Sina Najmaei

List of Publications by Year in descending order

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49 papers	12,655 citations	94433 37 h-index	214800 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.	9.1	1,766
2	Vapour phase growth and grain boundary structure of molybdenum disulphide atomic layers. Nature Materials, 2013, 12, 754-759.	27.5	1,590
3	Largeâ€Area Vaporâ€Phase Growth and Characterization of MoS₂ Atomic Layers on a SiO₂ Substrate. Small, 2012, 8, 966-971.	10.0	1,556
4	Black Phosphorusâ€“Monolayer MoS₂ van der Waals Heterojunction pâ€“n Diode. ACS Nano, 2014, 8, 8292-8299.	14.6	1,125
5	Second harmonic microscopy of monolayer MoS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2013, 87, .	3.2	539
6	Evolution of the Electronic Band Structure and Efficient Photo-Detection in Atomic Layers of InSe. ACS Nano, 2014, 8, 1263-1272.	14.6	534
7	Plasmonic Hot Electron Induced Structural Phase Transition in a MoS₂ Monolayer. Advanced Materials, 2014, 26, 6467-6471.	21.0	516
8	Band Gap Engineering and Layer-by-Layer Mapping of Selenium-Doped Molybdenum Disulfide. Nano Letters, 2014, 14, 442-449.	9.1	463
9	Strain and structure heterogeneity in MoS2 atomic layers grown by chemical vapour deposition. Nature Communications, 2014, 5, 5246.	12.8	453
10	Synthesis and Photoresponse of Large GaSe Atomic Layers. Nano Letters, 2013, 13, 2777-2781.	9.1	381
11	An Atomically Layered InSe Avalanche Photodetector. Nano Letters, 2015, 15, 3048-3055.	9.1	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.	21.0	241
13	Switching Mechanism in Single-Layer Molybdenum Disulfide Transistors: An Insight into Current Flow across Schottky Barriers. ACS Nano, 2014, 8, 1031-1038.	14.6	224
14	Enhancing the photocurrent and photoluminescence of single crystal monolayer MoS₂ with resonant plasmonic nanoshells. Applied Physics Letters, 2014, 104, 031112.	3.3	208
15	Electrical performance of monolayer MoS2 field-effect transistors prepared by chemical vapor deposition. Applied Physics Letters, 2013, 102, .	3.3	201
16	Temperature-dependent phonon shifts in monolayer MoS2. Applied Physics Letters, 2013, 103, .	3.3	199
17	Plasmonic Pumping of Excitonic Photoluminescence in Hybrid MoS₂â€“Au Nanostructures. ACS Nano, 2014, 8, 12682-12689.	14.6	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.	9.1	197

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19	Optoelectronic devices based on two-dimensional transition metal dichalcogenides. Nano Research, 2016, 9, 1543-1560.	10.4	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.	14.6	183
21	Metallic 1T phase source/drain electrodes for field effect transistors from chemical vapor deposited MoS2. APL Materials, 2014, 2, .	5.1	155
22	Nanomechanical cleavage of molybdenum disulphide atomic layers. Nature Communications, 2014, 5, 3631.	12.8	144
23	Synthesis and Defect Investigation of Two-Dimensional Molybdenum Disulfide Atomic Layers. Accounts of Chemical Research, 2015, 48, 31-40.	15.6	140
24	Tailoring the Physical Properties of Molybdenum Disulfide Monolayers by Control of Interfacial Chemistry. Nano Letters, 2014, 14, 1354-1361.	9.1	129
25	Electrical Transport Properties of Polycrystalline Monolayer Molybdenum Disulfide. ACS Nano, 2014, 8, 7930-7937.	14.6	121
26	Nanoantenna-Enhanced Lightâ€“Matter Interaction in Atomically Thin WS₂. ACS Photonics, 2015, 2, 1260-1265.	6.6	114
27	Controlled Synthesis of Organic/Inorganic van der Waals Solid for Tunable Lightâ€“Matter Interactions. Advanced Materials, 2015, 27, 7800-7808.	21.0	109
28	Growth-substrate induced performance degradation in chemically synthesized monolayer MoS2 field effect transistors. Applied Physics Letters, 2014, 104, .	3.3	96
29	Quantitative analysis of the temperature dependency in Raman active vibrational modes of molybdenum disulfide atomic layers. Nanoscale, 2013, 5, 9758.	5.6	80
30	MoS₂atomic layers with artificial active edge sites as transparent counter electrodes for improved performance of dye-sensitized solar cells. Nanoscale, 2014, 6, 5279-5283.	5.6	78
31	Spatially Resolved Photoexcited Charge-Carrier Dynamics in Phase-Engineered Monolayer MoS₂. ACS Nano, 2015, 9, 840-849.	14.6	58
32	Opto-valleytronic imaging of atomically thin semiconductors. Nature Nanotechnology, 2017, 12, 329-334.	31.5	55
33	Temperature-Dependent Plasmonâ€“Exciton Interactions in Hybrid Au/MoSe₂ Nanostructures. ACS Photonics, 2017, 4, 1653-1660.	6.6	51
34	Ternary CuIn₇Se₁₁: Towards Ultraâ€Thin Layered Photodetectors and Photovoltaic Devices. Advanced Materials, 2014, 26, 7666-7672.	21.0	43
35	Electrical transport and low-frequency noise in chemical vapor deposited single-layer MoS₂ devices. Nanotechnology, 2014, 25, 155702.	2.6	43
36	Scalable Transfer of Suspended Two-Dimensional Single Crystals. Nano Letters, 2015, 15, 5089-5097.	9.1	38

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37	Dynamics of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>A</mml:mi></mml:math>-exciton peak in folded monolayer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mi>H</mml:mi></mml:mrow></mml:math>-MoS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow	3.2	37
38	Plasma-Enhanced Atomic Layer Deposition of HfO₂ on Monolayer, Bilayer, and Trilayer MoS₂ for the Integration of High-Î° Dielectrics in Two-Dimensional Devices. ACS Applied Nano Materials, 2019, 2, 4085-4094.	5.0	36
39	Ultrafast Optical Microscopy of Single Monolayer Molybdenum Disulfide Flakes. Scientific Reports, 2016, 6, 21601.	3.3	35
40	High-response hybrid quantum dots- 2D conductor phototransistors: recent progress and perspectives. Nanophotonics, 2017, 6, 1263-1280.	6.0	23
41	Surface enhanced resonant Raman scattering in hybrid MoSe₂@Au nanostructures. Optics Express, 2018, 26, 29411.	3.4	20
42	Modifying the Ni-MoS₂Contact Interface Using a Broad-Beam Ion Source. IEEE Electron Device Letters, 2016, 37, 1234-1237.	3.9	12
43	Dominant ZA phonons and thermal carriers in HfS2. Journal of Applied Physics, 2019, 126, .	2.5	9
44	Correlation between Droplet-Induced Strain Actuation and Voltage Generation in Single-Wall Carbon Nanotube Films. Nano Letters, 2011, 11, 5117-5122.	9.1	6
45	Dynamically reconfigurable electronic and phononic properties in intercalated HfS2. Materials Today, 2020, 39, 110-117.	14.2	4
46	Graphene/ZnO van der Waals Stacks for Thermal Management. ACS Applied Nano Materials, 2020, 3, 7136-7142.	5.0	4
47	Discrimination of 1â€•and 2â€Propanol by Using the Transient Current Change of a Semiconducting ZnFe₂O₄ Chemiresistor. ChemPlusChem, 2019, 84, 387-391.	2.8	1
48	A reversible structural transition at 300 K to a low-symmetry polytype of hafnium disulfide atomic layers. Materials Today Communications, 2021, 26, 101722.	1.9	1
49	Synthesis, characterization and engineering of two-dimensional transition metal dichalcogenides. , 2014, , .		0