

A John Hart

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199
papers

11,848
citations

48
h-index

106
g-index

213
ext. papers

13,481
ext. citations

8.9
avg, IF

6.71
L-index

#	Paper	IF	Citations
199	Carbon nanotubes: present and future commercial applications. <i>Science</i> , 2013 , 339, 535-9	33.3	3946
198	Joining prepreg composite interfaces with aligned carbon nanotubes. <i>Composites Part A: Applied Science and Manufacturing</i> , 2008 , 39, 1065-1070	8.4	287
197	A robotic platform for flow synthesis of organic compounds informed by AI planning. <i>Science</i> , 2019 , 365,	33.3	271
196	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
195	Fabrication and characterization of ultrahigh-volume- fraction aligned carbon nanotube-polymer composites. <i>Advanced Materials</i> , 2008 , 20, 2707-14	24	219
194	Tuning of vertically-aligned carbon nanotube diameter and areal density through catalyst pre-treatment. <i>Nano Letters</i> , 2008 , 8, 3587-93	11.5	206
193	High-Conductivity Polymer Nanocomposites Obtained by Tailoring the Characteristics of Carbon Nanotube Fillers. <i>Advanced Functional Materials</i> , 2008 , 18, 3226-3234	15.6	203
192	Nanoscale zirconia as a nonmetallic catalyst for graphitization of carbon and growth of single- and multiwall carbon nanotubes. <i>Journal of the American Chemical Society</i> , 2009 , 131, 12144-54	16.4	196
191	Exponential growth of LBL films with incorporated inorganic sheets. <i>Nano Letters</i> , 2008 , 8, 1762-70	11.5	196
190	Collective Mechanism for the Evolution and Self-Termination of Vertically Aligned Carbon Nanotube Growth. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 20576-20582	3.8	185
189	Engineering of micro- and nanostructured surfaces with anisotropic geometries and properties. <i>Advanced Materials</i> , 2012 , 24, 1628-74	24	179
188	Multifunctional properties of high volume fraction aligned carbon nanotube polymer composites with controlled morphology. <i>Composites Science and Technology</i> , 2009 , 69, 2649-2656	8.6	159
187	Diverse 3D microarchitectures made by capillary forming of carbon nanotubes. <i>Advanced Materials</i> , 2010 , 22, 4384-9	24	159
186	High-yield growth and morphology control of aligned carbon nanotubes on ceramic fibers for multifunctional enhancement of structural composites. <i>Carbon</i> , 2009 , 47, 551-560	10.4	158
185	Engineering vertically aligned carbon nanotube growth by decoupled thermal treatment of precursor and catalyst. <i>ACS Nano</i> , 2009 , 3, 2477-86	16.7	147
184	Low temperature synthesis of vertically aligned carbon nanotubes with electrical contact to metallic substrates enabled by thermal decomposition of the carbon feedstock. <i>Nano Letters</i> , 2009 , 9, 3398-405	11.5	129
183	Carbon-nanotube optoacoustic lens for focused ultrasound generation and high-precision targeted therapy. <i>Scientific Reports</i> , 2012 , 2, 989	4.9	128

182	Population growth dynamics of carbon nanotubes. <i>ACS Nano</i> , 2011 , 5, 8974-89	16.7	125
181	High-speed roll-to-roll manufacturing of graphene using a concentric tube CVD reactor. <i>Scientific Reports</i> , 2015 , 5, 10257	4.9	113
180	The association between metal ions from hip resurfacing and reduced T-cell counts. <i>Journal of Bone and Joint Surgery: British Volume</i> , 2006 , 88, 449-54		108
179	Engineering hierarchical nanostructures by elastocapillary self-assembly. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 2412-25	16.4	102
178	Flexible high-conductivity carbon-nanotube interconnects made by rolling and printing. <i>Small</i> , 2009 , 5, 2467-73	11	99
177	Abrupt self-termination of vertically aligned carbon nanotube growth. <i>Applied Physics Letters</i> , 2008 , 92, 113107	3.4	98
176	Carbon nanotube composite optoacoustic transmitters for strong and high frequency ultrasound generation. <i>Applied Physics Letters</i> , 2010 , 97, 234104	3.4	95
175	Critical influences of particle size and adhesion on the powder layer uniformity in metal additive manufacturing. <i>Journal of Materials Processing Technology</i> , 2019 , 266, 484-501	5.3	95
174	Rate limits of additive manufacturing by fused filament fabrication and guidelines for high-throughput system design. <i>Additive Manufacturing</i> , 2017 , 16, 1-11	6.1	94
173	Early evaluation of potential environmental impacts of carbon nanotube synthesis by chemical vapor deposition. <i>Environmental Science & Technology</i> , 2009 , 43, 8367-73	10.3	92
172	Particle exposure levels during CVD growth and subsequent handling of vertically-aligned carbon nanotube films. <i>Carbon</i> , 2008 , 46, 974-977	10.4	85
171	Fabrication of composite microstructures by capillarity-driven wetting of aligned carbon nanotubes with polymers. <i>Nanotechnology</i> , 2007 , 18, 165602	3.4	75
170	3D printing metals like thermoplastics: Fused filament fabrication of metallic glasses. <i>Materials Today</i> , 2018 , 21, 697-702	21.8	73
169	Multiple alkynes react with ethylene to enhance carbon nanotube synthesis, suggesting a polymerization-like formation mechanism. <i>ACS Nano</i> , 2010 , 4, 7185-92	16.7	73
168	Assessment of osteoarthritis after reconstruction of the anterior cruciate ligament: a study using single-photon emission computed tomography at ten years. <i>Journal of Bone and Joint Surgery: British Volume</i> , 2005 , 87, 1483-7		72
167	Additive Manufacturing of Cellulosic Materials with Robust Mechanics and Antimicrobial Functionality. <i>Advanced Materials Technologies</i> , 2017 , 2, 1600084	6.8	71
166	Surveillance of Patients with Metal-on-Metal Hip Resurfacing and Total Hip Prostheses: A Prospective Cohort Study to Investigate the Relationship Between Blood Metal Ion Levels and Implant Failure. <i>Journal of Bone and Joint Surgery - Series A</i> , 2014 , 96, 1091-1099	5.6	67
165	Continuous high-yield production of vertically aligned carbon nanotubes on 2D and 3D substrates. <i>ACS Nano</i> , 2011 , 5, 4850-7	16.7	67

164	Ultrathin high-resolution flexographic printing using nanoporous stamps. <i>Science Advances</i> , 2016 , 2, e1601660	67
163	Electrically Addressable Hybrid Architectures of Zinc Oxide Nanowires Grown on Aligned Carbon Nanotubes. <i>Advanced Functional Materials</i> , 2010 , 20, 2470-2480	15.6 64
162	Fabrication and electrical integration of robust carbon nanotube micropillars by self-directed elastocapillary densification. <i>Journal of Micromechanics and Microengineering</i> , 2011 , 21, 045033	2 61
161	Precursor gas chemistry determines the crystallinity of carbon nanotubes synthesized at low temperature. <i>Carbon</i> , 2011 , 49, 804-810	10.4 59
160	High-precision modular microfluidics by micromilling of interlocking injection-molded blocks. <i>Lab on A Chip</i> , 2018 , 18, 890-901	7.2 59
159	Long Carbon Nanotubes Grown on the Surface of Fibers for Hybrid Composites. <i>AIAA Journal</i> , 2008 , 46, 1405-1412	2.1 57
158	THERMOPHYSICAL PHENOMENA IN METAL ADDITIVE MANUFACTURING BY SELECTIVE LASER MELTING: FUNDAMENTALS, MODELING, SIMULATION, AND EXPERIMENTATION. <i>Annual Review of Heat Transfer</i> , 2017 , 20, 241-316	2.7 53
157	Modeling and characterization of cohesion in fine metal powders with a focus on additive manufacturing process simulations. <i>Powder Technology</i> , 2019 , 343, 855-866	5.2 53
156	A One-Step Method of Hydrogel Modification by Single-Walled Carbon Nanotubes for Highly Stretchable and Transparent Electronics. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 28069-28075	9.5 52
155	Ethanol-Promoted High-Yield Growth of Few-Walled Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 6389-6395	3.8 52
154	Diffusional self-organization in exponential layer-by-layer films with micro- and nanoscale periodicity. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 7073-7	16.4 52
153	Synthesis of tall carpets of vertically aligned carbon nanotubes by in situ generation of water vapor through preheating of added oxygen. <i>Carbon</i> , 2012 , 50, 4002-4009	10.4 50
152	Hierarchical carbon nanowire microarchitectures made by plasma-assisted pyrolysis of photoresist. <i>ACS Nano</i> , 2011 , 5, 6593-600	16.7 50
151	Chemically controlled bending of compositionally anisotropic microcylinders. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 660-5	16.4 48
150	Wide Range Control of Microstructure and Mechanical Properties of Carbon Nanotube Forests: A Comparison Between Fixed and Floating Catalyst CVD Techniques. <i>Advanced Functional Materials</i> , 2012 , 22, 5028-5037	15.6 48
149	Mechanical coupling limits the density and quality of self-organized carbon nanotube growth. <i>Nanoscale</i> , 2013 , 5, 2928-37	7.7 48
148	Traditional and additive manufacturing of a new Tungsten heavy alloy alternative. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018 , 73, 22-28	4.1 47
147	Structurally programmed capillary folding of carbon nanotube assemblies. <i>Langmuir</i> , 2011 , 27, 6389-94	4 47

146	Validation of primary metal-on-metal hip arthroplasties on the National Joint Registry for England, Wales and Northern Ireland using data from the London Implant Retrieval Centre: a study using the NJR dataset. <i>Bone and Joint Journal</i> , 2015 , 97-B, 10-8	5.6	46
145	A Scalable Route to Nanoporous Large-Area Atomically Thin Graphene Membranes by Roll-to-Roll Chemical Vapor Deposition and Polymer Support Casting. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 10369-10378	9.5	44
144	Materials, Fabrication, and Manufacturing of Micro/Nanostructured Surfaces for Phase-Change Heat Transfer Enhancement. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2014 , 18, 288-310	3.7	44
143	Anisotropic Janus catalysts for spatially controlled chemical reactions. <i>Small</i> , 2012 , 8, 3116-22	11	44
142	Statistical analysis of variation in laboratory growth of carbon nanotube forests and recommendations for improved consistency. <i>ACS Nano</i> , 2013 , 7, 3565-80	16.7	43
141	Diameter-dependent kinetics of activation and deactivation in carbon nanotube population growth. <i>Carbon</i> , 2012 , 50, 5106-5116	10.4	43
140	Automated spin-assisted layer-by-layer assembly of nanocomposites. <i>Review of Scientific Instruments</i> , 2009 , 80, 023903	1.7	42
139	Direct-Write Freeform Colloidal Assembly. <i>Advanced Materials</i> , 2018 , 30, e1803620	24	42
138	Strain-engineered manufacturing of freeform carbon nanotube microstructures. <i>Nature Communications</i> , 2014 , 5, 4512	17.4	41
137	Self-similar organization of arrays of individual carbon nanotubes and carbon nanotube micropillars. <i>Microelectronic Engineering</i> , 2010 , 87, 1233-1238	2.5	41
136	Direct fabrication of graphene on SiO ₂ enabled by thin film stress engineering. <i>Scientific Reports</i> , 2014 , 4, 5049	4.9	40
135	High-yield growth of vertically aligned carbon nanotubes on a continuously moving substrate. <i>Nanotechnology</i> , 2009 , 20, 405611	3.4	40
134	Rapid anisotropic photoconductive response of ZnO-coated aligned carbon nanotube sheets. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 874-81	9.5	39
133	Industrial and Consumer Uses of Additive Manufacturing: A Discussion of Capabilities, Trajectories, and Challenges. <i>Journal of Industrial Ecology</i> , 2017 , 21, S15-S20	7.2	38
132	Scaling the Stiffness, Strength, and Toughness of Ceramic-Coated Nanotube Foams into the Structural Regime. <i>Advanced Functional Materials</i> , 2014 , 24, 5728-5735	15.6	37
131	Simultaneously high stiffness and damping in nanoengineered microtruss composites. <i>ACS Nano</i> , 2014 , 8, 3468-75	16.7	35
130	Measuring the lengthening kinetics of aligned nanostructures by spatiotemporal correlation of height and orientation. <i>Nanoscale</i> , 2010 , 2, 896-900	7.7	35
129	Direct Ink Writing: A 3D Printing Technology for Diverse Materials.. <i>Advanced Materials</i> , 2022 , e210885524		35

128	Fast Desktop-Scale Extrusion Additive Manufacturing. <i>Additive Manufacturing</i> , 2017 , 18, 276-284	6.1	34
127	Tungsten-Carbon Nanotube Composite Photonic Crystals as Thermally Stable Spectral-Selective Absorbers and Emitters for Thermophotovoltaics. <i>Advanced Energy Materials</i> , 2018 , 8, 1801471	21.8	34
126	High-speed in situ X-ray scattering of carbon nanotube film nucleation and self-organization. <i>ACS Nano</i> , 2012 , 6, 5091-101	16.7	33
125	Corrugated carbon nanotube microstructures with geometrically tunable compliance. <i>ACS Nano</i> , 2011 , 5, 7310-7	16.7	33
124	Method of characterizing electrical contact properties of carbon nanotube coated surfaces. <i>Review of Scientific Instruments</i> , 2006 , 77, 095105	1.7	33
123	Mechanism and Enhanced Yield of Carbon Nanotube Growth on Stainless Steel by Oxygen-Induced Surface Reconstruction. <i>Chemistry of Materials</i> , 2015 , 27, 932-937	9.6	32
122	Measurement of the Dewetting, Nucleation, and Deactivation Kinetics of Carbon Nanotube Population Growth by Environmental Transmission Electron Microscopy. <i>Chemistry of Materials</i> , 2016 , 28, 3804-3813	9.6	31
121	Visualizing Strain Evolution and Coordinated Buckling within CNT Arrays by In Situ Digital Image Correlation. <i>Advanced Functional Materials</i> , 2012 , 22, 4686-4695	15.6	31
120	Mechanics of capillary forming of aligned carbon nanotube assemblies. <i>Langmuir</i> , 2013 , 29, 5190-8	4	31
119	Oxygen-promoted catalyst sintering influences number density, alignment, and wall number of vertically aligned carbon nanotubes. <i>Nanoscale</i> , 2017 , 9, 5222-5233	7.7	29
118	A framework for teaching the fundamentals of additive manufacturing and enabling rapid innovation. <i>Additive Manufacturing</i> , 2016 , 10, 76-87	6.1	29
117	Twist-coupled Kirigami cells and mechanisms. <i>Extreme Mechanics Letters</i> , 2018 , 21, 17-24	3.9	28
116	Stable Wettability Control of Nanoporous Microstructures by iCVD Coating of Carbon Nanotubes. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 43287-43299	9.5	28
115	Fabrication of high-aspect-ratio polymer microstructures and hierarchical textures using carbon nanotube composite master molds. <i>Lab on A Chip</i> , 2011 , 11, 1831-7	7.2	28
114	Art on the Nanoscale and Beyond. <i>Advanced Materials</i> , 2016 , 28, 1724-42	24	28
113	Understanding and control of interactions between carbon nanotubes and polymers for manufacturing of high-performance composite materials. <i>Composites Science and Technology</i> , 2019 , 183, 107795	8.6	27
112	Real-Time Imaging of Self-Organization and Mechanical Competition in Carbon Nanotube Forest Growth. <i>ACS Nano</i> , 2016 , 10, 11496-11504	16.7	27
111	Synthetic Butterfly Scale Surfaces with Compliance-Tailored Anisotropic Drop Adhesion. <i>Advanced Materials</i> , 2019 , 31, e1807686	24	27

110	Enhancing the tensile properties of continuous millimeter-scale carbon nanotube fibers by densification. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 7198-207	9.5	25
109	Continuum analysis of carbon nanotube array buckling enabled by anisotropic elastic measurements and modeling. <i>Carbon</i> , 2014 , 66, 377-386	10.4	25
108	Local relative density modulates failure and strength in vertically aligned carbon nanotubes. <i>ACS Nano</i> , 2013 , 7, 8593-604	16.7	25
107	Shape-Programmed Fabrication and Actuation of Magnetically Active Micropost Arrays. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 17113-17120	9.5	24
106	Hydrogel-driven carbon nanotube microtransducers. <i>Soft Matter</i> , 2011 , 7, 9844	3.6	24
105	Additive Manufacturing of Biomechanically Tailored Meshes for Compliant Wearable and Implantable Devices. <i>Advanced Functional Materials</i> , 2019 , 29, 1901815	15.6	22
104	Analysis of the Attune tibial tray backside: A comparative retrieval study. <i>Bone and Joint Research</i> , 2019 , 8, 136-145	4.2	21
103	Explaining Evaporation-Triggered Wetting Transition Using Local Force Balance Model and Contact Line-Fraction. <i>Scientific Reports</i> , 2019 , 9, 405	4.9	20
102	Solid-Phase Extraction, Preservation, Storage, Transport, and Analysis of Trace Contaminants for Water Quality Monitoring of Heavy Metals. <i>Environmental Science & Technology</i> , 2020 , 54, 2646-2657	10.3	20
101	Synergetic chemical coupling controls the uniformity of carbon nanotube microstructure growth. <i>ACS Nano</i> , 2014 , 8, 5799-812	16.7	20
100	Multidirectional Hierarchical Nanocomposites Made by Carbon Nanotube Growth within Layer-by-Layer-Assembled Films. <i>Chemistry of Materials</i> , 2011 , 23, 1023-1031	9.6	20
99	A Microneedle Technology for Sampling and Sensing Bacteria in the Food Supply Chain. <i>Advanced Functional Materials</i> , 2021 , 31, 2005370	15.6	20
98	The risk of cardiac failure following metal-on-metal hip arthroplasty. <i>Bone and Joint Journal</i> , 2018 , 100-B, 20-27	5.6	19
97	Selective Photomechanical Detachment and Retrieval of Divided Sister Cells from Enclosed Microfluidics for Downstream Analyses. <i>ACS Nano</i> , 2017 , 11, 4660-4668	16.7	18
96	Dynamics of Liquid Transfer from Nanoporous Stamps in High-Resolution Flexographic Printing. <i>Langmuir</i> , 2019 , 35, 7659-7671	4	18
95	Isolating the Roles of Hydrogen Exposure and Trace Carbon Contamination on the Formation of Active Catalyst Populations for Carbon Nanotube Growth. <i>ACS Nano</i> , 2019 , 13, 8736-8748	16.7	18
94	Compression and recovery of carbon nanotube forests described as a phase transition. <i>International Journal of Solids and Structures</i> , 2017 , 122-123, 196-209	3.1	18
93	Capillary bending of Janus carbon nanotube micropillars. <i>Nanoscale</i> , 2012 , 4, 3852-6	7.7	18

92	Bending of nanoscale filament assemblies by elastocapillary densification. <i>Physical Review E</i> , 2010 , 82, 041605	2.4	18
91	Non-destructive characterization of structural hierarchy within aligned carbon nanotube assemblies. <i>Journal of Applied Physics</i> , 2011 , 109, 94316-943165	2.5	18
90	Carbon-assisted catalyst pretreatment enables straightforward synthesis of high-density carbon nanotube forests. <i>Carbon</i> , 2019 , 153, 196-205	10.4	17
89	Nanocomposite microstructures with tunable mechanical and chemical properties. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 4446-51	3.6	17
88	Storing elastic energy in carbon nanotubes. <i>Journal of Micromechanics and Microengineering</i> , 2009 , 19, 094015	2	17
87	In-Plane Direct-Write Assembly of Iridescent Colloidal Crystals. <i>Small</i> , 2020 , 16, e1905519	11	17
86	Highly Consistent Atmospheric Pressure Synthesis of Carbon Nanotube Forests by Mitigation of Moisture Transients. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 11277-11287	3.8	17
85	Strong Macroscale Supercrystalline Structures by 3D Printing Combined with Self-Assembly of Ceramic Functionalized Nanoparticles. <i>Advanced Engineering Materials</i> , 2020 , 22, 2000352	3.5	16
84	Improved rheometry of yield stress fluids using bespoke fractal 3D printed vanes. <i>Journal of Rheology</i> , 2020 , 64, 643-662	4.1	16
83	Predictive Synthesis of Freeform Carbon Nanotube Microarchitectures by Strain-Engineered Chemical Vapor Deposition. <i>Small</i> , 2016 , 12, 4393-403	11	15
82	Measurement of carbon nanotube microstructure relative density by optical attenuation and observation of size-dependent variations. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 11511-9	3.6	15
81	Delamination Mechanics of Carbon Nanotube Micropillars. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 35221-35227	9.5	14
80	Corrugated paraffin nanocomposite films as large stroke thermal actuators and self-activating thermal interfaces. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 8218-24	9.5	14
79	Growth of primary motor neurons on horizontally aligned carbon nanotube thin films and striped patterns. <i>Journal of Neural Engineering</i> , 2014 , 11, 036013	5	14
78	Photoconductive Hybrid Films via Directional Self-Assembly of C60 on Aligned Carbon Nanotubes. <i>Advanced Functional Materials</i> , 2012 , 22, 577-584	15.6	14
77	High-Fidelity Replica Molding of Glassy Liquid Crystalline Polymer Microstructures. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 8110-7	9.5	13
76	Soft nanocomposite electroadhesives for digital micro- and nanotransfer printing. <i>Science Advances</i> , 2019 , 5, eaax4790	14.3	13
75	Excellent dispersion of MWCNTs in PEO polymer achieved through a simple and potentially cost-effective evaporation casting. <i>Nanotechnology</i> , 2011 , 22, 415703	3.4	13

74	Uniform and selective CVD growth of carbon nanotubes and nanofibres on arbitrarily microstructured silicon surfaces. <i>Nanotechnology</i> , 2006 , 17, 1397-1403	3.4	13
73	Conformal Robotic Stereolithography. <i>3D Printing and Additive Manufacturing</i> , 2016 , 3, 226-235	4	13
72	Modulation of the effective density and refractive index of carbon nanotube forests via nanoimprint lithography. <i>Carbon</i> , 2018 , 129, 8-14	10.4	13
71	Stability Limit of Electrified Droplets. <i>Physical Review Letters</i> , 2019 , 122, 244501	7.4	12
70	In-field determination of soil ion content using a handheld device and screen-printed solid-state ion-selective electrodes. <i>PLoS ONE</i> , 2018 , 13, e0203862	3.7	12
69	Self-ordering of small-diameter metal nanoparticles by dewetting on hexagonal mesh templates. <i>Nanoscale</i> , 2014 , 6, 10106-12	7.7	11
68	Laser printing of nanoparticle toner enables digital control of micropatterned carbon nanotube growth. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 3656-62	9.5	11
67	Decoupled control of carbon nanotube forest density and diameter by continuous-feed convective assembly of catalyst particles. <i>Small</i> , 2013 , 9, 2564-75	11	11
66	Robofurnace: a semi-automated laboratory chemical vapor deposition system for high-throughput nanomaterial synthesis and process discovery. <i>Review of Scientific Instruments</i> , 2013 , 84, 115105	1.7	11
65	Molecular Gastronomy Meets 3D Printing: Layered Construction via Reverse Spherification. <i>3D Printing and Additive Manufacturing</i> , 2016 , 3, 152-159	4	10
64	Liquid Imbibition in Ceramic-Coated Carbon Nanotube Films. <i>Langmuir</i> , 2016 , 32, 12686-12692	4	10
63	Nanoscale displacement measurement of microdevices via interpolation-based edge tracking of optical images. <i>Journal of Micromechanics and Microengineering</i> , 2013 , 23, 045004	2	9
62	High-Speed Production of Crystalline Semiconducting Polymer Line Arrays by Meniscus Oscillation Self-Assembly. <i>ACS Nano</i> , 2020 ,	16.7	9
61	A novel smoothed particle hydrodynamics formulation for thermo-capillary phase change problems with focus on metal additive manufacturing melt pool modeling. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021 , 381, 113812	5.7	9
60	Strain relaxation and resonance of carbon nanotube forests under electrostatic loading. <i>Carbon</i> , 2016 , 96, 250-258	10.4	8
59	Interfacial load monitoring and failure detection in total joint replacements via piezoresistive bone cement and electrical impedance tomography. <i>Smart Materials and Structures</i> , 2020 , 29, 085039	3.4	8
58	Enhanced surface capacitance of cylindrical micropillar arrays. <i>Sensors and Actuators A: Physical</i> , 2014 , 219, 32-37	3.9	8
57	Characterizing the failure processes that limit the storage of energy in carbon nanotube springs under tension. <i>Journal of Micromechanics and Microengineering</i> , 2010 , 20, 104012	2	8

56	Substrate-Versatile Direct-Write Printing of Carbon Nanotube-Based Flexible Conductors, Circuits, and Sensors. <i>Advanced Functional Materials</i> , 2021 , 31, 2100245	15.6	8
55	The effect of using components from different manufacturers on the rate of wear and corrosion of the head-stem taper junction of metal-on-metal hip arthroplasties. <i>Bone and Joint Journal</i> , 2016 , 98-B, 917-24	5.6	8
54	Retrieval analysis of metal and ceramic femoral heads on a single CoCr stem design. <i>Bone and Joint Research</i> , 2017 , 6, 345-350	4.2	7
53	Shear melting and recovery of crosslinkable cellulose nanocrystal-polymer gels. <i>Soft Matter</i> , 2019 , 15, 4401-4412	3.6	7
52	Extensible-Link Kinematic Model for Characterizing and Optimizing Compliant Mechanism Motion. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2014 , 136,	3	7
51	Three-dimensional machining of carbon nanotube forests using water-assisted scanning electron microscope processing. <i>Applied Physics Letters</i> , 2015 , 107, 143102	3.4	7
50	2D and 3D growth of carbon nanotubes on substrates, from nanometre to millimetre scales. <i>International Journal of Nanomanufacturing</i> , 2007 , 1, 701	0.7	7
49	Morphology-dependent load transfer governs the strength and failure mechanism of carbon nanotube yarns. <i>Extreme Mechanics Letters</i> , 2016 , 9, 55-65	3.9	7
48	How to print a 3D object all at once. <i>Science</i> , 2019 , 363, 1042-1043	33.3	6
47	Precise control of elastocapillary densification of nanostructures via low-pressure condensation. <i>Journal of Micromechanics and Microengineering</i> , 2014 , 24, 065019	2	6
46	Electrostatic capacitance and Faraday cage behavior of carbon nanotube forests. <i>Applied Physics Letters</i> , 2015 , 106, 053106	3.4	5
45	In Situ Mechanochemical Modulation of Carbon Nanotube Forest Growth. <i>Chemistry of Materials</i> , 2019 , 31, 407-418	9.6	5
44	A modular testbed for mechanized spreading of powder layers for additive manufacturing. <i>Review of Scientific Instruments</i> , 2021 , 92, 015114	1.7	5
43	A precision desktop plate-to-roll apparatus for development of advanced flexographic printing processes. <i>Precision Engineering</i> , 2020 , 66, 392-400	2.9	4
42	Microstructured Ceramic-Coated Carbon Nanotube Surfaces for High Heat Flux Pool Boiling. <i>ACS Applied Nano Materials</i> , 2019 , 2, 5538-5545	5.6	4
41	High-Density Carbon Nanotube Forest Growth on Copper Foil for Enhanced Thermal and Electrochemical Interfaces. <i>ACS Applied Nano Materials</i> , 2020 , 3, 77-83	5.6	4
40	In Situ Interfacial Polymerization: A Technique for Rapid Formation of Highly Loaded Carbon Nanotube-Polymer Composites. <i>Advanced Functional Materials</i> , 2020 , 30, 2005499	15.6	4
39	On-Demand Isolation and Manipulation of <i>C. elegans</i> by In Vitro Maskless Photopatterning. <i>PLoS ONE</i> , 2016 , 11, e0145935	3.7	4

38	Strong, Ultralight Nanofoams with Extreme Recovery and Dissipation by Manipulation of Internal Adhesive Contacts. <i>ACS Nano</i> , 2020 , 14, 8383-8391	16.7	3
37	Self-assembly of suspended collagen films and their viability as cell culture substrates. <i>Journal of Materials Chemistry B</i> , 2013 , 1, 4711-4718	7.3	3
36	Limiting Mechanisms and Scaling of Electrostatically Controlled Adhesion of Soft Nanocomposite Surfaces for Robotic Gripping. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 1192-1203	9.5	3
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- 2 Fieldwork-based determination of design priorities for point-of-use drinking water quality sensors for use in resource-limited environments **2020**, 15, e0228140
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