Boris I Yakobson

List of Publications by Year
in descending order

396	50,815	1231 110	1627 215
papers	citations	h-index	g-index

415	415	415	38099
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Borophene synthesis beyond the single-atomic-layer limit. Nature Materials, 2022, 21, 35-40.	13.3	137
2	Twoâ€Ðimensional Nanomaterials for the Development of Efficient Gas Sensors: Recent Advances, Challenges, and Future Perspectives. Advanced Materials Technologies, 2022, 7, 2101252.	3.0	20
3	Phase controlled synthesis of transition metal carbide nanocrystals by ultrafast flash Joule heating. Nature Communications, 2022, 13, 262.	5.8	52
4	Stability and electronic properties of gallenene. Nanoscale Advances, 2022, 4, 1408-1413.	2.2	6
5	Polycrystalline morphology and mechanical strength of nanotube fibers. Npj Computational Materials, 2022, 8, .	3.5	0
6	Borophane Polymorphs. Journal of Physical Chemistry Letters, 2022, 13, 1107-1113.	2.1	12
7	Iron corrosion in the â€œinertâ€•supercritical CO2, ab initio dynamics insights: How impurities matter. Matter, 2022, 5, 751-762.	5.0	8
8	Electron Optics and Valley Hall Effect of Undulated Graphene. Nano Letters, 2022, 22, 2934-2940.	4.5	8
9	Probing borophene oxidation at the atomic scale. Nanotechnology, 2022, 33, 235702.	1.3	7
10	Atomic Molybdenum for Synthesis of Ammonia with 50% Faradic Efficiency. Small, 2022, 18, e2106327.	5.2	20
11	Salt-Assisted MoS₂ Growth: Molecular Mechanisms from the First Principles. Journal of the American Chemical Society, 2022, 144, 7497-7503.	6.6	30
12	Designing 1D correlated-electron states by non-Euclidean topography of 2D monolayers. Nature Communications, 2022, 13, .	5.8	9
13	Piezo-response in two-dimensional Î±-Tellurene films. Materials Today, 2021, 44, 40-47.	8.3	9
14	Zwitterionic ultrathin covalent organic polymers for high-performance electrocatalytic carbon dioxide reduction. Applied Catalysis B: Environmental, 2021, 284, 119750.	10.8	35
15	Semiconducting Î±â€²-boron sheet with high mobility and low all-boron contact resistance: a first-principles study. Nanoscale, 2021, 13, 8474-8480.	2.8	15
16	Energetics of graphene origami and their â€œspatial resolutionâ€• MRS Bulletin, 2021, 46, 481-486.	1.7	3
17	Dual Role of Adsorbent and Non-monotonic Transfer p-Doping of Diamond. ACS Applied Materials & Interfaces, 2021, 13, 4676-4681.	4.0	2
18	Millisecond Conversion of Metastable 2D Materials by Flash Joule Heating. ACS Nano, 2021, 15, 1282-1290.	7.3	48

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19	Substitution of copper atoms into defect-rich molybdenum sulfides and their electrocatalytic activity. Nanoscale Advances, 2021, 3, 1747-1757.	2.2	3
20	Kinetically Determined Shapes of Grain Boundaries in Graphene. ACS Nano, 2021, 15, 4893-4900.	7.3	11
21	Hydrogen Peroxide Generation with 100% Faradaic Efficiency on Metal-Free Carbon Black. ACS Catalysis, 2021, 11, 2454-2459.	5.5	98
22	What Dictates Rashba Splitting in 2D van der Waals Heterobilayers. Journal of the American Chemical Society, 2021, 143, 3503-3508.	6.6	21
23	Electronic and Magnetic Diversity of Graphone/Graphene Superlattices. Chemistry of Materials, 2021, 33, 2090-2098.	3.2	5
24	Computational Modeling of 2D Materials under High Pressure and Their Chemical Bonding: Silicene as Possible Field-Effect Transistor. ACS Nano, 2021, 15, 6861-6871.	7.3	18
25	Theoretical Prediction of Two-Dimensional Materials, Behavior, and Properties. ACS Nano, 2021, 15, 5959-5976.	7.3	30
26	Dimensionality-Reduced Fermi Level Pinning in Coplanar 2D Heterojunctions. Journal of Physical Chemistry Letters, 2021, 12, 4299-4305.	2.1	10
27	Short Term Safety, Immunogenicity, and Reproductive Effects of Combined Vaccination With Anti-GnRH (Gonacon) and Rabies Vaccines in Female Feral Cats. Frontiers in Veterinary Science, 2021, 8, 650291.	0.9	4
28	Bandgap engineering of two-dimensional C3N bilayers. Nature Electronics, 2021, 4, 486-494.	13.1	36
29	Gas-Phase â€œPrehistoryâ€•and Molecular Precursors in Monolayer Metal Dichalcogenides Synthesis: The Case of MoS₂. ACS Nano, 2021, 15, 10525-10531.	7.3	9
30	Two-Dimensional Diamondâ€”Diamane: Current State and Further Prospects. Nano Letters, 2021, 21, 5475-5484.	4.5	64
31	Dimensionality-Inhibited Chemical Doping in Two-Dimensional Semiconductors: The Phosphorene and MoS₂ from Charge-Correction Method. Nano Letters, 2021, 21, 6711-6717.	4.5	14
32	Stable Low-Dimensional Boron Chalcogenides from Planar Structural Motifs. Journal of Physical Chemistry A, 2021, 125, 6059-6063.	1.1	2
33	Tuning Metal Elements in Open Frameworks for Efficient Oxygen Evolution and Oxygen Reduction Reaction Catalysts. ACS Applied Materials & Interfaces, 2021, 13, 42715-42723.	4.0	17
34	Stress-dominated growth of two-dimensional materials on nonplanar substrates. Journal of the Mechanics and Physics of Solids, 2021, 157, 104645.	2.3	4
35	Building a stable cationic molecule/electrode interface for highly efficient and durable CO₂ reduction at an industrially relevant current. Energy and Environmental Science, 2021, 14, 483-492.	15.6	101
36	Nanoscale Probing of Image-Potential States and Electron Transfer Doping in Borophene Polymorphs. Nano Letters, 2021, 21, 1169-1174.	4.5	20

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37	Heterobilayer with Ferroelectric Switching of Topological State. Nano Letters, 2021, 21, 785-790.	4.5	38
38	Universal Strength Scaling in Carbon Nanotube Bundles with Frictional Load Transfer. ACS Nano, 2021, 15, 1342-1350.	7.3	26
39	Atomic Layers of Graphene for Microbial Corrosion Prevention. ACS Nano, 2021, 15, 447-454.	7.3	20
40	Borophenes: Insights and Predictions From Computational Analyses. , 2021, , 27-49.		1
41	Step-Edge Epitaxy for Borophene Growth on Insulators. ACS Nano, 2021, 15, 18347-18353.	7.3	19
42	Fatigue in assemblies of indefatigable carbon nanotubes. Science Advances, 2021, 7, eabj6996.	4.7	7
43	Nickel particleâ€“enabled width-controlled growth of bilayer molybdenum disulfide nanoribbons. Science Advances, 2021, 7, eabk1892.	4.7	19
44	Complementary behaviour of EDL and HER activity in functionalized graphene nanoplatelets. Nanoscale, 2020, 12, 1790-1800.	2.8	10
45	Engineering grain boundaries at theÂ2D limit for theÂhydrogen evolution reaction. Nature Communications, 2020, 11, 57.	5.8	153
46	Scaleâ€Enhanced Magnetism in Exfoliated Atomically Thin Magnetite Sheets. Small, 2020, 16, e2004208.	5.2	15
47	Grapheneâ€“Diamond Transformation: Nanoâ€Thermodynamics of Chemically Induced Grapheneâ€“Diamond Transformation (Small 47/2020). Small, 2020, 16, 2070256.	5.2	2
48	Dimensionality effects in crystal plasticity, from 3D silicon to 2D silicene. Extreme Mechanics Letters, 2020, 40, 100892.	2.0	1
49	Hexagonal Boron Nitride for Sulfur Corrosion Inhibition. ACS Nano, 2020, 14, 14809-14819.	7.3	56
50	Nanoâ€Thermodynamics of Chemically Induced Grapheneâ€“Diamond Transformation. Small, 2020, 16, e2004782.	5.2	26
51	CO₂ to Formic Acid Using Cuâ€“Sn on Laser-Induced Graphene. ACS Applied Materials & Interfaces, 2020, 12, 41223-41229.	4.0	48
52	Flash Graphene Morphologies. ACS Nano, 2020, 14, 13691-13699.	7.3	78
53	Zeolite Nanosheets Stabilize Catalyst Particles to Promote the Growth of Thermodynamically Unfavorable, Smallâ€Diameter Carbon Nanotubes. Small, 2020, 16, e2002120.	5.2	7
54	Hexagonal layered group IVâ€“VI semiconductors and derivatives: fresh blood of the 2D family. Nanoscale, 2020, 12, 13450-13459.	2.8	20

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55	Heterobilayers of 2D materials as a platform for excitonic superfluidity. Nature Communications, 2020, 11, 2989.	5.8	31
56	Seasonal variation in bait uptake and seropositivity during a multi-year biannual oral rabies fox vaccination programme in Kosovo (2010â€“2015). Preventive Veterinary Medicine, 2020, 181, 105050.	0.7	0
57	Flexoelectricity and Charge Separation in Carbon Nanotubes. Nano Letters, 2020, 20, 3240-3246.	4.5	32
58	Excitons and Electronâ€“Hole Liquid State in 2D Î³â€Phase Groupâ€IV Monochalcogenides. Advanced Functional Materials, 2020, 30, 2000533.	7.8	39
59	Wafer-scale single-crystal hexagonal boron nitride monolayers on CuÂ(111). Nature, 2020, 579, 219-223.	13.7	409
60	Structure and Dynamics of the Electronic Heterointerfaces in MoS₂ by First-Principles Simulations. Journal of Physical Chemistry Letters, 2020, 11, 1644-1649.	2.1	9
61	Borophene Concentric Superlattices via Self-Assembly of Twin Boundaries. Nano Letters, 2020, 20, 1315-1321.	4.5	36
62	Gram-scale bottom-up flash graphene synthesis. Nature, 2020, 577, 647-651.	13.7	438
63	Nested hybrid nanotubes. Science, 2020, 367, 506-507.	6.0	22
64	Further Evidence of Inadequate Quality in Lateral Flow Devices Commercially Offered for the Diagnosis of Rabies. Tropical Medicine and Infectious Disease, 2020, 5, 13.	0.9	17
65	Surfactant-Mediated Growth and Patterning of Atomically Thin Transition Metal Dichalcogenides. ACS Nano, 2020, 14, 6570-6581.	7.3	30
66	Janus Segregation at the Carbon Nanotubeâ€“Catalyst Interface. ACS Nano, 2019, 13, 8836-8841.	7.3	25
67	Self-gating in semiconductor electrocatalysis. Nature Materials, 2019, 18, 1098-1104.	13.3	167
68	Atomic Ru Immobilized on Porous h-BN through Simple Vacuum Filtration for Highly Active and Selective CO₂ Methanation. ACS Catalysis, 2019, 9, 10077-10086.	5.5	93
69	Room-Temperature Ferroelectricity in Group-IV Metal Chalcogenide Nanowires. Journal of the American Chemical Society, 2019, 141, 15040-15045.	6.6	44
70	Near-equilibrium growth from borophene edges on silver. Science Advances, 2019, 5, eaax0246.	4.7	47
71	Modulating Blue Phosphorene by Synergetic Codoping: Indirect to Direct Gap Transition and Strong Bandgap Bowing. Advanced Functional Materials, 2019, 29, 1808721.	7.8	6
72	Strain tolerance of two-dimensional crystal growth on curved surfaces. Science Advances, 2019, 5, eaav4028.	4.7	46

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73	Electronic Doping Controlled Migration of Dislocations in Polycrystalline 2D WS₂. Small, 2019, 15, e1805145.	5.2	4
74	Structureâ€Dependent Electrical and Magnetic Properties of Iron Oxide Composites. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1801004.	0.8	3
75	Borophene Synthesis on Au(111). ACS Nano, 2019, 13, 3816-3822.	7.3	261
76	Low Contact Barrier in 2H/1Tâ€² MoTe₂ In-Plane Heterostructure Synthesized by Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2019, 11, 12777-12785.	4.0	70
77	Geometric imaging of borophene polymorphs with functionalized probes. Nature Communications, 2019, 10, 1642.	5.8	65
78	How the Complementarity at Vicinal Steps Enables Growth of 2D Monocrystals. Nano Letters, 2019, 19, 2027-2031.	4.5	55
79	Width-dependent phase crossover in transition metal dichalcogenide nanoribbons. Nanotechnology, 2019, 30, 075701.	1.3	11
80	Two-Level Quantum Systems in Two-Dimensional Materials for Single Photon Emission. Nano Letters, 2019, 19, 408-414.	4.5	59
81	Graphene as an electrochemical transfer layer. Carbon, 2019, 141, 266-273.	5.4	17
82	Manganese deception on graphene and implications in catalysis. Carbon, 2018, 132, 623-631.	5.4	54
83	Direct and Indirect Interlayer Excitons in a van der Waals Heterostructure of hBN/WS₂/MoS₂/hBN. ACS Nano, 2018, 12, 2498-2505.	7.3	96
84	Honeycomb boron: alchemy on aluminum pan?. Science Bulletin, 2018, 63, 270-271.	4.3	31
85	Kinetic theory for the formation of diamond nanothreads with desired configurations: a strainâ€“temperature controlled phase diagram. Nanoscale, 2018, 10, 9664-9672.	2.8	13
86	A library of atomically thin metal chalcogenides. Nature, 2018, 556, 355-359.	13.7	1,225
87	Machine learning electron density in sulfur crosslinked carbon nanotubes. Composites Science and Technology, 2018, 166, 3-9.	3.8	35
88	Oxidized Laserâ€Induced Graphene for Efficient Oxygen Electrocatalysis. Advanced Materials, 2018, 30, e1707319.	11.1	94
89	Unusual Negative Formation Enthalpies and Atomic Ordering in Isovalent Alloys of Transition Metal Dichalcogenide Monolayers. Chemistry of Materials, 2018, 30, 1547-1555.	3.2	20
90	Franck Condon shift assessment in 2D MoS₂. Journal of Physics Condensed Matter, 2018, 30, 095501.	0.7	8

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91	Mechanisms of the oxygen reduction reaction on B- and/or N-doped carbon nanomaterials with curvature and edge effects. Nanoscale, 2018, 10, 1129-1134.	2.8	81
92	Electrochemical CO₂ Reduction with Atomic Ironâ€Dispersed on Nitrogenâ€Doped Graphene. Advanced Energy Materials, 2018, 8, 1703487.	10.2	369
93	Evolutionary selection growth of two-dimensional materials on polycrystalline substrates. Nature Materials, 2018, 17, 318-322.	13.3	204
94	Quaternary Alloys: Thermally Induced 2D Alloyâ€Heterostructure Transformation in Quaternary Alloys (Adv. Mater. 45/2018). Advanced Materials, 2018, 30, 1870344.	11.1	2
95	Carbon Nanotubes and Related Nanomaterials: Critical Advances and Challenges for Synthesis toward Mainstream Commercial Applications. ACS Nano, 2018, 12, 11756-11784.	7.3	388
96	In Pursuit of 2D Materials for Maximum Optical Response. ACS Nano, 2018, 12, 10880-10889.	7.3	50
97	Thermally Induced 2D Alloyâ€Heterostructure Transformation in Quaternary Alloys. Advanced Materials, 2018, 30, e1804218.	11.1	29
98	Zinc oxideâ€“black phosphorus composites for ultrasensitive nitrogen dioxide sensing. Nanoscale Horizons, 2018, 3, 525-531.	4.1	52
99	Realizing Indirect-to-Direct Band Gap Transition in Few-Layer Two-Dimensional MX₂ (M =) Tj ETQq1 1 0.784314 rgBT /Ov	2.5	19
100	Transient Kinetic Selectivity in Nanotubes Growth on Solid Coâ€“W Catalyst. Nano Letters, 2018, 18, 5288-5293.	4.5	23
101	Chromiteen: A New 2D Oxide Magnetic Material from Natural Ore. Advanced Materials Interfaces, 2018, 5, 1800549.	1.9	36
102	Intermixing and periodic self-assembly of borophene line defects. Nature Materials, 2018, 17, 783-788.	13.3	129
103	Type-II Multiferroic Hf₂VC₂F₂ MXene Monolayer with High Transition Temperature. Journal of the American Chemical Society, 2018, 140, 9768-9773.	6.6	179
104	Dirac Cones and Nodal Line in Borophene. Journal of Physical Chemistry Letters, 2018, 9, 2757-2762.	2.1	56
105	Ultrasharp h-BN Nanocones and the Origin of Their High Mechanical Stiffness and Large Dipole Moment. Journal of Physical Chemistry Letters, 2018, 9, 5086-5091.	2.1	11
106	Dirac states from p_{x,y} orbitals in the buckled honeycomb structures: A tight-binding model and first-principles combined study. Chinese Physics B, 2018, 27, 087101.	0.7	4
107	Borophene as a prototype for synthetic 2D materials development. Nature Nanotechnology, 2018, 13, 444-450.	15.6	392
108	Glass composites reinforced with silicon-doped carbon nanotubes. Carbon, 2018, 128, 231-236.	5.4	15

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109	Mechanochemistry of One-Dimensional Boron: Structural and Electronic Transitions. Journal of the American Chemical Society, 2017, 139, 2111-2117.	6.6	41
110	High Performance Electrocatalytic Reaction of Hydrogen and Oxygen on Ruthenium Nanoclusters. ACS Applied Materials & Interfaces, 2017, 9, 3785-3791.	4.0	108
111	B₄₀cluster stability, reactivity, and its planar structural precursor. Nanoscale, 2017, 9, 1805-1810.	2.8	33
112	Elasticity, Flexibility, and Ideal Strength of Borophenes. Advanced Functional Materials, 2017, 27, 1605059.	7.8	237
113	Engineering of the interactions of volatile organic compounds with MoS₂. Journal of Materials Chemistry C, 2017, 5, 1463-1470.	2.7	30
114	Growth of Molybdenum Carbideâ€“Graphene Hybrids from Molybdenum Disulfide Atomic Layer Template. Advanced Materials Interfaces, 2017, 4, 1600866.	1.9	14
115	A review on mechanics and mechanical properties of 2D materialsâ€”Graphene and beyond. Extreme Mechanics Letters, 2017, 13, 42-77.	2.0	920
116	Predicting stable phase monolayer Mo₂C (MXene), a superconductor with chemically-tunable critical temperature. Journal of Materials Chemistry C, 2017, 5, 3438-3444.	2.7	88
117	Direct growth of MoS ₂ single crystals on polyimide substrates. 2D Materials, 2017, 4, 021028.	2.0	39
118	Magnetic field controlled graphene oxide-based origami with enhanced surface area and mechanical properties. Nanoscale, 2017, 9, 6991-6997.	2.8	36
119	Correlation between types of defects/vacancies of Bi2S3 nanostructures and their transient photocurrent. Nano Research, 2017, 10, 2405-2414.	5.8	8
120	Enhancing Mechanical Properties of Nanocomposites Using Interconnected Carbon Nanotubes (iCNT) as Reinforcement. Advanced Engineering Materials, 2017, 19, 1600499.	1.6	7
121	Nanochimneys: Topology and Thermal Conductance of 3D Nanotubeâ€“Graphene Cone Junctions. Journal of Physical Chemistry C, 2017, 121, 1257-1262.	1.5	17
122	Earth-Abundant and Non-Toxic SiX (X = S, Se) Monolayers as Highly Efficient Thermoelectric Materials. Journal of Physical Chemistry C, 2017, 121, 123-128.	1.5	41
123	Atomic H-Induced Mo₂C Hybrid as an Active and Stable Bifunctional Electrocatalyst. ACS Nano, 2017, 11, 384-394.	7.3	149
124	Two-Dimensional Boron Polymorphs for Visible Range Plasmonics: A First-Principles Exploration. Journal of the American Chemical Society, 2017, 139, 17181-17185.	6.6	135
125	Two-dimensional boron: structures, properties and applications. Chemical Society Reviews, 2017, 46, 6746-6763.	18.7	296
126	Gateâ€Voltage Control of Borophene Structure Formation. Angewandte Chemie, 2017, 129, 15623-15628.	1.6	18

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127	Phase Segregation Behavior of Two-Dimensional Transition Metal Dichalcogenide Binary Alloys Induced by Dissimilar Substitution. Chemistry of Materials, 2017, 29, 7431-7439.	3.2	27
128	Gateâ€Voltage Control of Borophene Structure Formation. Angewandte Chemie - International Edition, 2017, 56, 15421-15426.	7.2	44
129	Design of Two-Dimensional Graphene-like Dirac Materials Î²₁₂-XBeB₅ (X = H, F,) Tj ETQq1 1 0.784314 rgBT /O 4594-4599.	2.1	23
130	2D Materials: Quaternary 2D Transition Metal Dichalcogenides (TMDs) with Tunable Bandgap (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	11.1	1
131	Quaternary 2D Transition Metal Dichalcogenides (TMDs) with Tunable Bandgap. Advanced Materials, 2017, 29, 1702457.	11.1	186
132	Self-optimizing, highly surface-active layeredÂmetal dichalcogenide catalysts for hydrogen evolution. Nature Energy, 2017, 2, .	19.8	336
133	Effect of Capâ€“Catalyst Structural Correlation on the Nucleation of Carbon Nanotubes. Journal of Physical Chemistry C, 2017, 121, 18789-18794.	1.5	6
134	Defects in Two-Dimensional Materials. , 2017, , 359-378.		2
135	Tilt Grain Boundary Topology Induced by Substrate Topography. ACS Nano, 2017, 11, 8612-8618.	7.3	27
136	How Nitrogen-Doped Graphene Quantum Dots Catalyze Electroreduction of CO₂ to Hydrocarbons and Oxygenates. ACS Catalysis, 2017, 7, 6245-6250.	5.5	129
137	Highly Tunable Electronic Structures of Phosphorene/Carbon Nanotube Heterostructures through External Electric Field and Atomic Intercalation. Nano Letters, 2017, 17, 7995-8004.	4.5	15
138	Correction: Two-dimensional boron: structures, properties and applications. Chemical Society Reviews, 2017, 46, 7470-7470.	18.7	2
139	Mechanisms and theoretical simulations of the catalytic growth of nanocarbons. MRS Bulletin, 2017, 42, 794-801.	1.7	7
140	Mechanics of Materials Creation: Nanotubes, Graphene, Carbyne, Borophenes. Procedia IUTAM, 2017, 21, 17-24.	1.2	4
141	Single-Atomic Ruthenium Catalytic Sites on Nitrogen-Doped Graphene for Oxygen Reduction Reaction in Acidic Medium. ACS Nano, 2017, 11, 6930-6941.	7.3	435
142	A jellium model of a catalyst particle in carbon nanotube growth. Journal of Chemical Physics, 2017, 146, 244701.	1.2	5
143	Characterization of tin(II) sulfide defects/vacancies and correlation with their photocurrent. Nano Research, 2017, 10, 218-228.	5.8	8
144	Nanomechanics of carbon honeycomb cellular structures. Carbon, 2017, 113, 26-32.	5.4	64

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145	Oral vaccination of wildlife using a vacciniaâ€“rabies-glycoprotein recombinant virus vaccine (RABORAL V-RGÂ®): a global review. Veterinary Research, 2017, 48, 57.	1.1	130
146	Tailoring the Electronic and Magnetic Properties of Two-Dimensional Silicon Carbide Sheets and Ribbons by Fluorination. Journal of Physical Chemistry C, 2016, 120, 15407-15414.	1.5	8
147	Carbon Fibers: Carbonization with Misfusion: Fundamental Limits of Carbon-Fiber Strength Revisited (Adv. Mater. 46/2016). Advanced Materials, 2016, 28, 10342-10342.	11.1	0
148	Detecting the Biopolymer Behavior of Graphene Nanoribbons in Aqueous Solution. Scientific Reports, 2016, 6, 31174.	1.6	6
149	Topochemistry of Bowtie- and Star-Shaped Metal Dichalcogenide Nanoisland Formation. Nano Letters, 2016, 16, 3696-3702.	4.5	46
150	Growth of large-area aligned pentagonal graphene domains on high-index copper surfaces. Nano Research, 2016, 9, 2182-2189.	5.8	44
151	Strain-Induced Electronic Structure Changes in Stacked van der Waals Heterostructures. Nano Letters, 2016, 16, 3314-3320.	4.5	122
152	How Graphene Islands Are Unidirectionally Aligned on the Ge(110) Surface. Nano Letters, 2016, 16, 3160-3165.	4.5	92
153	Polyphony in B flat. Nature Chemistry, 2016, 8, 525-527.	6.6	148
154	Substrate-Induced Nanoscale Undulations of Borophene on Silver. Nano Letters, 2016, 16, 6622-6627.	4.5	155
155	Solidâ€“Vapor Reaction Growth of Transitionâ€Metal Dichalcogenide Monolayers. Angewandte Chemie - International Edition, 2016, 55, 10656-10661.	7.2	27
156	Solidâ€“Vapor Reaction Growth of Transitionâ€Metal Dichalcogenide Monolayers. Angewandte Chemie, 2016, 128, 10814-10819.	1.6	17
157	Spiral Growth of SnSe₂ Crystals by Chemical Vapor Deposition. Advanced Materials Interfaces, 2016, 3, 1600383.	1.9	55
158	Controllable and Predictable Viscoelastic Behavior of 3D Boronâ€Doped Multiwalled Carbon Nanotube Sponges. Particle and Particle Systems Characterization, 2016, 33, 21-26.	1.2	6
159	A MoS₂-Based Capacitive Displacement Sensor for DNA Sequencing. ACS Nano, 2016, 10, 9009-9016.	7.3	40
160	Strain-Robust and Electric Field Tunable Band Alignments in van der Waals WSe₂â€“Graphene Heterojunctions. Journal of Physical Chemistry C, 2016, 120, 22702-22709.	1.5	34
161	Carrier Delocalization in Two-Dimensional Coplanar pâ€“n Junctions of Graphene and Metal Dichalcogenides. Nano Letters, 2016, 16, 5032-5036.	4.5	77
162	Thermomechanical analysis of two-dimensional boron monolayers. Physical Review B, 2016, 93, .	1.1	53

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163	Highly Itinerant Atomic Vacancies in Phosphorene. Journal of the American Chemical Society, 2016, 138, 10199-10206.	6.6	134
164	Chemical Trends of Electronic Properties of Two-Dimensional Halide Perovskites and Their Potential Applications for Electronics and Optoelectronics. Journal of Physical Chemistry C, 2016, 120, 24682-24687.	1.5	41
165	High-throughput screening of metal-porphyrin-like graphenes for selective capture of carbon dioxide. Scientific Reports, 2016, 6, 21788.	1.6	31
166	Carbonization with Misfusion: Fundamental Limits of Carbonâ€Fiber Strength Revisited. Advanced Materials, 2016, 28, 10317-10322.	11.1	35
167	Phase crossover in transition metal dichalcogenide nanoclusters. Nanoscale, 2016, 8, 19154-19160.	2.8	8
168	Highâ€Performance Hydrogen Evolution from MoS_{2(1â€“x)}P_x Solid Solution. Advanced Materials, 2016, 28, 1427-1432.	11.1	309
169	Ionic Graphitization of Ultrathin Films of Ionic Compounds. Journal of Physical Chemistry Letters, 2016, 7, 2659-2663.	2.1	9
170	Exploring the interface between single-walled carbon nanotubes and epoxy resin. Carbon, 2016, 105, 600-606.	5.4	44
171	Unusual electronic and magnetic properties of lateral phosphoreneâ€“WSe2 heterostructures. Journal of Materials Chemistry C, 2016, 4, 6657-6665.	2.7	10
172	Strong interfacial coupling of MoS2/g-C3N4 van de Waals solids for highly active water reduction. Nano Energy, 2016, 27, 44-50.	8.2	96
173	Layer Engineering of 2D Semiconductor Junctions. Advanced Materials, 2016, 28, 5126-5132.	11.1	63
174	Growth Mechanism and Morphology of Hexagonal Boron Nitride. Nano Letters, 2016, 16, 1398-1403.	4.5	123
175	Incorporation of Nitrogen Defects for Efficient Reduction of CO₂ via Two-Electron Pathway on Three-Dimensional Graphene Foam. Nano Letters, 2016, 16, 466-470.	4.5	435
176	Indentation Tests Reveal Geometry-Regulated Stiffening of Nanotube Junctions. Nano Letters, 2016, 16, 232-236.	4.5	18
177	Can Two-Dimensional Boron Superconduct?. Nano Letters, 2016, 16, 2522-2526.	4.5	380
178	Oxygen-activated growth and bandgap tunability of large single-crystal bilayer graphene. Nature Nanotechnology, 2016, 11, 426-431.	15.6	287
179	Phosphorene-based nanogenerator powered by cyclic molecular doping. Nano Energy, 2016, 23, 34-39.	8.2	19
180	Two-Dimensional SiS Layers with Promising Electronic and Optoelectronic Properties: Theoretical Prediction. Nano Letters, 2016, 16, 1110-1117.	4.5	149

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