# Yimo Han

List of Publications by Year
in descending order



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|---|---|---|---|
| 56 papers | 7,338 citations | 185998 28 h-index | 205818 48 g-index |
| 57 all docs | 57 docs citations | 57 times ranked | 10113 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | High-mobility three-atom-thick semiconducting films with wafer-scale homogeneity. Nature, 2015, 520, 656-660. | 13.7 | 1,562 |
| 2 | Janus monolayers of transition metal dichalcogenides. Nature Nanotechnology, 2017, 12, 744-749. | 15.6 | 1,459 |
| 3 | Layer-by-layer assembly of two-dimensional materials into wafer-scale heterostructures. Nature, 2017, 550, 229-233. | 13.7 | 442 |
| 4 | Electron ptychography of 2D materials to deep sub-Ã¥ngstrÃ¶m resolution. Nature, 2018, 559, 343-349. | 13.7 | 431 |
| 5 | Intrinsic Two-Dimensional Ferroelectricity with Dipole Locking. Physical Review Letters, 2018, 120, 227601. | 2.9 | 322 |
| 6 | Esaki Diodes in van der Waals Heterojunctions with Broken-Gap Energy Band Alignment. Nano Letters, 2015, 15, 5791-5798. | 4.5 | 319 |
| 7 | Efficient conversion of low-concentration nitrate sources into ammonia on a Ru-dispersed Cu nanowire electrocatalyst. Nature Nanotechnology, 2022, 17, 759-767. | 15.6 | 318 |
| 8 | Large-scale chemical assembly of atomically thin transistors and circuits. Nature Nanotechnology, 2016, 11, 954-959. | 15.6 | 251 |
| 9 | Coherent, atomically thin transition-metal dichalcogenide superlattices with engineered strain. Science, 2018, 359, 1131-1136. | 6.0 | 247 |
| 10 | Strain distributions and their influence on electronic structures of WSe2â€“MoS2 laterally strained heterojunctions. Nature Nanotechnology, 2018, 13, 152-158. | 15.6 | 206 |
| 11 | Mechanism of Gold-Assisted Exfoliation of Centimeter-Sized Transition-Metal Dichalcogenide Monolayers. ACS Nano, 2018, 12, 10463-10472. | 7.3 | 203 |
| 12 | Atomically Thin Ohmic Edge Contacts Between Two-Dimensional Materials. ACS Nano, 2016, 10, 6392-6399. | 7.3 | 202 |
| 13 | Graphene-based bimorphs for micron-sized, autonomous origami machines. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 466-470. | 3.3 | 144 |
| 14 | GaN/NbN epitaxial semiconductor/superconductor heterostructures. Nature, 2018, 555, 183-189. | 13.7 | 116 |
| 15 | Sub-nanometre channels embedded in two-dimensional materials. Nature Materials, 2018, 17, 129-133. | 13.3 | 97 |
| 16 | Chemical Vapor Deposition Growth of Large Single-Crystal Mono-, Bi-, Tri-Layer Hexagonal Boron Nitride and Their Interlayer Stacking. ACS Nano, 2017, 11, 12057-12066. | 7.3 | 85 |
| 17 | Synthetic Lateral Metal-Semiconductor Heterostructures of Transition Metal Disulfides. Journal of the American Chemical Society, 2018, 140, 12354-12358. | 6.6 | 85 |
| 18 | High-yield monolayer graphene grids for near-atomic resolution cryoelectron microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1009-1014. | 3.3 | 84 |

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|---|---|---|---|
| 19 | Strain Mapping of Two-Dimensional Heterostructures with Subpicometer Precision. Nano Letters, 2018, 18, 3746-3751. | 4.5 | 82 |
| 20 | Structure and mechanism of human diacylglycerol O-acyltransferaseÂ1. Nature, 2020, 581, 329-332. | 13.7 | 72 |
| 21 | Graphene-assisted spontaneous relaxation towards dislocation-free heteroepitaxy. Nature Nanotechnology, 2020, 15, 272-276. | 15.6 | 71 |
| 22 | Mixed-state electron ptychography enables sub-angstrom resolution imaging with picometer precision at low dose. Nature Communications, 2020, 11, 2994. | 5.8 | 63 |
| 23 | Scaling-up Atomically Thin Coplanar Semiconductorâ€“Metal Circuitry via Phase Engineered Chemical Assembly. Nano Letters, 2019, 19, 6845-6852. | 4.5 | 46 |
| 24 | Additive manufacturing of patterned 2D semiconductor through recyclable masked growth. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 3437-3442. | 3.3 | 46 |
| 25 | Characterization of Sulfur and Nanostructured Sulfur Battery Cathodes in Electron Microscopy Without Sublimation Artifacts. Microscopy and Microanalysis, 2017, 23, 155-162. | 0.2 | 40 |
| 26 | Large Single Crystals of Two-Dimensional Ï€-Conjugated Metalâ€“Organic Frameworks via Biphasic Solution-Solid Growth. ACS Central Science, 2021, 7, 104-109. | 5.3 | 40 |
| 27 | Metalâ€Guided Selective Growth of 2D Materials: Demonstration of a Bottomâ€Up CMOS Inverter. Advanced Materials, 2019, 31, e1900861. | 11.1 | 36 |
| 28 | Graphene Oxide Nanosheets Stimulate Ruffling and Shedding of Mammalian Cell Plasma Membranes. CheM, 2016, 1, 273-286. | 5.8 | 30 |
| 29 | Theory and practice of electron diffraction from single atoms and extended objects using an EMPAD. Microscopy (Oxford, England), 2018, 67, i150-i161. | 0.7 | 29 |
| 30 | Synthesis of Highâ€Performance Monolayer Molybdenum Disulfide at Low Temperature. Small Methods, 2021, 5, e2000720. | 4.6 | 27 |
| 31 | Atomic Layer Deposition for Membranes, Metamaterials, and Mechanisms. Advanced Materials, 2019, 31, e1901944. | 11.1 | 24 |
| 32 | In Situ-Generated Volatile Precursor for CVD Growth of a Semimetallic 2D Dichalcogenide. ACS Applied Materials & Interfaces, 2018, 10, 34401-34408. | 4.0 | 23 |
| 33 | Realization of Quantum Hall Effect in Chemically Synthesized InSe. Advanced Functional Materials, 2019, 29, 1904032. | 7.8 | 23 |
| 34 | Tailoring Semiconductor Lateral Multijunctions for Giant Photoconductivity Enhancement. Advanced Materials, 2017, 29, 1703680. | 11.1 | 21 |
| 35 | Imaging Polarity in Two Dimensional Materials by Breaking Friedel's Law. Ultramicroscopy, 2020, 215, 113019. | 0.8 | 20 |
| 36 | Uncovering material deformations via machine learning combined with four-dimensional scanning transmission electron microscopy. Npj Computational Materials, 2022, 8, . | 3.5 | 15 |

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|---|---|---|---|
| 37 | Atomically Thin Graphene Windows That Enable High Contrast Electron Microscopy without a Specimen Vacuum Chamber. Nano Letters, 2016, 16, 7427-7432. | 4.5 | 13 |
| 38 | Aberration-corrected STEM imaging of 2D materials: Artifacts and practical applications of threefold astigmatism. Science Advances, 2020, 6, . | 4.7 | 13 |
| 39 | Electron Microscopy in Air: Transparent Atomic Membranes and Imaging Modes. Microscopy and Microanalysis, 2015, 21, 1111-1112. | 0.2 | 5 |
| 40 | Strain Accommodation and Coherency in Laterally-Stitched WSe 2 /WS 2 Junctions. Microscopy and Microanalysis, 2016, 22, 870-871. | 0.2 | 5 |
| 41 | Direct visualization of floppy two-dimensional DNA origami using cryogenic electron microscopy. IScience, 2022, 25, 104373. | 1.9 | 5 |
| 42 | Electron Diffraction from a Single Atom and Optimal Signal Detection. Microscopy and Microanalysis, 2016, 22, 846-847. | 0.2 | 3 |
| 43 | Rapid and Semi-Automated Analysis of 4D-STEM data via Unsupervised Learning. Microscopy and Microanalysis, 2021, 27, 58-59. | 0.2 | 3 |
| 44 | Ultrafast Pumpâ€“Probe Microscopy on 2D Transition Metal Dichalcogenides. Advanced Photonics Research, 2022, 3, . | 1.7 | 3 |
| 45 | Theory and Practice of Diffractometry on Single Tungsten Atoms using Electron Microscope Pixel Array Detectors. Microscopy and Microanalysis, 2017, 23, 444-445. | 0.2 | 2 |
| 46 | Picometer-Precision Strain Mapping of Two-Dimensional Heterostructures using an Electron Microscope Pixel Array Detector (EMPAD). Microscopy and Microanalysis, 2017, 23, 1712-1713. | 0.2 | 1 |
| 47 | Breaking Friedelâ€™s Law in Polar Two Dimensional Materials. Microscopy and Microanalysis, 2017, 23, 1738-1739. | 0.2 | 1 |
| 48 | Phase Imaging beyond the Diffraction Limit with Electron Ptychography. Microscopy and Microanalysis, 2019, 25, 6-7. | 0.2 | 1 |
| 49 | 2D Materials: Metalâ€Guided Selective Growth of 2D Materials: Demonstration of a Bottomâ€Up CMOS Inverter (Adv. Mater. 18/2019). Advanced Materials, 2019, 31, 1970132. | 11.1 | 1 |
| 50 | Photoconductivity: Tailoring Semiconductor Lateral Multijunctions for Giant Photoconductivity Enhancement (Adv. Mater. 41/2017). Advanced Materials, 2017, 29, . | 11.1 | 0 |
| 51 | Enhanced Resolution from Full-Field Ptychography with an Electron Microscope Pixel Array Detector. Microscopy and Microanalysis, 2017, 23, 438-439. | 0.2 | 0 |
| 52 | Real-space Demonstration of 0.4 Angstrom Resolution at 80 keV via Electron Ptychography with a High Dynamic Range Pixel Array Detector. Microscopy and Microanalysis, 2018, 24, 194-195. | 0.2 | 0 |
| 53 | AirSEM: Electron Microscopy in Air, without a Specimen Chamber. Microscopy and Microanalysis, 2018, 24, 342-343. | 0.2 | 0 |
| 54 | Mapping Strain and Relaxation in 2D Heterojunctions with Sub-picometer Precision. Microscopy and Microanalysis, 2018, 24, 1588-1589. | 0.2 | 0 |

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|---|---|---|---|
| 55 | Micromechanical Systems: Atomic Layer Deposition for Membranes, Metamaterials, and Mechanisms (Adv. Mater. 29/2019). Advanced Materials, 2019, 31, 1970212. | 11.1 | 0 |
| 56 | Uncovering Atomic and Nano-scale Deformations in Two-dimensional Lateral Heterojunctions. Microscopy and Microanalysis, 2020, 26, 1630-1631. | 0.2 | 0 |