

Nicola Pugno

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.

335
papers

11,051
citations

48
h-index

95
g-index

376
ext. papers

13,227
ext. citations

5.6
avg, IF

6.74
L-index

#	Paper	IF	Citations
335	An Image-Analysis-Based Method for the Prediction of Recombinant Protein Fiber Tensile Strength.. <i>Materials</i> , 2022 , 15,	3.5	1
334	Multifunctional roles of hairs and spines in old man of the Andes cactus: Droplet distant coalescence and mechanical strength. <i>Physics of Fluids</i> , 2022 , 34, 012003	4.4	1
333	Folding and Fracture of Single Crystal Graphene Grown on a Cu(111) Foil.. <i>Advanced Materials</i> , 2022 , e2110509	24	0
332	Experimental and Numerical Study of the Effect of Surface Patterning on the Frictional Properties of Polymer Surfaces. <i>Journal of Tribology</i> , 2022 , 144,	1.8	2
331	Artificial and natural silk materials have high mechanical property variability regardless of sample size.. <i>Scientific Reports</i> , 2022 , 12, 3507	4.9	2
330	A 3D Griffith peeling model to unify and generalize single and double peeling theories. <i>Meccanica</i> , 2022 , 57, 1125-1138	2.1	
329	Correlation between slip precursors and topological length scales at the onset of frictional sliding. <i>International Journal of Solids and Structures</i> , 2022 , 243, 111525	3.1	0
328	A new concept for superior energy dissipation in hierarchical materials and structures. <i>International Journal of Engineering Science</i> , 2022 , 176, 103673	5.7	0
327	Simulation of interacting elastic sheets in shear flow: Insights into buckling, sliding, and reassembly of graphene nanosheets in sheared liquids. <i>Physics of Fluids</i> , 2022 , 34, 053311	4.4	1
326	Effect of vibrational mating disruption on flight activity and oviposition to control the grapevine pest, <i>Scaphoideus titanus</i> . <i>Arthropod Structure and Development</i> , 2022 , 69, 101173	1.8	
325	Graphene Confers Ultralow Friction on Nanogear Cogs. <i>Small</i> , 2021 , 17, e2104487	11	1
324	Comparing Modern and Classical Perspectives on Spider Silks and Webs. <i>Perspectives on Science</i> , 2021 , 29, 133-156	0.6	4
323	Tyrosine residues mediate supercontraction in biomimetic spider silk. <i>Communications Materials</i> , 2021 , 2,	6	6
322	An insight into the toughness modulus enhancement of high-performance knotted microfibers through the correspondence analysis. <i>Engineering Research Express</i> , 2021 , 3, 025010	0.9	0
321	Band gap enhancement in periodic frames using hierarchical structures. <i>International Journal of Solids and Structures</i> , 2021 , 216, 68-82	3.1	7
320	Dissipative Dynamics of Polymer Phononic Materials. <i>Advanced Functional Materials</i> , 2021 , 31, 2103424	15.6	4
319	A coarse-grained mechanical model for folding and unfolding of tropoelastin with possible mutations. <i>Acta Biomaterialia</i> , 2021 , 134, 477-489	10.8	2

318	Controlling Movement at Nanoscale: Curvature Driven Mechanotaxis. <i>Small</i> , 2021 , 17, e2100909	11	1
317	A lesson from earthquake engineering for selectively damaging cancer cell structures. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021 , 119, 104533	4.1	2
316	Generalized multiple peeling theory uploading hyperelasticity and pre-stress. <i>Extreme Mechanics Letters</i> , 2021 , 42, 101085	3.9	5
315	Extreme deformations of the cantilever Euler Elastica under transverse aerodynamic load. <i>Extreme Mechanics Letters</i> , 2021 , 42, 101110	3.9	2
314	Adhesion of spider cribellate silk enhanced in high humidity by mechanical plasticization of the underlying fiber. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021 , 114, 104200	4.1	3
313	Unveiling a new shear stress transfer mechanism in composites with helically wound hierarchical fibres. <i>International Journal of Mechanical Sciences</i> , 2021 , 192, 106135	5.5	5
312	Supercritical CO ₂ for the drying and microbial inactivation of apple slices. <i>Drying Technology</i> , 2021 , 39, 259-267	2.6	6
311	Air-encapsulating elastic mechanism of submerged blowballs. <i>Materials Today Bio</i> , 2021 , 9, 100095	9.9	1
310	A Bio-inspired Multifunctionalized Silk Fibroin. <i>ACS Biomaterials Science and Engineering</i> , 2021 , 7, 507-516	9.5	6
309	Order Parameter from the Seebeck Coefficient in Thermoelectric Kesterite Cu ₂ ZnSnS ₄ . <i>Minerals, Metals and Materials Series</i> , 2021 , 527-539	0.3	2
308	Efficient Mechanical Stress Transfer in Multilayer Graphene with a Ladder-like Architecture. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 4473-4484	9.5	1
307	Robust substrate anchorages of silk lines with extensible nano-fibres. <i>Soft Matter</i> , 2021 , 17, 7903-7913	3.6	
306	Structural Defects Modulate Electronic and Nanomechanical Properties of 2D Materials. <i>ACS Nano</i> , 2021 , 15, 2520-2531	16.7	15
305	Electronic excitation spectra of cerium oxides: from dielectric response functions to Monte Carlo electron transport simulations. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 19173-19187	3.6	2
304	A Design of Experiment Rational Optimization of the Degumming Process and Its Impact on the Silk Fibroin Properties. <i>ACS Biomaterials Science and Engineering</i> , 2021 , 7, 1374-1393	5.5	15
303	How spiders hunt heavy prey: the tangle web as a pulley and spider's lifting mechanics observed and quantified in the laboratory. <i>Journal of the Royal Society Interface</i> , 2021 , 18, 20200907	4.1	8
302	Injectable Scaffold-Systems for the Regeneration of Spinal Cord: Advances of the Past Decade. <i>ACS Biomaterials Science and Engineering</i> , 2021 , 7, 983-999	5.5	1
301	Highly Deformable, Ultrathin Large-Area Poly(methyl methacrylate) Films. <i>ACS Omega</i> , 2021 , 6, 8308-8312	3.2	1

300	Topologically engineered 3D printed architectures with superior mechanical strength. <i>Materials Today</i> , 2021 , 48, 72-72	21.8	5
299	Improving rubber concrete strength and toughness by plasma-induced end-of-life tire rubber surface modification. <i>Plasma Processes and Polymers</i> , 2021 , 18, 2100081	3.4	3
298	High-yield production of a super-soluble miniature spider silk for biomimetic high-performance materials. <i>Materials Today</i> , 2021 ,	21.8	5
297	Mechanotropism of single cells adhering to elastic substrates subject to exogenous forces. <i>Journal of the Mechanics and Physics of Solids</i> , 2021 , 153, 104475	5	0
296	Design of ideal vibrational signals for stinkbug male attraction through vibrotaxis experiments. <i>Pest Management Science</i> , 2021 , 77, 5498-5508	4.6	5
295	Self-Propelled Aero-GaN Based Liquid Marbles Exhibiting Pulsed Rotation on the Water Surface. <i>Materials</i> , 2021 , 14,	3.5	1
294	Hierarchical auxetic and isotropic porous medium with extremely negative Poisson's ratio. <i>Extreme Mechanics Letters</i> , 2021 , 48, 101405	3.9	8
293	Tidy dataset of the experimental design of the optimization of the alkali degumming process of Bombyx mori silk. <i>Data in Brief</i> , 2021 , 38, 107294	1.2	3
292	Optimization of spider web-inspired phononic crystals to achieve tailored dispersion for diverse objectives. <i>Materials and Design</i> , 2021 , 209, 109980	8.1	5
291	Thermoelectric properties of CZTS thin films: effect of Cu-Zn disorder. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 13148-13158	3.6	3
290	A Plant Bioreactor for the Synthesis of Carbon Nanotube Bionic Nanocomposites. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 560349	5.8	2
289	Strong and Tough Silk for Resilient Attachment Discs: The Mechanical Properties of Piriform Silk in the Spider Cupiennius salei (Keyserling, 1877). <i>Frontiers in Materials</i> , 2020 , 7,	4	13
288	Order-Disorder Transition in Kesterite Cu ₂ ZnSnS ₄ : Thermopower Enhancement via Electronic Band Structure Modification. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 7091-7096	3.8	12
287	Conversionless efficient and broadband laser light diffusers for high brightness illumination applications. <i>Nature Communications</i> , 2020 , 11, 1437	17.4	21
286	Synthesis of Highly Oriented Graphite Films with a Low Wrinkle Density and Near-Millimeter-Scale Lateral Grains. <i>Chemistry of Materials</i> , 2020 , 32, 3134-3143	9.6	5
285	Strengthening of Wood-Like Materials via Densification and Nanoparticle Intercalation. <i>Nanomaterials</i> , 2020 , 10,	5.4	8
284	Disordered protein-graphene oxide co-assembly and supramolecular biofabrication of functional fluidic devices. <i>Nature Communications</i> , 2020 , 11, 1182	17.4	32
283	Mechanical Properties and Weibull Scaling Laws of Unknown Spider Silks. <i>Molecules</i> , 2020 , 25,	4.8	8

282	Biofunctional Silk Kirigami With Engineered Properties. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 12436-12444	9.5	9
281	Production and processing of graphene and related materials. <i>2D Materials</i> , 2020 , 7, 022001	5.9	179
280	The role of hairs in the adhesion of octopus suckers: a hierarchical peeling approach. <i>Bioinspiration and Biomimetics</i> , 2020 , 15, 035006	2.6	8
279	A combined experimental/numerical study on the scaling of impact strength and toughness in composite laminates for ballistic applications. <i>Composites Part B: Engineering</i> , 2020 , 195, 108090	10	10
278	Orientation Distribution Dependence of Piezoresistivity of Metal Nanowire-Polymer Composite. <i>Multiscale Science and Engineering</i> , 2020 , 2, 54-62	1.2	2
277	Evolutionary Algorithm Optimization of Staggered Biological or Biomimetic Composites Using the Random Fuse Model. <i>Physical Review Applied</i> , 2020 , 13,	4.3	2
276	Origin of a Simultaneous Suppression of Thermal Conductivity and Increase of Electrical Conductivity and Seebeck Coefficient in Disordered Cubic Cu ₂ ZnSnS ₄ . <i>Physical Review Applied</i> , 2020 , 14,	4.3	8
275	Mechanobiology predicts raft formations triggered by ligand-receptor activity across the cell membrane. <i>Journal of the Mechanics and Physics of Solids</i> , 2020 , 141, 103974	5	7
274	Random fuse model in the presence of self-healing. <i>New Journal of Physics</i> , 2020 , 22, 033005	2.9	4
273	Plant root penetration and growth as a mechanical inclusion problem. <i>International Journal of Non-Linear Mechanics</i> , 2020 , 120, 103344	2.8	1
272	A theoretical-numerical model for the peeling of elastic membranes. <i>Journal of the Mechanics and Physics of Solids</i> , 2020 , 136, 103733	5	7
271	Structural, electronic and mechanical properties of all-sp ² carbon allotropes with density lower than graphene. <i>Carbon</i> , 2020 , 159, 512-526	10.4	8
270	A comparison between Monte Carlo method and the numerical solution of the Ambartsumian-Chandrasekhar equations to unravel the dielectric response of metals. <i>Computational Materials Science</i> , 2020 , 173, 109420	3.2	3
269	The rotation toughening mechanism of barb-barbule joint in the barb delamination of feathers. <i>Acta Mechanica</i> , 2020 , 231, 1173-1186	2.1	2
268	Optimized production of a high-performance hybrid biomaterial: biomineralized spider silk for bone tissue engineering. <i>Journal of Applied Polymer Science</i> , 2020 , 137, 48739	2.9	7
267	Cutting mechanics of wood by beetle larval mandibles. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020 , 112, 104027	4.1	5
266	Mechanical characterization and induced crystallization in nanocomposites of thermoplastics and carbon nanotubes. <i>Npj Computational Materials</i> , 2020 , 6,	10.9	3
265	A design strategy to match the band gap of periodic and aperiodic metamaterials. <i>Scientific Reports</i> , 2020 , 10, 16403	4.9	15

264	Exploring event horizons and Hawking radiation through deformed graphene membranes. <i>2D Materials</i> , 2020 , 7, 041006	5.9	5
263	Free-Standing Graphene Oxide and Carbon Nanotube Hybrid Papers with Enhanced Electrical and Mechanical Performance and Their Synergy in Polymer Laminates. <i>International Journal of Molecular Sciences</i> , 2020 , 21,	6.3	2
262	Properties of Biomimetic Artificial Spider Silk Fibers Tuned by PostSpin Bath Incubation. <i>Molecules</i> , 2020 , 25,	4.8	8
261	Supramolecular Structure and Mechanical Properties of Wet-Spun Polyacrylonitrile/Carbon Nanotube Composite Fibers Influenced by Stretching Forces. <i>Frontiers in Materials</i> , 2020 , 7,	4	2
260	Enhancement of the Biological and Mechanical Performances of Sintered Hydroxyapatite by Multiple Ions Doping. <i>Frontiers in Materials</i> , 2020 , 7,	4	6
259	Effect of the pyrolysis atmosphere on the mechanical properties of polymer-derived SiOC and SiCN. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 6519-6530	3.8	7
258	A model for hierarchical anisotropic friction, adhesion and wear. <i>Tribology International</i> , 2020 , 152, 106549	4.9	3
257	Mechanics of snake biting: Experiments and modelling. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020 , 112, 104020	4.1	4
256	Spider (<i>Linothele megatheloides</i>) and silkworm (<i>Bombyx mori</i>) silks: Comparative physical and biological evaluation. <i>Materials Science and Engineering C</i> , 2020 , 107, 110197	8.3	13
255	Micromechanics of liquid-phase exfoliation of a layered 2D material: A hydrodynamic peeling model. <i>Journal of the Mechanics and Physics of Solids</i> , 2020 , 134, 103764	5	17
254	The Impact of Shear and Elongational Forces on Structural Formation of Polyacrylonitrile/Carbon Nanotubes Composite Fibers during Wet Spinning Process. <i>Materials</i> , 2019 , 12,	3.5	11
253	Surface Phenomena Enhancing the Antibacterial and Osteogenic Ability of Nanocrystalline Hydroxyapatite, Activated by Multiple-Ion Doping. <i>ACS Biomaterials Science and Engineering</i> , 2019 , 5, 5947-5959	5.5	14
252	Matrix-induced pre-strain and mineralization-dependent interfibrillar shear transfer enable 3D fibrillar deformation in a biogenic armour. <i>Acta Biomaterialia</i> , 2019 , 100, 18-28	10.8	2
251	Bionicomposites. <i>Nanoscale</i> , 2019 , 11, 3102-3111	7.7	9
250	Effect of the Order-Disorder Transition on the Seebeck Coefficient of Nanostructured Thermoelectric CuZnSnS. <i>Nanomaterials</i> , 2019 , 9,	5.4	18
249	An experimental-numerical study of the adhesive static and dynamic friction of micro-patterned soft polymer surfaces. <i>Materials and Design</i> , 2019 , 181, 107930	8.1	8
248	A comparative study of the mechanical properties of a dinosaur and crocodile fossil teeth. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019 , 97, 365-374	4.1	1
247	Bionic Superfibers 2019 , 431-443		1

246	Effect of mechanical stimulation on the degradation of poly(lactic acid) scaffolds with different designed structures. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019 , 96, 324-333	4.1	9
245	A numerical-experimental approach towards picomechanics and picotribology: the case study of defective carbon nanotubes bundles. <i>Journal Physics D: Applied Physics</i> , 2019 , 52, 255305	3	1
244	Nanostructured kesterite (Cu ₂ ZnSnS ₄) for applications in thermoelectric devices. <i>Powder Diffraction</i> , 2019 , 34, S42-S47	1.8	11
243	Investigation of charges-driven interactions between graphene and different SiO ₂ surfaces. <i>Carbon</i> , 2019 , 148, 336-343	10.4	8
242	Mechanical properties of Chamelea gallina shells at different latitudes. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019 , 94, 155-163	4.1	3
241	Easy, Scalable, Robust, Micropatterned Silk Fibroin Cell Substrates. <i>Advanced Materials Interfaces</i> , 2019 , 6, 1801822	4.6	17
240	Sensing up to 40 atm Using Pressure-Sensitive Aero-GaN. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019 , 13, 1900012	2.5	11
239	Imaging and mechanical characterization of different junctions in spider orb webs. <i>Scientific Reports</i> , 2019 , 9, 5776	4.9	19
238	Evolution of aerial spider webs coincided with repeated structural optimization of silk anchorages. <i>Evolution; International Journal of Organic Evolution</i> , 2019 , 73, 2122-2134	3.8	13
237	Atomistic simulation study on the crack growth stability of graphene under uniaxial tension and indentation. <i>Meccanica</i> , 2019 , 54, 1915-1926	2.1	2
236	Proof of concept of a frequency-preserving and time-invariant metamaterial-based nonlinear acoustic diode. <i>Scientific Reports</i> , 2019 , 9, 9560	4.9	15
235	Atomistic modelling of the hypervelocity dynamics of shock-compressed graphite and impacted graphene armours. <i>Computational Materials Science</i> , 2019 , 170, 109152	3.2	3
234	A soft robot structure with limbless resonant, stick and slip locomotion. <i>Smart Materials and Structures</i> , 2019 , 28, 104005	3.4	8
233	Modeling and Simulation of Bio-inspired Nanoarmors 2019 , 391-419		0
232	Vertically-Aligned Functionalized Silicon Micropillars for 3D Culture of Human Pluripotent Stem Cell-Derived Cortical Progenitors. <i>Cells</i> , 2019 , 9,	7.9	12
231	Load Sensor Instability and Optimization of MEMS-based Tensile Testing Devices. <i>Frontiers in Materials</i> , 2019 , 6,	4	3
230	The commemoration of Leonardo da Vinci. <i>Meccanica</i> , 2019 , 54, 2317-2324	2.1	3
229	Competition between delamination and tearing in multiple peeling problems. <i>Journal of the Royal Society Interface</i> , 2019 , 16, 20190388	4.1	2

228	A CONSTITUTIVE MODEL FOR BOTH LOW AND HIGH STRAIN NONLINEARITIES IN HIGHLY FILLED ELASTOMERS AND IMPLEMENTATION WITH USER-DEFINED MATERIAL SUBROUTINES IN ABAQUS. <i>Rubber Chemistry and Technology</i> , 2019 , 92, 653-686	1.7	11
227	Secondary electron emission and yield spectra of metals from Monte Carlo simulations and experiments. <i>Journal of Physics Condensed Matter</i> , 2019 , 31, 055901	1.8	10
226	Synergistic icephobic behaviour of swollen nitrile butadiene rubber graphene and/or carbon nanotube composites. <i>Composites Part B: Engineering</i> , 2019 , 166, 352-360	10	10
225	Modeling and simulation of the impact behavior of soft polymeric-foam-based back protectors for winter sports. <i>Journal of Science and Medicine in Sport</i> , 2019 , 22 Suppl 1, S65-S70	4.4	9
224	Self-organized and self-propelled aero-GaN with dual hydrophilic-hydrophobic behaviour. <i>Nano Energy</i> , 2019 , 56, 759-769	17.1	16
223	Buckling soft tensegrities: Fickle elasticity and configurational switching in living cells. <i>Journal of the Mechanics and Physics of Solids</i> , 2019 , 124, 299-324	5	21
222	Ice-regenerated flame retardant and robust film of silk fibroin and POSS nano-cages.. <i>RSC Advances</i> , 2018 , 8, 9063-9069	3.7	1
221	Mechanical and thermal properties of graphene random nanofoams via Molecular Dynamics simulations. <i>Carbon</i> , 2018 , 132, 766-775	10.4	29
220	Anisotropic Approach for Simulating Electron Transport in Layered Materials: Computational and Experimental Study of Highly Oriented Pyrolytic Graphite. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 10159-10166	3.8	9
219	Nanoscale friction of graphene oxide over glass-fibre and polystyrene. <i>Composites Part B: Engineering</i> , 2018 , 148, 272-280	10	12
218	Nitrile butadiene rubber composites reinforced with reduced graphene oxide and carbon nanotubes show superior mechanical, electrical and icephobic properties. <i>Composites Science and Technology</i> , 2018 , 166, 109-114	8.6	31
217	The multiple V-shaped double peeling of elastic thin films from elastic soft substrates. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 113, 56-64	5	15
216	Modeling and simulation in tribology across scales: An overview. <i>Tribology International</i> , 2018 , 125, 169-199	4.9	213
215	The influence of substrate roughness, patterning, curvature, and compliance in peeling problems. <i>Bioinspiration and Biomimetics</i> , 2018 , 13, 026004	2.6	10
214	Spider weight dragging and lifting mechanics. <i>Meccanica</i> , 2018 , 53, 1105-1114	2.1	6
213	Effect of rehabilitation exercise durations on the dynamic bone repair process by coupling polymer scaffold degradation and bone formation. <i>Biomechanics and Modeling in Mechanobiology</i> , 2018 , 17, 763-775	3.8	9
212	Silkworm silk fibers vs PEEK reinforced rubber luminescent strain gauge and stretchable composites. <i>Composites Science and Technology</i> , 2018 , 156, 254-261	8.6	6
211	Scale Effects on the Ballistic Penetration of Graphene Sheets. <i>Scientific Reports</i> , 2018 , 8, 6750	4.9	25

210	Grafting carbon nanotubes onto carbon fibres doubles their effective strength and the toughness of the composite. <i>Composites Science and Technology</i> , 2018 , 166, 140-149	8.6	22
209	Non-linear double-peeling: Experimental vs. theoretical predictions 2018 , 94, 46-57		5
208	Gas adsorption and dynamics in Pillared Graphene Frameworks. <i>Microporous and Mesoporous Materials</i> , 2018 , 257, 222-231	5.3	21
207	A mechanical system for tensile testing of supported films at the nanoscale. <i>Nanotechnology</i> , 2018 , 29, 395707	3.4	8
206	Multilayer stag beetle elytra perform better under external loading via non-symmetric bending properties. <i>Journal of the Royal Society Interface</i> , 2018 , 15,	4.1	13
205	Experimental Observation of a Large Low-Frequency Band Gap in a Polymer Waveguide. <i>Frontiers in Materials</i> , 2018 , 5,	4	14
204	Accordion-like metamaterials with tunable ultra-wide low-frequency band gaps. <i>New Journal of Physics</i> , 2018 , 20, 073051	2.9	37
203	Combining Living Microorganisms with Regenerated Silk Provides Nanofibril-Based Thin Films with Heat-Responsive Wrinkled States for Smart Food Packaging. <i>Nanomaterials</i> , 2018 , 8,	5.4	13
202	Folding Large Graphene-on-Polymer Films Yields Laminated Composites with Enhanced Mechanical Performance. <i>Advanced Materials</i> , 2018 , 30, e1707449	24	23
201	Modeling and Simulation of Bio-Inspired Nanoarmors 2018 , 1-29		1
200	Design and Fabrication of Bioinspired Hierarchical Dissipative Elastic Metamaterials. <i>Physical Review Applied</i> , 2018 , 10,	4.3	52
199	Tuning frequency band gaps of tensegrity mass-spring chains with local and global prestress. <i>International Journal of Solids and Structures</i> , 2018 , 155, 47-56	3.1	39
198	Bone matrix development in steroid-induced osteoporosis is associated with a consistently reduced fibrillar stiffness linked to altered bone mineral quality. <i>Acta Biomaterialia</i> , 2018 , 76, 295-307	10.8	15
197	Emergence of the interplay between hierarchy and contact splitting in biological adhesion highlighted through a hierarchical shear lag model. <i>Soft Matter</i> , 2018 , 14, 5509-5518	3.6	7
196	Modeling and Simulation of Bio-Inspired Nanoarmors 2018 , 1-29		
195	Approximating gecko setae via direct laser lithography. <i>Smart Materials and Structures</i> , 2018 , 27, 075009	3.4	14
194	Toward Stretchable Self-Powered Sensors Based on the Thermoelectric Response of PEDOT:PSS/Polyurethane Blends. <i>Advanced Functional Materials</i> , 2018 , 28, 1704285	15.6	119
193	A 2-D model for friction of complex anisotropic surfaces. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 112, 50-65	5	16

192	Hybrid metamaterials combining pentamode lattices and phononic plates. <i>Applied Physics Letters</i> , 2018 , 113, 201901	3.4	15
191	Friction and Adhesion of Different Structural Defects of Graphene. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 44614-44623	9.5	23
190	Laser-Based Texturing of Graphene to Locally Tune Electrical Potential and Surface Chemistry. <i>ACS Omega</i> , 2018 , 3, 17000-17009	3.9	6
189	Cleaning interfaces in layered materials heterostructures. <i>Nature Communications</i> , 2018 , 9, 5387	17.4	152
188	Preservation over time of dried acellular esophageal matrix. <i>Biomedical Physics and Engineering Express</i> , 2018 , 4, 065021	1.5	4
187	Soft Composites with Tunable Optical and Electrical Properties 2018 , 1-11		
186	Evidence of friction reduction in laterally graded materials. <i>Beilstein Journal of Nanotechnology</i> , 2018 , 9, 2443-2456	3	2
185	Influence of free carbon on the Young's modulus and hardness of polymer-derived silicon oxycarbide glasses. <i>Journal of the American Ceramic Society</i> , 2018 , 102, 907	3.8	8
184	Breaking the Nanoparticle Loading-Dispersion Dichotomy in Polymer Nanocomposites with the Art of Croissant-Making. <i>ACS Nano</i> , 2018 , 12, 9040-9050	16.7	12
183	Protein disorder-order interplay to guide the growth of hierarchical mineralized structures. <i>Nature Communications</i> , 2018 , 9, 2145	17.4	76
182	A novel combined experimental and multiscale theoretical approach to unravel the structure of SiC/SiO core/shell nanowires for their optimal design. <i>Nanoscale</i> , 2018 , 10, 13449-13461	7.7	2
181	A study on plant root apex morphology as a model for soft robots moving in soil. <i>PLoS ONE</i> , 2018 , 13, e0197411	3.7	5
180	Microfluidization of Graphite and Formulation of Graphene-Based Conductive Inks. <i>ACS Nano</i> , 2017 , 11, 2742-2755	16.7	192
179	Coupling local resonance with Bragg band gaps in single-phase mechanical metamaterials. <i>Extreme Mechanics Letters</i> , 2017 , 12, 30-36	3.9	100
178	Hierarchical Spring-Block Model for Multiscale Friction Problems. <i>ACS Biomaterials Science and Engineering</i> , 2017 , 3, 2845-2852	5.5	11
177	Nanomechanics of individual aerographite tetrapods. <i>Nature Communications</i> , 2017 , 8, 14982	17.4	26
176	Graphene and Carbon Nanotube Auxetic Rubber Bionic Composites with Negative Variation of the Electrical Resistance and Comparison with Their Nonbionic Counterparts. <i>Advanced Functional Materials</i> , 2017 , 27, 1606526	15.6	29
175	Nonlinear mechanics of a ring structure subjected to multi-pairs of evenly distributed equal radial forces. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2017 , 33, 942-953	2	2

174	YAP regulates cell mechanics by controlling focal adhesion assembly. <i>Nature Communications</i> , 2017 , 8, 15321	17.4	260
173	Serpentine locomotion through elastic energy release. <i>Journal of the Royal Society Interface</i> , 2017 , 14,	4.1	18
172	Monte Carlo simulations of measured electron energy-loss spectra of diamond and graphite: Role of dielectric-response models. <i>Carbon</i> , 2017 , 118, 299-309	10.4	14
171	Designing graphene based nanofoams with nonlinear auxetic and anisotropic mechanical properties under tension or compression. <i>Carbon</i> , 2017 , 111, 796-806	10.4	32
170	Staggered Fibrils and Damageable Interfaces Lead Concurrently and Independently to Hysteretic Energy Absorption and Inhomogeneous Strain Fields in Cyclically Loaded Antler Bone. <i>ACS Biomaterials Science and Engineering</i> , 2017 , 3, 2779-2787	5.5	22
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