Jiwoong Park

List of Publications by Year in descending order

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67 papers	8,266 citations	145106 33 h-index	162838 57 g-index
69 all docs	69 docs citations	69 times ranked	14287 citing authors

#	Article	IF	Citations
1	Robotic four-dimensional pixel assembly of van der Waals solids. Nature Nanotechnology, 2022, 17, 361-366.	15.6	54
2	Resist-Free Lithography for Monolayer Transition Metal Dichalcogenides. Nano Letters, 2022, 22, 726-732.	4.5	22
3	Direct Heat-Induced Patterning of Inorganic Nanomaterials. Journal of the American Chemical Society, 2022, 144, 10495-10506.	6.6	8
4	Local Electronic Properties of Coherent Single-Layer WS₂/WSe₂ Lateral Heterostructures. Nano Letters, 2021, 21, 2363-2369.	4.5	17
5	SynCells: A 60 Ã— 60 Î¼m² Electronic Platform with Remote Actuation for Sensing Applications in Constrained Environments. ACS Nano, 2021, 15, 8803-8812.	7.3	4
6	Atomically Thin, Optically Isotropic Films with 3D Nanotopography. Nano Letters, 2021, 21, 7291-7297.	4.5	1
7	Extremely anisotropic van der Waals thermal conductors. Nature, 2021, 597, 660-665.	13.7	127
8	Spatiotemporal Mapping of a Photocurrent Vortex in Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></ Using Diamond Quantum Sensors. Physical Review X, 2020, 10, .	2.8	15
9	Uncovering Atomic and Nano-scale Deformations in Two-dimensional Lateral Heterojunctions. Microscopy and Microanalysis, 2020, 26, 1630-1631.	0.2	0
10	Highâ€Throughput Growth of Waferâ€Scale Monolayer Transition Metal Dichalcogenide via Vertical Ostwald Ripening. Advanced Materials, 2020, 32, e2003542.	11.1	69
11	Tuning Electrical Conductance of MoS₂ Monolayers through Substitutional Doping. Nano Letters, 2020, 20, 4095-4101.	4.5	100
12	Imaging Polarity in Two Dimensional Materials by Breaking Friedel's Law. Ultramicroscopy, 2020, 215, 113019.	0.8	20
13	Low-loss composite photonic platform based on 2D semiconductor monolayers. Nature Photonics, 2020, 14, 256-262.	15.6	140
14	Capillary Origami with Atomically Thin Membranes. Nano Letters, 2019, 19, 6221-6226.	4.5	33
15	Diffraction Mapping with a Pixelated Detector to Quantify Crystal Orientation in 3D Structures Made from 2D Materials. Microscopy and Microanalysis, 2019, 25, 1956-1957.	0.2	0
16	Atomicâ€Scale Visualization of Electrochemical Lithiation Processes in Monolayer MoS₂ by Cryogenic Electron Microscopy. Advanced Energy Materials, 2019, 9, 1902773.	10.2	33
17	Two-Dimensional Material Tunnel Barrier for Josephson Junctions and Superconducting Qubits. Nano Letters, 2019, 19, 8287-8293.	4.5	29
18	Reversible MoS₂ Origami with Spatially Resolved and Reconfigurable Photosensitivity. Nano Letters, 2019, 19, 7941-7949.	4.5	41

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19	Wafer-scale synthesis of monolayer two-dimensional porphyrin polymers for hybrid superlattices. Science, 2019, 366, 1379-1384.	6.0	178
20	The MoSeS dynamic omnigami paradigm for smart shape and composition programmable 2D materials. Nature Communications, 2019, 10, 5210.	5.8	15
21	Twist, slip, and circular dichroism in bilayer graphene. Physical Review B, 2019, 100, .	1.1	22
22	Stacking angle-tunable photoluminescence from interlayer exciton states in twisted bilayer graphene. Nature Communications, 2019, 10, 1445.	5.8	67
23	MoS ₂ pixel arrays for real-time photoluminescence imaging of redox molecules. Science Advances, 2019, 5, eaat9476.	4.7	19
24	Stacking, strain, and twist in 2D materials quantified by 3D electron diffraction. Physical Review Materials, 2019, 3, .	0.9	30
25	Tunable Photocurrent and Photoluminescence from Interlayer Excitons in Twisted Bilayer Graphene and 2D Semiconductors. , 2019, , .		0
26	Coherent, atomically thin transition-metal dichalcogenide superlattices with engineered strain. Science, 2018, 359, 1131-1136.	6.0	247
27	Mapping the 3D Structure of Corrugated â€œCardboardâ€•MoS2. Microscopy and Microanalysis, 2018, 24, 1584-1585.	0.2	0
28	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
29	Mapping Strain and Relaxation in 2D Heterojunctions with Sub-picometer Precision. Microscopy and Microanalysis, 2018, 24, 1588-1589.	0.2	0
30	Strain Mapping of Two-Dimensional Heterostructures with Subpicometer Precision. Nano Letters, 2018, 18, 3746-3751.	4.5	82
31	Electron ptychography of 2D materials to deep sub-Ã¥ngstrÃ¶m resolution. Nature, 2018, 559, 343-349.	13.7	431
32	Absence of a Band Gap at the Interface of a Metal and Highly Doped Monolayer MoS₂. Nano Letters, 2017, 17, 5962-5968.	4.5	37
33	Layer-by-layer assembly of two-dimensional materials into wafer-scale heterostructures. Nature, 2017, 550, 229-233.	13.7	442
34	Tunable excitons in bilayer graphene. Science, 2017, 358, 907-910.	6.0	126
35	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
36	Breaking Friedelâ€™s Law in Polar Two Dimensional Materials. Microscopy and Microanalysis, 2017, 23, 1738-1739.	0.2	1

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37	Strain Accommodation and Coherency in Laterally-Stitched WSe 2 /WS 2 Junctions. Microscopy and Microanalysis, 2016, 22, 870-871.	0.2	5
38	Imaging chiral symmetry breaking from KekulÃ© bond order in graphene. Nature Physics, 2016, 12, 950-958.	6.5	111
39	Atomic-Scale Spectroscopy of Gated Monolayer MoS₂. Nano Letters, 2016, 16, 3148-3154.	4.5	30
40	Atomically Thin Graphene Windows That Enable High Contrast Electron Microscopy without a Specimen Vacuum Chamber. Nano Letters, 2016, 16, 7427-7432.	4.5	13
41	Electron Diffraction from a Single Atom and Optimal Signal Detection. Microscopy and Microanalysis, 2016, 22, 846-847.	0.2	3
42	Klein tunnelling and electron trapping in nanometre-scale graphene quantum dots. Nature Physics, 2016, 12, 1069-1075.	6.5	150
43	Atomistic Interrogation of Bâ€“N Co-dopant Structures and Their Electronic Effects in Graphene. ACS Nano, 2016, 10, 6574-6584.	7.3	53
44	Atomically Thin Ohmic Edge Contacts Between Two-Dimensional Materials. ACS Nano, 2016, 10, 6392-6399.	7.3	202
45	Chiral atomically thin films. Nature Nanotechnology, 2016, 11, 520-524.	15.6	176
46	Electron Microscopy in Air: Transparent Atomic Membranes and Imaging Modes. Microscopy and Microanalysis, 2015, 21, 1111-1112.	0.2	5
47	Breaking of Valley Degeneracy by Magnetic Field in Monolayer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MoSe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow> Physical Review Letters, 2015, 114, 037401.	2.9	566
48	Tunable Optical Excitations in Twisted Bilayer Graphene Form Strongly Bound Excitons. Nano Letters, 2015, 15, 5932-5937.	4.5	53
49	High-mobility three-atom-thick semiconducting films with wafer-scale homogeneity. Nature, 2015, 520, 656-660.	13.7	1,562
50	Strongly bound excitons in gapless two-dimensional structures. Physical Review B, 2014, 90, .	1.1	17
51	Polycrystalline Graphene with Single Crystalline Electronic Structure. Nano Letters, 2014, 14, 5706-5711.	4.5	134
52	Van Hove Singularities and Excitonic Effects in the Optical Conductivity of Twisted Bilayer Graphene. Nano Letters, 2014, 14, 3353-3357.	4.5	132
53	The valley Hall effect in MoS ₂ transistors. Science, 2014, 344, 1489-1492.	6.0	1,507
54	Atomic Imaging Across Strain Boundaries in Bilayer Graphene with ADF-STEM and DF-TEM. Microscopy and Microanalysis, 2014, 20, 1058-1059.	0.2	0

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55	Transient Absorption and Photocurrent Microscopy Show That Hot Electron Supercollisions Describe the Rate-Limiting Relaxation Step in Graphene. Nano Letters, 2013, 13, 5497-5502.	4.5	54
56	Hyperspectral Imaging of Structure and Composition in Atomically Thin Heterostructures. Nano Letters, 2013, 13, 3942-3946.	4.5	42
57	Depolarization effect in optical absorption measurements of one- and two-dimensional nanostructures. Applied Physics Letters, 2012, 101, 123102.	1.5	10
58	Schottky barrier inhomogeneities at the interface of few layer epitaxial graphene and silicon carbide. Applied Physics Letters, 2012, 100, .	1.5	75
59	Graphene has ultra high piezoresistive gauge factor. , 2012, , .		15
60	Angle-Resolved Raman Imaging of Interlayer Rotations and Interactions in Twisted Bilayer Graphene. Nano Letters, 2012, 12, 3162-3167.	4.5	299
61	High-Throughput Graphene Imaging on Arbitrary Substrates with Widefield Raman Spectroscopy. ACS Nano, 2012, 6, 373-380.	7.3	47
62	Laser-based imaging of individual carbon nanostructures. NPG Asia Materials, 2011, 3, 91-99.	3.8	16
63	Ultrafast relaxation dynamics of hot optical phonons in graphene. Applied Physics Letters, 2010, 96, .	1.5	234
64	Photoelectrical imaging and characterization of point contacts in pentacene thin-film transistors. Applied Physics Letters, 2010, 97, 023308.	1.5	9
65	Imaging of Photocurrent Generation and Collection in Single-Layer Graphene. Nano Letters, 2009, 9, 1742-1746.	4.5	330
66	Scanning photocurrent microscopy in semiconducting carbon nanotube transistors. , 2007, , .		0
67	Scanning Photoconductivity and Photocurrent Imaging in Germanium Nanowires. , 2007, , .		0