensitive Antigen Detection. Analytical Chemistry, 2012, 84, 1871-1878.	6.5	168
13	Interfaceâ€Engineered Amorphous TiO₂â€Based Resistive Memory Devices. Advanced Functional Materials, 2010, 20, 3912-3917.	14.9	163
14	Synergetic electrode architecture for efficient graphene-based flexible organic light-emitting diodes. Nature Communications, 2016, 7, 11791.	12.8	163
15	Antibacterial Activities of Graphene Oxideâ€“Molybdenum Disulfide Nanocomposite Films. ACS Applied Materials & Interfaces, 2017, 9, 7908-7917.	8.0	150
16	Flexible Resistive Switching Memory Device Based on Graphene Oxide. IEEE Electron Device Letters, 2010, 31, 1005-1007.	3.9	145
17	Graphene-based plasmonic waveguides for photonic integrated circuits. Optics Express, 2011, 19, 24557.	3.4	143
18	Flexible and Transparent Gas Molecule Sensor Integrated with Sensing and Heating Graphene Layers. Small, 2014, 10, 3685-3691.	10.0	142

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19	V-Shaped Tin Oxide Nanostructures Featuring a Broad Photocurrent Signal: An Effective Visible-Light-Driven Photocatalyst. Small, 2006, 2, 1436-1439.	10.0	140
20	Polymer Analog Memristive Synapse with Atomic-Scale Conductive Filament for Flexible Neuromorphic Computing System. Nano Letters, 2019, 19, 839-849.	9.1	139
21	Ultrasensitive Phototransistor Based on WSe₂â€“MoS₂ van der Waals Heterojunction. Nano Letters, 2020, 20, 5741-5748.	9.1	133
22	Surface Energy Modification by Spin-Cast, Large-Area Graphene Film for Block Copolymer Lithography. ACS Nano, 2010, 4, 5464-5470.	14.6	132
23	ZnOâ€“CuO Core-Hollow Cube Nanostructures for Highly Sensitive Acetone Gas Sensors at the ppb Level. ACS Applied Materials & Interfaces, 2020, 12, 35688-35697.	8.0	126
24	First Demonstration of a Logic-Process Compatible Junctionless Ferroelectric FinFET Synapse for Neuromorphic Applications. IEEE Electron Device Letters, 2018, 39, 1445-1448.	3.9	121
25	A low-temperature-grown TiO₂-based device for the flexible stacked RRAM application. Nanotechnology, 2010, 21, 115203.	2.6	112
26	Microscopic origin of bipolar resistive switching of nanoscale titanium oxide thin films. Applied Physics Letters, 2009, 95, .	3.3	104
27	Rapid Vapor-Phase Fabrication of Organicâ“Inorganic Hybrid Superlattices with Monolayer Precision. Journal of the American Chemical Society, 2007, 129, 16034-16041.	13.7	103
28	Effective shape-controlled growth of monolayer MoS2 flakes by powder-based chemical vapor deposition. Nano Research, 2017, 10, 255-262.	10.4	92
29	Structure Effects on Resistive Switching of $ hbox{Al/TiO}_{x}/hbox{Al}$ Devices for RRAM Applications. IEEE Electron Device Letters, 2008, 29, 331-333.	3.9	86
30	Improved Optical Sintering Efficiency at the Contacts of Silver Nanowires Encapsulated by a Graphene Layer. Small, 2015, 11, 1293-1300.	10.0	76
31	DNA-Assisted Exfoliation of Tungsten Dichalcogenides and Their Antibacterial Effect. ACS Applied Materials & Interfaces, 2016, 8, 1943-1950.	8.0	76
32	Laser-induced phase separation of silicon carbide. Nature Communications, 2016, 7, 13562.	12.8	75
33	Multilevel resistive switching nonvolatile memory based on MoS ₂ nanosheet-embedded graphene oxide. 2D Materials, 2016, 3, 034002.	4.4	69
34	Comprehensive modeling of resistive switching in the Al/TiOx/TiO2/Al heterostructure based on space-charge-limited conduction. Applied Physics Letters, 2010, 97, .	3.3	67
35	Flexible and Transparent Graphene Electrode Architecture with Selective Defect Decoration for Organic Lightâ€Emitting Diodes. Advanced Functional Materials, 2018, 28, 1704435.	14.9	67
36	Flexible Nonvolatile Polymer Memory Array on Plastic Substrate via Initiated Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2016, 8, 12951-12958.	8.0	66

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37	Characterization of Fe-catalyzed carbon nanotubes grown by thermal chemical vapor deposition. Journal of Crystal Growth, 2002, 244, 211-217.	1.5	62
38	V2O5 nanowire-based nanoelectronic devices for helium detection. Applied Physics Letters, 2005, 86, 253102.	3.3	62
39	Functional Circuitry on Commercial Fabric via Textile-Compatible Nanoscale Film Coating Process for Fibertronics. Nano Letters, 2017, 17, 6443-6452.	9.1	62
40	Direct Observation of Conducting Nanofilaments in Grapheneâ€Oxideâ€Resistive Switching Memory. Advanced Functional Materials, 2015, 25, 6710-6715.	14.9	60
41	Solutionâ€Processed Reduced Graphene Oxide Films as Electronic Contacts for Molecular Monolayer Junctions. Angewandte Chemie - International Edition, 2012, 51, 108-112.	13.8	59
42	Siâ€“MoS₂ Vertical Heterojunction for a Photodetector with High Responsivity and Low Noise Equivalent Power. ACS Applied Materials & Interfaces, 2019, 11, 7626-7634.	8.0	58
43	TFT Channel Materials for Display Applications: From Amorphous Silicon to Transition Metal Dichalcogenides. Advanced Materials, 2020, 32, e1907166.	21.0	58
44	Multilayered graphene anode for blue phosphorescent organic light emitting diodes. Applied Physics Letters, 2012, 100, .	3.3	57
45	Metal-Etching-Free Direct Delamination and Transfer of Single-Layer Graphene with a High Degree of Freedom. Small, 2015, 11, 175-181.	10.0	57
46	Memristive Logicâ€inâ€Memory Integrated Circuits for Energyâ€Efficient Flexible Electronics. Advanced Functional Materials, 2018, 28, 1704725.	14.9	57
47	Bipolar resistive switching in amorphous titanium oxide thin film. Physica Status Solidi - Rapid Research Letters, 2010, 4, 28-30.	2.4	55
48	Conductive Graphitic Channel in Graphene Oxideâ€Based Memristive Devices. Advanced Functional Materials, 2016, 26, 7406-7414.	14.9	54
49	Role of Interface Reaction on Resistive Switching of Metal/Amorphous TiO2/Al RRAM Devices. Journal of the Electrochemical Society, 2011, 158, H979.	2.9	53
50	A graphene oxide oxygen barrier film deposited via a self-assembly coating method. Synthetic Metals, 2012, 162, 710-714.	3.9	52
51	Sublithographic vertical gold nanogap for label-free electrical detection of protein-ligand binding. Journal of Vacuum Science & Technology B, 2007, 25, 443.	1.3	50
52	Large-scale synthesis of uniform hexagonal boron nitride films by plasma-enhanced atomic layer deposition. Scientific Reports, 2017, 7, 40091.	3.3	49
53	Laser-Induced Solid-Phase Doped Graphene. ACS Nano, 2014, 8, 7671-7677.	14.6	48
54	Healing Graphene Defects Using Selective Electrochemical Deposition: Toward Flexible and Stretchable Devices. ACS Nano, 2016, 10, 1539-1545.	14.6	47

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55	Sonochemical synthesis of HKUST-1-based CuO decorated with Pt nanoparticles for formaldehyde gas-sensor applications. Sensors and Actuators B: Chemical, 2019, 292, 289-296.	7.8	47
56	Cointegration of single-transistor neurons and synapses by nanoscale CMOS fabrication for highly scalable neuromorphic hardware. Science Advances, 2021, 7, .	10.3	47
57	Conductive-bridging random-access memories for emerging neuromorphic computing. Nanoscale, 2020, 12, 14339-14368.	5.6	46
58	Chemically exfoliated 1T-phase transition metal dichalcogenide nanosheets for transparent antibacterial applications. 2D Materials, 2019, 6, 025025.	4.4	45
59	Improved Electrical Contact Properties of MoS₂â€Graphene Lateral Heterostructure. Advanced Functional Materials, 2019, 29, 1807550.	14.9	44
60	Lowâ€Power Nonvolatile Charge Storage Memory Based on MoS₂ and an Ultrathin Polymer Tunneling Dielectric. Advanced Functional Materials, 2017, 27, 1703545.	14.9	43
61	Gadolinium Oxide Nanoring and Nanoplate:â€‰ Anisotropic Shape Control. Crystal Growth and Design, 2007, 7, 1378-1380.	3.0	42
62	Pyridinic-N-Doped Graphene Paper from Perforated Graphene Oxide for Efficient Oxygen Reduction. ACS Omega, 2018, 3, 5522-5530.	3.5	42
63	Flexible NO₂gas sensor using multilayer graphene films by chemical vapor deposition. Carbon Letters, 2013, 14, 186-189.	5.9	40
64	Zero-static-power nonvolatile logic-in-memory circuits for flexible electronics. Nano Research, 2017, 10, 2459-2470.	10.4	39
65	Largeâ€Area CVDâ€Grown MoS₂ Driver Circuit Array for Flexible Organic Lightâ€Emitting Diode Display. Advanced Electronic Materials, 2018, 4, 1800251.	5.1	39
66	Tuning the catalytic functionality of transition metal dichalcogenides grown by chemical vapour deposition. Journal of Materials Chemistry A, 2017, 5, 14950-14968.	10.3	38
67	Conduction and Low-Frequency Noise Analysis in $ hbox{Al}/alphahbox{-TiO}_{X}/hbox{Al}$ Bipolar Switching Resistance Random Access Memory Devices. IEEE Electron Device Letters, 2010, 31, 603-605.	3.9	37
68	Direct observation of microscopic change induced by oxygen vacancy drift in amorphous TiO2 thin films. Applied Physics Letters, 2010, 97, .	3.3	37
69	Facile graphene n-doping by wet chemical treatment for electronic applications. Nanoscale, 2014, 6, 8503.	5.6	35
70	Low-Temperature and High-Quality Growth of Bi₂O₂Se Layered Semiconductors via Cracking Metalâ€“Organic Chemical Vapor Deposition. ACS Nano, 2021, 15, 8715-8723.	14.6	35
71	Friction and conductance imaging of sp²- and sp³-hybridized subdomains on single-layer graphene oxide. Nanoscale, 2016, 8, 4063-4069.	5.6	34
72	A Recoverable Synapse Device Using a Threeâ€Dimensional Silicon Transistor. Advanced Functional Materials, 2018, 28, 1804844.	14.9	34

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73	Vertical-Tunnel Field-Effect Transistor Based on a Siliconâ€“MoS2 Three-Dimensionalâ€“Two-Dimensional Heterostructure. ACS Applied Materials & Interfaces, 2018, 10, 40212-40218.	8.0	34
74	Multilayer Graphene with a Rippled Structure as a Spacer for Improving Plasmonic Coupling. Advanced Functional Materials, 2016, 26, 5093-5101.	14.9	33
75	Bioinspired Polydopamineâ€Based Resistiveâ€Switching Memory on Cotton Fabric for Wearable Neuromorphic Device Applications. Advanced Materials Technologies, 2019, 4, 1900151.	5.8	33
76	Graphene transparent electrode for enhanced optical power and thermal stability in GaN light-emitting diodes. Nanotechnology, 2013, 24, 075202.	2.6	31
77	Functionalized Graphene as an Ultrathin Seed Layer for the Atomic Layer Deposition of Conformal High-k Dielectrics on Graphene. ACS Applied Materials & Interfaces, 2013, 5, 11515-11519.	8.0	31
78	Carrier injection efficiencies and energy level alignments of multilayer graphene anodes for organic light-emitting diodes with different hole injection layers. Carbon, 2014, 79, 623-630.	10.3	30
79	Photoconductivity Switching in MoTe₂/Graphene Heterostructure by Trap-Assisted Photogating. ACS Applied Materials & Interfaces, 2020, 12, 38563-38569.	8.0	30
80	Bipolar resistive switching characteristics of poly(3,4-ethylene-dioxythiophene): Poly(styrenesulfonate) thin film. Current Applied Physics, 2010, 10, e46-e49.	2.4	29
81	A Lowâ€Voltage Organic Complementary Inverter with High Operation Stability and Flexibility Using an Ultrathin iCVD Polymer Dielectric and a Hybrid Encapsulation Layer. Advanced Electronic Materials, 2016, 2, 1500385.	5.1	29
82	Flexible and Transparent Thin-Film Transistors Based on Two-Dimensional Materials for Active-Matrix Display. ACS Applied Materials & Interfaces, 2020, 12, 4749-4754.	8.0	29
83	Effects of oxygen concentration on the electrical properties of ZnO films. Ceramics International, 2008, 34, 1097-1101.	4.8	27
84	Impact of amorphous titanium oxide film on the device stability ofÂAl/TiO2/Al resistive memory. Applied Physics A: Materials Science and Processing, 2011, 102, 967-972.	2.3	27
85	Self-Supplied Nano-Fusing and Transferring Metal Nanostructures via Surface Oxide Reduction. ACS Applied Materials & Interfaces, 2016, 8, 1112-1119.	8.0	27
86	Vertical-tunneling field-effect transistor based on MoTe₂/MoS₂2Dâ€“2D heterojunction. Journal Physics D: Applied Physics, 2018, 51, 475101.	2.8	26
87	Ultrasensitive WSe₂/Î±â€In₂Se₃ NIR Photodetector Based on Ferroelectric Gating Effect. Advanced Materials Technologies, 2021, 6, 2100494.	5.8	26
88	Enhanced Triboelectric Nanogenerator Based on Tungsten Disulfide via Thiolated Ligand Conjugation. ACS Applied Materials & Interfaces, 2021, 13, 21299-21309.	8.0	25
89	Large field emission current density from well-aligned carbon nanotube field emitter arrays. Current Applied Physics, 2001, 1, 61-65.	2.4	23
90	Stretchable thin-film transistors with molybdenum disulfide channels and graphene electrodes. Nanoscale, 2018, 10, 16069-16078.	5.6	23

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91	Largeâ€Scale, Lowâ€Power Nonvolatile Memory Based on Fewâ€Layer MoS₂ and Ultrathin Polymer Dielectrics. Advanced Electronic Materials, 2019, 5, 1800688.	5.1	23
92	Interface engineering for high performance graphene electronic devices. Nano Convergence, 2015, 2, .	12.1	22
93	Atomic-scale etching of hexagonal boron nitride for device integration based on two-dimensional materials. Nanoscale, 2018, 10, 15205-15212.	5.6	22
94	Verticalâ€Tunneling Fieldâ€Effect Transistor Based on WSe₂â€MoS₂ Heterostructure with Ion Gel Dielectric. Advanced Electronic Materials, 2020, 6, 2000091.	5.1	22
95	Ultra-low power, highly uniform polymer memory by inserted multilayer graphene electrode. 2D Materials, 2015, 2, 044013.	4.4	21
96	Order-of-Magnitude, Broadband-Enhanced Light Emission from Quantum Dots Assembled in Multiscale Phase-Separated Block Copolymers. Nano Letters, 2019, 19, 6827-6838.	9.1	21
97	Probing temperature-dependent interlayer coupling in a MoS2/h-BN heterostructure. Nano Research, 2020, 13, 576-582.	10.4	21
98	Cross-sectional transmission electron microscopy of carbon nanotubesâ€“catalystâ€“substrate heterostructure using a novel method for specimen preparation. Thin Solid Films, 2002, 415, 78-82.	1.8	20
99	High performance graphene field effect transistors on an aluminum nitride substrate with high surface phonon energy. Applied Physics Letters, 2014, 104, 193112.	3.3	18
100	Selective protein transport through ultra-thin suspended reduced graphene oxide nanopores. Nanoscale, 2017, 9, 13457-13464.	5.6	17
101	High-Performance Field-Effect Transistor and Logic Gates Based on GaSâ€“MoS₂ van der Waals Heterostructure. ACS Applied Materials & Interfaces, 2020, 12, 5106-5112.	8.0	17
102	Abnormal electrical characteristics of multi-layered MoS ₂ FETs attributed to bulk traps. 2D Materials, 2016, 3, 015007.	4.4	16
103	Synthesis and Characterization of Monomeric, Oligomeric, and Polymeric Aluminum 8-Hydroxyquinolines. Inorganic Chemistry, 2005, 44, 7911-7917.	4.0	15
104	Graphene-based photonic devices for soft hybrid optoelectronic systems. Nanotechnology, 2012, 23, 344005.	2.6	15
105	Synthesis of Ultrathin Metal Nanowires with Chemically Exfoliated Tungsten Disulfide Nanosheets. Nano Letters, 2020, 20, 3740-3746.	9.1	15
106	Adsorption behavior of binary mixed alkanethiol molecules on Au: Scanning tunneling microscope and linear-scan voltammetry investigation. Applied Surface Science, 2006, 252, 4951-4956.	6.1	14
107	Polymer-free graphene transfer for enhanced reliability of graphene field-effect transistors. 2D Materials, 2016, 3, 021003.	4.4	14
108	Graphene electrode with tunable charge transport in thin-film transistors. Nano Research, 2018, 11, 274-286.	10.4	14

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109	Multilevel conductance switching for a monolayer of redox-active metal complexes through various metallic contacts. Journal of Materials Chemistry, 2012, 22, 1868-1875.	6.7	13
110	Doping suppression and mobility enhancement of graphene transistors fabricated using an adhesion promoting dry transfer process. Applied Physics Letters, 2013, 103, .	3.3	13
111	Scanning transmission X-ray microscopy probe forinÂsitumechanism study of graphene-oxide-based resistive random access memory. Journal of Synchrotron Radiation, 2014, 21, 170-176.	2.4	13
112	Technical issues in graphene anode organic light emitting diodes. Diamond and Related Materials, 2015, 57, 68-73.	3.9	13
113	Observation of Wavelength-Dependent Quantum Plasmon Tunneling with Varying the Thickness of Graphene Spacer. Scientific Reports, 2019, 9, 1199.	3.3	13
114	Nanoscale contacts between semiconducting nanowires and metallic graphenes. Applied Physics Letters, 2012, 101, 063122.	3.3	12
115	Varying electronic coupling at grapheneâ€“copper interfaces probed with Raman spectroscopy. 2D Materials, 2020, 7, 025006.	4.4	12
116	Lowâ€Thermalâ€Budget Doping of 2D Materials in Ambient Air Exemplified by Synthesis of Boronâ€Doped Reduced Graphene Oxide. Advanced Science, 2020, 7, 1903318.	11.2	12
117	Current flow through different phases of dodecanethiol self-assembled monolayer. Surface Science, 2005, 583, 88-93.	1.9	11
118	Blue fluorescent organic light emitting diodes with multilayered graphene anode. Materials Research Bulletin, 2012, 47, 2796-2799.	5.2	11
119	Characterization of chemical vapor deposition-grown graphene films with various etchants. Carbon Letters, 2012, 13, 44-47.	5.9	11
120	Wafer-Scale Uniform Growth of an Atomically Thin MoS₂ Film with Controlled Layer Numbers by Metalâ€“Organic Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2021, 13, 50497-50504.	8.0	11
121	Critical role of top interface layer on the bipolar resistive switching of Al/PEDOT:PSS/Al memory device. Current Applied Physics, 2011, 11, e35-e39.	2.4	9
122	Fabrication of poly-Si/Au nano-gaps using atomic-layer-deposited Al2O3as a sacrificial layer. Nanotechnology, 2005, 16, 361-364.	2.6	8
123	Electrochemically active, anti-biofouling polymer adlayers on indium-tin-oxide electrodes. Chemical Communications, 2008, , 3543.	4.1	8
124	Hybrid nanowireâ€“multilayer graphene film light-emitting sources. Nanotechnology, 2010, 21, 425203.	2.6	8
125	Scaling behavior at the onset of chaos in the logistic map driven by colored noise. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 205, 173-178.	2.1	7
126	Use of 1,3-dithiane combined with aryldiazonium cation for immobilization of biomolecules based on electrochemical addressing. Chemical Communications, 2009, , 4865.	4.1	7

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127	Flexible Electronics: Flexible and Transparent Gas Molecule Sensor Integrated with Sensing and Heating Graphene Layers (Small 18/2014). Small, 2014, 10, 3812-3812.	10.0	7
128	Improved electromigration-resistance of Cu interconnects by graphene-based capping layer. , 2015, , .		7
129	A Separate Extraction Method for Asymmetric Source and Drain Resistances Using Frequency-Dispersive C-V Characteristics in Exfoliated MoS₂FET. IEEE Electron Device Letters, 2016, 37, 231-233.	3.9	7
130	Two-dimensional sheet resistance model for polycrystalline graphene with overlapped grain boundaries. FlatChem, 2018, 7, 19-25.	5.6	7
131	The fabrication technique and electrical properties of a free-standing GaN nanowire. Applied Physics A: Materials Science and Processing, 2005, 81, 245-247.	2.3	6
132	Comprehensive Study on the Relation Between Low-Frequency Noise and Asymmetric Parasitic Resistances in a Vertical Pillar-Type FET. IEEE Electron Device Letters, 2017, 38, 1008-1011.	3.9	6
133	Gapâ€Mode Plasmonâ€Induced Photovoltaic Effect in a Vertical Multilayer Graphene Homojunction. Advanced Optical Materials, 2020, 8, 1901519.	7.3	6
134	Metastable quantum dot for photoelectric devices via flash-induced one-step sequential self-formation. Nano Energy, 2021, 84, 105889.	16.0	6
135	Atomically thin Schottky junction with a gap-mode plasmon for enhanced photoresponsivity in MoS2-based photodetectors. Journal Physics D: Applied Physics, 2021, 54, 145301.	2.8	6
136	A Vertical Silicon Nanowire Based Single Transistor Neuron with Excitatory, Inhibitory, and Myelination Functions for Highly Scalable Neuromorphic Hardware. Small, 2021, 17, e2103775.	10.0	6
137	Atomically thin heterostructure with gap-mode plasmon for overcoming trade-off between photoresponsivity and response time. Nano Research, 2021, 14, 1305-1310.	10.4	5
138	Orientations of Polycrystalline ZnO at the Buried Interface of Oxide Thin Film Transistors (TFTs): A Grazing Incidence X-ray Diffraction Study. Bulletin of the Korean Chemical Society, 2008, 29, 727-728.	1.9	5
139	Impedimetric Hg2+Detection on Multilayered Reduced Graphene Oxide-Modified Electrode. Bulletin of the Korean Chemical Society, 2012, 33, 4219-4222.	1.9	5
140	Enhanced surface evolution induced by the molecular desorption in dodecanethiol self-assembled monolayer on Au(111). Surface Science, 2006, 600, 625-631.	1.9	4
141	Aligned Circular-Type Nanowire Transistors Grown on Multilayer Graphene Film. Journal of Physical Chemistry C, 2011, 115, 22163-22167.	3.1	4
142	Experimental study on quantum mechanical effect for insensitivity of threshold voltage against temperature variation in strained SOI MOSFETs. , 2015, , .		4
143	A highly smart MEMS acetone gas sensors in array for diet-monitoring applications. Micro and Nano Systems Letters, 2021, 9, .	3.7	4
144	Enhanced Electrical Properties of Metalâ€Organic Chemical Vapor Depositionâ€Grown MoS₂ Thin Films through Oxygenâ€Assisted Defect Control. Advanced Electronic Materials, 2022, 8, .	5.1	4

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145	Highly Reliable Synaptic Cell Array Based on Organicâ€“Inorganic Hybrid Bilayer Stack toward Precise Offline Learning. Advanced Intelligent Systems, 2022, 4, .	6.1	4
146	Passivation layer effect on the positive bias temperature instability of molybdenum disulfide thin film transistors. Journal of Information Display, 2021, 22, 13-19.	4.0	3
147	Hybrid Gate Dielectric of MoS 2 Transistors for Enhanced Photoâ€Electronic Stability. Advanced Materials Interfaces, 2021, 8, 2100599.	3.7	3
148	LOW TEMPERATURE FABRICATION AND PHYSICAL PROPERTIES OF 5 at.% Ga-DOPED ZnO FILMS FOR TRANSPARENT ELECTRODE APPLICATIONS. Functional Materials Letters, 2010, 03, 101-105.	1.2	2
149	Fabrication of TiO₂ Memristive Arrays by Step and Flash Imprint Lithography. Journal of Nanoscience and Nanotechnology, 2011, 11, 696-700.	0.9	2
150	Large area organic light emitting diodes with multilayered graphene anodes. Proceedings of SPIE, 2012, , .	0.8	2
151	Valley-engineered ultra-thin silicon for high-performance junctionless transistors. Scientific Reports, 2016, 6, 29354.	3.3	2
152	Floating gate memory based on MoS<inf>2</inf> channel and iCVD polymer tunneling dielectric. , 2016, , .		2
153	60â€³: Highâ€Performance MoS₂ Thinâ€Film Transistors for Flexible OLED display. Digest of Technical Papers SID International Symposium, 2018, 49, 797-799.	0.3	2
154	Spatially isolated neutral excitons via clusters on trilayer MoS₂. Nanoscale, 2022, 14, 4304-4311.	5.6	2
155	Fabrication of Nano-Gap Electrode Pairs Using Atomic-Layer-Deposited Sacrificial Layer and Shadow Deposition. Japanese Journal of Applied Physics, 2006, 45, 4293-4295.	1.5	1
156	Graphene Oxide Memory: Direct Observation of Conducting Nanofilaments in Graphene-Oxide-Resistive Switching Memory (Adv. Funct. Mater. 43/2015). Advanced Functional Materials, 2015, 25, 6694-6694.	14.9	1
157	Optical Sintering: Improved Optical Sintering Efficiency at the Contacts of Silver Nanowires Encapsulated by a Graphene Layer (Small 11/2015). Small, 2015, 11, 1356-1356.	10.0	1
158	A feasible strategy to prepare quantum dot-incorporated carbon nanofibers as free-standing platforms. Nanoscale Advances, 2019, 1, 3948-3956.	4.6	1
159	Improving the Efficiency of Flexible Organic Light-emitting Diodes via Alternating High- and Low-index Layers. , 2016, , .		1
160	Highly Reliable Synaptic Cell Array Based on Organicâ€“Inorganic Hybrid Bilayer Stack toward Precise Offline Learning. Advanced Intelligent Systems, 2022, 4, .	6.1	1
161	Large Field Emission from Vertically Well-aligned Carbon Nanotubes. Materials Research Society Symposia Proceedings, 2000, 633, 1491.	0.1	0
162	Micropatterned Vertically Aligned Carbon Nanotube Growth on a Si Surface or inside Trenches for field-emission devices. Materials Research Society Symposia Proceedings, 2001, 706, 1.	0.1	0

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163	Gated carbon nanotube emitters grown on silicon trench wells with a sidewall spacer for stable vacuum microwave devices. , 0, , .		0
164	Gate-controlled active graphene metamaterials at terahertz frequencies. , 2012, , .		0
165	Memristive Devices: Conductive Graphitic Channel in Graphene Oxide-Based Memristive Devices (Adv.) Tj ETQq1 1 0.784314 rgBT /Over	14.9	0
166	Graphene and Two-Dimensional Transition Metal Dichalcogenide Materials for Energy-Related Applications. KAIST Research Series, 2016, , 253-291.	1.5	0
167	Lowâ€Thermalâ€Budget Doping: Lowâ€Thermalâ€Budget Doping of 2D Materials in Ambient Air Exemplified by Synthesis of Boronâ€Doped Reduced Graphene Oxide (Adv. Sci. 7/2020). Advanced Science, 2020, 7, 2070039.	11.2	0
168	Synthesis of Graphene Layers by Inductive Coupled Plasma Enhanced Chemical Vapor Deposition (ICP-CVD) for Application in Optoelectronics. , 2019, , .		0