

Jun Lou

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347
papers

36,019
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89
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365
ext. papers

41,216
ext. citations

11
avg, IF

7.31
L-index

#	Paper	IF	Citations
347	High-efficiency two-dimensional Ruddlesden-Popper perovskite solar cells. <i>Nature</i> , 2016 , 536, 312-6	50.4	2161
346	Large scale growth and characterization of atomic hexagonal boron nitride layers. <i>Nano Letters</i> , 2010 , 10, 3209-15	11.5	1961
345	Vertical and in-plane heterostructures from WS ₂ /MoS ₂ monolayers. <i>Nature Materials</i> , 2014 , 13, 1135-42	27	1580
344	Intrinsic structural defects in monolayer molybdenum disulfide. <i>Nano Letters</i> , 2013 , 13, 2615-22	11.5	1418
343	Large-area vapor-phase growth and characterization of MoS ₂ atomic layers on a SiO ₂ substrate. <i>Small</i> , 2012 , 8, 966-71	11	1394
342	Vapour phase growth and grain boundary structure of molybdenum disulphide atomic layers. <i>Nature Materials</i> , 2013 , 12, 754-9	27	1384
341	Black phosphorus-monolayer MoS ₂ van der Waals heterojunction p-n diode. <i>ACS Nano</i> , 2014 , 8, 8292-9	16.7	979
340	In-plane heterostructures of graphene and hexagonal boron nitride with controlled domain sizes. <i>Nature Nanotechnology</i> , 2013 , 8, 119-24	28.7	687
339	Janus Monolayer Transition-Metal Dichalcogenides. <i>ACS Nano</i> , 2017 , 11, 8192-8198	16.7	584
338	Chemical vapor deposition growth of crystalline monolayer MoSe ₂ . <i>ACS Nano</i> , 2014 , 8, 5125-31	16.7	566
337	High Efficiency Photocatalytic Water Splitting Using 2D Fe ₂ O ₃ /g-C ₃ N ₄ Z-Scheme Catalysts. <i>Advanced Energy Materials</i> , 2017 , 7, 1700025	21.8	501
336	Achieving Highly Efficient, Selective, and Stable CO ₂ Reduction on Nitrogen-Doped Carbon Nanotubes. <i>ACS Nano</i> , 2015 , 9, 5364-71	16.7	451
335	Evolution of the electronic band structure and efficient photo-detection in atomic layers of InSe. <i>ACS Nano</i> , 2014 , 8, 1263-72	16.7	436
334	Fracture toughness of graphene. <i>Nature Communications</i> , 2014 , 5, 3782	17.4	433
333	Plasmonic hot electron induced structural phase transition in a MoS ₂ monolayer. <i>Advanced Materials</i> , 2014 , 26, 6467-71	24	429
332	Second harmonic microscopy of monolayer MoS ₂ . <i>Physical Review B</i> , 2013 , 87,	3.3	423
331	Ultrathin high-temperature oxidation-resistant coatings of hexagonal boron nitride. <i>Nature Communications</i> , 2013 , 4, 2541	17.4	418

330	Direct growth of graphene/hexagonal boron nitride stacked layers. <i>Nano Letters</i> , 2011 , 11, 2032-7	11.5	413
329	Two-Step Growth of Two-Dimensional WSe ₂ /MoSe ₂ Heterostructures. <i>Nano Letters</i> , 2015 , 15, 6135-41	11.5	401
328	Composites with carbon nanotubes and graphene: An outlook. <i>Science</i> , 2018 , 362, 547-553	33.3	396
327	A metal-free electrocatalyst for carbon dioxide reduction to multi-carbon hydrocarbons and oxygenates. <i>Nature Communications</i> , 2016 , 7, 13869	17.4	385
326	Band gap engineering and layer-by-layer mapping of selenium-doped molybdenum disulfide. <i>Nano Letters</i> , 2014 , 14, 442-9	11.5	378
325	Cold welding of ultrathin gold nanowires. <i>Nature Nanotechnology</i> , 2010 , 5, 218-24	28.7	370
324	Porous Spinel Zn _x Co _(3-x) O ₄ hollow polyhedra templated for high-rate lithium-ion batteries. <i>ACS Nano</i> , 2014 , 8, 6297-303	16.7	357
323	Strain and structure heterogeneity in MoS ₂ atomic layers grown by chemical vapour deposition. <i>Nature Communications</i> , 2014 , 5, 5246	17.4	352
322	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
321	Large In-Plane and Vertical Piezoelectricity in Janus Transition Metal Dichalcogenides. <i>ACS Nano</i> , 2017 , 11, 8242-8248	16.7	348
320	Liquid Phase Exfoliation of Two-Dimensional Materials by Directly Probing and Matching Surface Tension Components. <i>Nano Letters</i> , 2015 , 15, 5449-54	11.5	342
319	Chemical vapor deposition of thin crystals of layered semiconductor SnS ₂ for fast photodetection application. <i>Nano Letters</i> , 2015 , 15, 506-13	11.5	342
318	Synthesis and photoresponse of large GaSe atomic layers. <i>Nano Letters</i> , 2013 , 13, 2777-81	11.5	319
317	Nitrogen-Doped Carbon Nanotube Arrays for High-Efficiency Electrochemical Reduction of CO ₂ : On the Understanding of Defects, Defect Density, and Selectivity. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 13701-5	16.4	315
316	Oxygenated monolayer carbon nitride for excellent photocatalytic hydrogen evolution and external quantum efficiency. <i>Nano Energy</i> , 2016 , 27, 138-146	17.1	303
315	Facile Fabrication of Nitrogen-Doped Porous Carbon as Superior Anode Material for Potassium-Ion Batteries. <i>Advanced Energy Materials</i> , 2018 , 8, 1802386	21.8	267
314	Ultrafast formation of interlayer hot excitons in atomically thin MoS ₂ /WS ₂ heterostructures. <i>Nature Communications</i> , 2016 , 7, 12512	17.4	240
313	Self-optimizing, highly surface-active layered metal dichalcogenide catalysts for hydrogen evolution. <i>Nature Energy</i> , 2017 , 2,	62.3	240

312	Materials science. Dynamic mechanical behavior of multilayer graphene via supersonic projectile penetration. <i>Science</i> , 2014 , 346, 1092-6	33.3	237
311	Controlled propulsion and cargo transport of rotating nickel nanowires near a patterned solid surface. <i>ACS Nano</i> , 2010 , 4, 6228-34	16.7	216
310	Long-lived nanosecond spin relaxation and spin coherence of electrons in monolayer MoS ₂ and WS ₂ . <i>Nature Physics</i> , 2015 , 11, 830-834	16.2	214
309	Nitrogen-Doped Graphene with Pyridinic Dominance as a Highly Active and Stable Electrocatalyst for Oxygen Reduction. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 14763-9	9.5	207
308	Switching mechanism in single-layer molybdenum disulfide transistors: an insight into current flow across Schottky barriers. <i>ACS Nano</i> , 2014 , 8, 1031-8	16.7	202
307	Facile Synthesis of Single Crystal Vanadium Disulfide Nanosheets by Chemical Vapor Deposition for Efficient Hydrogen Evolution Reaction. <i>Advanced Materials</i> , 2015 , 27, 5605-9	24	202
306	Boron- and Nitrogen-Substituted Graphene Nanoribbons as Efficient Catalysts for Oxygen Reduction Reaction. <i>Chemistry of Materials</i> , 2015 , 27, 1181-1186	9.6	202
305	An Atomically Layered InSe Avalanche Photodetector. <i>Nano Letters</i> , 2015 , 15, 3048-55	11.5	201
304	Binary and ternary atomic layers built from carbon, boron, and nitrogen. <i>Advanced Materials</i> , 2012 , 24, 4878-95	24	197
303	High performance agar/graphene oxide composite aerogel for methylene blue removal. <i>Carbohydrate Polymers</i> , 2017 , 155, 345-353	10.3	188
302	Thermal effects on the characteristic Raman spectrum of molybdenum disulfide (MoS ₂) of varying thicknesses. <i>Applied Physics Letters</i> , 2012 , 100, 013106	3.4	186
301	Three-dimensional metal-graphene-nanotube multifunctional hybrid materials. <i>ACS Nano</i> , 2013 , 7, 58-64	16.7	185
300	Unveiling Active Sites for the Hydrogen Evolution Reaction on Monolayer MoS. <i>Advanced Materials</i> , 2017 , 29, 1701955	24	184
299	Enhancing the photocurrent and photoluminescence of single crystal monolayer MoS ₂ with resonant plasmonic nanoshells. <i>Applied Physics Letters</i> , 2014 , 104, 031112	3.4	182
298	Electrical performance of monolayer MoS ₂ field-effect transistors prepared by chemical vapor deposition. <i>Applied Physics Letters</i> , 2013 , 102, 193107	3.4	182
297	Prediction of Enhanced Catalytic Activity for Hydrogen Evolution Reaction in Janus Transition Metal Dichalcogenides. <i>Nano Letters</i> , 2018 , 18, 3943-3949	11.5	180
296	2D heterostructure comprised of metallic 1T-MoS ₂ /Monolayer O-g-C ₃ N ₄ towards efficient photocatalytic hydrogen evolution. <i>Applied Catalysis B: Environmental</i> , 2018 , 220, 379-385	21.8	176
295	CVD-grown monolayered MoS ₂ as an effective photosensor operating at low-voltage. <i>2D Materials</i> , 2014 , 1, 011004	5.9	170

294	Direct chemical conversion of graphene to boron- and nitrogen- and carbon-containing atomic layers. <i>Nature Communications</i> , 2014 , 5, 3193	17.4	169
293	Plasmonic pumping of excitonic photoluminescence in hybrid MoS ₂ -Au nanostructures. <i>ACS Nano</i> , 2014 , 8, 12682-9	16.7	169
292	Statistical study of deep submicron dual-gated field-effect transistors on monolayer chemical vapor deposition molybdenum disulfide films. <i>Nano Letters</i> , 2013 , 13, 2640-6	11.5	168
291	Temperature-dependent phonon shifts in monolayer MoS ₂ . <i>Applied Physics Letters</i> , 2013 , 103, 093102	3.4	167
290	Efficient hydrogen evolution in transition metal dichalcogenides via a simple one-step hydrazine reaction. <i>Nature Communications</i> , 2016 , 7, 11857	17.4	154
289	Surface functionalization of two-dimensional metal chalcogenides by Lewis acid-base chemistry. <i>Nature Nanotechnology</i> , 2016 , 11, 465-71	28.7	150
288	Photoluminescence quenching and charge transfer in artificial heterostacks of monolayer transition metal dichalcogenides and few-layer black phosphorus. <i>ACS Nano</i> , 2015 , 9, 555-63	16.7	145
287	MOFs-derived copper sulfides embedded within porous carbon octahedra for electrochemical capacitor applications. <i>Chemical Communications</i> , 2015 , 51, 3109-12	5.8	135
286	Three-Dimensional Printed Graphene Foams. <i>ACS Nano</i> , 2017 , 11, 6860-6867	16.7	133
285	Optoelectronic memory using two-dimensional materials. <i>Nano Letters</i> , 2015 , 15, 259-65	11.5	128
284	Metallic 1T phase source/drain electrodes for field effect transistors from chemical vapor deposited MoS ₂ . <i>APL Materials</i> , 2014 , 2, 092516	5.7	126
283	Recent advances in alternative cathode materials for iodine-free dye-sensitized solar cells. <i>Energy and Environmental Science</i> , 2013 , 6, 2003	35.4	124
282	Cobalt-Modulated Molybdenum-Dinitrogen Interaction in MoS for Catalyzing Ammonia Synthesis. <i>Journal of the American Chemical Society</i> , 2019 , 141, 19269-19275	16.4	119
281	Nanomechanical cleavage of molybdenum disulphide atomic layers. <i>Nature Communications</i> , 2014 , 5, 3631	17.4	118
280	Laminated Object Manufacturing of 3D-Printed Laser-Induced Graphene Foams. <i>Advanced Materials</i> , 2018 , 30, e1707416	24	118
279	High Strain Tolerant EMI Shielding Using Carbon Nanotube Network Stabilized Rubber Composite. <i>Advanced Materials Technologies</i> , 2017 , 2, 1700078	6.8	112
278	Synthesis and defect investigation of two-dimensional molybdenum disulfide atomic layers. <i>Accounts of Chemical Research</i> , 2015 , 48, 31-40	24.3	110
277	Tailoring the physical properties of molybdenum disulfide monolayers by control of interfacial chemistry. <i>Nano Letters</i> , 2014 , 14, 1354-61	11.5	110

276	Nanostructure on taro leaves resists fouling by colloids and bacteria under submerged conditions. <i>Langmuir</i> , 2011 , 27, 10035-40	4	107
275	Three-dimensional mesostructures as high-temperature growth templates, electronic cellular scaffolds, and self-propelled microrobots. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E9455-E9464	11.5	104
274	High performance graphene oxide nanofiltration membrane prepared by electrospinning for wastewater purification. <i>Carbon</i> , 2018 , 130, 487-494	10.4	104
273	Exfoliated 2D Transition Metal Disulfides for Enhanced Electrocatalysis of Oxygen Evolution Reaction in Acidic Medium. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1500669	4.6	104
272	Carbon Nitrogen Nanotubes as Efficient Bifunctional Electrocatalysts for Oxygen Reduction and Evolution Reactions. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 11991-2000	9.5	103
271	A large-area free-standing graphene oxide multilayer membrane with high stability for nanofiltration applications. <i>Chemical Engineering Journal</i> , 2018 , 345, 536-544	14.7	102
270	Gold Nanoparticles and g-C ₃ N ₄ -Intercalated Graphene Oxide Membrane for Recyclable Surface Enhanced Raman Scattering. <i>Advanced Functional Materials</i> , 2017 , 27, 1701714	15.6	102
269	Strain-Induced Electronic Structure Changes in Stacked van der Waals Heterostructures. <i>Nano Letters</i> , 2016 , 16, 3314-20	11.5	101
268	Boron nitride-graphene nanocapacitor and the origins of anomalous size-dependent increase of capacitance. <i>Nano Letters</i> , 2014 , 14, 1739-44	11.5	100
267	Graphene oxide based membrane intercalated by nanoparticles for high performance nanofiltration application. <i>Chemical Engineering Journal</i> , 2018 , 347, 12-18	14.7	99
266	Synthesis of large-scale atomic-layer SnS ₂ through chemical vapor deposition. <i>Nano Research</i> , 2017 , 10, 2386-2394	10	97
265	Electrical transport properties of polycrystalline monolayer molybdenum disulfide. <i>ACS Nano</i> , 2014 , 8, 7930-7	16.7	96
264	Brittle Fracture of 2D MoSe. <i>Advanced Materials</i> , 2017 , 29, 1604201	24	95
263	Fracture of Sub-20nm Ultrathin Gold Nanowires. <i>Advanced Functional Materials</i> , 2011 , 21, 3982-3989	15.6	93
262	Surface Tension Components Based Selection of Cosolvents for Efficient Liquid Phase Exfoliation of 2D Materials. <i>Small</i> , 2016 , 12, 2741-9	11	93
261	Nanoantenna-Enhanced Light-Matter Interaction in Atomically Thin WS ₂ . <i>ACS Photonics</i> , 2015 , 2, 1260-1265	15.5	92
260	On the measurement of the plasticity length scale parameter in LIGA nickel foils. <i>Mechanics of Materials</i> , 2003 , 35, 233-243	3.3	91
259	Metal diselenide nanoparticles as highly active and stable electrocatalysts for the hydrogen evolution reaction. <i>Nanoscale</i> , 2015 , 7, 14813-6	7.7	90

258	Flexible all-solid-state supercapacitors based on freestanding, binder-free carbon nanofibers@polypyrrole@graphene film. <i>Chemical Engineering Journal</i> , 2018 , 334, 184-190	14.7	86
257	Core-shell structured carbon nanofibers yarn@polypyrrole@graphene for high performance all-solid-state fiber supercapacitors. <i>Carbon</i> , 2018 , 138, 264-270	10.4	86
256	Vertically aligned single-walled carbon nanotubes as low-cost and high electrocatalytic counter electrode for dye-sensitized solar cells. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 3157-61	9.5	82
255	High Electrocatalytic Activity of Vertically Aligned Single-Walled Carbon Nanotubes towards Sulfide Redox Shuttles. <i>Scientific Reports</i> , 2012 , 2, 368	4.9	81
254	Indentation size effects in the nano- and micro-hardness of fcc single crystal metals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006 , 434, 178-187	5.3	81
253	Band engineering for novel two-dimensional atomic layers. <i>Small</i> , 2015 , 11, 1868-84	11	79
252	Enhancing graphene reinforcing potential in composites by hydrogen passivation induced dispersion. <i>Scientific Reports</i> , 2013 , 3, 2086	4.9	79
251	Nitrogen-Doped Carbon Nanotube Arrays for High-Efficiency Electrochemical Reduction of CO ₂ : On the Understanding of Defects, Defect Density, and Selectivity. <i>Angewandte Chemie</i> , 2015 , 127, 13905-13909	3.6	78
250	Interface toughness of carbon nanotube reinforced epoxy composites. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 129-34	9.5	78
249	Conversion of non-van der Waals solids to 2D transition-metal chalcogenides. <i>Nature</i> , 2020 , 577, 492-496	50.4	76
248	Synthesis of reduced graphene oxide/Fe ₃ O ₄ multifunctional freestanding membranes and their temperature dependent electronic transport properties. <i>Carbon</i> , 2012 , 50, 1338-1345	10.4	76
247	Defect-Engineering-Enabled High-Efficiency All-Inorganic Perovskite Solar Cells. <i>Advanced Materials</i> , 2019 , 31, e1903448	24	75
246	Growth-substrate induced performance degradation in chemically synthesized monolayer MoS ₂ field effect transistors. <i>Applied Physics Letters</i> , 2014 , 104, 203506	3.4	74
245	TaC Nanowire/Activated Carbon Microfiber Hybrid Structures from Bamboo Fibers. <i>Advanced Energy Materials</i> , 2011 , 1, 534-539	21.8	74
244	Bio-derived ultrathin membrane for solar driven water purification. <i>Nano Energy</i> , 2019 , 60, 567-575	17.1	73
243	MoS ₂ atomic layers with artificial active edge sites as transparent counter electrodes for improved performance of dye-sensitized solar cells. <i>Nanoscale</i> , 2014 , 6, 5279-83	7.7	72
242	Hierarchical layer-by-layer porous FeCo ₂ S ₄ @Ni(OH) ₂ arrays for all-solid-state asymmetric supercapacitors. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 20480-20490	13	68
241	Surface dislocation nucleation mediated deformation and ultrahigh strength in sub-10-nm gold nanowires. <i>Nano Research</i> , 2011 , 4, 1261-1267	10	67

240	TiC Nanorods Derived from Cotton Fibers: Chloride-Assisted VLS Growth, Structure, and Mechanical Properties. <i>Crystal Growth and Design</i> , 2011 , 11, 4422-4426	3.5	65
239	Potassium gluconate-derived N/S Co-doped carbon nanosheets as superior electrode materials for supercapacitors and sodium-ion batteries. <i>Journal of Power Sources</i> , 2019 , 414, 308-316	8.9	65
238	A generic bamboo-based carbothermal method for preparing carbide (SiC, B ₄ C, TiC, TaC, NbC, Ti _x Nb _{1-x} C, and Ta _x Nb _{1-x} C) nanowires. <i>Journal of Materials Chemistry</i> , 2011 , 21, 9095		64
237	A flexible solar cell/supercapacitor integrated energy device. <i>Nano Energy</i> , 2017 , 42, 181-186	17.1	63
236	Enhanced nucleate boiling on horizontal hydrophobic-hydrophilic carbon nanotube coatings. <i>Applied Physics Letters</i> , 2013 , 102, 161605	3.4	63
235	An investigation of fatigue in LIGA Ni MEMS thin films. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 371, 256-266	5.3	63
234	Quantitative analysis of the temperature dependency in Raman active vibrational modes of molybdenum disulfide atomic layers. <i>Nanoscale</i> , 2013 , 5, 9758-63	7.7	61
233	Size-dependent fracture mode transition in copper nanowires. <i>Small</i> , 2012 , 8, 1889-94	11	61
232	Elastic modulus of biopolymer matrix in nacre measured using coupled atomic force microscopy bending and inverse finite element techniques. <i>Materials Science and Engineering C</i> , 2011 , 31, 1852-1856	8.3	61
231	Synthesis of High-Quality Graphene and Hexagonal Boron Nitride Monolayer In-Plane Heterostructure on Cu-Ni Alloy. <i>Advanced Science</i> , 2017 , 4, 1700076	13.6	60
230	A fast and zero-biased photodetector based on GaTe/InSe vertical 2D p-n heterojunction. <i>2D Materials</i> , 2018 , 5, 025008	5.9	59
229	Enhanced performance of in-plane transition metal dichalcogenides monolayers by configuring local atomic structures. <i>Nature Communications</i> , 2020 , 11, 2253	17.4	58
228	Toward a Mechanistic Understanding of Vertical Growth of van der Waals Stacked 2D Materials: A Multiscale Model and Experiments. <i>ACS Nano</i> , 2017 , 11, 12780-12788	16.7	58
227	Quantitative in situ TEM tensile testing of an individual nickel nanowire. <i>Nanotechnology</i> , 2011 , 22, 355702	9.4	57
226	Aligned carbon nanotube-reinforced silicon carbide composites produced by chemical vapor infiltration. <i>Carbon</i> , 2011 , 49, 2475-2482	10.4	56
225	Effect of nitrogen doping on the mechanical properties of carbon nanotubes. <i>ACS Nano</i> , 2010 , 4, 7637-7643	6.7	54
224	Development and Application of a Novel Microfabricated Device for the In Situ Tensile Testing of 1-D Nanomaterials. <i>Journal of Microelectromechanical Systems</i> , 2010 , 19, 675-682	2.5	54
223	Layer Engineering of 2D Semiconductor Junctions. <i>Advanced Materials</i> , 2016 , 28, 5126-32	24	53

222	In situ electro-mechanical experiments and mechanics modeling of tensile cracking in indium tin oxide thin films on polyimide substrates. <i>Journal of Applied Physics</i> , 2011 , 109, 103530	2.5	53
221	Mechanisms of fatigue in LIGA Ni MEMS thin films. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 444, 39-50	5.3	52
220	A printed, recyclable, ultra-strong, and ultra-tough graphite structural material. <i>Materials Today</i> , 2019 , 30, 17-25	21.8	51
219	A Critical Review on Enhancement of Photocatalytic Hydrogen Production by Molybdenum Disulfide: From Growth to Interfacial Activities. <i>Small</i> , 2019 , 15, e1900578	11	49
218	Lithium-conducting covalent-organic-frameworks as artificial solid-electrolyte-interphase on silicon anode for high performance lithium ion batteries. <i>Nano Energy</i> , 2020 , 72, 104657	17.1	49
217	Opto-valleytronic imaging of atomically thin semiconductors. <i>Nature Nanotechnology</i> , 2017 , 12, 329-334	28.7	48
216	Nanoindentation study of plasticity length scale effects in LIGA Ni microelectromechanical systems structures. <i>Journal of Materials Research</i> , 2003 , 18, 719-728	2.5	48
215	High-performance red phosphorus/carbon nanofibers/graphene free-standing paper anode for sodium ion batteries. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 1574-1581	13	48
214	Taming Active Material-Solid Electrolyte Interfaces with Organic Cathode for All-Solid-State Batteries. <i>Joule</i> , 2019 , 3, 1349-1359	27.8	47
213	Spatially resolved photoexcited charge-carrier dynamics in phase-engineered monolayer MoS ₂ . <i>ACS Nano</i> , 2015 , 9, 840-9	16.7	47
212	A Multi-step Method for In Situ Mechanical Characterization of 1-D Nanostructures Using a Novel Micromechanical Device. <i>Experimental Mechanics</i> , 2010 , 50, 47-54	2.6	46
211	Hierarchical Graphene-Based Films with Dynamic Self-Stiffening for Biomimetic Artificial Muscle. <i>Advanced Functional Materials</i> , 2016 , 26, 7003-7010	15.6	44
210	Multiscale Geometric Design Principles Applied to 3D Printed Schwarzites. <i>Advanced Materials</i> , 2018 , 30, 1704820	24	44
209	Self-supported multidimensional Ni ₂ Be phosphide networks with holey nanosheets for high-performance all-solid-state supercapacitors. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 17386-17399 ¹³	11.3	43
208	Spin Coherence and Dephasing of Localized Electrons in Monolayer MoS ₂ . <i>Nano Letters</i> , 2015 , 15, 8250-4	11.5	42
207	Lightweight Hexagonal Boron Nitride Foam for CO Absorption. <i>ACS Nano</i> , 2017 , 11, 8944-8952	16.7	42
206	Anomalous high capacitance in a coaxial single nanowire capacitor. <i>Nature Communications</i> , 2012 , 3, 879	17.4	42
205	Sandwich-Like FeCl ₃ @C as High-Performance Anode Materials for Potassium-Ion Batteries. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1800606	4.6	41

204	Vertically Aligned Carbon Nanotubes/Graphene Hybrid Electrode as a TCO- and Pt-Free Flexible Cathode for Application in Solar Cells. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 20902-20907	13	41
203	Electrical transport and low-frequency noise in chemical vapor deposited single-layer MoS ₂ devices. <i>Nanotechnology</i> , 2014 , 25, 155702	3.4	41
202	Quantitative in-situ nanomechanical characterization of metallic nanowires. <i>Jom</i> , 2011 , 63, 35-42	2.1	41
201	Doping Nanoscale Graphene Domains Improves Magnetism in Hexagonal Boron Nitride. <i>Advanced Materials</i> , 2019 , 31, e1805778	24	40
200	Spiral Growth of SnSe ₂ Crystals by Chemical Vapor Deposition. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600383	4.6	40
199	Three-Dimensional Rebar Graphene. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 7376-7384	9.5	39
198	Water molecule-induced stiffening in ZnO nanobelts. <i>Nano Letters</i> , 2011 , 11, 2845-8	11.5	39
197	A multiscale experiment on the tribological behavior of aligned carbon nanotube/ceramic composites. <i>Scripta Materialia</i> , 2008 , 58, 223-226	5.6	39
196	Nitrogen and sulfur co-doped porous carbon fibers film for flexible symmetric all-solid-state supercapacitors. <i>Carbon</i> , 2020 , 158, 456-464	10.4	39
195	Temperature-Dependent Plasmon-Exciton Interactions in Hybrid Au/MoSe ₂ Nanostructures. <i>ACS Photonics</i> , 2017 , 4, 1653-1660	6.3	38
194	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
193	Ternary CuIn ₇ Se ₁₁ : towards ultra-thin layered photodetectors and photovoltaic devices. <i>Advanced Materials</i> , 2014 , 26, 7666-72	24	37
192	Strain rate dependent mechanical properties in single crystal nickel nanowires. <i>Applied Physics Letters</i> , 2013 , 102, 083102	3.4	35
191	A Hybrid Metal-Organic Framework-Reduced Graphene Oxide Nanomaterial for Selective Removal of Chromate from Water in an Electrochemical Process. <i>Environmental Science & Technology</i> , 2020 , 54, 13322-13332	10.3	34
190	Investigation of hexagonal boron nitride as an atomically thin corrosion passivation coating in aqueous solution. <i>Nanotechnology</i> , 2016 , 27, 364004	3.4	34
189	Scalable Transfer of Suspended Two-Dimensional Single Crystals. <i>Nano Letters</i> , 2015 , 15, 5089-97	11.5	33
188	In Situ Electro-Mechanical Experiments and Mechanics Modeling of Fracture in Indium Tin Oxide-Based Multilayer Electrodes. <i>Advanced Engineering Materials</i> , 2013 , 15, 250-256	3.5	33
187	Monolayer MoS Nanoribbon Transistors Fabricated by Scanning Probe Lithography. <i>Nano Letters</i> , 2019 , 19, 2092-2098	11.5	33

186	Graphene on Metal Grids as the Transparent Conductive Material for Dye Sensitized Solar Cell. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 25863-25868	3.8	32
185	Impact of carbon nanotube defects on fracture mechanisms in ceramic nanocomposites. <i>Carbon</i> , 2017 , 115, 402-408	10.4	31
184	Electrospinning fabrication and in situ mechanical investigation of individual graphene nanoribbon reinforced carbon nanofiber. <i>Carbon</i> , 2017 , 114, 717-723	10.4	31
183	Discovering superior basal plane active two-dimensional catalysts for hydrogen evolution. <i>Materials Today</i> , 2019 , 25, 28-34	21.8	31
182	Directional sensing based on flexible aligned carbon nanotube film nanocomposites. <i>Nanoscale</i> , 2018 , 10, 14938-14946	7.7	31
181	Toughening Graphene by Integrating Carbon Nanotubes. <i>ACS Nano</i> , 2018 , 12, 7901-7910	16.7	31
180	Lead-Free Double Perovskite Cs SnX : Facile Solution Synthesis and Excellent Stability. <i>Small</i> , 2019 , 15, e1901650	11	31
179	Size dependent mechanical properties of single crystalline nickel nanowires. <i>Journal of Applied Physics</i> , 2012 , 111, 063524	2.5	31
178	The Effect of VMoS3 Point Defect on the Elastic Properties of Monolayer MoS2 with REBO Potentials. <i>Nanoscale Research Letters</i> , 2016 , 11, 155	5	30
177	Highly Enhanced Photoluminescence of Monolayer MoS2 with Self-Assembled Au Nanoparticle Arrays. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1700739	4.6	30
176	In situ mechanical investigation of carbon nanotube-graphene junction in three-dimensional carbon nanostructures. <i>Nanoscale</i> , 2017 , 9, 2916-2924	7.7	29
175	Highly ordered hierarchical TiO2 nanotube arrays for flexible fiber-type dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 19841-19847	13	29
174	Lateral Monolayer MoSe -WSe p-n Heterojunctions with Giant Built-In Potentials. <i>Small</i> , 2020 , 16, e2002263	26.3	29
173	Ultrafast Optical Microscopy of Single Monolayer Molybdenum Disulfide Flakes. <i>Scientific Reports</i> , 2016 , 6, 21601	4.9	29
172	Blueshift of the A-exciton peak in folded monolayer 1H-MoS2. <i>Physical Review B</i> , 2013 , 88,	3.3	28
171	Strain gradient plasticity length scale parameters for LIGA Ni MEMs thin films. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006 , 441, 299-307	5.3	28
170	An investigation of the effects of thickness on mechanical properties of LIGA nickel MEMS structures. <i>Journal of Materials Science</i> , 2003 , 38, 4129-4135	4.3	28
169	Multifunctional nanocoated membranes for high-rate electrothermal desalination of hypersaline waters. <i>Nature Nanotechnology</i> , 2020 , 15, 1025-1032	28.7	28

168	Interphase Induced Dynamic Self-Stiffening in Graphene-Based Polydimethylsiloxane Nanocomposites. <i>Small</i> , 2016 , 12, 3723-31	11	28
167	Direct growth of MoS ₂ single crystals on polyimide substrates. <i>2D Materials</i> , 2017 , 4, 021028	5.9	27
166	Resonant surface plasmon-exciton interaction in hybrid MoSe ₂ @Au nanostructures. <i>Nanoscale</i> , 2016 , 8, 8151-9	7.7	27
165	Hydrogen passivation induced dispersion of multi-walled carbon nanotubes. <i>Advanced Materials</i> , 2012 , 24, 881-5	24	27
164	A map of competing buckling-driven failure modes of substrate-supported thin brittle films. <i>Thin Solid Films</i> , 2012 , 520, 6576-6580	2.2	27
163	3D Band Diagram and Photoexcitation of 2D-3D Semiconductor Heterojunctions. <i>Nano Letters</i> , 2015 , 15, 5919-25	11.5	26
162	Highly catalytic cross-stacked superaligned carbon nanotube sheets for iodine-free dye-sensitized solar cells. <i>Journal of Materials Chemistry</i> , 2012 , 22, 22756		26
161	Ultra-Stiff Graphene Foams as Three-Dimensional Conductive Fillers for Epoxy Resin. <i>ACS Nano</i> , 2018 , 12, 11219-11228	16.7	26
160	2D materials: Memristor goes two-dimensional. <i>Nature Nanotechnology</i> , 2015 , 10, 389-90	28.7	25
159	Multifunctional Polymer-Based Graphene Foams with Buckled Structure and Negative Poisson's Ratio. <i>Scientific Reports</i> , 2016 , 6, 32989	4.9	25
158	Artificial Solid Electrolyte Interphase Coating to Reduce Lithium Trapping in Silicon Anode for High Performance Lithium-Ion Batteries. <i>Advanced Materials Interfaces</i> , 2019 , 6, 1901187	4.6	25
157	Universal ac conduction in large area atomic layers of CVD-grown MoS ₂ . <i>Physical Review B</i> , 2014 , 89,	3.3	25
156	Intrinsic toughening and stable crack propagation in hexagonal boron nitride. <i>Nature</i> , 2021 , 594, 57-61	50.4	25
155	Nature Inspired Strategy to Enhance Mechanical Properties via Liquid Reinforcement. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1700240	4.6	24
154	Integrated nanocomposite of LiMn ₂ O ₄ /graphene/carbon nanotubes with pseudocapacitive properties as superior cathode for aqueous hybrid capacitors. <i>Journal of Electroanalytical Chemistry</i> , 2019 , 842, 74-81	4.1	23
153	Room-Temperature Magnetic Order in Air-Stable Ultrathin Iron Oxide. <i>Nano Letters</i> , 2019 , 19, 3777-3781	11.5	23
152	Defect-mediated transport and electronic irradiation effect in individual domains of CVD-grown monolayer MoS ₂ . <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2015 , 33, 02B110	1.3	23
151	Effect of surface energy on size-dependent deformation twinning of defect-free Au nanowires. <i>Nanoscale</i> , 2015 , 7, 15657-64	7.7	23

150	Ultrafast probes of electron-hole transitions between two atomic layers. <i>Nature Communications</i> , 2018 , 9, 1859	17.4	23
149	Atomic Layered Titanium Sulfide Quantum Dots as Electrocatalysts for Enhanced Hydrogen Evolution Reaction. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1700895	4.6	22
148	Towards controlled synthesis of 2D crystals by chemical vapor deposition (CVD). <i>Materials Today</i> , 2020 , 40, 132-139	21.8	22
147	Thickness-Dependent and Magnetic-Field-Driven Suppression of Antiferromagnetic Order in Thin V5S8 Single Crystals. <i>ACS Nano</i> , 2016 , 10, 5941-6	16.7	22
146	Quantification and promotion of interfacial interactions between carbon nanotubes and polymer derived ceramics. <i>Carbon</i> , 2015 , 95, 964-971	10.4	21
145	High stiffness polymer composite with tunable transparency. <i>Materials Today</i> , 2018 , 21, 475-482	21.8	20
144	Quantitative In Situ Mechanical Characterization of the Effects of Chemical Functionalization on Individual Carbon Nanofibers. <i>Advanced Functional Materials</i> , 2012 , 22, 4070-4077	15.6	20
143	Solid-Vapor Reaction Growth of Transition-Metal Dichalcogenide Monolayers. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 10656-61	16.4	20
142	Quantum plasmonic hot-electron injection in lateral WSe ₂ /MoSe ₂ heterostructures. <i>Physical Review B</i> , 2018 , 98,	3.3	19
141	Aligned-SWCNT film laminated nanocomposites: Role of the film on mechanical and electrical properties. <i>Carbon</i> , 2018 , 139, 680-687	10.4	19
140	3D-printed silica with nanoscale resolution. <i>Nature Materials</i> , 2021 , 20, 1506-1511	27	19
139	Mechano-chemical stabilization of three-dimensional carbon nanotube aggregates. <i>Carbon</i> , 2016 , 110, 27-33	10.4	19
138	Thermally Induced 2D Alloy-Heterostructure Transformation in Quaternary Alloys. <i>Advanced Materials</i> , 2018 , 30, e1804218	24	19
137	Chemically interconnected light-weight 3D-carbon nanotube solid network. <i>Carbon</i> , 2017 , 119, 142-149	10.4	18
136	Indentation Size Effects in the Nano and Microhardness of FCC Single Crystal Metals. <i>Materials and Manufacturing Processes</i> , 2007 , 22, 228-237	4.1	18
135	A nano-indentation study on the plasticity length scale effects in LIGA Ni MEMS structures. <i>Journal of Materials Science</i> , 2003 , 38, 4137-4143	4.3	18
134	Excitonic Resonant Emission Absorption of Surface Plasmons in Transition Metal Dichalcogenides for Chip-Level Electronic Photonic Integrated Circuits. <i>ACS Photonics</i> , 2016 , 3, 869-874	6.3	18
133	Quantum plasmonic control of trions in a picocavity with monolayer WS ₂ . <i>Science Advances</i> , 2019 , 5, eaau8763	8.7	17

132	On-chip lithium cells for electrical and structural characterization of single nanowire electrodes. <i>Nanotechnology</i> , 2014 , 25, 265402	3.4	17
131	The <i>Drosophila</i> transcription factor ultrabithorax self-assembles into protein-based biomaterials with multiple morphologies. <i>Biomacromolecules</i> , 2009 , 10, 829-37	6.9	17
130	An investigation of fatigue crack growth in a cast lamellar Ti-48Al-2Cr-2Nb alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000 , 284, 235-245	5.3	17
129	In Situ Synthesis of Lead-Free Halide Perovskite/OF Nanocomposites as Photocatalysts for Photoinduced Polymerization in Both Organic and Aqueous Phases	4.6-4.71	17
128	Carbon Nanotube Pullout, Interfacial Properties, and Toughening in Ceramic Nanocomposites: Mechanistic Insights from Single Fiber Pullout Analysis. <i>Advanced Materials Interfaces</i> , 2015 , 2, 1400110	4.6	16
127	Large-scale synthesis of few-layer graphene from magnesium and different carbon sources and its application in dye-sensitized solar cells. <i>Materials and Design</i> , 2016 , 92, 462-470	8.1	16
126	Underwater adhesive using solid-liquid polymer mixes. <i>Materials Today Chemistry</i> , 2018 , 9, 149-157	6.2	16
125	Ductile Fracture of Metallic Glass Nanolaminates. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1700510	4.6	16
124	High performance hierarchically nanostructured graphene oxide/covalent organic framework hybrid membranes for stable organic solvent nanofiltration. <i>Applied Materials Today</i> , 2020 , 20, 100791	6.6	16
123	High-Energy All-Solid-State Organic-Lithium Batteries Based on Ceramic Electrolytes. <i>ACS Energy Letters</i> , 2021 , 6, 201-207	20.1	16
122	Enhanced Cycling Performance of Li ₂ O ₂ Battery by Using a Li ₃ PO ₄ -Protected Lithium Anode in DMSO-Based Electrolyte. <i>ACS Applied Energy Materials</i> , 2018 , 1, 5511-5517	6.1	16
121	High Toughness in Ultralow Density Graphene Oxide Foam. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1700030	4.30	15
120	Direct Assessment of the Toxicity of Molybdenum Disulfide Atomically Thin Film and Microparticles via Cytotoxicity and Patch Testing. <i>Small</i> , 2018 , 14, e1702600	11	15
119	Enhanced heterogeneous activation of peroxydisulfate by S, N co-doped graphene via controlling S, N functionalization for the catalytic decolorization of dyes in water. <i>Chemosphere</i> , 2018 , 210, 120-128	8.4	15
118	Quantitative in situ fracture testing of tin oxide nanowires for lithium ion battery applications. <i>Nano Energy</i> , 2018 , 53, 277-285	17.1	15
117	Size dictates mechanical properties for protein fibers self-assembled by the <i>Drosophila</i> hox transcription factor ultrabithorax. <i>Biomacromolecules</i> , 2010 , 11, 3644-51	6.9	15
116	Nanoscale Friction Dynamic Modeling. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2009 , 131,	1.6	15
115	Solvothermal synthesis and mechanical characterization of single crystalline copper nanorings. <i>Journal of Crystal Growth</i> , 2011 , 325, 76-80	1.6	15

114	Enhanced plant antioxidant capacity and biodegradation of phenol by immobilizing peroxidase on amphoteric nitrogen-doped carbon dots. <i>Catalysis Communications</i> , 2020 , 134, 105847	3.2	15
113	Near Degeneracy of Magnetic Phases in Two-Dimensional Chromium Telluride with Enhanced Perpendicular Magnetic Anisotropy. <i>ACS Nano</i> , 2020 , 14, 15256-15266	16.7	15
112	Selective membranes in water and wastewater treatment: Role of advanced materials. <i>Materials Today</i> , 2021 , 50, 516-516	21.8	15
111	Unveil the Size-Dependent Mechanical Behaviors of Individual CNT/SiC Composite Nanofibers by In Situ Tensile Tests in SEM. <i>Small</i> , 2016 , 12, 4486-91	11	15
110	A Low-Cost and High-Efficiency Integrated Device toward Solar-Driven Water Splitting. <i>ACS Nano</i> , 2020 , 14, 5426-5434	16.7	14
109	Mechanically Assisted Self-Healing of Ultrathin Gold Nanowires. <i>Small</i> , 2018 , 14, e1704085	11	14
108	High Current Enabled Stable Lithium Anode for Ultralong Cycling Life of Lithium-Oxygen Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 30793-30800	9.5	14
107	Mesoporous Mn ₂ O ₃ rods as a highly efficient catalyst for Li-O ₂ battery. <i>Journal of Power Sources</i> , 2019 , 435, 226833	8.9	14
106	Near-Field Coupled Integrable Two-Dimensional InSe Photosensor on Optical Fiber. <i>ACS Nano</i> , 2018 , 12, 12571-12577	16.7	14
105	High-performing and stable electricity generation by ceramic fuel cells operating in dry methane over 1000 hours. <i>Journal of Power Sources</i> , 2018 , 401, 322-328	8.9	14
104	Growth of Molybdenum Carbide/Graphene Hybrids from Molybdenum Disulfide Atomic Layer Template. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1600866	4.6	13
103	A cohesive law for interfaces in graphene/hexagonal boron nitride heterostructure. <i>Journal of Applied Physics</i> , 2014 , 115, 144308	2.5	13
102	Fracture toughness of the sidewall fluorinated carbon nanotube-epoxy interface. <i>Journal of Applied Physics</i> , 2014 , 115, 224305	2.5	13
101	Approaching Carbon Nanotube Reinforcing Limit in B ₄ C Matrix Composites Produced by Chemical Vapor Infiltration. <i>Advanced Engineering Materials</i> , 2014 , 16, 161-166	3.5	13
100	Nanoscale frictional characteristics of graphene nanoribbons. <i>Applied Physics Letters</i> , 2012 , 101, 123104	3.4	13
99	Friction and adhesion properties of vertically aligned multi-walled carbon nanotube arrays and fluoro-nanodiamond films. <i>Carbon</i> , 2008 , 46, 1294-1301	10.4	13
98	An investigation of the effects of loading rate on resistance-curve behavior and toughening in cast lamellar gamma-based titanium aluminides. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2001 , 32, 325-337	2.3	13
97	Solid-Vapor Reaction Growth of Transition-Metal Dichalcogenide Monolayers. <i>Angewandte Chemie</i> , 2016 , 128, 10814-10819	3.6	13

96	Biomolecular sensing by surface-enhanced Raman scattering of monolayer Janus transition metal dichalcogenide. <i>Nanoscale</i> , 2020 , 12, 10723-10729	7.7	13
95	Role of Atomic Layer Functionalization in Building Scalable Bottom-Up Assembly of Ultra-Low Density Multifunctional Three-Dimensional Nanostructures. <i>ACS Nano</i> , 2017 , 11, 806-813	16.7	12
94	Li7P3S11 solid electrolyte coating silicon for high-performance lithium-ion batteries. <i>Electrochimica Acta</i> , 2018 , 276, 325-332	6.7	12
93	Towards methyl orange degradation by direct sunlight using coupled TiO2 nanoparticles and carbonized cotton T-shirt. <i>Applied Materials Today</i> , 2016 , 3, 57-62	6.6	12
92	Regular and reverse nanoscale stick-slip behavior: Modeling and experiments. <i>Applied Surface Science</i> , 2010 , 256, 2577-2582	6.7	12
91	Synthesis of the hybrid CdS/Au flower-like nanomaterials and their SERS application. <i>Sensors and Actuators B: Chemical</i> , 2020 , 304, 127218	8.5	12
90	Enhanced bioaccumulation efficiency and tolerance for Cd (II) in Arabidopsis thaliana by amphoteric nitrogen-doped carbon dots. <i>Ecotoxicology and Environmental Safety</i> , 2020 , 190, 110108	7	12
89	Microstructure engineering of solid-state composite cathode via solvent-assisted processing. <i>Joule</i> , 2021 , 5, 1845-1859	27.8	12
88	Optimal structuring of nitrogen-doped hybrid-dimensional nanocarbons for high-performance flexible solid-state supercapacitors. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 7501-7515	13	11
87	Ag doped urchin-like MnO_2 toward efficient and bifunctional electrocatalysts for Li-O ₂ batteries. <i>Nano Research</i> , 2020 , 13, 2356-2364	10	11
86	Modulating particle adhesion with micro-patterned surfaces. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 8199-207	9.5	11
85	A Cyclic Microbend Study on LIGA Ni Microelectromechanical Systems Thin Films. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2005 , 127, 16-22	1.8	11
84	Role of Biochar in Improving Sandy Soil Water Retention and Resilience to Drought. <i>Water (Switzerland)</i> , 2021 , 13, 407	3	11
83	The impact of core-shell nanotube structures on fracture in ceramic nanocomposites. <i>Acta Materialia</i> , 2017 , 122, 82-91	8.4	10
82	Effects of interfaces on nano-friction of vertically aligned multi-walled carbon nanotube arrays. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 483-484, 664-667	5.3	10
81	Effects of temperature on the fatigue crack growth behavior of cast gamma-based titanium aluminides. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2001 , 32, 2781-2794	2.3	10
80	Spatially-Resolved Photoluminescence of Monolayer MoS ₂ under Controlled Environment for Ambient Optoelectronic Applications. <i>ACS Applied Nano Materials</i> , 2018 , 1, 6226-6235	5.6	10
79	Fatigue of LIGA Ni Micro-Electro-Mechanical System Thin Films. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2007 , 38, 2340-2348	2.3	9

78	Self-Stiffening Behavior of Reinforced Carbon Nanotubes Spheres . <i>Advanced Engineering Materials</i> , 2017 , 19, 1600756	3.5	8
77	High-K dielectric sulfur-selenium alloys. <i>Science Advances</i> , 2019 , 5, eaau9785	14.3	8
76	Remote Lightening and Ultrafast Transition: Intrinsic Modulation of Exciton Spatiotemporal Dynamics in Monolayer MoS. <i>ACS Nano</i> , 2020 , 14, 6897-6905	16.7	8
75	Controllable high-throughput fabrication of porous gold nanorods driven by Rayleigh instability. <i>RSC Advances</i> , 2016 , 6, 66484-66489	3.7	8
74	Humidity effects on anisotropic nanofriction behaviors of aligned carbon nanotube carpets. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 9501-7	9.5	8
73	The mechanical characterization of carbon-nanotube-reinforced polymer-matrix nanocomposites: An unfolding story of interface. <i>Jom</i> , 2009 , 61, 32-37	2.1	8
72	Surface enhanced resonant Raman scattering in hybrid MoSe@Au nanostructures. <i>Optics Express</i> , 2018 , 26, 29411-29423	3.3	8
71	Uncovering topographically hidden features in 2D MoSe2 with correlated potential and optical nanoprobos. <i>Npj 2D Materials and Applications</i> , 2020 , 4,	8.8	8
70	Probing the Effect of Chemical Dopant Phase on Photoluminescence of Monolayer MoS2 Using in Situ Raman Microspectroscopy. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 15738-15743	3.8	7
69	The Effect of Protein Fusions on the Production and Mechanical Properties of Protein-Based Materials. <i>Advanced Functional Materials</i> , 2015 , 25, 1442-1450	15.6	7
68	A probabilistic framework for the modeling of fatigue in cast lamellar gamma-based titanium aluminides. <i>Mechanics of Materials</i> , 2004 , 36, 177-197	3.3	7
67	A probabilistic framework for the modeling of fatigue in a lamellar XDTM gamma titanium aluminide alloy. <i>International Journal of Fatigue</i> , 2002 , 24, 69-81	5	7
66	Mechanical testing of two-dimensional materials: a brief review. <i>International Journal of Smart and Nano Materials</i> , 2020 , 11, 207-246	3.6	7
65	Strong and flaw-insensitive two-dimensional covalent organic frameworks. <i>Matter</i> , 2021 , 4, 1017-1028	12.7	7
64	Synergetic photoluminescence enhancement of monolayer MoS surface plasmon resonance and defect repair.. <i>RSC Advances</i> , 2018 , 8, 23591-23598	3.7	7
63	Structural Reinforcement through Liquid Encapsulation. <i>Advanced Materials Interfaces</i> , 2017 , 4, 160078	14.6	6
62	Boxception: Impact Resistance Structure Using 3D Printing. <i>Advanced Engineering Materials</i> , 2019 , 21, 1900167	3.5	6
61	Poly-albumen: Bio-derived structural polymer from polymerized egg white. <i>Materials Today Chemistry</i> , 2018 , 9, 73-79	6.2	6

60	Characterization of tin(II) sulfide defects/vacancies and correlation with their photocurrent. <i>Nano Research</i> , 2017 , 10, 218-228	10	6
59	Correlation between droplet-induced strain actuation and voltage generation in single-wall carbon nanotube films. <i>Nano Letters</i> , 2011 , 11, 5117-22	11.5	6
58	An investigation of the effects of temperature on fatigue crack growth in a cast lamellar Ti-5Al-0.5Mn-0.8 vol.% TiB ₂ alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001 , 319-321, 618-624	5.3	6
57	Perovskite-Derivative Valleytronics. <i>Advanced Materials</i> , 2020 , 32, e2004111	24	6
56	Unzipping of twin lamella in nanotwinned nickel nanowires under flexural bending. <i>Materials Research Letters</i> , 2018 , 6, 13-21	7.4	6
55	Interconnecting Bone Nanoparticles by Ovalbumin Molecules to Build a Three-Dimensional Low-Density and Tough Material. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 41757-41762	9.5	6
54	Solid-Liquid Self-Adaptive Polymeric Composite. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 2142-7	9.5	5
53	Yield strength dependence on strain rate of molybdenum-alloy nanofibers. <i>Applied Physics Letters</i> , 2014 , 104, 251909	3.4	5
52	Ductile layer toughening of brittle intermetallic composites. <i>Journal of Materials Science</i> , 2002 , 37, 3023-3034	4.9	5
51	Spontaneous Emission of Plasmon-Exciton Polaritons Revealed by Ultrafast Nonradiative Decays. <i>Laser and Photonics Reviews</i> , 2020 , 14, 2000233	8.3	5
50	Phosphorous-doped bimetallic sulfides embedded in heteroatom-doped carbon nanoarrays for flexible all-solid-state supercapacitors. <i>Science China Materials</i> , 2021 , 64, 2439-2453	7.1	5
49	Two dimensional heterostructure: perfect platform for exploring interface interaction. <i>Science Bulletin</i> , 2017 , 62, 381-382	10.6	4
48	Enhancing Mechanical Properties of Nanocomposites Using Interconnected Carbon Nanotubes (iCNT) as Reinforcement. <i>Advanced Engineering Materials</i> , 2017 , 19, 1600499	3.5	4
47	Achieving Self-Stiffening and Laser Healing by Interconnecting Graphene Oxide Sheets with Amine-Functionalized Ovalbumin. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1800932	4.6	4
46	Direct nanoimprinting of single crystalline gold: Experiments and dislocation dynamics simulations. <i>Applied Surface Science</i> , 2014 , 290, 301-307	6.7	4
45	Mechanically robust Si nanorod arrays on Cu/Ti bilayer film coated Si substrate for high performance lithium-ion battery anodes. <i>Journal of Applied Physics</i> , 2012 , 112, 103502	2.5	4
44	Understanding Li-ion battery processes at the atomic- to nano-scale 2010 ,		4
43	Mesoscale reverse stick-slip nanofriction behavior of vertically aligned multiwalled carbon nanotube superlattices. <i>Applied Physics Letters</i> , 2008 , 92, 203115	3.4	4

42	Plasmonic-Induced Luminescence of MoSe ₂ Monolayers in a Scanning Tunneling Microscope. <i>ACS Photonics</i> , 2020 , 7, 3061-3070	6.3	4
41	Elastic and Transparent bone as an electrochemical separator. <i>Materials Today Chemistry</i> , 2019 , 12, 132-138	13.8	3
40	Strain-controlled optical transmittance tuning of three-dimensional carbon nanotube architectures. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 1927-1933	7.1	3
39	Ultrahighly Enhanced Performance of Single Cadmium Selenide Nanobelt by Plasmonic Gold Particles. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019 , 216, 1900454	1.6	3
38	An investigation of the effects of mix strength on the fracture and fatigue behavior of concrete mortar. <i>Journal of Materials Science</i> , 2006 , 41, 6973-6977	4.3	3
37	Tunable friction of monolayer MoS ₂ by control of interfacial chemistry. <i>Extreme Mechanics Letters</i> , 2020 , 41, 100996	3.9	3
36	Mechanical Anisotropy in Two-Dimensional Selenium Atomic Layers. <i>Nano Letters</i> , 2021 , 21, 8043-8050	11.5	3
35	Strengthening the interface between individual aramid fibers and polymer at room and elevated temperatures. <i>Materials Today Communications</i> , 2020 , 24, 101254	2.5	2
34	Hydrogen bonding sewing interface.. <i>RSC Advances</i> , 2020 , 10, 17438-17443	3.7	2
33	New paradigm in advanced composite and nanocomposite design. <i>Reinforced Plastics</i> , 2018 , 62, 263-265	0.9	2
32	Thermoelectric measurements of high-resistance Janus monolayer transition-metal dichalcogenide. <i>Review of Scientific Instruments</i> , 2019 , 90, 105110	1.7	2
31	Lead-Free Perovskites: Lead-Free Double Perovskite Cs ₂ SnX ₆ : Facile Solution Synthesis and Excellent Stability (Small 39/2019). <i>Small</i> , 2019 , 15, 1970211	11	2
30	Quantification of Electron Beam Heating Effect in TEM. <i>Microscopy and Microanalysis</i> , 2017 , 23, 1766-1767	0.75	2
29	Integration of contact size dependence and thermal activation in atomic friction. <i>Extreme Mechanics Letters</i> , 2015 , 2, 60-64	3.9	2
28	Dual-gate MOSFETs on monolayer CVD MoS ₂ films 2013 ,		2
27	Nanomechanics and Nanostructured Multifunctional Materials: Experiments, Theories, and Simulations. <i>Journal of Nanomaterials</i> , 2008 , 2008, 1-1	3.2	2
26	Dislocation Nucleation and Pileup under a Wedge Contact at Nanoscale. <i>Journal of Nanomaterials</i> , 2008 , 2008, 1-5	3.2	2
25	An investigation of fracture initiation and resistance-curve behavior in concrete. <i>Cement and Concrete Composites</i> , 2003 , 25, 599-605	8.6	2

24	Plasticity Length Scale in LIGA Nickel MEMS Structures. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 687, 1		2
23	An Investigation of The Effects of Temperature on Fatigue Crack Growth Behavior of a Cast Nearly Lamellar Ti-47Al-2Cr-2Mn + 0.8 Vol. %TiB ₂ Gamma Titanium Alloy. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 646, 143		2
22	Enabling Ultrasensitive Photo-detection Through Control of Interface Properties in Molybdenum Disulfide Atomic Layers. <i>Scientific Reports</i> , 2016 , 6, 39465	4.9	2
21	Carbon Nanotubes: Hydrogen Passivation Induced Dispersion of Multi-Walled Carbon Nanotubes (Adv. Mater. 7/2012). <i>Advanced Materials</i> , 2012 , 24, 880-880	24	1
20	Effect of Sidewall Fluorination on the Mechanical Properties of Catalytically Grown Multi-Wall Carbon Nanotubes. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1284, 157		1
19	Localized Quantitative Characterization of Chemical Functionalization Effects on Adhesion Properties of SWNT. <i>Journal of Nanomaterials</i> , 2011 , 2011, 1-5	3.2	1
18	Bilinear Behavior in the Indentation Size Effect: A Consequence of Strain Gradient Plasticity. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 750, 1		1
17	Strong Edge Stress in Molecularly Thin Organic-Inorganic Hybrid Ruddlesden-Popper Perovskites and Modulations of Their Edge Electronic Properties.. <i>ACS Nano</i> , 2022 ,	16.7	1
16	Size and Crystal Orientation-Dependent Thermal Behaviors of ZnO Nanobelts. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 27222-27229	3.8	1
15	A Molecular-Level Interface Design Enabled High-Strength and High-Toughness Carbon Nanotube Buckypaper. <i>Macromolecular Materials and Engineering</i> , 2021 , 306, 2100244	3.9	1
14	Quaternary Alloys: Thermally Induced 2D Alloy-Heterostructure Transformation in Quaternary Alloys (Adv. Mater. 45/2018). <i>Advanced Materials</i> , 2018 , 30, 1870344	24	1
13	Minimizing the Water Effect in Synthesis of High-Quality Monolayer MoS ₂ Nanosheets: Implications for Electronic and Optoelectronic Devices. <i>ACS Applied Nano Materials</i> , 2021 , 4, 8094-8100	5.6	1
12	Plasmon damping and charge transfer pathways in Au@MoSe ₂ nanostructures. <i>Materials Today Nano</i> , 2021 , 15, 100131	9.7	1
11	CVD growth of high-quality and large-area continuous h-BN thin films directly on stainless-steel as protective coatings. <i>Materials Today Nano</i> , 2021 , 16, 100135	9.7	1
10	Ultrafast Pump-Probe Microscopy on 2D Transition Metal Dichalcogenides. <i>Advanced Photonics Research</i> , 2020 , 046	1.9	1
9	Mechanical Properties of Ultralow Density Graphene Oxide/Polydimethylsiloxane Foams. <i>MRS Advances</i> , 2018 , 3, 61-66	0.7	0
8	Pathways of Exciton Triggered Hot-Carrier Injection at Plasmonic Metal/Transition Metal Dichalcogenide Interface. <i>Advanced Optical Materials</i> , 2020 , 2100070	8.1	0
7	Quantitative in-situ study of strength-governed interfacial failure between h-BN and polymer-derived ceramic. <i>Acta Materialia</i> , 2021 , 210, 116832	8.4	0

- 6 Probing interface strength in nanocomposites and hybrid nanomaterials **2021**, 209-240 0
- 5 Quantification of Dopant Distribution and the Local Band Gap in Selenium-Doped Molybdenum Disulfide. *Microscopy and Microanalysis*, **2014**, 20, 1754-1755 0.5
- 4 Interfaces in Two-Dimensional Heterostructures of Transition Metal Dichalcogenides. *Microscopy and Microanalysis*, **2015**, 21, 105-106 0.5
- 3 Towards NEMS Fluid Sensors Based on Suspended Nanomaterials. *Materials Research Society Symposia Proceedings*, **2009**, 1222, 1
- 2 Investigation of the Bi-Linear Behavior of the Indentation Size Effects in Single and Polycrystalline Ni Thin Films/MEMS Thin Films. *Materials Research Society Symposia Proceedings*, **2006**, 976, 1
- 1 In-situ Thermal Testing on Nanostructures in TEM. *Microscopy and Microanalysis*, **2016**, 22, 770-771 0.5