# Young Hee Lee

## List of Publications by Year in Descending Order



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| 294 papers | 21,653 citations | 71 h-index | 142 g-index |
| 328 ext. papers | 25,234 ext. citations | 12.1 avg, IF | 7.08 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 294 | Non-oxidized bare copper nanoparticles with surface excess electrons in air.. *Nature Nanotechnology*, **2022**, | 28.7 | 2 |
| 293 | Locally enhanced light□matter interaction of MoS2 monolayers at density-controllable nanogrooves of template-stripped Ag films. *Current Applied Physics*, **2022**, 33, 59-65 | 2.6 | 3 |
| 292 | Unusually large exciton binding energy in multilayered 2H-MoTe.. *Scientific Reports*, **2022**, 12, 4543 | 4.9 | 0 |
| 291 | Large-scale synthesis of graphene and other 2D materials towards industrialization.. *Nature Communications*, **2022**, 13, 1484 | 17.4 | 8 |
| 290 | Flat-surface-assisted and self-regulated oxidation resistance of Cu(111).. *Nature*, **2022**, 603, 434-438 | 50.4 | 4 |
| 289 | Escalating ferromagnetic order via Se-vacancy near vanadium in WSe monolayer.. *Advanced Materials*, **2021**, e2106551 | 24 | 4 |
| 288 | Quantum sensing of thermoelectric power in low-dimensional materials. *Advanced Materials*, **2021**, e2106871 | 24 | 0 |
| 287 | Gate-Tunable Magnetism via Resonant Se-Vacancy Levels in WSe. *Advanced Science*, **2021**, e2102911 | 13.6 | 2 |
| 286 | Harnessing Thermoelectric Puddles the Stacking Order and Electronic Screening in Graphene. *ACS Nano*, **2021**, 15, 5397-5404 | 16.7 | 1 |
| 285 | Two-Dimensional Cold Electron Transport for Steep-Slope Transistors. *ACS Nano*, **2021**, 15, 5762-5772 | 16.7 | 6 |
| 284 | Evidence of itinerant holes for long-range magnetic order in the tungsten diselenide semiconductor with vanadium dopants. *Physical Review B*, **2021**, 103, | 3.3 | 6 |
| 283 | Epitaxial Single-Crystal Growth of Transition Metal Dichalcogenide Monolayers via the Atomic Sawtooth Au Surface. *Advanced Materials*, **2021**, 33, e2006601 | 24 | 21 |
| 282 | Color of Copper/Copper Oxide. *Advanced Materials*, **2021**, 33, e2007345 | 24 | 10 |
| 281 | Selective Pattern Growth of Atomically Thin MoSe Films via a Surface-Mediated Liquid-Phase Promoter. *ACS Applied Materials & Interfaces*, **2021**, 13, 18056-18064 | 9.5 | 3 |
| 280 | Multiple Magnetic Phases in Van Der Waals Mn-Doped SnS2 Semiconductor. *Advanced Functional Materials*, **2021**, 31, 2102560 | 15.6 | 6 |
| 279 | Sub-bandgap activated charges transfer in a graphene-MoS2-graphene heterostructure. *Nano Select*, **2021**, 2, 2019 | 3.1 | 3 |
| 278 | Enhanced magnetic moment with cobalt dopant in SnS2 semiconductor. *APL Materials*, **2021**, 9, 051106 | 5.7 | 2 |

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| 277 | Infrared Proximity Sensors Based on Photo-Induced Tunneling in van der Waals Integration. *Advanced Functional Materials*, **2021**, 31, 2100966 | 15.6 | 2 |
| 276 | Substitutional Vanadium Sulfide Nanodispersed in MoS Film for Pt-Scalable Catalyst. *Advanced Science*, **2021**, 8, e2003709 | 13.6 | 6 |
| 275 | Deep Learning-Assisted Quantification of Atomic Dopants and Defects in 2D Materials. *Advanced Science*, **2021**, 8, e2101099 | 13.6 | 6 |
| 274 | Carbon nanotube (CNT) metal composites exhibit greatly reduced radiation damage. *Acta Materialia*, **2021**, 203, 116483 | 8.4 | 12 |
| 273 | Identifying Defect-Induced Trion in Monolayer WS Carrier Screening Engineering. *ACS Nano*, **2021**, 15, 2849-2857 | 16.7 | 5 |
| 272 | Band restructuring of ordered/disordered blue TiO2 for visible light photocatalysis. *Journal of Materials Chemistry A*, **2021**, 9, 4822-4830 | 13 | 7 |
| 271 | Hot carrier photovoltaics in van der Waals heterostructures. *Nature Reviews Physics*, **2021**, 3, 178-192 | 23.6 | 32 |
| 270 | Probing giant Zeeman shift in vanadium-doped WSe2 via resonant magnetotunneling transport. *Physical Review B*, **2021**, 103, | 3.3 | 3 |
| 269 | Ideal PN photodiode using doping controlled WSe2/MoSe2 lateral heterostructure. *Journal of Materials Chemistry C*, **2021**, 9, 3504-3512 | 7.1 | 5 |
| 268 | Escalated Photocurrent with Excitation Energy in Dual-Gated MoTe. *Nano Letters*, **2021**, 21, 1976-1981 | 11.5 | 1 |
| 267 | Real-space imaging of acoustic plasmons in large-area graphene grown by chemical vapor deposition. *Nature Communications*, **2021**, 12, 938 | 17.4 | 11 |
| 266 | Fabrication of 1D Te/2D ReS Mixed-Dimensional van der Waals Heterojunction for High-Performance Phototransistor. *ACS Nano*, **2021**, 15, 3241-3250 | 16.7 | 30 |
| 265 | Aharonov-Bohm effect in graphene-based Fabry-Pot quantum Hall interferometers. *Nature Nanotechnology*, **2021**, 16, 563-569 | 28.7 | 10 |
| 264 | Antiperovskite Gd SnC: Unusual Coexistence of Ferromagnetism and Heavy Fermions in Gd Lattice. *Advanced Materials*, **2021**, 33, e2102958 | 24 | 0 |
| 263 | One-Step Synthesis of NbSe/Nb-Doped-WSe Metal/Doped-Semiconductor van der Waals Heterostructures for Doping Controlled Ohmic Contact. *ACS Nano*, **2021**, | 16.7 | 8 |
| 262 | Simultaneous enhancement of specific capacitance and potential window of graphene-based electric double-layer capacitors using ferroelectric polymers. *Journal of Power Sources*, **2021**, 507, 230268 | 8.9 | 1 |
| 261 | Enhancement in optically induced ultrafast THz response of MoSeMoS heterobilayer. *Optics Express*, **2021**, 29, 4181-4190 | 3.3 | 5 |
| 260 | Photoinduced Tuning of Schottky Barrier Height in Graphene/MoS Heterojunction for Ultrahigh Performance Short Channel Phototransistor. *ACS Nano*, **2020**, 14, 7574-7580 | 16.7 | 16 |

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| 259 | Gate modulation of the long-range magnetic order in a vanadium-doped WSe2 semiconductor. *AIP Advances*, **2020**, 10, 065220 | 1.5 | 5 |
| 258 | Evidence of shallow band gap in ultrathin 1T?MoTe2 via infrared spectroscopy. *Physical Review B*, **2020**, 101, | 3.3 | 2 |
| 257 | Tailoring Domain Morphology in Monolayer NbSe and WNbSe Heterostructure. *ACS Nano*, **2020**, 14, 8784-8792 | 14.7 | 13 |
| 256 | An active carbon-nanotube polarizer-embedded electrode and liquid-crystal alignment. *Nanoscale*, **2020**, 12, 17698-17702 | 7.7 | 4 |
| 255 | Ferromagnetic Order at Room Temperature in Monolayer WSe Semiconductor via Vanadium Dopant. *Advanced Science*, **2020**, 7, 1903076 | 13.6 | 74 |
| 254 | Ferromagnetic quasi-atomic electrons in two-dimensional electride. *Nature Communications*, **2020**, 11, 1526 | 17.4 | 25 |
| 253 | Monodispersed SnS nanoparticles anchored on carbon nanotubes for high-retention sodium-ion batteries. *Journal of Materials Chemistry A*, **2020**, 8, 7861-7869 | 13 | 40 |
| 252 | Identifying Fibrillization State of A Protein Near-Field THz Conductance Measurement. *ACS Nano*, **2020**, 14, 6548-6558 | 16.7 | 13 |
| 251 | Carrier Multiplication in PbS Quantum Dots Anchored on a Au Tip using Conductive Atomic Force Microscopy. *Advanced Materials*, **2020**, 32, e1908461 | 24 | 3 |
| 250 | Unveiling the Hot Carrier Distribution in Vertical Graphene/h-BN/Au van der Waals Heterostructures for High-Performance Photodetector. *ACS Applied Materials & Interfaces*, **2020**, 12, 10772-10780 | 9.5 | 24 |
| 249 | Temperature dependence of velocity saturation in a multilayer molybdenum disulfide transistor. *Semiconductor Science and Technology*, **2020**, 35, 035030 | 1.8 | 1 |
| 248 | Transfer assembly for two-dimensional van der Waals heterostructures. *2D Materials*, **2020**, 7, 022005 | 5.9 | 54 |
| 247 | Wafer-scale high-quality Ag thin film using a ZnO buffer layer for plasmonic applications. *Applied Surface Science*, **2020**, 512, 145705 | 6.7 | 2 |
| 246 | How Clean Is Clean? Recipes for van der Waals Heterostructure Cleanliness Assessment. *ACS Applied Materials & Interfaces*, **2020**, 12, 7701-7709 | 9.5 | 8 |
| 245 | Multi-layered carbon nanotube UV polariser for photo-alignment of liquid crystals. *Liquid Crystals*, **2020**, 47, 1604-1611 | 2.3 | 4 |
| 244 | PbS Quantum Dots: Carrier Multiplication in PbS Quantum Dots Anchored on a Au Tip using Conductive Atomic Force Microscopy (Adv. Mater. 17/2020). *Advanced Materials*, **2020**, 32, 2070130 | 24 | |
| 243 | Quantitative insights into the growth mechanisms of nanopores in hexagonal boron nitride. *Physical Review Materials*, **2020**, 4, | 3.2 | 5 |
| 242 | Disentangling oxygen and water vapor effects on optoelectronic properties of monolayer tungsten disulfide. *Nanoscale*, **2020**, 12, 8344-8354 | 7.7 | 4 |

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| 241 | Ultrashort Vertical-Channel van der Waals Semiconductor Transistors. *Advanced Science*, **2020**, 7, 1902964 | 13.6 | 10 |
| 240 | Measuring Photoexcited Free Charge Carriers in Mono- to Few-Layer Transition-Metal Dichalcogenides with Steady-State Microwave Conductivity. *Journal of Physical Chemistry Letters*, **2020**, 11, 99-107 | 6.4 | 6 |
| 239 | Time Evolution Studies on Strain and Doping of Graphene Grown on a Copper Substrate Using Raman Spectroscopy. *ACS Nano*, **2020**, 14, 919-926 | 16.7 | 26 |
| 238 | Tailoring Quantum Tunneling in a Vanadium-Doped WSe/SnSe Heterostructure. *Advanced Science*, **2020**, 7, 1902751 | 13.6 | 35 |
| 237 | Growth Mechanism of Alternating Defect Domains in Hexagonal WS via Inhomogeneous W-Precursor Accumulation. *Small*, **2020**, 16, e2003326 | 11 | 6 |
| 236 | Schottky-barrier quantum well in two-dimensional semiconductor nanotransistors. *Materials Today Physics*, **2020**, 15, 100275 | 8 | 2 |
| 235 | Modulation Doping via a Two-Dimensional Atomic Crystalline Acceptor. *Nano Letters*, **2020**, 20, 8446-8452 | 11.5 | 16 |
| 234 | Tuning the inhomogeneous charge transport in ZnO interfaces for ultrahigh on/off ratio top-gated field-effect-transistor arrays. *Nano Research*, **2020**, 13, 3033-3040 | 10 | 1 |
| 233 | Layer-controlled single-crystalline graphene film with stacking order via Cu-Si alloy formation. *Nature Nanotechnology*, **2020**, 15, 861-867 | 28.7 | 36 |
| 232 | A Non-Volatile Memory Based on NbOx/NbSe2 Van der Waals Heterostructures. *Applied Sciences (Switzerland)*, **2020**, 10, 7598 | 2.6 | 3 |
| 231 | Coulomb drag transistor using a graphene and MoS2 heterostructure. *Communications Physics*, **2020**, 3, | 5.4 | 5 |
| 230 | High-mobility junction field-effect transistor via graphene/MoS heterointerface. *Scientific Reports*, **2020**, 10, 13101 | 4.9 | 11 |
| 229 | Bandgap Renormalization in Monolayer MoS2 on CsPbBr3 Quantum Dots via Charge Transfer at Room Temperature. *Advanced Materials Interfaces*, **2020**, 7, 2000835 | 4.6 | 4 |
| 228 | Dielectric Nanowire Hybrids for Plasmon-Enhanced Light-Matter Interaction in 2D Semiconductors. *ACS Nano*, **2020**, 14, 11985-11994 | 16.7 | 10 |
| 227 | Bandgap engineering of two-dimensional semiconductor materials. *Npj 2D Materials and Applications*, **2020**, 4, | 8.8 | 152 |
| 226 | Li Intercalation Effects on Interface Resistances of High-Speed and Low-Power WSe2 Field-Effect Transistors. *Advanced Functional Materials*, **2020**, 30, 2003688 | 15.6 | 4 |
| 225 | Decelerated Hot Carrier Cooling in Graphene Nondissipative Carrier Injection from MoS. *ACS Nano*, **2020**, 14, 13905-13912 | 16.7 | 12 |
| 224 | Anomalous Conductance near Percolative Metal-Insulator Transition in Monolayer MoS at Low Voltage Regime. *ACS Nano*, **2019**, 13, 6631-6637 | 16.7 | 6 |

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| 223 | Ultrahigh Gauge Factor in Graphene/MoS Heterojunction Field Effect Transistor with Variable Schottky Barrier. *ACS Nano*, **2019**, 13, 8392-8400 | 16.7 | 28 |
| 222 | Gate tunable optical absorption and band structure of twisted bilayer graphene. *Physical Review B*, **2019**, 99, | 3.3 | 17 |
| 221 | Efficient Gate Modulation in a Screening-Engineered MoS/Single-Walled Carbon Nanotube Network Heterojunction Vertical Field-Effect Transistor. *ACS Applied Materials & Interfaces*, **2019**, 11, 25516-25523 | 9.5 | 12 |
| 220 | Single-Crystalline Monolayer Graphene Wafer on Dielectric Substrate of SiON without Metal Catalysts. *ACS Nano*, **2019**, 13, 6662-6669 | 16.7 | 11 |
| 219 | Semimetallic Graphene for Infrared Sensing. *ACS Applied Materials & Interfaces*, **2019**, 11, 19565-19571 | 9.5 | 6 |
| 218 | Inverse StranskiKrastanov Growth in Single-Crystalline Sputtered Cu Thin Films for Wafer-Scale Device Applications. *ACS Applied Nano Materials*, **2019**, 2, 3300-3306 | 5.6 | 1 |
| 217 | Room-Temperature Mesoscopic Fluctuations and Coulomb Drag in Multilayer WSe. *Advanced Materials*, **2019**, 31, e1900154 | 24 | 7 |
| 216 | Hybrid catalyst with monoclinic MoTe2 and platinum for efficient hydrogen evolution. *APL Materials*, **2019**, 7, 071118 | 5.7 | 15 |
| 215 | Revealing antiferromagnetic transition of van der Waals MnPS3 via vertical tunneling electrical resistance measurement. *APL Materials*, **2019**, 7, 081102 | 5.7 | 9 |
| 214 | Fast-Charging High-Energy Battery-Supercapacitor Hybrid: Anodic Reduced Graphene Oxide-Vanadium(IV) Oxide Sheet-on-Sheet Heterostructure. *ACS Nano*, **2019**, 13, 10776-10786 | 16.7 | 63 |
| 213 | Anisotropic mechanical properties and strengthening mechanism in superaligned carbon nanotubes-reinforced aluminum. *Carbon*, **2019**, 153, 513-524 | 10.4 | 10 |
| 212 | Tunable Negative Differential Resistance in van der Waals Heterostructures at Room Temperature by Tailoring the Interface. *ACS Nano*, **2019**, 13, 8193-8201 | 16.7 | 43 |
| 211 | Optical logic operation via plasmon-exciton interconversion in 2D semiconductors. *Scientific Reports*, **2019**, 9, 9164 | 4.9 | 5 |
| 210 | Edge Contact for Carrier Injection and Transport in MoS Field-Effect Transistors. *ACS Nano*, **2019**, 13, 13169-13175 | 16.7 | 28 |
| 209 | Carrier multiplication in van der Waals layered transition metal dichalcogenides. *Nature Communications*, **2019**, 10, 5488 | 17.4 | 18 |
| 208 | Long-range ferromagnetic ordering in vanadium-doped WSe2 semiconductor. *Applied Physics Letters*, **2019**, 115, 242406 | 3.4 | 18 |
| 207 | Two-Terminal Multibit Optical Memory via van der Waals Heterostructure. *Advanced Materials*, **2019**, 31, e1807075 | 24 | 111 |
| 206 | Minimizing Trap Charge Density towards an Ideal Diode in Graphene-Silicon Schottky Solar Cell. *ACS Applied Materials & Interfaces*, **2019**, 11, 880-888 | 9.5 | 10 |

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|---|---|---|---|
| 205 | Wafer-Scale van der Waals Heterostructures with Ultraclean Interfaces via the Aid of Viscoelastic Polymer. *ACS Applied Materials & Interfaces*, **2019**, 11, 1579-1586 | 9.5 | 9 |
| 204 | Coherent Thermoelectric Power from Graphene Quantum Dots. *Nano Letters*, **2019**, 19, 61-68 | 11.5 | 14 |
| 203 | Role of Hole Trap Sites in MoS for Inconsistency in Optical and Electrical Phenomena. *ACS Applied Materials & Interfaces*, **2018**, 10, 10580-10586 | 9.5 | 24 |
| 202 | Electrically Tunable Slow Light Using Graphene Metamaterials. *ACS Photonics*, **2018**, 5, 1800-1807 | 6.3 | 128 |
| 201 | Intragranular Dispersion of Carbon Nanotubes Comprehensively Improves Aluminum Alloys. *Advanced Science*, **2018**, 5, 1800115 | 13.6 | 12 |
| 200 | Large local lattice expansion in graphene adlayers grown on copper. *Nature Materials*, **2018**, 17, 450-455 | 27 | 12 |
| 199 | Unsaturated Drift Velocity of Monolayer Graphene. *Nano Letters*, **2018**, 18, 1575-1581 | 11.5 | 9 |
| 198 | Mobility Engineering in Vertical Field Effect Transistors Based on Van der Waals Heterostructures. *Advanced Materials*, **2018**, 30, 1704435 | 24 | 33 |
| 197 | Ultrafast Spectral Photoresponse of Bilayer Graphene: Optical Pump-Terahertz Probe Spectroscopy. *ACS Nano*, **2018**, 12, 1785-1792 | 16.7 | 17 |
| 196 | High energy density and enhanced stability of asymmetric supercapacitors with mesoporous MnO2@CNT and nanodot MoO3@CNT free-standing films. *Energy Storage Materials*, **2018**, 12, 223-231 | 19.4 | 102 |
| 195 | Synthesis of high quality graphene on capped (1 1 1) Cu thin films obtained by high temperature secondary grain growth on c -plane sapphire substrates. *2D Materials*, **2018**, 5, 035008 | 5.9 | 9 |
| 194 | Near-zero hysteresis and near-ideal subthreshold swing in h-BN encapsulated single-layer MoS 2 field-effect transistors. *2D Materials*, **2018**, 5, 031001 | 5.9 | 68 |
| 193 | CMOS-compatible batch processing of monolayer MoS2MOSFETs. *Journal Physics D: Applied Physics*, **2018**, 51, 15LT02 | 3 | 7 |
| 192 | Redox-Driven Route for Widening Voltage Window in Asymmetric Supercapacitor. *ACS Nano*, **2018**, 12, 8494-8505 | 16.7 | 117 |
| 191 | Synthesis of hexagonal boron nitride heterostructures for 2D van der Waals electronics. *Chemical Society Reviews*, **2018**, 47, 6342-6369 | 58.5 | 80 |
| 190 | Plasma-Induced Phase Transformation of SnS to SnS. *Scientific Reports*, **2018**, 8, 10284 | 4.9 | 22 |
| 189 | Very high open-circuit voltage in dual-gate graphene/silicon heterojunction solar cells. *Nano Energy* , **2018**, 53, 398-404 | 17.1 | 9 |
| 188 | Unveiling Defect-Related Raman Mode of Monolayer WS via Tip-Enhanced Resonance Raman Scattering. *ACS Nano*, **2018**, 12, 9982-9990 | 16.7 | 44 |

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| 187 | Soft Coulomb gap and asymmetric scaling towards metal-insulator quantum criticality in multilayer MoS. *Nature Communications*, **2018**, 9, 2052 | 17.4 | 16 |
| 186 | Wafer-scale single-crystal hexagonal boron nitride film via self-collimated grain formation. *Science*, **2018**, 362, 817-821 | 33.3 | 233 |
| 185 | Anomalous K-Point Phonons in Noble Metal/Graphene Heterostructure Activated by Localized Surface Plasmon Resonance. *ACS Nano*, **2018**, 12, 12733-12740 | 16.7 | 7 |
| 184 | Enhanced Light-Matter Interactions in Self-Assembled Plasmonic Nanoparticles on 2D Semiconductors. *Small*, **2018**, 14, e1802949 | 11 | 10 |
| 183 | Investigation of Zirconium Effect on the Corrosion Resistance of Aluminum Alloy Using Electrochemical Methods and Numerical Simulation in an Acidified Synthetic Sea Salt Solution. *Materials*, **2018**, 11, | 3.5 | 5 |
| 182 | Gas adsorbates are Coulomb scatterers, rather than neutral ones, in a monolayer MoS field effect transistor. *Nanoscale*, **2018**, 10, 10856-10862 | 7.7 | 6 |
| 181 | Direct growth of doping controlled monolayer WSe by selenium-phosphorus substitution. *Nanoscale*, **2018**, 10, 11397-11402 | 7.7 | 20 |
| 180 | Superconductivity in Te-deficient polymorphic MoTe 2□k and its derivatives: rich structural and electronic phase transitions. *2D Materials*, **2018**, 5, 031014 | 5.9 | 5 |
| 179 | van der Waals Metallic Transition Metal Dichalcogenides. *Chemical Reviews*, **2018**, 118, 6297-6336 | 68.1 | 143 |
| 178 | Dynamical observations on the crack tip zone and stress corrosion of two-dimensional MoS. *Nature Communications*, **2017**, 8, 14116 | 17.4 | 46 |
| 177 | Recent development of two-dimensional transition metal dichalcogenides and their applications. *Materials Today*, **2017**, 20, 116-130 | 21.8 | 1250 |
| 176 | Thickness-dependent in-plane thermal conductivity of suspended MoS grown by chemical vapor deposition. *Nanoscale*, **2017**, 9, 2541-2547 | 7.7 | 61 |
| 175 | Tip-Enhanced Raman Scattering Imaging of Two-Dimensional Tungsten Disulfide with Optimized Tip Fabrication Process. *Scientific Reports*, **2017**, 7, 40810 | 4.9 | 19 |
| 174 | Understanding Coulomb Scattering Mechanism in Monolayer MoS Channel in the Presence of h-BN Buffer Layer. *ACS Applied Materials & Interfaces*, **2017**, 9, 5006-5013 | 9.5 | 31 |
| 173 | Junction-Structure-Dependent Schottky Barrier Inhomogeneity and Device Ideality of Monolayer MoS Field-Effect Transistors. *ACS Applied Materials & Interfaces*, **2017**, 9, 11240-11246 | 9.5 | 38 |
| 172 | Graphene: Probing Bilayer Grain Boundaries in Large-Area Graphene with Tip-Enhanced Raman Spectroscopy (Adv. Mater. 7/2017). *Advanced Materials*, **2017**, 29, | 24 | 1 |
| 171 | Heterogeneous Defect Domains in Single-Crystalline Hexagonal WS. *Advanced Materials*, **2017**, 29, 1605043 | 24 | 94 |
| 170 | Integrated Freestanding Two-dimensional Transition Metal Dichalcogenides. *Advanced Materials*, **2017**, 29, 1700308 | 24 | 24 |

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|---|---|---|---|
| 169 | Active hydrogen evolution through lattice distortion in metallic MoTe 2. *2D Materials*, **2017**, 4, 025061 | 5.9 | 81 |
| 168 | Selective control of electron and hole tunneling in 2D assembly. *Science Advances*, **2017**, 3, e1602726 | 14.3 | 21 |
| 167 | Long-Range Lattice Engineering of MoTe by a 2D Electride. *Nano Letters*, **2017**, 17, 3363-3368 | 11.5 | 56 |
| 166 | Te vacancy-driven superconductivity in orthorhombic molybdenum ditelluride. *2D Materials*, **2017**, 4, 021030 | 5.9 | 30 |
| 165 | Carbon-Nanotube-Templated, Sputter-Deposited, Flexible Superconducting NbN Nanowire Yarns. *Advanced Functional Materials*, **2017**, 27, 1701108 | 15.6 | 11 |
| 164 | Charge Transport in MoS/WSe van der Waals Heterostructure with Tunable Inversion Layer. *ACS Nano*, **2017**, 11, 3832-3840 | 16.7 | 130 |
| 163 | Strong Localization of Anionic Electrons at Interlayer for Electrical and Magnetic Anisotropy in Two-Dimensional YC Electride. *Journal of the American Chemical Society*, **2017**, 139, 615-618 | 16.4 | 47 |
| 162 | Photocurrent Switching of Monolayer MoS Using a Metal-Insulator Transition. *Nano Letters*, **2017**, 17, 673-678 | 11.5 | 25 |
| 161 | Probing Bilayer Grain Boundaries in Large-Area Graphene with Tip-Enhanced Raman Spectroscopy. *Advanced Materials*, **2017**, 29, 1603601 | 24 | 25 |
| 160 | Nanoreactor of Nickel-Containing Carbon-Shells as Oxygen Reduction Catalyst. *Advanced Materials*, **2017**, 29, 1605083 | 24 | 50 |
| 159 | Graphene Substrate for van der Waals Epitaxy of Layer-Structured Bismuth Antimony Telluride Thermoelectric Film. *Advanced Materials*, **2017**, 29, 1604899 | 24 | 28 |
| 158 | Tuning Carrier Tunneling in van der Waals Heterostructures for Ultrahigh Detectivity. *Nano Letters*, **2017**, 17, 453-459 | 11.5 | 134 |
| 157 | A High-On/Off-Ratio Floating-Gate Memristor Array on a Flexible Substrate via CVD-Grown Large-Area 2D Layer Stacking. *Advanced Materials*, **2017**, 29, 1703363 | 24 | 68 |
| 156 | Ultrastretchable Analog/Digital Signal Transmission Line with Carbon Nanotube Sheets. *ACS Applied Materials & Interfaces*, **2017**, 9, 26286-26292 | 9.5 | 9 |
| 155 | Tunneling Photocurrent Assisted by Interlayer Excitons in Staggered van der Waals Hetero-Bilayers. *Advanced Materials*, **2017**, 29, 1701512 | 24 | 35 |
| 154 | Structural and quantum-state phase transitions in van der Waals layered materials. *Nature Physics*, **2017**, 13, 931-937 | 16.2 | 187 |
| 153 | Probing defect dynamics in monolayer MoS via noise nanospectroscopy. *Nature Communications*, **2017**, 8, 2121 | 17.4 | 39 |
| 152 | van der Waals Layered Materials: Opportunities and Challenges. *ACS Nano*, **2017**, 11, 11803-11830 | 16.7 | 258 |

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| 151 | Impact of Carboxyl Groups in Graphene Oxide on Chemoselective Alcohol Oxidation with Ultra-Low Carbocatalyst Loading. *Scientific Reports*, **2017**, 7, 3146 | 4.9 | 16 |
| 150 | Low-Temperature Ohmic Contact to Monolayer MoS by van der Waals Bonded Co/h-BN Electrodes. *Nano Letters*, **2017**, 17, 4781-4786 | 11.5 | 164 |
| 149 | Role of alkali metal promoter in enhancing lateral growth of monolayer transition metal dichalcogenides. *Nanotechnology*, **2017**, 28, 36LT01 | 3.4 | 37 |
| 148 | Chain Vacancies in 2D Crystals. *Small*, **2017**, 13, 1601930 | 11 | 15 |
| 147 | Telluriding monolayer MoS and WS via alkali metal scooter. *Nature Communications*, **2017**, 8, 2163 | 17.4 | 59 |
| 146 | Memristors: A High-On/Off-Ratio Floating-Gate Memristor Array on a Flexible Substrate via CVD-Grown Large-Area 2D Layer Stacking (Adv. Mater. 44/2017). *Advanced Materials*, **2017**, 29, | 24 | 1 |
| 145 | Connecting wire-based solar cells without any transparent conducting electrode. *CrystEngComm*, **2016**, 18, 207-212 | 3.3 | 1 |
| 144 | Optical Gain in MoS2 via Coupling with Nanostructured Substrate: Fabry-Perot Interference and Plasmonic Excitation. *ACS Nano*, **2016**, 10, 8192-8 | 16.7 | 53 |
| 143 | Reconfigurable exciton-plasmon interconversion for nanophotonic circuits. *Nature Communications*, **2016**, 7, 13663 | 17.4 | 34 |
| 142 | Electron Excess Doping and Effective Schottky Barrier Reduction on the MoS/h-BN Heterostructure. *Nano Letters*, **2016**, 16, 6383-6389 | 11.5 | 60 |
| 141 | Identifying multiexcitons in MoS2 monolayers at room temperature. *Physical Review B*, **2016**, 93, | 3.3 | 61 |
| 140 | Vertically Conductive MoS2 Spiral Pyramid. *Advanced Materials*, **2016**, 28, 7723-8 | 24 | 54 |
| 139 | Wafer-Scale Single-Crystalline AB-Stacked Bilayer Graphene. *Advanced Materials*, **2016**, 28, 8177-8183 | 24 | 67 |
| 138 | Determining the Fermi level by absorption quenching of monolayer graphene by charge transfer doping. *Nanoscale*, **2016**, 8, 18710-18717 | 7.7 | 11 |
| 137 | Hyperdislocations in van der Waals Layered Materials. *Nano Letters*, **2016**, 16, 7807-7813 | 11.5 | 7 |
| 136 | Unusually efficient photocurrent extraction in monolayer van der Waals heterostructure by tunnelling through discretized barriers. *Nature Communications*, **2016**, 7, 13278 | 17.4 | 96 |
| 135 | Two-terminal floating-gate memory with van der Waals heterostructures for ultrahigh on/off ratio. *Nature Communications*, **2016**, 7, 12725 | 17.4 | 190 |
| 134 | Sorting centimetre-long single-walled carbon nanotubes. *Scientific Reports*, **2016**, 6, 30836 | 4.9 | 3 |

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| 133 | In situ chemical vapor deposition of graphene and hexagonal boron nitride heterostructures. *Current Applied Physics*, **2016**, 16, 1175-1191 | 2.6 | 28 |
| 132 | Misorientation-angle-dependent electrical transport across molybdenum disulfide grain boundaries. *Nature Communications*, **2016**, 7, 10426 | 17.4 | 138 |
| 131 | Oxidation Effect in Octahedral Hafnium Disulfide Thin Film. *ACS Nano*, **2016**, 10, 1309-16 | 16.7 | 80 |
| 130 | Biexciton Emission from Edges and Grain Boundaries of Triangular WS Monolayers. *ACS Nano*, **2016**, 10, 2399-405 | 16.7 | 175 |
| 129 | Visualizing Point Defects in Transition-Metal Dichalcogenides Using Optical Microscopy. *ACS Nano*, **2016**, 10, 770-7 | 16.7 | 48 |
| 128 | Metal-Insulator-Semiconductor Diode Consisting of Two-Dimensional Nanomaterials. *Nano Letters*, **2016**, 16, 1858-62 | 11.5 | 56 |
| 127 | Voltage Scaling of Graphene Device on SrTiO3 Epitaxial Thin Film. *Nano Letters*, **2016**, 16, 1754-9 | 11.5 | 11 |
| 126 | Dispersion of carbon nanotubes in aluminum improves radiation resistance. *Nano Energy*, **2016**, 22, 319-327 | 17.1 | 39 |
| 125 | Chemically Conjugated Carbon Nanotubes and Graphene for Carrier Modulation. *Accounts of Chemical Research*, **2016**, 49, 390-9 | 24.3 | 27 |
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