

Sung-Yool Choi

List of Publications by Citations

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161
papers

7,570
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83
g-index

173
ext. papers

8,583
ext. citations

7.9
avg, IF

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L-index

#	Paper	IF	Citations
161	Switching terahertz waves with gate-controlled active graphene metamaterials. <i>Nature Materials</i> , 2012 , 11, 936-41	27	620
160	Graphene oxide thin films for flexible nonvolatile memory applications. <i>Nano Letters</i> , 2010 , 10, 4381-6	11.5	483
159	Effective liquid-phase exfoliation and sodium ion battery application of MoS ₂ nanosheets. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 7084-9	9.5	379
158	Versatile carbon hybrid films composed of vertical carbon nanotubes grown on mechanically compliant graphene films. <i>Advanced Materials</i> , 2010 , 22, 1247-52	24	282
157	Flexible room-temperature NO ₂ gas sensors based on carbon nanotubes/reduced graphene hybrid films. <i>Applied Physics Letters</i> , 2010 , 96, 213105	3.4	235
156	Flexible memristive memory array on plastic substrates. <i>Nano Letters</i> , 2011 , 11, 5438-42	11.5	227
155	Room-temperature semiconductor gas sensor based on nonstoichiometric tungsten oxide nanorod film. <i>Applied Physics Letters</i> , 2005 , 86, 213105	3.4	217
154	Patterned selective growth of carbon nanotubes and large field emission from vertically well-aligned carbon nanotube field emitter arrays. <i>Applied Physics Letters</i> , 2001 , 78, 901-903	3.4	181
153	Large-area single-layer MoSe ₂ and its van der Waals heterostructures. <i>ACS Nano</i> , 2014 , 8, 6655-62	16.7	177
152	Ambient pressure syntheses of size-controlled corundum-type In ₂ O ₃ nanocubes. <i>Journal of the American Chemical Society</i> , 2006 , 128, 9326-7	16.4	173
151	An electrochemically reduced graphene oxide-based electrochemical immunosensing platform for ultrasensitive antigen detection. <i>Analytical Chemistry</i> , 2012 , 84, 1871-8	7.8	159
150	Nonvolatile Memories Based on Graphene and Related 2D Materials. <i>Advanced Materials</i> , 2019 , 31, e1806663	14.9	145
149	Interface-Engineered Amorphous TiO ₂ -Based Resistive Memory Devices. <i>Advanced Functional Materials</i> , 2010 , 20, 3912-3917	15.6	145
148	Synergetic electrode architecture for efficient graphene-based flexible organic light-emitting diodes. <i>Nature Communications</i> , 2016 , 7, 11791	17.4	134
147	V-shaped tin oxide nanostructures featuring a broad photocurrent signal: an effective visible-light-driven photocatalyst. <i>Small</i> , 2006 , 2, 1436-9	11	131
146	Flexible Resistive Switching Memory Device Based on Graphene Oxide. <i>IEEE Electron Device Letters</i> , 2010 , 31, 1005-1007	4.4	126
145	Flexible and transparent gas molecule sensor integrated with sensing and heating graphene layers. <i>Small</i> , 2014 , 10, 3685-91	11	123

144	Surface energy modification by spin-cast, large-area graphene film for block copolymer lithography. <i>ACS Nano</i> , 2010 , 4, 5464-70	16.7	122
143	Graphene-based plasmonic waveguides for photonic integrated circuits. <i>Optics Express</i> , 2011 , 19, 24557-63	9.3	120
142	Antibacterial Activities of Graphene Oxide-Molybdenum Disulfide Nanocomposite Films. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 7908-7917	9.5	115
141	A low-temperature-grown TiO ₂ -based device for the flexible stacked RRAM application. <i>Nanotechnology</i> , 2010 , 21, 115203	3.4	100
140	Rapid vapor-phase fabrication of organic-inorganic hybrid superlattices with monolayer precision. <i>Journal of the American Chemical Society</i> , 2007 , 129, 16034-41	16.4	98
139	Microscopic origin of bipolar resistive switching of nanoscale titanium oxide thin films. <i>Applied Physics Letters</i> , 2009 , 95, 162108	3.4	97
138	Polymer Analog Memristive Synapse with Atomic-Scale Conductive Filament for Flexible Neuromorphic Computing System. <i>Nano Letters</i> , 2019 , 19, 839-849	11.5	84
137	First Demonstration of a Logic-Process Compatible Junctionless Ferroelectric FinFET Synapse for Neuromorphic Applications. <i>IEEE Electron Device Letters</i> , 2018 , 39, 1445-1448	4.4	81
136	Low-Thermal-Budget Doping: Low-Thermal-Budget Doping of 2D Materials in Ambient Air Exemplified by Synthesis of Boron-Doped Reduced Graphene Oxide (Adv. Sci. 7/2020). <i>Advanced Science</i> , 2020 , 7, 2070039	13.6	78
135	Structure Effects on Resistive Switching of $\text{Al}/\text{TiO}_x/\text{Al}$ Devices for RRAM Applications. <i>IEEE Electron Device Letters</i> , 2008 , 29, 331-333	4.4	72
134	Improved optical sintering efficiency at the contacts of silver nanowires encapsulated by a graphene layer. <i>Small</i> , 2015 , 11, 1293-300	11	65
133	Effective shape-controlled growth of monolayer MoS ₂ flakes by powder-based chemical vapor deposition. <i>Nano Research</i> , 2017 , 10, 255-262	10	64
132	ZnO-CuO Core-Hollow Cube Nanostructures for Highly Sensitive Acetone Gas Sensors at the ppb Level. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 35688-35697	9.5	63
131	DNA-Assisted Exfoliation of Tungsten Dichalcogenides and Their Antibacterial Effect. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 1943-50	9.5	62
130	Characterization of Fe-catalyzed carbon nanotubes grown by thermal chemical vapor deposition. <i>Journal of Crystal Growth</i> , 2002 , 244, 211-217	1.6	55
129	Ultrasensitive Phototransistor Based on WSe-MoS van der Waals Heterojunction. <i>Nano Letters</i> , 2020 , 20, 5741-5748	11.5	54
128	Solution-processed reduced graphene oxide films as electronic contacts for molecular monolayer junctions. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 108-12	16.4	54
127	Comprehensive modeling of resistive switching in the Al/TiO _x /TiO ₂ /Al heterostructure based on space-charge-limited conduction. <i>Applied Physics Letters</i> , 2010 , 97, 033508	3.4	54

126	Multilayered graphene anode for blue phosphorescent organic light emitting diodes. <i>Applied Physics Letters</i> , 2012 , 100, 133304	3.4	54
125	Direct Observation of Conducting Nanofilaments in Graphene-Oxide-Resistive Switching Memory. <i>Advanced Functional Materials</i> , 2015 , 25, 6710-6715	15.6	52
124	V2O5 nanowire-based nanoelectronic devices for helium detection. <i>Applied Physics Letters</i> , 2005 , 86, 253102	3.4	51
123	Metal-etching-free direct delamination and transfer of single-layer graphene with a high degree of freedom. <i>Small</i> , 2015 , 11, 175-81	11	49
122	Flexible Nonvolatile Polymer Memory Array on Plastic Substrate via Initiated Chemical Vapor Deposition. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 12951-8	9.5	49
121	Multilevel resistive switching nonvolatile memory based on MoS ₂ nanosheet-embedded graphene oxide. <i>2D Materials</i> , 2016 , 3, 034002	5.9	48
120	Functional Circuitry on Commercial Fabric via Textile-Compatible Nanoscale Film Coating Process for Fibertronics. <i>Nano Letters</i> , 2017 , 17, 6443-6452	11.5	47
119	Bipolar resistive switching in amorphous titanium oxide thin film. <i>Physica Status Solidi - Rapid Research Letters</i> , 2010 , 4, 28-30	2.5	47
118	Laser-induced phase separation of silicon carbide. <i>Nature Communications</i> , 2016 , 7, 13562	17.4	47
117	A graphene oxide oxygen barrier film deposited via a self-assembly coating method. <i>Synthetic Metals</i> , 2012 , 162, 710-714	3.6	46
116	Role of Interface Reaction on Resistive Switching of Metal/Amorphous TiO ₂ /Al RRAM Devices. <i>Journal of the Electrochemical Society</i> , 2011 , 158, H979	3.9	46
115	Flexible and Transparent Graphene Electrode Architecture with Selective Defect Decoration for Organic Light-Emitting Diodes. <i>Advanced Functional Materials</i> , 2018 , 28, 1704435	15.6	45
114	Conductive Graphitic Channel in Graphene Oxide-Based Memristive Devices. <i>Advanced Functional Materials</i> , 2016 , 26, 7406-7414	15.6	42
113	Large-scale synthesis of uniform hexagonal boron nitride films by plasma-enhanced atomic layer deposition. <i>Scientific Reports</i> , 2017 , 7, 40091	4.9	41
112	Laser-induced solid-phase doped graphene. <i>ACS Nano</i> , 2014 , 8, 7671-7	16.7	41
111	Gadolinium Oxide Nanoring and Nanoplate: Anisotropic Shape Control. <i>Crystal Growth and Design</i> , 2007 , 7, 1378-1380	3.5	40
110	Healing Graphene Defects Using Selective Electrochemical Deposition: Toward Flexible and Stretchable Devices. <i>ACS Nano</i> , 2016 , 10, 1539-45	16.7	37
109	Memristive Logic-in-Memory Integrated Circuits for Energy-Efficient Flexible Electronics. <i>Advanced Functional Materials</i> , 2018 , 28, 1704725	15.6	37

108	Si-MoS Vertical Heterojunction for a Photodetector with High Responsivity and Low Noise Equivalent Power. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 7626-7634	9.5	36
107	Flexible NO ₂ gas sensor using multilayer graphene films by chemical vapor deposition. <i>Carbon Letters</i> , 2013 , 14, 186-189	2.3	35
106	Sonochemical synthesis of HKUST-1-based CuO decorated with Pt nanoparticles for formaldehyde gas-sensor applications. <i>Sensors and Actuators B: Chemical</i> , 2019 , 292, 289-296	8.5	33
105	Direct observation of microscopic change induced by oxygen vacancy drift in amorphous TiO ₂ thin films. <i>Applied Physics Letters</i> , 2010 , 97, 042109	3.4	33
104	Conduction and Low-Frequency Noise Analysis in $\frac{Al}{\alpha-TiO_2}/Al$ Bipolar Switching Resistance Random Access Memory Devices. <i>IEEE Electron Device Letters</i> , 2010 , 31, 603-605	4.4	32
103	Zero-static-power nonvolatile logic-in-memory circuits for flexible electronics. <i>Nano Research</i> , 2017 , 10, 2459-2470	10	31
102	Tuning the catalytic functionality of transition metal dichalcogenides grown by chemical vapour deposition. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 14950-14968	13	31
101	Chemically exfoliated 1T-phase transition metal dichalcogenide nanosheets for transparent antibacterial applications. <i>2D Materials</i> , 2019 , 6, 025025	5.9	31
100	TFT Channel Materials for Display Applications: From Amorphous Silicon to Transition Metal Dichalcogenides. <i>Advanced Materials</i> , 2020 , 32, e1907166	24	30
99	Sublithographic vertical gold nanogap for label-free electrical detection of protein-ligand binding. <i>Journal of Vacuum Science & Technology B</i> , 2007 , 25, 443		30
98	Low-Power Nonvolatile Charge Storage Memory Based on MoS ₂ and an Ultrathin Polymer Tunneling Dielectric. <i>Advanced Functional Materials</i> , 2017 , 27, 1703545	15.6	29
97	Multilayer Graphene with a Rippled Structure as a Spacer for Improving Plasmonic Coupling. <i>Advanced Functional Materials</i> , 2016 , 26, 5093-5101	15.6	28
96	Large-Area CVD-Grown MoS ₂ Driver Circuit Array for Flexible Organic Light-Emitting Diode Display. <i>Advanced Electronic Materials</i> , 2018 , 4, 1800251	6.4	28
95	Functionalized graphene as an ultrathin seed layer for the atomic layer deposition of conformal high-k dielectrics on graphene. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 11515-9	9.5	27
94	Friction and conductance imaging of sp ⁽²⁾ - and sp ⁽³⁾ -hybridized subdomains on single-layer graphene oxide. <i>Nanoscale</i> , 2016 , 8, 4063-9	7.7	26
93	Carrier injection efficiencies and energy level alignments of multilayer graphene anodes for organic light-emitting diodes with different hole injection layers. <i>Carbon</i> , 2014 , 79, 623-630	10.4	26
92	Improved Electrical Contact Properties of MoS ₂ -Graphene Lateral Heterostructure. <i>Advanced Functional Materials</i> , 2019 , 29, 1807550	15.6	26
91	Self-Supplied Nano-Fusing and Transferring Metal Nanostructures via Surface Oxide Reduction. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 1112-9	9.5	25

90	Facile graphene n-doping by wet chemical treatment for electronic applications. <i>Nanoscale</i> , 2014 , 6, 8503-8	3.8	25
89	Pyridinic-N-Doped Graphene Paper from Perforated Graphene Oxide for Efficient Oxygen Reduction. <i>ACS Omega</i> , 2018 , 3, 5522-5530	3.9	25
88	Graphene transparent electrode for enhanced optical power and thermal stability in GaN light-emitting diodes. <i>Nanotechnology</i> , 2013 , 24, 075202	3.4	24
87	Effects of oxygen concentration on the electrical properties of ZnO films. <i>Ceramics International</i> , 2008 , 34, 1097-1101	5.1	24
86	A Low-Voltage Organic Complementary Inverter with High Operation Stability and Flexibility Using an Ultrathin iCVD Polymer Dielectric and a Hybrid Encapsulation Layer. <i>Advanced Electronic Materials</i> , 2016 , 2, 1500385	6.4	24
85	Vertical-Tunnel Field-Effect Transistor Based on a Silicon-MoS Three-Dimensional-Two-Dimensional Heterostructure. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 40212-40218	9.5	24
84	Bipolar resistive switching characteristics of poly(3,4-ethylene-dioxythiophene): Poly(styrenesulfonate) thin film. <i>Current Applied Physics</i> , 2010 , 10, e46-e49	2.6	23
83	Impact of amorphous titanium oxide film on the device stability of Al/TiO ₂ /Al resistive memory. <i>Applied Physics A: Materials Science and Processing</i> , 2011 , 102, 967-972	2.6	22
82	A Recoverable Synapse Device Using a Three-Dimensional Silicon Transistor. <i>Advanced Functional Materials</i> , 2018 , 28, 1804844	15.6	22
81	Conductive-bridging random-access memories for emerging neuromorphic computing. <i>Nanoscale</i> , 2020 , 12, 14339-14368	7.7	18
80	Ultra-low power, highly uniform polymer memory by inserted multilayer graphene electrode. <i>2D Materials</i> , 2015 , 2, 044013	5.9	18
79	Cross-sectional transmission electron microscopy of carbon nanotubes/catalyst/substrate heterostructure using a novel method for specimen preparation. <i>Thin Solid Films</i> , 2002 , 415, 78-82	2.2	18
78	Bioinspired Polydopamine-Based Resistive-Switching Memory on Cotton Fabric for Wearable Neuromorphic Device Applications. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900151	6.8	17
77	Large field emission current density from well-aligned carbon nanotube field emitter arrays. <i>Current Applied Physics</i> , 2001 , 1, 61-65	2.6	17
76	Atomic-scale etching of hexagonal boron nitride for device integration based on two-dimensional materials. <i>Nanoscale</i> , 2018 , 10, 15205-15212	7.7	17
75	Large-Scale, Low-Power Nonvolatile Memory Based on Few-Layer MoS ₂ and Ultrathin Polymer Dielectrics. <i>Advanced Electronic Materials</i> , 2019 , 5, 1800688	6.4	16
74	Interface engineering for high performance graphene electronic devices. <i>Nano Convergence</i> , 2015 , 2, 11	9.2	15
73	Stretchable thin-film transistors with molybdenum disulfide channels and graphene electrodes. <i>Nanoscale</i> , 2018 , 10, 16069-16078	7.7	15

72	High performance graphene field effect transistors on an aluminum nitride substrate with high surface phonon energy. <i>Applied Physics Letters</i> , 2014 , 104, 193112	3.4	15
71	Graphene-based photonic devices for soft hybrid optoelectronic systems. <i>Nanotechnology</i> , 2012 , 23, 344005	3.4	15
70	Synthesis and characterization of monomeric, oligomeric, and polymeric aluminum 8-hydroxyquinolines. <i>Inorganic Chemistry</i> , 2005 , 44, 7911-7	5.1	15
69	Selective protein transport through ultra-thin suspended reduced graphene oxide nanopores. <i>Nanoscale</i> , 2017 , 9, 13457-13464	7.7	14
68	Order-of-Magnitude, Broadband-Enhanced Light Emission from Quantum Dots Assembled in Multiscale Phase-Separated Block Copolymers. <i>Nano Letters</i> , 2019 , 19, 6827-6838	11.5	14
67	Abnormal electrical characteristics of multi-layered MoS ₂ FETs attributed to bulk traps. <i>2D Materials</i> , 2016 , 3, 015007	5.9	14
66	Flexible and Transparent Thin-Film Transistors Based on Two-Dimensional Materials for Active-Matrix Display. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 4749-4754	9.5	14
65	Polymer-free graphene transfer for enhanced reliability of graphene field-effect transistors. <i>2D Materials</i> , 2016 , 3, 021003	5.9	14
64	Graphene electrode with tunable charge transport in thin-film transistors. <i>Nano Research</i> , 2018 , 11, 274-286	14	14
63	Vertical-tunneling field-effect transistor based on MoTe ₂ /MoS ₂ 2D heterojunction. <i>Journal of Physics D: Applied Physics</i> , 2018 , 51, 475101	3	14
62	Cointegration of single-transistor neurons and synapses by nanoscale CMOS fabrication for highly scalable neuromorphic hardware. <i>Science Advances</i> , 2021 , 7,	14.3	14
61	Doping suppression and mobility enhancement of graphene transistors fabricated using an adhesion promoting dry transfer process. <i>Applied Physics Letters</i> , 2013 , 103, 243504	3.4	13
60	Multilevel conductance switching for a monolayer of redox-active metal complexes through various metallic contacts. <i>Journal of Materials Chemistry</i> , 2012 , 22, 1868-1875		13
59	Adsorption behavior of binary mixed alkanethiol molecules on Au: Scanning tunneling microscope and linear-scan voltammetry investigation. <i>Applied Surface Science</i> , 2006 , 252, 4951-4956	6.7	13
58	Nanoscale contacts between semiconducting nanowires and metallic graphenes. <i>Applied Physics Letters</i> , 2012 , 101, 063122	3.4	11
57	Blue fluorescent organic light emitting diodes with multilayered graphene anode. <i>Materials Research Bulletin</i> , 2012 , 47, 2796-2799	5.1	11
56	Current flow through different phases of dodecanethiol self-assembled monolayer. <i>Surface Science</i> , 2005 , 583, 88-93	1.8	11
55	Characterization of chemical vapor deposition-grown graphene films with various etchants. <i>Carbon Letters</i> , 2012 , 13, 44-47	2.3	11

54	Observation of Wavelength-Dependent Quantum Plasmon Tunneling with Varying the Thickness of Graphene Spacer. <i>Scientific Reports</i> , 2019 , 9, 1199	4.9	10
53	Technical issues in graphene anode organic light emitting diodes. <i>Diamond and Related Materials</i> , 2015 , 57, 68-73	3.5	10
52	Vertical-Tunneling Field-Effect Transistor Based on WSe ₂ -MoS ₂ Heterostructure with Ion Gel Dielectric. <i>Advanced Electronic Materials</i> , 2020 , 6, 2000091	6.4	10
51	Synthesis of Ultrathin Metal Nanowires with Chemically Exfoliated Tungsten Disulfide Nanosheets. <i>Nano Letters</i> , 2020 , 20, 3740-3746	11.5	10
50	Scanning transmission X-ray microscopy probe for in situ mechanism study of graphene-oxide-based resistive random access memory. <i>Journal of Synchrotron Radiation</i> , 2014 , 21, 170-174	2.4	10
49	Photoconductivity Switching in MoTe/Graphene Heterostructure by Trap-Assisted Photogating. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 38563-38569	9.5	10
48	Probing temperature-dependent interlayer coupling in a MoS ₂ /h-BN heterostructure. <i>Nano Research</i> , 2020 , 13, 576-582	10	9
47	Electrochemically active, anti-biofouling polymer adlayers on indium-tin-oxide electrodes. <i>Chemical Communications</i> , 2008 , 3543-5	5.8	8
46	High-Performance Field-Effect Transistor and Logic Gates Based on GaS-MoS van der Waals Heterostructure. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 5106-5112	9.5	8
45	Flexible Electronics: Flexible and Transparent Gas Molecule Sensor Integrated with Sensing and Heating Graphene Layers (Small 18/2014). <i>Small</i> , 2014 , 10, 3812-3812	11	7
44	Critical role of top interface layer on the bipolar resistive switching of Al/PEDOT:PSS/Al memory device. <i>Current Applied Physics</i> , 2011 , 11, e35-e39	2.6	7
43	Hybrid nanowire-multilayer graphene film light-emitting sources. <i>Nanotechnology</i> , 2010 , 21, 425203	3.4	7
42	Scaling behavior at the onset of chaos in the logistic map driven by colored noise. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1995 , 205, 173-178	2.3	7
41	Low-Temperature and High-Quality Growth of BiOSe Layered Semiconductors Cracking Metal-Organic Chemical Vapor Deposition. <i>ACS Nano</i> , 2021 , 15, 8715-8723	16.7	7
40	Use of 1,3-dithiane combined with aryldiazonium cation for immobilization of biomolecules based on electrochemical addressing. <i>Chemical Communications</i> , 2009 , 4865-7	5.8	6
39	The fabrication technique and electrical properties of a free-standing GaN nanowire. <i>Applied Physics A: Materials Science and Processing</i> , 2005 , 81, 245-247	2.6	6
38	Varying electronic coupling at graphene-copper interfaces probed with Raman spectroscopy. <i>2D Materials</i> , 2020 , 7, 025006	5.9	6
37	Enhanced Triboelectric Nanogenerator Based on Tungsten Disulfide via Thiolated Ligand Conjugation. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 21299-21309	9.5	6

36	A Separate Extraction Method for Asymmetric Source and Drain Resistances Using Frequency-Dispersive $\zeta\zeta\zeta\zeta$ Characteristics in Exfoliated MoS ₂ FET. <i>IEEE Electron Device Letters</i> , 2016 , 37, 231-233	4.4	5
35	Orientations of Polycrystalline ZnO at the Buried Interface of Oxide Thin Film Transistors (TFTs): A Grazing Incidence X-ray Diffraction Study. <i>Bulletin of the Korean Chemical Society</i> , 2008 , 29, 727-728	1.2	5
34	Impedimetric Hg ²⁺ Detection on Multilayered Reduced Graphene Oxide-Modified Electrode. <i>Bulletin of the Korean Chemical Society</i> , 2012 , 33, 4219-4222	1.2	5
33	Metastable quantum dot for photoelectric devices via flash-induced one-step sequential self-formation. <i>Nano Energy</i> , 2021 , 84, 105889	17.1	5
32	Comprehensive Study on the Relation Between Low-Frequency Noise and Asymmetric Parasitic Resistances in a Vertical Pillar-Type FET. <i>IEEE Electron Device Letters</i> , 2017 , 38, 1008-1011	4.4	4
31	Experimental study on quantum mechanical effect for insensitivity of threshold voltage against temperature variation in strained SOI MOSFETs 2015 ,		4
30	Improved electromigration-resistance of Cu interconnects by graphene-based capping layer 2015 ,		4
29	Aligned Circular-Type Nanowire Transistors Grown on Multilayer Graphene Film. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 22163-22167	3.8	4
28	Fabrication of poly-Si/Au nano-gaps using atomic-layer-deposited Al ₂ O ₃ as a sacrificial layer. <i>Nanotechnology</i> , 2005 , 16, 361-364	3.4	4
27	Low-Thermal-Budget Doping of 2D Materials in Ambient Air Exemplified by Synthesis of Boron-Doped Reduced Graphene Oxide. <i>Advanced Science</i> , 2020 , 7, 1903318	13.6	3
26	Two-dimensional sheet resistance model for polycrystalline graphene with overlapped grain boundaries. <i>FlatChem</i> , 2018 , 7, 19-25	5.1	3
25	Solution-Processed Reduced Graphene Oxide Films as Electronic Contacts for Molecular Monolayer Junctions. <i>Angewandte Chemie</i> , 2012 , 124, 112-116	3.6	3
24	Enhanced surface evolution induced by the molecular desorption in dodecanethiol self-assembled monolayer on Au(1 1 1). <i>Surface Science</i> , 2006 , 600, 625-631	1.8	3
23	Atomically thin heterostructure with gap-mode plasmon for overcoming trade-off between photoresponsivity and response time. <i>Nano Research</i> , 2021 , 14, 1305-1310	10	3
22	Gap-Mode Plasmon-Induced Photovoltaic Effect in a Vertical Multilayer Graphene Homojunction. <i>Advanced Optical Materials</i> , 2020 , 8, 1901519	8.1	3
21	Ultrasensitive WSe ₂ /In ₂ Se ₃ NIR Photodetector Based on Ferroelectric Gating Effect. <i>Advanced Materials Technologies</i> , 2021 , 6, 2100494	6.8	3
20	Valley-engineered ultra-thin silicon for high-performance junctionless transistors. <i>Scientific Reports</i> , 2016 , 6, 29354	4.9	2
19	Floating gate memory based on MoS ₂ channel and iCVD polymer tunneling dielectric 2016 ,		2

18	Large area organic light emitting diodes with multilayered graphene anodes 2012 ,		2
17	Fabrication of TiO ₂ memristive arrays by step and flash imprint lithography. <i>Journal of Nanoscience and Nanotechnology</i> , 2011 , 11, 696-700	1.3	2
16	LOW TEMPERATURE FABRICATION AND PHYSICAL PROPERTIES OF 5 at.% Ga-DOPED ZnO FILMS FOR TRANSPARENT ELECTRODE APPLICATIONS. <i>Functional Materials Letters</i> , 2010 , 03, 101-105	1.2	2
15	A Vertical Silicon Nanowire Based Single Transistor Neuron with Excitatory, Inhibitory, and Myelination Functions for Highly Scalable Neuromorphic Hardware. <i>Small</i> , 2021 , 17, e2103775	11	2
14	Wafer-Scale Uniform Growth of an Atomically Thin MoS Film with Controlled Layer Numbers by Metal-Organic Chemical Vapor Deposition. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 50497-50504	9.5	2
13	Hybrid Gate Dielectric of MoS ₂ Transistors for Enhanced Photo-Electronic Stability. <i>Advanced Materials Interfaces</i> , 2021 , 8, 2100599	4.6	2
12	60-3: High-Performance MoS ₂ Thin-Film Transistors for Flexible OLED display. <i>Digest of Technical Papers SID International Symposium</i> , 2018 , 49, 797-799	0.5	2
11	Atomically thin Schottky junction with a gap-mode plasmon for enhanced photoresponsivity in MoS ₂ -based photodetectors. <i>Journal Physics D: Applied Physics</i> , 2021 , 54, 145301	3	2
10	A feasible strategy to prepare quantum dot-incorporated carbon nanofibers as free-standing platforms. <i>Nanoscale Advances</i> , 2019 , 1, 3948-3956	5.1	1
9	Graphene Oxide Memory: Direct Observation of Conducting Nanofilaments in Graphene-Oxide-Resistive Switching Memory (Adv. Funct. Mater. 43/2015). <i>Advanced Functional Materials</i> , 2015 , 25, 6694-6694	15.6	1
8	Optical Sintering: Improved Optical Sintering Efficiency at the Contacts of Silver Nanowires Encapsulated by a Graphene Layer (Small 11/2015). <i>Small</i> , 2015 , 11, 1356-1356	11	1
7	Passivation layer effect on the positive bias temperature instability of molybdenum disulfide thin film transistors. <i>Journal of Information Display</i> , 2021 , 22, 13-19	4.1	1
6	Enhanced Electrical Properties of Metal-Organic Chemical Vapor Deposition-Grown MoS ₂ Thin Films through Oxygen-Assisted Defect Control. <i>Advanced Electronic Materials</i> , 2101325	6.4	1
5	Highly Reliable Synaptic Cell Array Based on Organic/Inorganic Hybrid Bilayer Stack toward Precise Offline Learning. <i>Advanced Intelligent Systems</i> , 2200018	6	0
4	Graphene and Two-Dimensional Transition Metal Dichalcogenide Materials for Energy-Related Applications. <i>KAIST Research Series</i> , 2016 , 253-291		
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