

Boris I Yakobson

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

387
papers

40,307
citations

101
h-index

194
g-index

415
ext. papers

45,629
ext. citations

10.8
avg, IF

7.74
L-index

#	Paper	IF	Citations
387	Borophane Polymorphs.. <i>Journal of Physical Chemistry Letters</i> , 2022 , 1107-1113	6.4	1
386	Iron corrosion in the inert Supercritical CO ₂ , ab initio dynamics insights: How impurities matter. <i>Matter</i> , 2022 , 5, 751-762	12.7	1
385	Phase controlled synthesis of transition metal carbide nanocrystals by ultrafast flash Joule heating.. <i>Nature Communications</i> , 2022 , 13, 262	17.4	2
384	Atomic Molybdenum for Synthesis of Ammonia with 50% Faradic Efficiency.. <i>Small</i> , 2022 , e2106327	11	2
383	Salt-Assisted MoS Growth: Molecular Mechanisms from the First Principles.. <i>Journal of the American Chemical Society</i> , 2022 ,	16.4	3
382	Borophenes: Insights and Predictions From Computational Analyses 2021 , 27-49		0
381	Step-Edge Epitaxy for Borophene Growth on Insulators. <i>ACS Nano</i> , 2021 ,	16.7	2
380	Atomic Layers of Graphene for Microbial Corrosion Prevention. <i>ACS Nano</i> , 2021 , 15, 447-454	16.7	7
379	Heterobilayer with Ferroelectric Switching of Topological State. <i>Nano Letters</i> , 2021 , 21, 785-790	11.5	10
378	Universal Strength Scaling in Carbon Nanotube Bundles with Frictional Load Transfer. <i>ACS Nano</i> , 2021 , 15, 1342-1350	16.7	15
377	Electronic and Magnetic Diversity of Graphene/Graphene Superlattices. <i>Chemistry of Materials</i> , 2021 , 33, 2090-2098	9.6	2
376	Computational Modeling of 2D Materials under High Pressure and Their Chemical Bonding: Silicene as Possible Field-Effect Transistor. <i>ACS Nano</i> , 2021 , 15, 6861-6871	16.7	5
375	Theoretical Prediction of Two-Dimensional Materials, Behavior, and Properties. <i>ACS Nano</i> , 2021 , 15, 5959-5976	16.7	768
374	Dimensionality-Reduced Fermi Level Pinning in Coplanar 2D Heterojunctions. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 4299-4305	6.4	6
373	Short Term Safety, Immunogenicity, and Reproductive Effects of Combined Vaccination With Anti-GnRH (Gonacon) and Rabies Vaccines in Female Feral Cats. <i>Frontiers in Veterinary Science</i> , 2021 , 8, 650291	3.1	0
372	Bandgap engineering of two-dimensional C ₃ N bilayers. <i>Nature Electronics</i> , 2021 , 4, 486-494	28.4	6
371	Gas-Phase "Prehistory" and Molecular Precursors in Monolayer Metal Dichalcogenides Synthesis: The Case of MoS. <i>ACS Nano</i> , 2021 , 15, 10525-10531	16.7	4

370	Two-Dimensional Diamond-Diamane: Current State and Further Prospects. <i>Nano Letters</i> , 2021 , 21, 5475-5484	11.9	23
369	Dimensionality-Inhibited Chemical Doping in Two-Dimensional Semiconductors: The Phosphorene and MoS from Charge-Correction Method. <i>Nano Letters</i> , 2021 , 21, 6711-6717	11.5	2
368	Piezo-response in two-dimensional HgTe films. <i>Materials Today</i> , 2021 , 44, 40-47	21.8	2
367	Zwitterionic ultrathin covalent organic polymers for high-performance electrocatalytic carbon dioxide reduction. <i>Applied Catalysis B: Environmental</i> , 2021 , 284, 119750	21.8	8
366	Semiconducting H-boron sheet with high mobility and low all-boron contact resistance: a first-principles study. <i>Nanoscale</i> , 2021 , 13, 8474-8480	7.7	6
365	Energetics of graphene origami and their Hpatial resolution. <i>MRS Bulletin</i> , 2021 , 46, 481-486	3.2	
364	Dual Role of Adsorbent and Non-monotonic Transfer p-Doping of Diamond. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 4676-4681	9.5	1
363	Millisecond Conversion of Metastable 2D Materials by Flash Joule Heating. <i>ACS Nano</i> , 2021 , 15, 1282-1296	20.7	20
362	Substitution of copper atoms into defect-rich molybdenum sulfides and their electrocatalytic activity. <i>Nanoscale Advances</i> , 2021 , 3, 1747-1757	5.1	2
361	Kinetically Determined Shapes of Grain Boundaries in Graphene. <i>ACS Nano</i> , 2021 , 15, 4893-4900	16.7	5
360	Hydrogen Peroxide Generation with 100% Faradaic Efficiency on Metal-Free Carbon Black. <i>ACS Catalysis</i> , 2021 , 11, 2454-2459	13.1	31
359	What Dictates Rashba Splitting in 2D van der Waals Heterobilayers. <i>Journal of the American Chemical Society</i> , 2021 , 143, 3503-3508	16.4	3
358	Stable Low-Dimensional Boron Chalcogenides from Planar Structural Motifs. <i>Journal of Physical Chemistry A</i> , 2021 , 125, 6059-6063	2.8	2
357	Borophene synthesis beyond the single-atomic-layer limit. <i>Nature Materials</i> , 2021 ,	27	25
356	Tuning Metal Elements in Open Frameworks for Efficient Oxygen Evolution and Oxygen Reduction Reaction Catalysts. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 42715-42723	9.5	5
355	Stress-dominated growth of two-dimensional materials on nonplanar substrates. <i>Journal of the Mechanics and Physics of Solids</i> , 2021 , 157, 104645	5	1
354	Building a stable cationic molecule/electrode interface for highly efficient and durable CO ₂ reduction at an industrially relevant current. <i>Energy and Environmental Science</i> , 2021 , 14, 483-492	35.4	33
353	Nanoscale Probing of Image-Potential States and Electron Transfer Doping in Borophene Polymorphs. <i>Nano Letters</i> , 2021 , 21, 1169-1174	11.5	7

352	Fatigue in assemblies of indefatigable carbon nanotubes.. <i>Science Advances</i> , 2021 , 7, eabj6996	14.3	3
351	Nickel particle-enabled width-controlled growth of bilayer molybdenum disulfide nanoribbons. <i>Science Advances</i> , 2021 , 7, eabk1892	14.3	2
350	Hexagonal layered group IV-VI semiconductors and derivatives: fresh blood of the 2D family. <i>Nanoscale</i> , 2020 , 12, 13450-13459	7.7	8
349	Heterobilayers of 2D materials as a platform for excitonic superfluidity. <i>Nature Communications</i> , 2020 , 11, 2989	17.4	23
348	Seasonal variation in bait uptake and seropositivity during a multi-year biannual oral rabies fox vaccination programme in Kosovo (2010-2015). <i>Preventive Veterinary Medicine</i> , 2020 , 181, 105050	3.1	
347	Flexoelectricity and Charge Separation in Carbon Nanotubes. <i>Nano Letters</i> , 2020 , 20, 3240-3246	11.5	20
346	Excitons and Electron-Hole Liquid State in 2D Phase Group-IV Monochalcogenides. <i>Advanced Functional Materials</i> , 2020 , 30, 2000533	15.6	13
345	Wafer-scale single-crystal hexagonal boron nitride monolayers on Cu(111). <i>Nature</i> , 2020 , 579, 219-223	50.4	209
344	Structure and Dynamics of the Electronic Heterointerfaces in MoS by First-Principles Simulations. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 1644-1649	6.4	6
343	Borophene Concentric Superlattices via Self-Assembly of Twin Boundaries. <i>Nano Letters</i> , 2020 , 20, 1315-1321	13.1	20
342	Gram-scale bottom-up flash graphene synthesis. <i>Nature</i> , 2020 , 577, 647-651	50.4	201
341	Nested hybrid nanotubes. <i>Science</i> , 2020 , 367, 506-507	33.3	15
340	Further Evidence of Inadequate Quality in Lateral Flow Devices Commercially Offered for the Diagnosis of Rabies. <i>Tropical Medicine and Infectious Disease</i> , 2020 , 5,	3.5	10
339	Surfactant-Mediated Growth and Patterning of Atomically Thin Transition Metal Dichalcogenides. <i>ACS Nano</i> , 2020 , 14, 6570-6581	16.7	16
338	Complementary behaviour of EDL and HER activity in functionalized graphene nanoplatelets. <i>Nanoscale</i> , 2020 , 12, 1790-1800	7.7	5
337	Engineering grain boundaries at the 2D limit for the hydrogen evolution reaction. <i>Nature Communications</i> , 2020 , 11, 57	17.4	72
336	Scale-Enhanced Magnetism in Exfoliated Atomically Thin Magnetite Sheets. <i>Small</i> , 2020 , 16, e2004208	11	6
335	Graphene-Diamond Transformation: Nano-Thermodynamics of Chemically Induced Graphene-Diamond Transformation (Small 47/2020). <i>Small</i> , 2020 , 16, 2070256	11	1

334	Dimensionality effects in crystal plasticity, from 3D silicon to 2D silicene. <i>Extreme Mechanics Letters</i> , 2020 , 40, 100892	3.9	
333	Hexagonal Boron Nitride for Sulfur Corrosion Inhibition. <i>ACS Nano</i> , 2020 , 14, 14809-14819	16.7	21
332	Nano-Thermodynamics of Chemically Induced Graphene-Diamond Transformation. <i>Small</i> , 2020 , 16, e2004782	17.8	14
331	CO to Formic Acid Using Cu-Sn on Laser-Induced Graphene. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 41223-41229	9.5	17
330	Flash Graphene Morphologies. <i>ACS Nano</i> , 2020 , 14, 13691-13699	16.7	33
329	Zeolite Nanosheets Stabilize Catalyst Particles to Promote the Growth of Thermodynamically Unfavorable, Small-Diameter Carbon Nanotubes. <i>Small</i> , 2020 , 16, e2002120	11	3
328	Room-Temperature Ferroelectricity in Group-IV Metal Chalcogenide Nanowires. <i>Journal of the American Chemical Society</i> , 2019 , 141, 15040-15045	16.4	19
327	Near-equilibrium growth from borophene edges on silver. <i>Science Advances</i> , 2019 , 5, eaax0246	14.3	25
326	Modulating Blue Phosphorene by Synergetic Codoping: Indirect to Direct Gap Transition and Strong Bandgap Bowing. <i>Advanced Functional Materials</i> , 2019 , 29, 1808721	15.6	6
325	Strain tolerance of two-dimensional crystal growth on curved surfaces. <i>Science Advances</i> , 2019 , 5, eaav40283	14.3	29
324	Electronic Doping Controlled Migration of Dislocations in Polycrystalline 2D WS. <i>Small</i> , 2019 , 15, e1805145	14.5	1
323	Structure-Dependent Electrical and Magnetic Properties of Iron Oxide Composites. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019 , 216, 1801004	1.6	3
322	Borophene Synthesis on Au(111). <i>ACS Nano</i> , 2019 , 13, 3816-3822	16.7	134
321	Low Contact Barrier in 2H/1T' MoTe In-Plane Heterostructure Synthesized by Chemical Vapor Deposition. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 12777-12785	9.5	38
320	Geometric imaging of borophene polymorphs with functionalized probes. <i>Nature Communications</i> , 2019 , 10, 1642	17.4	44
319	Janus Segregation at the Carbon Nanotube-Catalyst Interface. <i>ACS Nano</i> , 2019 , 13, 8836-8841	16.7	15
318	Self-gating in semiconductor electrocatalysis. <i>Nature Materials</i> , 2019 , 18, 1098-1104	27	84
317	Atomic Ru Immobilized on Porous h-BN through Simple Vacuum Filtration for Highly Active and Selective CO ₂ Methanation. <i>ACS Catalysis</i> , 2019 , 9, 10077-10086	13.1	43

316	How the Complementarity at Vicinal Steps Enables Growth of 2D Monocrystals. <i>Nano Letters</i> , 2019 , 19, 2027-2031	11.5	29
315	Width-dependent phase crossover in transition metal dichalcogenide nanoribbons. <i>Nanotechnology</i> , 2019 , 30, 075701	3.4	4
314	Two-Level Quantum Systems in Two-Dimensional Materials for Single Photon Emission. <i>Nano Letters</i> , 2019 , 19, 408-414	11.5	36
313	Graphene as an electrochemical transfer layer. <i>Carbon</i> , 2019 , 141, 266-273	10.4	13
312	Manganese deception on graphene and implications in catalysis. <i>Carbon</i> , 2018 , 132, 623-631	10.4	48
311	Direct and Indirect Interlayer Excitons in a van der Waals Heterostructure of hBN/WS/MoS/hBN. <i>ACS Nano</i> , 2018 , 12, 2498-2505	16.7	67
310	Honeycomb boron: alchemy on aluminum pan?. <i>Science Bulletin</i> , 2018 , 63, 270-271	10.6	21
309	Kinetic theory for the formation of diamond nanothreads with desired configurations: a strain-temperature controlled phase diagram. <i>Nanoscale</i> , 2018 , 10, 9664-9672	7.7	6
308	A library of atomically thin metal chalcogenides. <i>Nature</i> , 2018 , 556, 355-359	50.4	812
307	Machine learning electron density in sulfur crosslinked carbon nanotubes. <i>Composites Science and Technology</i> , 2018 , 166, 3-9	8.6	20
306	Oxidized Laser-Induced Graphene for Efficient Oxygen Electrocatalysis. <i>Advanced Materials</i> , 2018 , 30, e1707319	24	63
305	Unusual Negative Formation Enthalpies and Atomic Ordering in Isovalent Alloys of Transition Metal Dichalcogenide Monolayers. <i>Chemistry of Materials</i> , 2018 , 30, 1547-1555	9.6	10
304	Franck Condon shift assessment in 2D MoS. <i>Journal of Physics Condensed Matter</i> , 2018 , 30, 095501	1.8	6
303	Mechanisms of the oxygen reduction reaction on B- and/or N-doped carbon nanomaterials with curvature and edge effects. <i>Nanoscale</i> , 2018 , 10, 1129-1134	7.7	58
302	Electrochemical CO ₂ Reduction with Atomic Iron-Dispersed on Nitrogen-Doped Graphene. <i>Advanced Energy Materials</i> , 2018 , 8, 1703487	21.8	277
301	Evolutionary selection growth of two-dimensional materials on polycrystalline substrates. <i>Nature Materials</i> , 2018 , 17, 318-322	27	151
300	Realizing Indirect-to-Direct Band Gap Transition in Few-Layer Two-Dimensional MX ₂ (M = Mo, W; X = S, Se). <i>ACS Applied Energy Materials</i> , 2018 , 1, 4115-4121	6.1	8
299	Transient Kinetic Selectivity in Nanotubes Growth on Solid Co-W Catalyst. <i>Nano Letters</i> , 2018 , 18, 5288-5293	20.3	16

298	Chromiteen: A New 2D Oxide Magnetic Material from Natural Ore. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1800549	4.6	18
297	Intermixing and periodic self-assembly of borophene line defects. <i>Nature Materials</i> , 2018 , 17, 783-788	27	90
296	Type-II Multiferroic HFVCF MXene Monolayer with High Transition Temperature. <i>Journal of the American Chemical Society</i> , 2018 , 140, 9768-9773	16.4	105
295	Dirac Cones and Nodal Line in Borophene. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 2757-2762	6.4	44
294	Ultrasharp h-BN Nanocones and the Origin of Their High Mechanical Stiffness and Large Dipole Moment. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 5086-5091	6.4	7
293	Dirac states from px,y orbitals in the buckled honeycomb structures: A tight-binding model and first-principles combined study. <i>Chinese Physics B</i> , 2018 , 27, 087101	1.2	1
292	Borophene as a prototype for synthetic 2D materials development. <i>Nature Nanotechnology</i> , 2018 , 13, 444-450	28.7	237
291	Glass composites reinforced with silicon-doped carbon nanotubes. <i>Carbon</i> , 2018 , 128, 231-236	10.4	9
290	Quaternary Alloys: Thermally Induced 2D Alloy-Heterostructure Transformation in Quaternary Alloys (Adv. Mater. 45/2018). <i>Advanced Materials</i> , 2018 , 30, 1870344	24	1
289	Carbon Nanotubes and Related Nanomaterials: Critical Advances and Challenges for Synthesis toward Mainstream Commercial Applications. <i>ACS Nano</i> , 2018 , 12, 11756-11784	16.7	239
288	In Pursuit of 2D Materials for Maximum Optical Response. <i>ACS Nano</i> , 2018 , 12, 10880-10889	16.7	30
287	Thermally Induced 2D Alloy-Heterostructure Transformation in Quaternary Alloys. <i>Advanced Materials</i> , 2018 , 30, e1804218	24	19
286	Zinc oxide-black phosphorus composites for ultrasensitive nitrogen dioxide sensing. <i>Nanoscale Horizons</i> , 2018 , 3, 525-531	10.8	34
285	Mechanochemistry of One-Dimensional Boron: Structural and Electronic Transitions. <i>Journal of the American Chemical Society</i> , 2017 , 139, 2111-2117	16.4	33
284	High Performance Electrocatalytic Reaction of Hydrogen and Oxygen on Ruthenium Nanoclusters. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 3785-3791	9.5	84
283	B cluster stability, reactivity, and its planar structural precursor. <i>Nanoscale</i> , 2017 , 9, 1805-1810	7.7	26
282	Elasticity, Flexibility, and Ideal Strength of Borophenes. <i>Advanced Functional Materials</i> , 2017 , 27, 1605059	5.6	176
281	Engineering of the interactions of volatile organic compounds with MoS ₂ . <i>Journal of Materials Chemistry C</i> , 2017 , 5, 1463-1470	7.1	19

280	Growth of Molybdenum Carbide/Graphene Hybrids from Molybdenum Disulfide Atomic Layer Template. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1600866	4.6	13
279	A review on mechanics and mechanical properties of 2D materials/Graphene and beyond. <i>Extreme Mechanics Letters</i> , 2017 , 13, 42-77	3.9	581
278	Predicting stable phase monolayer Mo ₂ C (MXene), a superconductor with chemically-tunable critical temperature. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 3438-3444	7.1	60
277	Direct growth of MoS ₂ single crystals on polyimide substrates. <i>2D Materials</i> , 2017 , 4, 021028	5.9	27
276	Magnetic field controlled graphene oxide-based origami with enhanced surface area and mechanical properties. <i>Nanoscale</i> , 2017 , 9, 6991-6997	7.7	29
275	Correlation between types of defects/vacancies of Bi ₂ S ₃ nanostructures and their transient photocurrent. <i>Nano Research</i> , 2017 , 10, 2405-2414	10	7
274	Enhancing Mechanical Properties of Nanocomposites Using Interconnected Carbon Nanotubes (iCNT) as Reinforcement. <i>Advanced Engineering Materials</i> , 2017 , 19, 1600499	3.5	4
273	Nanochimneys: Topology and Thermal Conductance of 3D Nanotube/Graphene Cone Junctions. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 1257-1262	3.8	11
272	Earth-Abundant and Non-Toxic SiX (X = S, Se) Monolayers as Highly Efficient Thermoelectric Materials. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 123-128	3.8	28
271	Atomic H-Induced MoC Hybrid as an Active and Stable Bifunctional Electrocatalyst. <i>ACS Nano</i> , 2017 , 11, 384-394	16.7	114
270	Two-Dimensional Boron Polymorphs for Visible Range Plasmonics: A First-Principles Exploration. <i>Journal of the American Chemical Society</i> , 2017 , 139, 17181-17185	16.4	83
269	Two-dimensional boron: structures, properties and applications. <i>Chemical Society Reviews</i> , 2017 , 46, 6746-6763	16.3	209
268	Oral vaccination of wildlife using a vaccinia-rabies-glycoprotein recombinant virus vaccine (RABORAL V-RG): a global review. <i>Veterinary Research</i> , 2017 , 48, 57	3.8	74
267	Gate-Voltage Control of Borophene Structure Formation. <i>Angewandte Chemie</i> , 2017 , 129, 15623-15628	3.6	14
266	Phase Segregation Behavior of Two-Dimensional Transition Metal Dichalcogenide Binary Alloys Induced by Dissimilar Substitution. <i>Chemistry of Materials</i> , 2017 , 29, 7431-7439	9.6	22
265	Gate-Voltage Control of Borophene Structure Formation. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 15421-15426	16.4	34
264	Design of Two-Dimensional Graphene-like Dirac Materials β XBeB (X = H, F, Cl) from Non-graphene-like β Borophene. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 4594-4599	6.4	18
263	2D Materials: Quaternary 2D Transition Metal Dichalcogenides (TMDs) with Tunable Bandgap (Adv. Mater. 35/2017). <i>Advanced Materials</i> , 2017 , 29,	24	1

262	Quaternary 2D Transition Metal Dichalcogenides (TMDs) with Tunable Bandgap. <i>Advanced Materials</i> , 2017 , 29, 1702457	24	124
261	Self-optimizing, highly surface-active layered metal dichalcogenide catalysts for hydrogen evolution. <i>Nature Energy</i> , 2017 , 2,	62.3	240
260	Effect of Cap Catalyst Structural Correlation on the Nucleation of Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 18789-18794	3.8	5
259	Tilt Grain Boundary Topology Induced by Substrate Topography. <i>ACS Nano</i> , 2017 , 11, 8612-8618	16.7	21
258	How Nitrogen-Doped Graphene Quantum Dots Catalyze Electroreduction of CO ₂ to Hydrocarbons and Oxygenates. <i>ACS Catalysis</i> , 2017 , 7, 6245-6250	13.1	91
257	Highly Tunable Electronic Structures of Phosphorene/Carbon Nanotube Heterostructures through External Electric Field and Atomic Intercalation. <i>Nano Letters</i> , 2017 , 17, 7995-8004	11.5	12
256	Correction: Two-dimensional boron: structures, properties and applications. <i>Chemical Society Reviews</i> , 2017 , 46, 7470	58.5	1
255	Mechanisms and theoretical simulations of the catalytic growth of nanocarbons. <i>MRS Bulletin</i> , 2017 , 42, 794-801	3.2	6
254	Mechanics of Materials Creation: Nanotubes, Graphene, Carbyne, Borophenes. <i>Procedia IUTAM</i> , 2017 , 21, 17-24		3
253	Single-Atomic Ruthenium Catalytic Sites on Nitrogen-Doped Graphene for Oxygen Reduction Reaction in Acidic Medium. <i>ACS Nano</i> , 2017 , 11, 6930-6941	16.7	327
252	A jellium model of a catalyst particle in carbon nanotube growth. <i>Journal of Chemical Physics</i> , 2017 , 146, 244701	3.9	5
251	Characterization of tin(II) sulfide defects/vacancies and correlation with their photocurrent. <i>Nano Research</i> , 2017 , 10, 218-228	10	6
250	Nanomechanics of carbon honeycomb cellular structures. <i>Carbon</i> , 2017 , 113, 26-32	10.4	47
249	Riemann Surfaces of Carbon as Graphene Nanosolenoids. <i>Nano Letters</i> , 2016 , 16, 34-9	11.5	67
248	A MoS ₂ -Based Capacitive Displacement Sensor for DNA Sequencing. <i>ACS Nano</i> , 2016 , 10, 9009-16	16.7	35
247	Strain-Robust and Electric Field Tunable Band Alignments in van der Waals WSe ₂ /Graphene Heterojunctions. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 22702-22709	3.8	27
246	Carrier Delocalization in Two-Dimensional Coplanar p-n Junctions of Graphene and Metal Dichalcogenides. <i>Nano Letters</i> , 2016 , 16, 5032-6	11.5	67
245	Thermomechanical analysis of two-dimensional boron monolayers. <i>Physical Review B</i> , 2016 , 93,	3.3	43

244	Highly Itinerant Atomic Vacancies in Phosphorene. <i>Journal of the American Chemical Society</i> , 2016 , 138, 10199-206	16.4	112
243	Chemical Trends of Electronic Properties of Two-Dimensional Halide Perovskites and Their Potential Applications for Electronics and Optoelectronics. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 24682-24687	3.8	32
242	High-throughput screening of metal-porphyrin-like graphenes for selective capture of carbon dioxide. <i>Scientific Reports</i> , 2016 , 6, 21788	4.9	13
241	Carbonization with Misfusion: Fundamental Limits of Carbon-Fiber Strength Revisited. <i>Advanced Materials</i> , 2016 , 28, 10317-10322	24	22
240	Phase crossover in transition metal dichalcogenide nanoclusters. <i>Nanoscale</i> , 2016 , 8, 19154-19160	7.7	7
239	High-Performance Hydrogen Evolution from MoS ₂ (1-x)P(x) Solid Solution. <i>Advanced Materials</i> , 2016 , 28, 1427-32	24	260
238	Ionic Graphitization of Ultrathin Films of Ionic Compounds. <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 2659-63	6.4	6
237	Exploring the interface between single-walled carbon nanotubes and epoxy resin. <i>Carbon</i> , 2016 , 105, 600-606	10.4	34
236	Unusual electronic and magnetic properties of lateral phosphorene/WSe ₂ heterostructures. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 6657-6665	7.1	8
235	Strong interfacial coupling of MoS ₂ /g-C ₃ N ₄ van de Waals solids for highly active water reduction. <i>Nano Energy</i> , 2016 , 27, 44-50	17.1	81
234	Layer Engineering of 2D Semiconductor Junctions. <i>Advanced Materials</i> , 2016 , 28, 5126-32	24	53
233	Growth Mechanism and Morphology of Hexagonal Boron Nitride. <i>Nano Letters</i> , 2016 , 16, 1398-403	11.5	97
232	Incorporation of Nitrogen Defects for Efficient Reduction of CO ₂ via Two-Electron Pathway on Three-Dimensional Graphene Foam. <i>Nano Letters</i> , 2016 , 16, 466-70	11.5	351
231	Indentation Tests Reveal Geometry-Regulated Stiffening of Nanotube Junctions. <i>Nano Letters</i> , 2016 , 16, 232-6	11.5	12
230	Can Two-Dimensional Boron Superconduct?. <i>Nano Letters</i> , 2016 , 16, 2522-6	11.5	281
229	Oxygen-activated growth and bandgap tunability of large single-crystal bilayer graphene. <i>Nature Nanotechnology</i> , 2016 , 11, 426-31	28.7	227
228	Phosphorene-based nanogenerator powered by cyclic molecular doping. <i>Nano Energy</i> , 2016 , 23, 34-39	17.1	13
227	Two-Dimensional SiS Layers with Promising Electronic and Optoelectronic Properties: Theoretical Prediction. <i>Nano Letters</i> , 2016 , 16, 1110-7	11.5	110

226	Tailoring the Electronic and Magnetic Properties of Two-Dimensional Silicon Carbide Sheets and Ribbons by Fluorination. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 15407-15414	3.8	6
225	Carbon Fibers: Carbonization with Misfusion: Fundamental Limits of Carbon-Fiber Strength Revisited (Adv. Mater. 46/2016). <i>Advanced Materials</i> , 2016 , 28, 10342-10342	24	
224	Detecting the Biopolymer Behavior of Graphene Nanoribbons in Aqueous Solution. <i>Scientific Reports</i> , 2016 , 6, 31174	4.9	5
223	Topochemistry of Bowtie- and Star-Shaped Metal Dichalcogenide Nanoisland Formation. <i>Nano Letters</i> , 2016 , 16, 3696-702	11.5	40
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