

# Feng Wang

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

65  
papers

12,732  
citations

38  
h-index

66  
g-index

66  
ext. papers

14,582  
ext. citations

14.5  
avg, IF

6.12  
L-index

| #  | Paper   | IF   | Citations |
|----|---|------|-----------|
| 65 | Emerging photoluminescence in monolayer MoS <sub>2</sub> . <i>Nano Letters</i> , <b>2010</b> , 10, 1271-5   | 11.5 | 6474      |
| 64 | Ultrafast charge transfer in atomically thin MoS <sub>2</sub> /WS <sub>2</sub> heterostructures. <i>Nature Nanotechnology</i> , <b>2014</b> , 9, 682-6  | 28.7 | 1432      |
| 63 | Giant bandgap renormalization and excitonic effects in a monolayer transition metal dichalcogenide semiconductor. <i>Nature Materials</i> , <b>2014</b> , 13, 1091-5                            | 27   | 1150      |
| 62 | Tunable GaTe-MoS <sub>2</sub> van der Waals p-n Junctions with Novel Optoelectronic Performance. <i>Nano Letters</i> , <b>2015</b> , 15, 7558-66  | 11.5 | 303       |
| 61 | High-Performance Ultraviolet Photodetector Based on a Few-Layered 2D NiPS <sub>3</sub> Nanosheet. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1701342                              | 15.6 | 170       |
| 60 | 2D library beyond graphene and transition metal dichalcogenides: a focus on photodetection. <i>Chemical Society Reviews</i> , <b>2018</b> , 47, 6296-6341                                       | 58.5 | 145       |
| 59 | Ultrasensitive Phototransistors Based on Few-Layered HfS <sub>2</sub> . <i>Advanced Materials</i> , <b>2015</b> , 27, 7881-7  | 24   | 144       |
| 58 | Recent Progress in CVD Growth of 2D Transition Metal Dichalcogenides and Related Heterostructures. <i>Advanced Materials</i> , <b>2019</b> , 31, e1901694                                       | 24   | 131       |
| 57 | Sub-10 nm Nanopattern Architecture for 2D Material Field-Effect Transistors. <i>Nano Letters</i> , <b>2017</b> , 17, 1065-1070  | 11.5 | 126       |
| 56 | Two-Dimensional Non-Layered Materials: Synthesis, Properties and Applications. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1603254   | 15.6 | 124       |
| 55 | High-performance, multifunctional devices based on asymmetric van der Waals heterostructures. <i>Nature Electronics</i> , <b>2018</b> , 1, 356-361  | 28.4 | 123       |
| 54 | van der Waals epitaxial ultrathin two-dimensional nonlayered semiconductor for highly efficient flexible optoelectronic devices. <i>Nano Letters</i> , <b>2015</b> , 15, 1183-9                 | 11.5 | 116       |
| 53 | Nonvolatile infrared memory in MoS/PbS van der Waals heterostructures. <i>Science Advances</i> , <b>2018</b> , 4, eaap7916  | 14.3 | 106       |
| 52 | Synthesis, properties and applications of 2D layered MX (M = Ga, In; X = S, Se, Te) materials. <i>Nanoscale</i> , <b>2016</b> , 8, 16802-16818  | 7.7  | 100       |
| 51 | Highly sensitive and fast phototransistor based on large size CVD-grown SnS <sub>2</sub> nanosheets. <i>Nanoscale</i> , <b>2015</b> , 7, 14093-9  | 7.7  | 99        |
| 50 | Enhanced Electrochemical H <sub>2</sub> Evolution by Few-Layered Metallic WS <sub>2</sub> (1-x)Se <sub>2x</sub> Nanoribbons. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 6077-6083 | 15.6 | 98        |
| 49 | Designing the shape evolution of SnSe <sub>2</sub> nanosheets and their optoelectronic properties. <i>Nanoscale</i> , <b>2015</b> , 7, 17375-80   | 7.7  | 96        |

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|----|---|------|----|
| 48 | Ultrathin Single-Crystalline CdTe Nanosheets Realized via Van der Waals Epitaxy. <i>Advanced Materials</i> , <b>2017</b> , 29, 1703122  | 24   | 90 |
| 47 | Strain-Modulated Bandgap and Piezo-Resistive Effect in Black Phosphorus Field-Effect Transistors. <i>Nano Letters</i> , <b>2017</b> , 17, 6097-6103   | 11.5 | 88 |
| 46 | Synthesis, properties and applications of 2D non-graphene materials. <i>Nanotechnology</i> , <b>2015</b> , 26, 2920013-4  | 3.4  | 82 |
| 45 | Integrated High-Performance Infrared Phototransistor Arrays Composed of Nonlayered PbS-MoS Heterostructures with Edge Contacts. <i>Nano Letters</i> , <b>2016</b> , 16, 6437-6444             | 11.5 | 79 |
| 44 | Ultrathin Magnetic 2D Single-Crystal CrSe. <i>Advanced Materials</i> , <b>2019</b> , 31, e1900056   | 24   | 78 |
| 43 | Ultrahigh sensitive MoTe <sub>2</sub> phototransistors driven by carrier tunneling. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 043503  | 3.4  | 78 |
| 42 | Epitaxial 2D PbS Nanoplates Arrays with Highly Efficient Infrared Response. <i>Advanced Materials</i> , <b>2016</b> , 28, 8051-8057   | 24   | 77 |
| 41 | Van der Waals Epitaxial Growth of Atomic Layered HfS Crystals for Ultrasensitive Near-Infrared Phototransistors. <i>Advanced Materials</i> , <b>2017</b> , 29, 1700439                        | 24   | 73 |
| 40 | Edge-Epitaxial Growth of 2D NbS <sub>2</sub> -WS <sub>2</sub> Lateral Metal-Semiconductor Heterostructures. <i>Advanced Materials</i> , <b>2018</b> , 30, e1803665                            | 24   | 72 |
| 39 | Two-dimensional metal phosphorus trisulfide nanosheet with solar hydrogen-evolving activity. <i>Nano Energy</i> , <b>2017</b> , 40, 673-680   | 17.1 | 71 |
| 38 | Configuration-Dependent Electrically Tunable Van der Waals Heterostructures Based on MoTe <sub>2</sub> /MoS <sub>2</sub> . <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 5499-5506 | 15.6 | 68 |
| 37 | Sub-millimeter-Scale Growth of One-Unit-Cell-Thick Ferrimagnetic CrS Nanosheets. <i>Nano Letters</i> , <b>2019</b> , 19, 2154-2161  | 11.5 | 67 |
| 36 | Infrared-Sensitive Memory Based on Direct-Grown MoS <sub>2</sub> -Upconversion-Nanoparticle Heterostructure. <i>Advanced Materials</i> , <b>2018</b> , 30, e1803563                           | 24   | 57 |
| 35 | Progress on Electronic and Optoelectronic Devices of 2D Layered Semiconducting Materials. <i>Small</i> , <b>2017</b> , 13, 1604298  | 11   | 55 |
| 34 | WSe <sub>2</sub> /GeSe heterojunction photodiode with giant gate tunability. <i>Nano Energy</i> , <b>2018</b> , 49, 103-108   | 17.1 | 49 |
| 33 | Ultrafast and ultrasensitive phototransistors based on few-layered HfSe <sub>2</sub> . <i>Applied Physics Letters</i> , <b>2016</b> , 109, 213105   | 3.4  | 44 |
| 32 | Toward High-Performance Top-Gate Ultrathin HfS <sub>2</sub> Field-Effect Transistors by Interface Engineering. <i>Small</i> , <b>2016</b> , 12, 3106-11                                       | 11   | 42 |
| 31 | High-Performance Phototransistor of Epitaxial PbS Nanoplate-Graphene Heterostructure with Edge Contact. <i>Advanced Materials</i> , <b>2016</b> , 28, 6497-503                                | 24   | 40 |

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|----|---|------|----|
| 30 | Gate-Coupling-Enabled Robust Hysteresis for Nonvolatile Memory and Programmable Rectifier in Van der Waals Ferroelectric Heterojunctions. <i>Advanced Materials</i> , <b>2020</b> , 32, e1908040              | 24   | 39 |
| 29 | Strong electrically tunable MoTe <sub>2</sub> /graphene van der Waals heterostructures for high-performance electronic and optoelectronic devices. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 193111 | 3-4  | 39 |
| 28 | Multifunctional tunneling devices based on graphene/h-BN/MoSe <sub>2</sub> van der Waals heterostructures. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 173507   | 3-4  | 38 |
| 27 | Sulfur vacancy activated field effect transistors based on ReS <sub>2</sub> nanosheets. <i>Nanoscale</i> , <b>2015</b> , 7, 15757-62  | 7    | 36 |
| 26 | Rational Design of Ultralarge Pb <sub>1-x</sub> Sn <sub>x</sub> Te Nanoplates for Exploring Crystalline Symmetry-Protected Topological Transport. <i>Advanced Materials</i> , <b>2016</b> , 28, 617-23        | 24   | 35 |
| 25 | Electrostatically tunable lateral MoTe <sub>2</sub> p-n junction for use in high-performance optoelectronics. <i>Nanoscale</i> , <b>2016</b> , 8, 13245-50  | 7-7  | 34 |
| 24 | BN-Enabled Epitaxy of Pb <sub>(1-x)</sub> Sn <sub>(x)</sub> Se Nanoplates on SiO <sub>2</sub> /Si for High-Performance Mid-Infrared Detection. <i>Small</i> , <b>2015</b> , 11, 5388-94                       | 11   | 34 |
| 23 | Multibit Optoelectronic Memory in Top-Floating-Gated van der Waals Heterostructures. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1902890   | 15.6 | 33 |
| 22 | Impact of Thickness on Contact Issues for Pinning Effect in Black Phosphorus Field-Effect Transistors. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1801398                                       | 15.6 | 32 |
| 21 | Oriented Growth of Pb <sub>1-x</sub> Sn <sub>x</sub> Te Nanowire Arrays for Integration of Flexible Infrared Detectors. <i>Advanced Materials</i> , <b>2016</b> , 28, 3596-601                                | 24   | 31 |
| 20 | Configuration-dependent anti-ambipolar van der Waals p-n heterostructures based on pentacene single crystal and MoS <sub>2</sub> . <i>Nanoscale</i> , <b>2017</b> , 9, 7519-7525                              | 7-7  | 28 |
| 19 | Two-Dimensional Unipolar Memristors with Logic and Memory Functions. <i>Nano Letters</i> , <b>2020</b> , 20, 4144-4153  | 15.3 | 27 |
| 18 | Low-Dimensional Topological Crystalline Insulators. <i>Small</i> , <b>2015</b> , 11, 4613-24  | 11   | 19 |
| 17 | Ferroelectric-induced carrier modulation for ambipolar transition metal dichalcogenide transistors. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 123106  | 3-4  | 17 |
| 16 | Robust trap effect in transition metal dichalcogenides for advanced multifunctional devices. <i>Nature Communications</i> , <b>2019</b> , 10, 4133  | 17.4 | 16 |
| 15 | Van der Waals Heterostructure Devices with Dynamically Controlled Conduction Polarity and Multifunctionality. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1804897                                | 15.6 | 16 |
| 14 | Strongly coupled van der Waals heterostructures for high-performance infrared phototransistor. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 103501   | 3-4  | 14 |
| 13 | Uncovering the Conduction Behavior of van der Waals Ambipolar Semiconductors. <i>Advanced Materials</i> , <b>2019</b> , 31, e1805317  | 24   | 14 |

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|----|---|--------|
| 12 | Gapless van der Waals Heterostructures for Infrared Optoelectronic Devices. <i>ACS Nano</i> , <b>2019</b> , 13, 14519-14528   | 13     |
| 11 | A unipolar nonvolatile resistive switching behavior in a layered transition metal oxide. <i>Nanoscale</i> , <b>2019</b> , 11, 20497-20506   | 7.7 12 |
| 10 | Anti-Ambipolar Transport with Large Electrical Modulation in 2D Heterostructured Devices. <i>Advanced Materials</i> , <b>2019</b> , 31, e1901144  | 24 10  |
| 9  | Short channel field-effect transistors from ultrathin GaTe nanosheets. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 153507   | 3.4 8  |
| 8  | Subthermionic field-effect transistors with sub-5 $\mu$ m gate lengths based on van der Waals ferroelectric heterostructures. <i>Science Bulletin</i> , <b>2020</b> , 65, 1444-1450       | 10.6 8 |
| 7  | Controlling Injection Barriers for Ambipolar 2D Semiconductors via Quasi-van der Waals Contacts. <i>Advanced Science</i> , <b>2019</b> , 6, 1801841                                       | 13.6 7 |
| 6  | Recent progress on emergent two-dimensional magnets and heterostructures. <i>Nanotechnology</i> , <b>2021</b> , 32,   | 3.4 6  |
| 5  | Van der Waals integration of 2D atomic crystals for advanced multifunctional devices. <i>Science Bulletin</i> , <b>2019</b> , 64, 1033-1035   | 10.6 4 |
| 4  | Reconfigurable photovoltaic effect for optoelectronic artificial synapse based on ferroelectric p-n junction. <i>Nano Research</i> , <b>2021</b> , 14, 4328                               | 10 4   |
| 3  | Controlled synthesis and Raman study of a 2D antiferromagnetic P-type semiconductor: $\beta$ MnSe. <i>Nanoscale</i> , <b>2021</b> , 13, 6953-6964   | 7.7 4  |
| 2  | A Ferroelectric $p/n$ Heterostructure for Highly Enhanced Short-Circuit Current Density and Self-Powered Photodetection. <i>Advanced Electronic Materials</i> , <b>2021</b> , 10, 2101385 | 6.4 4  |
| 1  | Growth, Raman Scattering Investigation and Photodetector Properties of 2D SnP. <i>Small</i> , <b>2022</b> , e2108017  | 11 2   |