

Sina Najmaei

List of Publications by Year in descending order

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49
papers

12,655
citations

101384

36
h-index

214527

47
g-index

49
all docs

49
docs citations

49
times ranked

15799
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Intrinsic Structural Defects in Monolayer Molybdenum Disulfide. Nano Letters, 2013, 13, 2615-2622. | 4.5 | 1,766 |
| 2 | Vapour phase growth and grain boundary structure of molybdenum disulphide atomic layers. Nature Materials, 2013, 12, 754-759. | 13.3 | 1,590 |
| 3 | Large Area Vapor Phase Growth and Characterization of MoS ₂ Atomic Layers on a SiO ₂ Substrate. Small, 2012, 8, 966-971. | 5.2 | 1,556 |
| 4 | Black Phosphorus Monolayer MoS ₂ van der Waals Heterojunction p-n Diode. ACS Nano, 2014, 8, 8292-8299. | 7.3 | 1,125 |
| 5 | Second harmonic microscopy of monolayer MoS ₂ . $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle$. Physical Review B, 2013, 87, . | 1.1 | 539 |
| 6 | Evolution of the Electronic Band Structure and Efficient Photo-Detection in Atomic Layers of InSe. ACS Nano, 2014, 8, 1263-1272. | 7.3 | 534 |
| 7 | Plasmonic Hot Electron Induced Structural Phase Transition in a MoS ₂ Monolayer. Advanced Materials, 2014, 26, 6467-6471. | 11.1 | 516 |
| 8 | Band Gap Engineering and Layer-by-Layer Mapping of Selenium-Doped Molybdenum Disulfide. Nano Letters, 2014, 14, 442-449. | 4.5 | 463 |
| 9 | Strain and structure heterogeneity in MoS ₂ atomic layers grown by chemical vapour deposition. Nature Communications, 2014, 5, 5246. | 5.8 | 453 |
| 10 | Synthesis and Photoresponse of Large GaSe Atomic Layers. Nano Letters, 2013, 13, 2777-2781. | 4.5 | 381 |
| 11 | An Atomically Layered InSe Avalanche Photodetector. Nano Letters, 2015, 15, 3048-3055. | 4.5 | 253 |
| 12 | Facile Synthesis of Single Crystal Vanadium Disulfide Nanosheets by Chemical Vapor Deposition for Efficient Hydrogen Evolution Reaction. Advanced Materials, 2015, 27, 5605-5609. | 11.1 | 241 |
| 13 | Switching Mechanism in Single-Layer Molybdenum Disulfide Transistors: An Insight into Current Flow across Schottky Barriers. ACS Nano, 2014, 8, 1031-1038. | 7.3 | 224 |
| 14 | Enhancing the photocurrent and photoluminescence of single crystal monolayer MoS ₂ with resonant plasmonic nanoshells. Applied Physics Letters, 2014, 104, 031112. | 1.5 | 208 |
| 15 | Electrical performance of monolayer MoS ₂ field-effect transistors prepared by chemical vapor deposition. Applied Physics Letters, 2013, 102, . | 1.5 | 201 |
| 16 | Temperature-dependent phonon shifts in monolayer MoS ₂ . Applied Physics Letters, 2013, 103, . | 1.5 | 199 |
| 17 | Plasmonic Pumping of Excitonic Photoluminescence in Hybrid MoS ₂ -Au Nanostructures. ACS Nano, 2014, 8, 12682-12689. | 7.3 | 198 |
| 18 | Statistical Study of Deep Submicron Dual-Gated Field-Effect Transistors on Monolayer Chemical Vapor Deposition Molybdenum Disulfide Films. Nano Letters, 2013, 13, 2640-2646. | 4.5 | 197 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Optoelectronic devices based on two-dimensional transition metal dichalcogenides. Nano Research, 2016, 9, 1543-1560. | 5.8 | 186 |
| 20 | Photoluminescence Quenching and Charge Transfer in Artificial Heterostacks of Monolayer Transition Metal Dichalcogenides and Few-Layer Black Phosphorus. ACS Nano, 2015, 9, 555-563. | 7.3 | 183 |
| 21 | Metallic 1T phase source/drain electrodes for field effect transistors from chemical vapor deposited MoS ₂ . APL Materials, 2014, 2, . | 2.2 | 155 |
| 22 | Nanomechanical cleavage of molybdenum disulphide atomic layers. Nature Communications, 2014, 5, 3631. | 5.8 | 144 |
| 23 | Synthesis and Defect Investigation of Two-Dimensional Molybdenum Disulfide Atomic Layers. Accounts of Chemical Research, 2015, 48, 31-40. | 7.6 | 140 |
| 24 | Tailoring the Physical Properties of Molybdenum Disulfide Monolayers by Control of Interfacial Chemistry. Nano Letters, 2014, 14, 1354-1361. | 4.5 | 129 |
| 25 | Electrical Transport Properties of Polycrystalline Monolayer Molybdenum Disulfide. ACS Nano, 2014, 8, 7930-7937. | 7.3 | 121 |
| 26 | Nanoantenna-Enhanced Light-Matter Interaction in Atomically Thin WS ₂ . ACS Photonics, 2015, 2, 1260-1265. | 3.2 | 114 |
| 27 | Controlled Synthesis of Organic/Inorganic van der Waals Solid for Tunable Light-Matter Interactions. Advanced Materials, 2015, 27, 7800-7808. | 11.1 | 109 |
| 28 | Growth-substrate induced performance degradation in chemically synthesized monolayer MoS ₂ field effect transistors. Applied Physics Letters, 2014, 104, . | 1.5 | 96 |
| 29 | Quantitative analysis of the temperature dependency in Raman active vibrational modes of molybdenum disulfide atomic layers. Nanoscale, 2013, 5, 9758. | 2.8 | 80 |
| 30 | MoS ₂ atomic layers with artificial active edge sites as transparent counter electrodes for improved performance of dye-sensitized solar cells. Nanoscale, 2014, 6, 5279-5283. | 2.8 | 78 |
| 31 | Spatially Resolved Photoexcited Charge-Carrier Dynamics in Phase-Engineered Monolayer MoS ₂ . ACS Nano, 2015, 9, 840-849. | 7.3 | 58 |
| 32 | Opto-valleytronic imaging of atomically thin semiconductors. Nature Nanotechnology, 2017, 12, 329-334. | 15.6 | 55 |
| 33 | Temperature-Dependent Plasmon-Exciton Interactions in Hybrid Au/MoSe ₂ Nanostructures. ACS Photonics, 2017, 4, 1653-1660. | 3.2 | 51 |
| 34 | Ternary CuIn ₇ Se ₁₁ : Towards Ultra-Thin Layered Photodetectors and Photovoltaic Devices. Advanced Materials, 2014, 26, 7666-7672. | 11.1 | 43 |
| 35 | Electrical transport and low-frequency noise in chemical vapor deposited single-layer MoS ₂ devices. Nanotechnology, 2014, 25, 155702. | 1.3 | 43 |
| 36 | Scalable Transfer of Suspended Two-Dimensional Single Crystals. Nano Letters, 2015, 15, 5089-5097. | 4.5 | 38 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Excitonic absorption of the A -exciton peak in folded monolayer MoS_2 . <i>ACS Applied Nano Materials</i> , 2019, 2, 4085-4094. | 1.1 | 37 |
| 38 | Plasma-Enhanced Atomic Layer Deposition of HfO_2 on Monolayer, Bilayer, and Trilayer MoS_2 for the Integration of High- ϵ_r Dielectrics in Two-Dimensional Devices. <i>ACS Applied Nano Materials</i> , 2019, 2, 4085-4094. | 2.4 | 36 |
| 39 | Ultrafast Optical Microscopy of Single Monolayer Molybdenum Disulfide Flakes. <i>Scientific Reports</i> , 2016, 6, 21601. | 1.6 | 35 |
| 40 | High-response hybrid quantum dots-2D conductor phototransistors: recent progress and perspectives. <i>Nanophotonics</i> , 2017, 6, 1263-1280. | 2.9 | 23 |
| 41 | Surface enhanced resonant Raman scattering in hybrid MoSe_2 @Au nanostructures. <i>Optics Express</i> , 2018, 26, 29411. | 1.7 | 20 |
| 42 | Modifying the Ni- MoS_2 Contact Interface Using a Broad-Beam Ion Source. <i>IEEE Electron Device Letters</i> , 2016, 37, 1234-1237. | 2.2 | 12 |
| 43 | Dominant ZA phonons and thermal carriers in HfS_2 . <i>Journal of Applied Physics</i> , 2019, 126, . | 1.1 | 9 |
| 44 | Correlation between Droplet-Induced Strain Actuation and Voltage Generation in Single-Wall Carbon Nanotube Films. <i>Nano Letters</i> , 2011, 11, 5117-5122. | 4.5 | 6 |
| 45 | Dynamically reconfigurable electronic and phononic properties in intercalated HfS_2 . <i>Materials Today</i> , 2020, 39, 110-117. | 8.3 | 4 |
| 46 | Graphene/ ZnO van der Waals Stacks for Thermal Management. <i>ACS Applied Nano Materials</i> , 2020, 3, 7136-7142. | 2.4 | 4 |
| 47 | Discrimination of H_2O and $\text{C}_2\text{H}_5\text{OH}$ by Using the Transient Current Change of a Semiconducting ZnFe_2O_4 Chemiresistor. <i>ChemPlusChem</i> , 2019, 84, 387-391. | 1.3 | 1 |
| 48 | A reversible structural transition at 300 K to a low-symmetry polytype of hafnium disulfide atomic layers. <i>Materials Today Communications</i> , 2021, 26, 101722. | 0.9 | 1 |
| 49 | Synthesis, characterization and engineering of two-dimensional transition metal dichalcogenides. , 2014, , . | | 0 |