

# A John Hart

## 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.

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	Mechanized spreading of ceramic powder layers for additive manufacturing characterized by transmission x-ray imaging: Influence of powder feedstock and spreading parameters on powder layer density. <i>Powder Technology</i> , <b>2022</b> , 398, 117053	5.2	1
198	Printable, castable, nanocrystalline cellulose-epoxy composites exhibiting hierarchical nacre-like toughening. <i>Cellulose</i> , <b>2022</b> , 29, 2387	5.5	0
197	A rapid development workflow for binder inks for additive manufacturing with application to polymer and reactive binder ink formulation. <i>Journal of Manufacturing Processes</i> , <b>2022</b> , 73, 471-482	5	0
196	Direct Ink Writing: A 3D Printing Technology for Diverse Materials.. <i>Advanced Materials</i> , <b>2022</b> , e2108855	24	35
195	Automated processing of environmental transmission electron microscopy images for quantification of thin film dewetting and carbon nanotube nucleation dynamics. <i>Carbon</i> , <b>2022</b> , 192, 249-258	10.4	104
194	On Oreology, the fracture and flow of Ghilk's favorite cookie □ <i>Physics of Fluids</i> , <b>2022</b> , 34, 043107	4.4	1
193	Versatile acid solvents for pristine carbon nanotube assembly.. <i>Science Advances</i> , <b>2022</b> , 8, eabm3285	14.3	3
192	Reactive binder jet additive manufacturing for microstructural control and dimensional stability of ceramic materials. <i>Additive Manufacturing</i> , <b>2021</b> , 48, 102448	6.1	1
191	High-yield microplasma synthesis of monodisperse sub-300nm diameter metal nanoparticles explained by a charge-mediated formation mechanism. <i>Journal of Aerosol Science</i> , <b>2021</b> , 161, 105915	4.3	1
190	Limiting Mechanisms and Scaling of Electrostatically Controlled Adhesion of Soft Nanocomposite Surfaces for Robotic Gripping. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 1192-1203	9.5	3
189	A laboratory-scale binder jet additive manufacturing testbed for process exploration and material development. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2021</b> , 114, 3459-3473	3.2	3
188	Substrate-Versatile Direct-Write Printing of Carbon Nanotube-Based Flexible Conductors, Circuits, and Sensors. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2100245	15.6	8
187	Flexible Electronics: Substrate-Versatile Direct-Write Printing of Carbon Nanotube-Based Flexible Conductors, Circuits, and Sensors (Adv. Funct. Mater. 25/2021). <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2170181	15.6	1
186	Digital metal printing by electrohydrodynamic ejection and in-flight melting of microparticles. <i>Additive Manufacturing</i> , <b>2021</b> , 37, 101703	6.1	1
185	A Microneedle Technology for Sampling and Sensing Bacteria in the Food Supply Chain. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2005370	15.6	20
184	A modular testbed for mechanized spreading of powder layers for additive manufacturing. <i>Review of Scientific Instruments</i> , <b>2021</b> , 92, 015114	1.7	5
183	Iron oxide xerogels for improved water quality monitoring of arsenic(III) in resource-limited environments solid-phase extraction, preservation, storage, transportation, and analysis of trace contaminants (SEPSTAT). <i>Analytical Methods</i> , <b>2021</b> , 13, 2165-2174	3.2	

182	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> , <b>2021</b> , 381, 113812	5.7	9
181	Physics-based modeling and predictive simulation of powder bed fusion additive manufacturing across length scales. <i>GAMM Mitteilungen</i> , <b>2021</b> , 44, e202100014	1.8	2
180	Tailoring the surface morphology of carbon nanotube forests by plasma etching: A parametric study. <i>Carbon</i> , <b>2021</b> , 180, 204-214	10.4	2
179	Spatial mapping of powder layer density for metal additive manufacturing via transmission X-ray imaging. <i>Additive Manufacturing</i> , <b>2021</b> , 46, 102197	6.1	3
178	Carbon nanotube-mediated three-dimensional vanadium oxide nanoarchitectures with tunable morphology and translatable functionality. <i>Ceramics International</i> , <b>2021</b> , 47, 32342-32348	5.1	1
177	A precision desktop plate-to-roll apparatus for development of advanced flexographic printing processes. <i>Precision Engineering</i> , <b>2020</b> , 66, 392-400	2.9	4
176	Strong Macroscale Supercrystalline Structures by 3D Printing Combined with Self-Assembly of Ceramic Functionalized Nanoparticles. <i>Advanced Engineering Materials</i> , <b>2020</b> , 22, 2000352	3.5	16
175	Interfacial load monitoring and failure detection in total joint replacements via piezoresistive bone cement and electrical impedance tomography. <i>Smart Materials and Structures</i> , <b>2020</b> , 29, 085039	3.4	8
174	Maximization of carbon nanotube yield by solid carbon-assisted dewetting of iron catalyst films. <i>Carbon</i> , <b>2020</b> , 165, 251-258	10.4	2
173	Shape-Programmed Fabrication and Actuation of Magnetically Active Micropost Arrays. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 17113-17120	9.5	24
172	Improved rheometry of yield stress fluids using bespoke fractal 3D printed vanes. <i>Journal of Rheology</i> , <b>2020</b> , 64, 643-662	4.1	16
171	Solid-Phase Extraction, Preservation, Storage, Transport, and Analysis of Trace Contaminants for Water Quality Monitoring of Heavy Metals. <i>Environmental Science &amp; Technology</i> , <b>2020</b> , 54, 2646-2657	10.3	20
170	Fieldwork-based determination of design priorities for point-of-use drinking water quality sensors for use in resource-limited environments. <i>PLoS ONE</i> , <b>2020</b> , 15, e0228140	3.7	2
169	Strong, Ultralight Nanofoams with Extreme Recovery and Dissipation by Manipulation of Internal Adhesive Contacts. <i>ACS Nano</i> , <b>2020</b> , 14, 8383-8391	16.7	3
168	High-Density Carbon Nanotube Forest Growth on Copper Foil for Enhanced Thermal and Electrochemical Interfaces. <i>ACS Applied Nano Materials</i> , <b>2020</b> , 3, 77-83	5.6	4
167	In-Plane Direct-Write Assembly of Iridescent Colloidal Crystals. <i>Small</i> , <b>2020</b> , 16, e1905519	11	17
166	Strong Macroscale Supercrystalline Structures by 3D Printing Combined with Self-Assembly of Ceramic Functionalized Nanoparticles. <i>Advanced Engineering Materials</i> , <b>2020</b> , 22, 2070028	3.5	0
165	High-Speed Production of Crystalline Semiconducting Polymer Line Arrays by Meniscus Oscillation Self-Assembly. <i>ACS Nano</i> , <b>2020</b> ,	16.7	9

164	In Situ Interfacial Polymerization: A Technique for Rapid Formation of Highly Loaded Carbon Nanotube-Polymer Composites. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2005499	15.6	4
163	Fieldwork-based determination of design priorities for point-of-use drinking water quality sensors for use in resource-limited environments <b>2020</b> , 15, e0228140		
162	Fieldwork-based determination of design priorities for point-of-use drinking water quality sensors for use in resource-limited environments <b>2020</b> , 15, e0228140		
161	Fieldwork-based determination of design priorities for point-of-use drinking water quality sensors for use in resource-limited environments <b>2020</b> , 15, e0228140		
160	Fieldwork-based determination of design priorities for point-of-use drinking water quality sensors for use in resource-limited environments <b>2020</b> , 15, e0228140		
159	Delamination Mechanics of Carbon Nanotube Micropillars. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 35221-35227	9.5	14
158	Understanding and control of interactions between carbon nanotubes and polymers for manufacturing of high-performance composite materials. <i>Composites Science and Technology</i> , <b>2019</b> , 183, 107795	8.6	27
157	Explaining Evaporation-Triggered Wetting Transition Using Local Force Balance Model and Contact Line-Fraction. <i>Scientific Reports</i> , <b>2019</b> , 9, 405	4.9	20
156	Stability Limit of Electrified Droplets. <i>Physical Review Letters</i> , <b>2019</b> , 122, 244501	7.4	12
155	Additive Manufacturing of Biomechanically Tailored Meshes for Compliant Wearable and Implantable Devices. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1901815	15.6	22
154	Carbon-assisted catalyst pretreatment enables straightforward synthesis of high-density carbon nanotube forests. <i>Carbon</i> , <b>2019</b> , 153, 196-205	10.4	17
153	Shear melting and recovery of crosslinkable cellulose nanocrystal-polymer gels. <i>Soft Matter</i> , <b>2019</b> , 15, 4401-4412	3.6	7
152	Dynamics of Liquid Transfer from Nanoporous Stamps in High-Resolution Flexographic Printing. <i>Langmuir</i> , <b>2019</b> , 35, 7659-7671	4	18
151	How to print a 3D object all at once. <i>Science</i> , <b>2019</b> , 363, 1042-1043	33.3	6
150	Analysis of the Attune tibial tray backside: A comparative retrieval study. <i>Bone and Joint Research</i> , <b>2019</b> , 8, 136-145	4.2	21
149	Hierarchically Structured Nanoparticle Monolayers for the Tailored Etching of Nanoporous Silicon. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 1146-1151	5.6	2
148	A robotic platform for flow synthesis of organic compounds informed by AI planning. <i>Science</i> , <b>2019</b> , 365,	33.3	271
147	Additive Manufacturing: Additive Manufacturing of Biomechanically Tailored Meshes for Compliant Wearable and Implantable Devices (Adv. Funct. Mater. 32/2019). <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1970222	15.6	

146	Microstructured Ceramic-Coated Carbon Nanotube Surfaces for High Heat Flux Pool Boiling. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 5538-5545	5.6	4
145	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> , <b>2019</b> , 13, 8736-8748	16.7	18
144	Soft nanocomposite electroadhesives for digital micro- and nanotransfer printing. <i>Science Advances</i> , <b>2019</b> , 5, eaax4790	14.3	13
143	Synthetic Butterfly Scale Surfaces with Compliance-Tailored Anisotropic Drop Adhesion. <i>Advanced Materials</i> , <b>2019</b> , 31, e1807686	24	27
142	In Situ Mechanochemical Modulation of Carbon Nanotube Forest Growth. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 407-418	9.6	5
141	Modeling and characterization of cohesion in fine metal powders with a focus on additive manufacturing process simulations. <i>Powder Technology</i> , <b>2019</b> , 343, 855-866	5.2	53
140	Geometric tailoring of strength and toughness in self-locking interleaved laminates. <i>Extreme Mechanics Letters</i> , <b>2019</b> , 27, 94-101	3.9	1
139	Critical influences of particle size and adhesion on the powder layer uniformity in metal additive manufacturing. <i>Journal of Materials Processing Technology</i> , <b>2019</b> , 266, 484-501	5.3	95
138	Traditional and additive manufacturing of a new Tungsten heavy alloy alternative. <i>International Journal of Refractory Metals and Hard Materials</i> , <b>2018</b> , 73, 22-28	4.1	47
137	The risk of cardiac failure following metal-on-metal hip arthroplasty. <i>Bone and Joint Journal</i> , <b>2018</b> , 100-B, 20-27	5.6	19
136	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 &amp; Interfaces</i> , <b>2018</b> , 10, 10369-10378	9.5	44
135	Twist-coupled Kirigami cells and mechanisms. <i>Extreme Mechanics Letters</i> , <b>2018</b> , 21, 17-24	3.9	28
134	A One-Step Method of Hydrogel Modification by Single-Walled Carbon Nanotubes for Highly Stretchable and Transparent Electronics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 28069-28075	9.5	52
133	3D printing metals like thermoplastics: Fused filament fabrication of metallic glasses. <i>Materials Today</i> , <b>2018</b> , 21, 697-702	21.8	73
132	Tungsten-Carbon Nanotube Composite Photonic Crystals as Thermally Stable Spectral-Selective Absorbers and Emitters for Thermophotovoltaics. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1801471	21.8	34
131	High-precision modular microfluidics by micromilling of interlocking injection-molded blocks. <i>Lab on A Chip</i> , <b>2018</b> , 18, 890-901	7.2	59
130	Modulation of the effective density and refractive index of carbon nanotube forests via nanoimprint lithography. <i>Carbon</i> , <b>2018</b> , 129, 8-14	10.4	13
129	Carbon Nanotubes and Related Nanomaterials: Critical Advances and Challenges for Synthesis toward Mainstream Commercial Applications. <i>ACS Nano</i> , <b>2018</b> , 12, 11756-11784	16.7	239

128	In-field determination of soil ion content using a handheld device and screen-printed solid-state ion-selective electrodes. <i>PLoS ONE</i> , <b>2018</b> , 13, e0203862	3.7	12
127	Direct-Write Freeform Colloidal Assembly. <i>Advanced Materials</i> , <b>2018</b> , 30, e1803620	24	42
126	Additive Manufacturing of Cellulosic Materials with Robust Mechanics and Antimicrobial Functionality. <i>Advanced Materials Technologies</i> , <b>2017</b> , 2, 1600084	6.8	71
125	Oxygen-promoted catalyst sintering influences number density, alignment, and wall number of vertically aligned carbon nanotubes. <i>Nanoscale</i> , <b>2017</b> , 9, 5222-5233	7.7	29
124	Selective Photomechanical Detachment and Retrieval of Divided Sister Cells from Enclosed Microfluidics for Downstream Analyses. <i>ACS Nano</i> , <b>2017</b> , 11, 4660-4668	16.7	18
123	Retrieval analysis of metal and ceramic femoral heads on a single CoCr stem design. <i>Bone and Joint Research</i> , <b>2017</b> , 6, 345-350	4.2	7
122	Rate limits of additive manufacturing by fused filament fabrication and guidelines for high-throughput system design. <i>Additive Manufacturing</i> , <b>2017</b> , 16, 1-11	6.1	94
121	Fast Desktop-Scale Extrusion Additive Manufacturing. <i>Additive Manufacturing</i> , <b>2017</b> , 18, 276-284	6.1	34
120	Stable Wettability Control of Nanoporous Microstructures by iCVD Coating of Carbon Nanotubes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 43287-43299	9.5	28
119	Compression and recovery of carbon nanotube forests described as a phase transition. <i>International Journal of Solids and Structures</i> , <b>2017</b> , 122-123, 196-209	3.1	18
118	Industrial and Consumer Uses of Additive Manufacturing: A Discussion of Capabilities, Trajectories, and Challenges. <i>Journal of Industrial Ecology</i> , <b>2017</b> , 21, S15-S20	7.2	38
117	Precision control of nanoparticle monolayer assembly: Optimizing rate and crystal quality <b>2017</b> ,		1
116	THERMOPHYSICAL PHENOMENA IN METAL ADDITIVE MANUFACTURING BY SELECTIVE LASER MELTING: FUNDAMENTALS, MODELING, SIMULATION, AND EXPERIMENTATION. <i>Annual Review of Heat Transfer</i> , <b>2017</b> , 20, 241-316	2.7	53
115	Strain relaxation and resonance of carbon nanotube forests under electrostatic loading. <i>Carbon</i> , <b>2016</b> , 96, 250-258	10.4	8
114	Real-Time Imaging of Self-Organization and Mechanical Competition in Carbon Nanotube Forest Growth. <i>ACS Nano</i> , <b>2016</b> , 10, 11496-11504	16.7	27
113	Molecular Gastronomy Meets 3D Printing: Layered Construction via Reverse Spherification. <i>3D Printing and Additive Manufacturing</i> , <b>2016</b> , 3, 152-159	4	10
112	Predictive Synthesis of Freeform Carbon Nanotube Microarchitectures by Strain-Engineered Chemical Vapor Deposition. <i>Small</i> , <b>2016</b> , 12, 4393-403	11	15
111	Liquid Imbibition in Ceramic-Coated Carbon Nanotube Films. <i>Langmuir</i> , <b>2016</b> , 32, 12686-12692	4	10

110	Measurement of the Dewetting, Nucleation, and Deactivation Kinetics of Carbon Nanotube Population Growth by Environmental Transmission Electron Microscopy. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 3804-3813	9.6	31
109	A framework for teaching the fundamentals of additive manufacturing and enabling rapid innovation. <i>Additive Manufacturing</i> , <b>2016</b> , 10, 76-87	6.1	29
108	High-Fidelity Replica Molding of Glassy Liquid Crystalline Polymer Microstructures. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 8110-7	9.5	13
107	On-Demand Isolation and Manipulation of <i>C. elegans</i> by In Vitro Maskless Photopatterning. <i>PLoS ONE</i> , <b>2016</b> , 11, e0145935	3.7	4
106	Art on the Nanoscale and Beyond. <i>Advanced Materials</i> , <b>2016</b> , 28, 1724-42	24	28
105	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> , <b>2016</b> , 98-B, 917-24	5.6	8
104	Conformal Robotic Stereolithography. <i>3D Printing and Additive Manufacturing</i> , <b>2016</b> , 3, 226-235	4	13
103	Ultrathin high-resolution flexographic printing using nanoporous stamps. <i>Science Advances</i> , <b>2016</b> , 2, e1601660	16.6	67
102	Universal handheld micropipette. <i>Review of Scientific Instruments</i> , <b>2016</b> , 87, 115112	1.7	2
101	Highly Consistent Atmospheric Pressure Synthesis of Carbon Nanotube Forests by Mitigation of Moisture Transients. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 11277-11287	3.8	17
100	Morphology-dependent load transfer governs the strength and failure mechanism of carbon nanotube yarns. <i>Extreme Mechanics Letters</i> , <b>2016</b> , 9, 55-65	3.9	7
99	Mechanism and Enhanced Yield of Carbon Nanotube Growth on Stainless Steel by Oxygen-Induced Surface Reconstruction. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 932-937	9.6	32
98	Electrostatic capacitance and Faraday cage behavior of carbon nanotube forests. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 053106	3.4	5
97	Corrugated paraffin nanocomposite films as large stroke thermal actuators and self-activating thermal interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 8218-24	9.5	14
96	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> , <b>2015</b> , 97-B, 10-8	5.6	46
95	Three-dimensional machining of carbon nanotube forests using water-assisted scanning electron microscope processing. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 143102	3.4	7
94	High-speed roll-to-roll manufacturing of graphene using a concentric tube CVD reactor. <i>Scientific Reports</i> , <b>2015</b> , 5, 10257	4.9	113
93	Anisotropic Microwave Conductivity Dispersion of Horizontally Aligned Multi-Walled Carbon-Nanotube Thin Film on Flexible Substrate. <i>IEEE Transactions on Microwave Theory and Techniques</i> , <b>2015</b> , 63, 3588-3594	4.1	

92	Direct fabrication of graphene on SiO <sub>2</sub> enabled by thin film stress engineering. <i>Scientific Reports</i> , <b>2014</b> , 4, 5049	4.9	40
91	Growth of primary motor neurons on horizontally aligned carbon nanotube thin films and striped patterns. <i>Journal of Neural Engineering</i> , <b>2014</b> , 11, 036013	5	14
90	Synergetic chemical coupling controls the uniformity of carbon nanotube microstructure growth. <i>ACS Nano</i> , <b>2014</b> , 8, 5799-812	16.7	20
89	Rapid anisotropic photoconductive response of ZnO-coated aligned carbon nanotube sheets. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 874-81	9.5	39
88	Simultaneously high stiffness and damping in nanoengineered microtruss composites. <i>ACS Nano</i> , <b>2014</b> , 8, 3468-75	16.7	35
87	Enhanced surface capacitance of cylindrical micropillar arrays. <i>Sensors and Actuators A: Physical</i> , <b>2014</b> , 219, 32-37	3.9	8
86	Strain-engineered manufacturing of freeform carbon nanotube microstructures. <i>Nature Communications</i> , <b>2014</b> , 5, 4512	17.4	41
85	Self-ordering of small-diameter metal nanoparticles by dewetting on hexagonal mesh templates. <i>Nanoscale</i> , <b>2014</b> , 6, 10106-12	7.7	11
84	Scaling the Stiffness, Strength, and Toughness of Ceramic-Coated Nanotube Foams into the Structural Regime. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 5728-5735	15.6	37
83	Materials, Fabrication, and Manufacturing of Micro/Nanostructured Surfaces for Phase-Change Heat Transfer Enhancement. <i>Nanoscale and Microscale Thermophysical Engineering</i> , <b>2014</b> , 18, 288-310	3.7	44
82	Extensible-Link Kinematic Model for Characterizing and Optimizing Compliant Mechanism Motion. <i>Journal of Mechanical Design, Transactions of the ASME</i> , <b>2014</b> , 136,	3	7
81	Precise control of elastocapillary densification of nanostructures via low-pressure condensation. <i>Journal of Micromechanics and Microengineering</i> , <b>2014</b> , 24, 065019	2	6
80	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> , <b>2014</b> , 96, 1091-1099	5.6	67
79	Continuum analysis of carbon nanotube array buckling enabled by anisotropic elastic measurements and modeling. <i>Carbon</i> , <b>2014</b> , 66, 377-386	10.4	25
78	Enhancing the tensile properties of continuous millimeter-scale carbon nanotube fibers by densification. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2013</b> , 5, 7198-207	9.5	25
77	Measurement of carbon nanotube microstructure relative density by optical attenuation and observation of size-dependent variations. <i>Physical Chemistry Chemical Physics</i> , <b>2013</b> , 15, 11511-9	3.6	15
76	Self-assembly of suspended collagen films and their viability as cell culture substrates. <i>Journal of Materials Chemistry B</i> , <b>2013</b> , 1, 4711-4718	7.3	3
75	Carbon nanotubes: present and future commercial applications. <i>Science</i> , <b>2013</b> , 339, 535-9	33.3	3946



74	Engineering hierarchical nanostructures by elastocapillary self-assembly. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 2412-25	16.4	102
73	Statistical analysis of variation in laboratory growth of carbon nanotube forests and recommendations for improved consistency. <i>ACS Nano</i> , <b>2013</b> , 7, 3565-80	16.7	43
72	Mechanics of capillary forming of aligned carbon nanotube assemblies. <i>Langmuir</i> , <b>2013</b> , 29, 5190-8	4	31
71	Mechanical coupling limits the density and quality of self-organized carbon nanotube growth. <i>Nanoscale</i> , <b>2013</b> , 5, 2928-37	7.7	48
70	Laser printing of nanoparticle toner enables digital control of micropatterned carbon nanotube growth. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2013</b> , 5, 3656-62	9.5	11
69	Local relative density modulates failure and strength in vertically aligned carbon nanotubes. <i>ACS Nano</i> , <b>2013</b> , 7, 8593-604	16.7	25
68	Fold Mechanics of Natural and Synthetic Origami Papers <b>2013</b> ,		1
67	Nanoscale displacement measurement of microdevices via interpolation-based edge tracking of optical images. <i>Journal of Micromechanics and Microengineering</i> , <b>2013</b> , 23, 045004	2	9
66	Decoupled control of carbon nanotube forest density and diameter by continuous-feed convective assembly of catalyst particles. <i>Small</i> , <b>2013</b> , 9, 2564-75	11	11
65	Robofurnace: a semi-automated laboratory chemical vapor deposition system for high-throughput nanomaterial synthesis and process discovery. <i>Review of Scientific Instruments</i> , <b>2013</b> , 84, 115105	1.7	11
64	Synthese von hierarchischen Nanostrukturen durch elastokapillare Selbstorganisation. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 2470-2484	3.6	
63	Photoconductive Hybrid Films via Directional Self-Assembly of C60 on Aligned Carbon Nanotubes. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 577-584	15.6	14
62	Engineering of micro- and nanostructured surfaces with anisotropic geometries and properties. <i>Advanced Materials</i> , <b>2012</b> , 24, 1628-74	24	179
61	Chemically controlled bending of compositionally anisotropic microcylinders. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 660-5	16.4	48
60	High-speed in situ X-ray scattering of carbon nanotube film nucleation and self-organization. <i>ACS Nano</i> , <b>2012</b> , 6, 5091-101	16.7	33
59	Anisotropic Janus catalysts for spatially controlled chemical reactions. <i>Small</i> , <b>2012</b> , 8, 3116-22	11	44
58	Capillary bending of Janus carbon nanotube micropillars. <i>Nanoscale</i> , <b>2012</b> , 4, 3852-6	7.7	18
57	Carbon-nanotube optoacoustic lens for focused ultrasound generation and high-precision targeted therapy. <i>Scientific Reports</i> , <b>2012</b> , 2, 989	4.9	128

56	Diameter-dependent kinetics of activation and deactivation in carbon nanotube population growth. <i>Carbon</i> , <b>2012</b> , 50, 5106-5116	10.4	43
55	Four degree of freedom liquid dispenser for direct write capillary self-assembly with sub-nanoliter precision. <i>Review of Scientific Instruments</i> , <b>2012</b> , 83, 015104	1.7	1
54	Visualizing Strain Evolution and Coordinated Buckling within CNT Arrays by In Situ Digital Image Correlation. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 4686-4695	15.6	31
53	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> , <b>2012</b> , 22, 5028-5037	15.6	48
52	Chemically Controlled Bending of Compositionally Anisotropic Microcylinders. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 684-689	3.6	2
51	Synthesis of tall carpets of vertically aligned carbon nanotubes by in situ generation of water vapor through preheating of added oxygen. <i>Carbon</i> , <b>2012</b> , 50, 4002-4009	10.4	50
50	Fabrication, densification, and replica molding of 3D carbon nanotube microstructures. <i>Journal of Visualized Experiments</i> , <b>2012</b> ,	1.6	2
49	Continuous high-yield production of vertically aligned carbon nanotubes on 2D and 3D substrates. <i>ACS Nano</i> , <b>2011</b> , 5, 4850-7	16.7	67
48	Corrugated carbon nanotube microstructures with geometrically tunable compliance. <i>ACS Nano</i> , <b>2011</b> , 5, 7310-7	16.7	33
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45	Structurally programmed capillary folding of carbon nanotube assemblies. <i>Langmuir</i> , <b>2011</b> , 27, 6389-94	4	47
44	Fabrication of high-aspect-ratio polymer microstructures and hierarchical textures using carbon nanotube composite master molds. <i>Lab on A Chip</i> , <b>2011</b> , 11, 1831-7	7.2	28
43	Hydrogel-driven carbon nanotube microtransducers. <i>Soft Matter</i> , <b>2011</b> , 7, 9844	3.6	24
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41	Hierarchical carbon nanowire microarchitectures made by plasma-assisted pyrolysis of photoresist. <i>ACS Nano</i> , <b>2011</b> , 5, 6593-600	16.7	50
40	Fabrication and electrical integration of robust carbon nanotube micropillars by self-directed elastocapillary densification. <i>Journal of Micromechanics and Microengineering</i> , <b>2011</b> , 21, 045033	2	61
39	Precursor gas chemistry determines the crystallinity of carbon nanotubes synthesized at low temperature. <i>Carbon</i> , <b>2011</b> , 49, 804-810	10.4	59

38	Excellent dispersion of MWCNTs in PEO polymer achieved through a simple and potentially cost-effective evaporation casting. <i>Nanotechnology</i> , <b>2011</b> , 22, 415703	3.4	13
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36	Characterizing the failure processes that limit the storage of energy in carbon nanotube springs under tension. <i>Journal of Micromechanics and Microengineering</i> , <b>2010</b> , 20, 104012	2	8
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34	Bending of nanoscale filament assemblies by elastocapillary densification. <i>Physical Review E</i> , <b>2010</b> , 82, 041605	2.4	18
33	Ethanol-Promoted High-Yield Growth of Few-Walled Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 6389-6395	3.8	52
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31	Measuring the lengthening kinetics of aligned nanostructures by spatiotemporal correlation of height and orientation. <i>Nanoscale</i> , <b>2010</b> , 2, 896-900	7.7	35
30	Electrically Addressable Hybrid Architectures of Zinc Oxide Nanowires Grown on Aligned Carbon Nanotubes. <i>Advanced Functional Materials</i> , <b>2010</b> , 20, 2470-2480	15.6	64
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28	Self-similar organization of arrays of individual carbon nanotubes and carbon nanotube micropillars. <i>Microelectronic Engineering</i> , <b>2010</b> , 87, 1233-1238	2.5	41
27	Automated spin-assisted layer-by-layer assembly of nanocomposites. <i>Review of Scientific Instruments</i> , <b>2009</b> , 80, 023903	1.7	42
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22	Multifunctional properties of high volume fraction aligned carbon nanotube polymer composites with controlled morphology. <i>Composites Science and Technology</i> , <b>2009</b> , 69, 2649-2656	8.6	159
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