A John Hart

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5923514/publications.pdf

Version: 2024-02-01

206 papers	15,283 citations	28242 55 h-index	18633 119 g-index
213 all docs	213 docs citations	213 times ranked	18602 citing authors

#	Article	IF	Citations
1	Carbon Nanotubes: Present and Future Commercial Applications. Science, 2013, 339, 535-539.	6.0	4,612
2	A robotic platform for flow synthesis of organic compounds informed by AI planning. Science, 2019, 365, .	6.0	548
3	Carbon Nanotubes and Related Nanomaterials: Critical Advances and Challenges for Synthesis toward Mainstream Commercial Applications. ACS Nano, 2018, 12, 11756-11784.	7.3	388
4	Direct Ink Writing: A 3D Printing Technology for Diverse Materials. Advanced Materials, 2022, 34, e2108855.	11.1	361
5	Joining prepreg composite interfaces with aligned carbon nanotubes. Composites Part A: Applied Science and Manufacturing, 2008, 39, 1065-1070.	3.8	358
6	Fabrication and Characterization of Ultrahighâ€Volumeâ€•Fraction Aligned Carbon Nanotubeâ€“Polymer Composites. Advanced Materials, 2008, 20, 2707-2714.	11.1	245
7	Tuning of Vertically-Aligned Carbon Nanotube Diameter and Areal Density through Catalyst Pre-Treatment. Nano Letters, 2008, 8, 3587-3593.	4.5	220
8	Nanoscale Zirconia as a Nonmetallic Catalyst for Graphitization of Carbon and Growth of Single- and Multiwall Carbon Nanotubes. Journal of the American Chemical Society, 2009, 131, 12144-12154.	6.6	219
9	Highâ€Conductivity Polymer Nanocomposites Obtained by Tailoring the Characteristics of Carbon Nanotube Fillers. Advanced Functional Materials, 2008, 18, 3226-3234.	7.8	217
10	Exponential Growth of LBL Films with Incorporated Inorganic Sheets. Nano Letters, 2008, 8, 1762-1770.	4.5	210
11	Collective Mechanism for the Evolution and Self-Termination of Vertically Aligned Carbon Nanotube Growth. Journal of Physical Chemistry C, 2009, 113, 20576-20582.	1.5	205
12	Engineering of Microâ€•and Nanostructured Surfaces with Anisotropic Geometries and Properties. Advanced Materials, 2012, 24, 1628-1674.	11.1	203
13	Diverse 3D Microarchitectures Made by Capillary Forming of Carbon Nanotubes. Advanced Materials, 2010, 22, 4384-4389.	11.1	191
14	Carbon-Nanotube Optoacoustic Lens for Focused Ultrasound Generation and High-Precision Targeted Therapy. Scientific Reports, 2012, 2, 989.	1.6	188
15	Critical influences of particle size and adhesion on the powder layer uniformity in metal additive manufacturing. Journal of Materials Processing Technology, 2019, 266, 484-501.	3.1	183
16	Multifunctional properties of high volume fraction aligned carbon nanotube polymer composites with controlled morphology. Composites Science and Technology, 2009, 69, 2649-2656.	3.8	181
17	High-yield growth and morphology control of aligned carbon nanotubes on ceramic fibers for multifunctional enhancement of structural composites. Carbon, 2009, 47, 551-560.	5.4	175
18	Engineering Vertically Aligned Carbon Nanotube Growth by Decoupled Thermal Treatment of Precursor and Catalyst. ACS Nano, 2009, 3, 2477-2486.	7.3	162

#	Article	IF	Citations
19	Population Growth Dynamics of Carbon Nanotubes. ACS Nano, 2011, 5, 8974-8989.	7.3	151
20	High-speed roll-to-roll manufacturing of graphene using a concentric tube CVD reactor. Scientific Reports, 2015, 5, 10257.	1.6	150
21	Low Temperature Synthesis of Vertically Aligned Carbon Nanotubes with Electrical Contact to Metallic Substrates Enabled by Thermal Decomposition of the Carbon Feedstock. Nano Letters, 2009, 9, 3398-3405.	4.5	144
22	Carbon nanotube composite optoacoustic transmitters for strong and high frequency ultrasound generation. Applied Physics Letters, 2010, 97, 234104.	1.5	144
23	Engineering Hierarchical Nanostructures by Elastocapillary Selfâ€Assembly. Angewandte Chemie - International Edition, 2013, 52, 2412-2425.	7.2	126
24	Rate limits of additive manufacturing by fused filament fabrication and guidelines for high-throughput system design. Additive Manufacturing, 2017, 16, 1-11.	1.7	126
25	The association between metal ions from hip resurfacing and reduced T-cell counts. Journal of Bone and Joint Surgery: British Volume, 2006, 88-B, 449-454.	3.4	122
26	3D printing metals like thermoplastics: Fused filament fabrication of metallic glasses. Materials Today, 2018, 21, 697-702.	8.3	119
27	Flexible Highâ€Conductivity Carbonâ€Nanotube Interconnects Made by Rolling and Printing. Small, 2009, 5, 2467-2473.	5.2	110
28	Abrupt self-termination of vertically aligned carbon nanotube growth. Applied Physics Letters, 2008, 92, .	1.5	107
29	Modeling and characterization of cohesion in fine metal powders with a focus on additive manufacturing process simulations. Powder Technology, 2019, 343, 855-866.	2.1	107
30	Early Evaluation of Potential Environmental Impacts of Carbon Nanotube Synthesis by Chemical Vapor Deposition. Environmental Science & Technology, 2009, 43, 8367-8373.	4.6	100
31	Additive Manufacturing of Cellulosic Materials with Robust Mechanics and Antimicrobial Functionality. Advanced Materials Technologies, 2017, 2, 1600084.	3.0	100
32	Particle exposure levels during CVD growth and subsequent handling of vertically-aligned carbon nanotube films. Carbon, 2008, 46, 974-977.	5.4	93
33	THERMOPHYSICAL PHENOMENA IN METAL ADDITIVE MANUFACTURING BY SELECTIVE LASER MELTING: FUNDAMENTALS, MODELING, SIMULATION, AND EXPERIMENTATION. Annual Review of Heat Transfer, 2017, 20, 241-316.	0.3	92
34	Ultrathin high-resolution flexographic printing using nanoporous stamps. Science Advances, 2016, 2, e1601660.	4.7	89
35	High-precision modular microfluidics by micromilling of interlocking injection-molded blocks. Lab on A Chip, 2018, 18, 890-901.	3.1	89
36	Fabrication of composite microstructures by capillarity-driven wetting of aligned carbon nanotubes with polymers. Nanotechnology, 2007, 18, 165602.	1.3	87

#	Article	IF	Citations
37	Assessment of osteoarthritis after reconstruction of the anterior cruciate ligament. Journal of Bone and Joint Surgery: British Volume, 2005, 87-B, 1483-1487.	3.4	85
38	Multiple Alkynes React with Ethylene To Enhance Carbon Nanotube Synthesis, Suggesting a Polymerization-like Formation Mechanism. ACS Nano, 2010, 4, 7185-7192.	7.3	79
39	Continuous High-Yield Production of Vertically Aligned Carbon Nanotubes on 2D and 3D Substrates. ACS Nano, 2011, 5, 4850-4857.	7.3	76
40	A One-Step Method of Hydrogel Modification by Single-Walled Carbon Nanotubes for Highly Stretchable and Transparent Electronics. ACS Applied Materials & Interfaces, 2018, 10, 28069-28075.	4.0	75
41	Traditional and additive manufacturing of a new Tungsten heavy alloy alternative. International Journal of Refractory Metals and Hard Materials, 2018, 73, 22-28.	1.7	74
42	Surveillance of Patients with Metal-on-Metal Hip Resurfacing and Total Hip Prostheses. Journal of Bone and Joint Surgery - Series A, 2014, 96, 1091-1099.	1.4	73
43	A Scalable Route to Nanoporous Large-Area Atomically Thin Graphene Membranes by Roll-to-Roll Chemical Vapor Deposition and Polymer Support Casting. ACS Applied Materials & Interfaces, 2018, 10, 10369-10378.	4.0	71
44	Directâ€Write Freeform Colloidal Assembly. Advanced Materials, 2018, 30, e1803620.	11.1	70
45	Electrically Addressable Hybrid Architectures of Zinc Oxide Nanowires Grown on Aligned Carbon Nanotubes. Advanced Functional Materials, 2010, 20, 2470-2480.	7.8	69
46	Fabrication and electrical integration of robust carbon nanotube micropillars by self-directed elastocapillary densification. Journal of Micromechanics and Microengineering, 2011, 21, 045033.	1.5	68
47	Long Carbon Nanotubes Grown on the Surface of Fibers for Hybrid Composites. AIAA Journal, 2008, 46, 1405-1412.	1.5	65
48	Industrial and Consumer Uses of Additive Manufacturing: A Discussion of Capabilities, Trajectories, and Challenges. Journal of Industrial Ecology, 2017, 21, S15.	2.8	65
49	Precursor gas chemistry determines the crystallinity of carbon nanotubes synthesized at low temperature. Carbon, 2011, 49, 804-810.	5.4	62
50	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. Bone and Joint Journal, 2015, 97-B, 10-18.	1.9	60
51	Wide Range Control of Microstructure and Mechanical Properties of Carbon Nanotube Forests: A Comparison Between Fixed and Floating Catalyst CVD Techniques. Advanced Functional Materials, 2012, 22, 5028-5037.	7.8	58
52	Tungstenâ€“Carbon Nanotube Composite Photonic Crystals as Thermally Stable Spectralâ€Selective Absorbers and Emitters for Thermophotovoltaics. Advanced Energy Materials, 2018, 8, 1801471.	10.2	57
53	Ethanol-Promoted High-Yield Growth of Few-Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2010, 114, 6389-6395.	1.5	56
54	Chemically Controlled Bending of Compositionally Anisotropic Microcylinders. Angewandte Chemie - International Edition, 2012, 51, 660-665.	7.2	56

#	Article	IF	Citations
55	Hierarchical Carbon Nanowire Microarchitectures Made by Plasma-Assisted Pyrolysis of Photoresist. ACS Nano, 2011, 5, 6593-6600.	7.3	55
56	Materials, Fabrication, and Manufacturing of Micro/Nanostructured Surfaces for Phase-Change Heat Transfer Enhancement. Nanoscale and Microscale Thermophysical Engineering, 2014, 18, 288-310.	1.4	55
57	Diffusional Selfâ€Organization in Exponential Layerâ€Byâ€Layer Films with Microâ€•and Nanoscale Periodicity. Angewandte Chemie - International Edition, 2009, 48, 7073-7077.	7.2	54
58	Statistical Analysis of Variation in Laboratory Growth of Carbon Nanotube Forests and Recommendations for Improved Consistency. ACS Nano, 2013, 7, 3565-3580.	7.3	54
59	Strain-engineered manufacturing of freeform carbon nanotube microstructures. Nature Communications, 2014, 5, 4512.	5.8	54
60	Understanding and control of interactions between carbon nanotubes and polymers for manufacturing of high-performance composite materials. Composites Science and Technology, 2019, 183, 107795.	3.8	54
61	Structurally Programmed Capillary Folding of Carbon Nanotube Assemblies. Langmuir, 2011, 27, 6389-6394.	1.6	53
62	Synthesis of tall carpets of vertically aligned carbon nanotubes by in situ generation of water vapor through preheating of added oxygen. Carbon, 2012, 50, 4002-4009.	5.4	52
63	Mechanical coupling limits the density and quality of self-organized carbon nanotube growth. Nanoscale, 2013, 5, 2928.	2.8	52
64	Direct fabrication of graphene on SiO2 enabled by thin film stress engineering. Scientific Reports, 2014, 4, 5049.	1.6	52
65	Diameter-dependent kinetics of activation and deactivation in carbon nanotube population growth. Carbon, 2012, 50, 5106-5116.	5.4	51
66	Automated spin-assisted layer-by-layer assembly of nanocomposites. Review of Scientific Instruments, 2009, 80, 023903.	0.6	50
67	Scaling the Stiffness, Strength, and Toughness of Ceramicâ€Coated Nanotube Foams into the Structural Regime. Advanced Functional Materials, 2014, 24, 5728-5735.	7.8	49
68	Self-similar organization of arrays of individual carbon nanotubes and carbon nanotube micropillars. Microelectronic Engineering, 2010, 87, 1233-1238.	1.1	48
69	A framework for teaching the fundamentals of additive manufacturing and enabling rapid innovation. Additive Manufacturing, 2016, 10, 76-87.	1.7	48
70	Fast Desktop-Scale Extrusion Additive Manufacturing. Additive Manufacturing, 2017, 18, 276-284.	1.7	47
71	Anisotropic Janus Catalysts for Spatially Controlled Chemical Reactions. Small, 2012, 8, 3116-3122.	5.2	46
72	Stable Wettability Control of Nanoporous Microstructures by iCVD Coating of Carbon Nanotubes. ACS Applied Materials & Interfaces, 2017, 9, 43287-43299.	4.0	46

#	Article	IF	Citations
73	Shape-Programmed Fabrication and Actuation of Magnetically Active Micropost Arrays. ACS Applied Materials & Interfaces, 2020, 12, 17113-17120.	4.0	44
74	A Microneedle Technology for Sampling and Sensing Bacteria in the Food Supply Chain. Advanced Functional Materials, 2021, 31, .	7.8	44
75	Rapid Anisotropic Photoconductive Response of ZnO-Coated Aligned Carbon Nanotube Sheets. ACS Applied Materials & Interfaces, 2014, 6, 874-881.	4.0	43
76	High-yield growth of vertically aligned carbon nanotubes on a continuously moving substrate. Nanotechnology, 2009, 20, 405611.	1.3	42
77	Twist-coupled Kirigami cells and mechanisms. Extreme Mechanics Letters, 2018, 21, 17-24.	2.0	42
78	Synthetic Butterfly Scale Surfaces with Complianceâ€Tailored Anisotropic Drop Adhesion. Advanced Materials, 2019, 31, e1807686.	11.1	42
79	Measurement of the Dewetting, Nucleation, and Deactivation Kinetics of Carbon Nanotube Population Growth by Environmental Transmission Electron Microscopy. Chemistry of Materials, 2016, 28, 3804-3813.	3.2	41
80	Continuum analysis of carbon nanotube array buckling enabled by anisotropic elastic measurements and modeling. Carbon, 2014, 66, 377-386.	5.4	40
81	Simultaneously High Stiffness and Damping in Nanoengineered Microtruss Composites. ACS Nano, 2014, 8, 3468-3475.	7.3	40
82	Mechanics of Capillary Forming of Aligned Carbon Nanotube Assemblies. Langmuir, 2013, 29, 5190-5198.	1.6	39
83	Measuring the lengthening kinetics of aligned nanostructures by spatiotemporal correlation of height and orientation. Nanoscale, 2010, 2, 896.	2.8	38
84	High-Speed in Situ X-ray Scattering of Carbon Nanotube Film Nucleation and Self-Organization. ACS Nano, 2012, 6, 5091-5101.	7.3	38
85	Explaining Evaporation-Triggered Wetting Transition Using Local Force Balance Model and Contact Line-Fraction. Scientific Reports, 2019, 9, 405.	1.6	38
86	Analysis of the Attune tibial tray backside. Bone and Joint Research, 2019, 8, 136-145.	1.3	38
87	Method of characterizing electrical contact properties of carbon nanotube coated surfaces. Review of Scientific Instruments, 2006, 77, 095105.	0.6	37
88	Art on the Nanoscale and Beyond. Advanced Materials, 2016, 28, 1724-1742.	11.1	37
89	Enhancing the Tensile Properties of Continuous Millimeter-Scale Carbon Nanotube Fibers by Densification. ACS Applied Materials & Interfaces, 2013, 5, 7198-7207.	4.0	36
90	Solid-Phase Extraction, Preservation, Storage, Transport, and Analysis of Trace Contaminants for Water Quality Monitoring of Heavy Metals. Environmental Science & Technology, 2020, 54, 2646-2657.	4.6	36

#	Article	IF	Citations
91	A novel smoothed particle hydrodynamics formulation for thermo-capillary phase change problems with focus on metal additive manufacturing melt pool modeling. Computer Methods in Applied Mechanics and Engineering, 2021, 381, 113812.	3.4	36
92	Corrugated Carbon Nanotube Microstructures with Geometrically Tunable Compliance. ACS Nano, 2011, 5, 7310-7317.	7.3	35
93	Visualizing Strain Evolution and Coordinated Buckling within CNT Arrays by In Situ Digital Image Correlation. Advanced Functional Materials, 2012, 22, 4686-4695.	7.8	35
94	Mechanism and Enhanced Yield of Carbon Nanotube Growth on Stainless Steel by Oxygen-Induced Surface Reconstruction. Chemistry of Materials, 2015, 27, 932-937.	3.2	35
95	Real-Time Imaging of Self-Organization and Mechanical Competition in Carbon Nanotube Forest Growth. ACS Nano, 2016, 10, 11496-11504.	7.3	34
96	Fabrication of high-aspect-ratio polymer microstructures and hierarchical textures using carbon nanotube composite master molds. Lab on A Chip, 2011, 11, 1831.	3.1	33
97	Local Relative Density Modulates Failure and Strength in Vertically Aligned Carbon Nanotubes. ACS Nano, 2013, 7, 8593-8604.	7.3	33
98	Oxygen-promoted catalyst sintering influences number density, alignment, and wall number of vertically aligned carbon nanotubes. Nanoscale, 2017, 9, 5222-5233.	2.8	33
99	Improved rheometry of yield stress fluids using bespoke fractal 3D printed vanes. Journal of Rheology, 2020, 64, 643-662.	1.3	32
100	Soft nanocomposite electroadhesives for digital micro- and nanotransfer printing. Science Advances, 2019, 5, eaax4790.	4.7	31
101	Additive Manufacturing of Biomechanically Tailored Meshes for Compliant Wearable and Implantable Devices. Advanced Functional Materials, 2019, 29, 1901815.	7.8	31
102	Carbon-assisted catalyst pretreatment enables straightforward synthesis of high-density carbon nanotube forests. Carbon, 2019, 153, 196-205.	5.4	31
103	The risk of cardiac failure following metal-on-metal hip arthroplasty. Bone and Joint Journal, 2018, 100-B, 20-27.	1.9	30
104	Isolating the Roles of Hydrogen Exposure and Trace Carbon Contamination on the Formation of Active Catalyst Populations for Carbon Nanotube Growth. ACS Nano, 2019, 13, 8736-8748.	7.3	28
105	Hydrogel-driven carbon nanotube microtransducers. Soft Matter, 2011, 7, 9844.	1.2	27
106	Inâ€Plane Directâ€Write Assembly of Iridescent Colloidal Crystals. Small, 2020, 16, e1905519.	5.2	26
107	Compression and recovery of carbon nanotube forests described as a phase transition. International Journal of Solids and Structures, 2017, 122-123, 196-209.	1.3	24
108	Synergetic Chemical Coupling Controls the Uniformity of Carbon Nanotube Microstructure Growth. ACS Nano, 2014, 8, 5799-5812.	7.3	23

#	Article	IF	Citations
109	Highly Consistent Atmospheric Pressure Synthesis of Carbon Nanotube Forests by Mitigation of Moisture Transients. Journal of Physical Chemistry C, 2016, 120, 11277-11287.	1.5	23
110	Stability Limit of Electrified Droplets. Physical Review Letters, 2019, 122, 244501.	2.9	23
111	Multidirectional Hierarchical Nanocomposites Made by Carbon Nanotube Growth within Layer-by-Layer-Assembled Films. Chemistry of Materials, 2011, 23, 1023-1031.	3.2	21
112	Microstructured Ceramic-Coated Carbon Nanotube Surfaces for High Heat Flux Pool Boiling. ACS Applied Nano Materials, 2019, 2, 5538-5545.	2.4	21
113	Dynamics of Liquid Transfer from Nanoporous Stamps in High-Resolution Flexographic Printing. Langmuir, 2019, 35, 7659-7671.	1.6	21
114	Predictive Synthesis of Freeform Carbon Nanotube Microarchitectures by Strainâ€Engineered Chemical Vapor Deposition. Small, 2016, 12, 4393-4403.	5.2	20
115	Selective Photomechanical Detachment and Retrieval of Divided Sister Cells from Enclosed Microfluidics for Downstream Analyses. ACS Nano, 2017, 11, 4660-4668.	7.3	20
116	Bending of nanoscale filament assemblies by elastocapillary densification. Physical Review E, 2010, 82, 041605.	0.8	19
117	Nanocomposite microstructures with tunable mechanical and chemical properties. Physical Chemistry Chemical Physics, 2010, 12, 4446.	1.3	19
118	Non-destructive characterization of structural hierarchy within aligned carbon nanotube assemblies. Journal of Applied Physics, 2011, 109, 094316.	1.1	19
119	Capillary bending of Janus carbon nanotube micropillars. Nanoscale, 2012, 4, 3852.	2.8	19
120	Strong Macroscale Supercrystalline Structures by 3D Printing Combined with Selfâ€Assembly of Ceramic Functionalized Nanoparticles. Advanced Engineering Materials, 2020, 22, 2000352.	1.6	19
121	Storing elastic energy in carbon nanotubes. Journal of Micromechanics and Microengineering, 2009, 19, 094015.	1.5	18
122	High-Fidelity Replica Molding of Glassy Liquid Crystalline Polymer Microstructures. ACS Applied Materials & Interfaces, 2016, 8, 8110-8117.	4.0	18
123	Delamination Mechanics of Carbon Nanotube Micropillars. ACS Applied Materials & Interfaces, 2019, 11, 35221-35227.	4.0	18
124	Substrateâ€Versatile Directâ€Write Printing of Carbon Nanotubeâ€Based Flexible Conductors, Circuits, and Sensors. Advanced Functional Materials, 2021, 31, 2100245.	7.8	18
125	Photoconductive Hybrid Films via Directional Selfâ€Assembly of C₆₀ on Aligned Carbon Nanotubes. Advanced Functional Materials, 2012, 22, 577-584.	7.8	17
126	Robofurnace: A semi-automated laboratory chemical vapor deposition system for high-throughput nanomaterial synthesis and process discovery. Review of Scientific Instruments, 2013, 84, 115105.	0.6	17

#	Article	IF	Citations
127	Growth of primary motor neurons on horizontally aligned carbon nanotube thin films and striped patterns. Journal of Neural Engineering, 2014, 11, 036013.	1.8	17
128	Corrugated Paraffin Nanocomposite Films as Large Stroke Thermal Actuators and Self-Activating Thermal Interfaces. ACS Applied Materials & Interfaces, 2015, 7, 8218-8224.	4.0	17
129	Modulation of the effective density and refractive index of carbon nanotube forests via nanoimprint lithography. Carbon, 2018, 129, 8-14.	5.4	16
130	In-field determination of soil ion content using a handheld device and screen-printed solid-state ion-selective electrodes. PLoS ONE, 2018, 13, e0203862.	1.1	16
131	Strong, Ultralight Nanofoams with Extreme Recovery and Dissipation by Manipulation of Internal Adhesive Contacts. ACS Nano, 2020, 14, 8383-8391.	7.3	16
132	Measurement of carbon nanotube microstructure relative density by optical attenuation and observation of size-dependent variations. Physical Chemistry Chemical Physics, 2013, 15, 11511.	1.3	15
133	Conformal Robotic Stereolithography. 3D Printing and Additive Manufacturing, 2016, 3, 226-235.	1.4	15
134	Molecular Gastronomy Meets 3D Printing: Layered Construction via Reverse Spherification. 3D Printing and Additive Manufacturing, 2016, 3, 152-159.	1.4	15
135	Versatile acid solvents for pristine carbon nanotube assembly. Science Advances, 2022, 8, eabm3285.	4.7	15
136	Uniform and selective CVD growth of carbon nanotubes and nanofibres on arbitrarily microstructured silicon surfaces. Nanotechnology, 2006, 17, 1397-1403.	1.3	14
137	In Situ Interfacial Polymerization: A Technique for Rapid Formation of Highly Loaded Carbon Nanotubeâ€Polymer Composites. Advanced Functional Materials, 2020, 30, 2005499.	7.8	14
138	A modular testbed for mechanized spreading of powder layers for additive manufacturing. Review of Scientific Instruments, 2021, 92, 015114.	0.6	14
139	Tailoring the surface morphology of carbon nanotube forests by plasma etching: A parametric study. Carbon, 2021, 180, 204-214.	5.4	14
140	Excellent dispersion of MWCNTs in PEO polymer achieved through a simple and potentially cost-effective evaporation casting. Nanotechnology, 2011, 22, 415703.	1.3	13
141	Laser Printing of Nanoparticle Toner Enables Digital Control of Micropatterned Carbon Nanotube Growth. ACS Applied Materials & Interfaces, 2013, 5, 3656-3662.	4.0	13
142	Decoupled Control of Carbon Nanotube Forest Density and Diameter by Continuousâ€Feed Convective Assembly of Catalyst Particles. Small, 2013, 9, 2564-2575.	5.2	13
143	Strain relaxation and resonance of carbon nanotube forests under electrostatic loading. Carbon, 2016, 96, 250-258.	5.4	13
144	A laboratory-scale binder jet additive manufacturing testbed for process exploration and material development. International Journal of Advanced Manufacturing Technology, 2021, 114, 3459-3473.	1.5	13

#	Article	IF	Citations
145	Nanoscale displacement measurement of microdevices via interpolation-based edge tracking of optical images. Journal of Micromechanics and Microengineering, 2013, 23, 045004.	1.5	12
146	The effect of using components from different manufacturers on the rate of wear and corrosion of the headâ€“stem taper junction of metal-on-metal hip arthroplasties. Bone and Joint Journal, 2016, 98-B, 917-924.	1.9	12
147	Liquid Imbibition in Ceramic-Coated Carbon Nanotube Films. Langmuir, 2016, 32, 12686-12692.	1.6	12
148	Shear melting and recovery of crosslinkable cellulose nanocrystalâ€“polymer gels. Soft Matter, 2019, 15, 4401-4412.	1.2	12
149	High-Density Carbon Nanotube Forest Growth on Copper Foil for Enhanced Thermal and Electrochemical Interfaces. ACS Applied Nano Materials, 2020, 3, 77-83.	2.4	12
150	Physicsâ€based modeling and predictive simulation of powder bed fusion additive manufacturing across length scales. GAMM Mitteilungen, 2021, 44, e202100014.	2.7	12
151	Self-ordering of small-diameter metal nanoparticles by dewetting on hexagonal mesh templates. Nanoscale, 2014, 6, 10106-10112.	2.8	11
152	Retrieval analysis of metal and ceramic femoral heads on a single CoCr stem design. Bone and Joint Research, 2017, 6, 345-350.	1.3	11
153	Interfacial load monitoring and failure detection in total joint replacements via piezoresistive bone cement and electrical impedance tomography. Smart Materials and Structures, 2020, 29, 085039.	1.8	11
154	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. Powder Technology, 2022, 398, 117053.	2.1	11
155	A spiral laser scanning routine for powder bed fusion inspired by natural predator-prey behaviour. Virtual and Physical Prototyping, 2022, 17, 239-255.	5.3	11
156	Three-dimensional machining of carbon nanotube forests using water-assisted scanning electron microscope processing. Applied Physics Letters, 2015, 107, .	1.5	10
157	High-Speed Production of Crystalline Semiconducting Polymer Line Arrays by Meniscus Oscillation Self-Assembly. ACS Nano, 2020, 14, 17254-17261.	7.3	10
158	Maximization of carbon nanotube yield by solid carbon-assisted dewetting of iron catalyst films. Carbon, 2020, 165, 251-258.	5.4	10
159	Limiting Mechanisms and Scaling of Electrostatically Controlled Adhesion of Soft Nanocomposite Surfaces for Robotic Gripping. ACS Applied Materials & Interfaces, 2021, 13, 1192-1203.	4.0	10
160	Enhanced surface capacitance of cylindrical micropillar arrays. Sensors and Actuators A: Physical, 2014, 219, 32-37.	2.0	9
161	Extensible-Link Kinematic Model for Characterizing and Optimizing Compliant Mechanism Motion. Journal of Mechanical Design, Transactions of the ASME, 2014, 136, .	1.7	9
162	Morphology-dependent load transfer governs the strength and failure mechanism of carbon nanotube yarns. Extreme Mechanics Letters, 2016, 9, 55-65.	2.0	9

#	Article	IF	Citations
163	Characterizing the failure processes that limit the storage of energy in carbon nanotube springs under tension. Journal of Micromechanics and Microengineering, 2010, 20, 104012.	1.5	8
164	Electrostatic capacitance and Faraday cage behavior of carbon nanotube forests. Applied Physics Letters, 2015, 106, .	1.5	8
165	In Situ Mechanochemical Modulation of Carbon Nanotube Forest Growth. Chemistry of Materials, 2019, 31, 407-418.	3.2	8
166	On Oreology, the fracture and flow of â€œmilk's favorite cookieÂ®â€•. Physics of Fluids, 2022, 34, .	1.6	8
167	High-Volume-Fraction Textured Carbon Nanotubeâ€“Bis(maleimide) and â^'Epoxy Matrix Polymer Nanocomposites: Implications for High-Performance Structural Composites. ACS Applied Nano Materials, 2022, 5, 9008-9023.	2.4	8
168	2D and 3D growth of carbon nanotubes on substrates, from nanometre to millimetre scales. International Journal of Nanomanufacturing, 2007, 1, 701.	0.3	7
169	Precise control of elastocapillary densification of nanostructures via low-pressure condensation. Journal of Micromechanics and Microengineering, 2014, 24, 065019.	1.5	7
170	How to print a 3D object all at once. Science, 2019, 363, 1042-1043.	6.0	7
171	On-Demand Isolation and Manipulation of C. elegans by In Vitro Maskless Photopatterning. PLoS ONE, 2016, 11, e0145935.	1.1	6
172	A precision desktop plate-to-roll apparatus for development of advanced flexographic printing processes. Precision Engineering, 2020, 66, 392-400.	1.8	6
173	Molecular Alignment of a Meta-Aramid on Carbon Nanotubes by In Situ Interfacial Polymerization. Nano Letters, 2022, 22, 998-1006.	4.5	5
174	Universal handheld micropipette. Review of Scientific Instruments, 2016, 87, 115112.	0.6	4
175	Hierarchically Structured Nanoparticle Monolayers for the Tailored Etching of Nanoporous Silicon. ACS Applied Nano Materials, 2019, 2, 1146-1151.	2.4	4
176	Digital metal printing by electrohydrodynamic ejection and in-flight melting of microparticles. Additive Manufacturing, 2021, 37, 101703.	1.7	4
177	Spatial mapping of powder layer density for metal additive manufacturing via transmission X-ray imaging. Additive Manufacturing, 2021, 46, 102197.	1.7	4
178	Carbon nanotube-mediated three-dimensional vanadium oxide nanoarchitectures with tunable morphology and translatable functionality. Ceramics International, 2021, 47, 32342-32348.	2.3	4
179	A rapid development workflow for binder inks for additive manufacturing with application to polymer and reactive binder ink formulation. Journal of Manufacturing Processes, 2022, 73, 471-482.	2.8	4
180	High-yield microplasma synthesis of monodisperse sub-3Ânm diameter metal nanoparticles explained by a charge-mediated formation mechanism. Journal of Aerosol Science, 2022, 161, 105915.	1.8	4

#	Article	IF	Citations
181	Printable, castable, nanocrystalline cellulose-epoxy composites exhibiting hierarchical nacre-like toughening. Cellulose, 2022, 29, 2387-2398.	2.4	4
182	Self-assembly of suspended collagen films and their viability as cell culture substrates. Journal of Materials Chemistry B, 2013, 1, 4711.	2.9	3
183	Fold Mechanics of Natural and Synthetic Origami Papers. , 2013, , .		3
184	Antifouling Surface Coatings from Selfâ€Assembled Zwitterionic Aramid Amphiphile Nanoribbons. Advanced Materials Interfaces, 2022, 9, .	1.9	3
185	Fabrication, Densification, and Replica Molding of 3D Carbon Nanotube Microstructures. Journal of Visualized Experiments, 2012, , .	0.2	2
186	Geometric tailoring of strength and toughness in self-locking interleaved laminates. Extreme Mechanics Letters, 2019, 27, 94-101.	2.0	2
187	Strong Macroscale Supercrystalline Structures by 3D Printing Combined with Selfâ€Assembly of Ceramic Functionalized Nanoparticles. Advanced Engineering Materials, 2020, 22, 2070028.	1.6	2
188	Fieldwork-based determination of design priorities for point-of-use drinking water quality sensors for use in resource-limited environments. PLoS ONE, 2020, 15, e0228140.	1.1	2
189	Iron oxide xerogels for improved water quality monitoring of arsenic(<scp>iii</scp>) in resource-limited environmentsviasolid-phase extraction, preservation, storage, transportation, and analysis of trace contaminants (SEPSTAT). Analytical Methods, 2021, 13, 2165-2174.	1.3	2
190	Four degree of freedom liquid dispenser for direct write capillary self-assembly with sub-nanoliter precision. Review of Scientific Instruments, 2012, 83, 015104.	0.6	1
191	Precision control of nanoparticle monolayer assembly: Optimizing rate and crystal quality. , 2017, , .		1
192	Flexible Electronics: Substrateâ€Versatile Directâ€Write Printing of Carbon Nanotubeâ€Based Flexible Conductors, Circuits, and Sensors (Adv. Funct. Mater. 25/2021). Advanced Functional Materials, 2021, 31, 2170181.	7.8	1
193	Reactive binder jet additive manufacturing for microstructural control and dimensional stability of ceramic materials. Additive Manufacturing, 2021, 48, 102448.	1.7	1
194	Automated processing of environmental transmission electron microscopy images for quantification of thin film dewetting and carbon nanotube nucleation dynamics. Carbon, 2022, 192, 249-258.	5.4	1
195	Fabrication and integration of horizontally aligned carbon nanotube — C60 films for UV sensors. , 2013, , .		0
196	Tunable-Volume Handheld Pipette Utilizing a Pneumatic De-Amplification Mechanism. , 2014, , .		0
197	Anisotropic Microwave Conductivity Dispersion of Horizontally Aligned Multi-Walled Carbon-Nanotube Thin Film on Flexible Substrate. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 3588-3594.	2.9	0
198	A framework for tool path optimization in fused filament fabrication. , 2017, , .		0

#	Article	IF	Citations
199	Additive Manufacturing: Additive Manufacturing of Biomechanically Tailored Meshes for Compliant Wearable and Implantable Devices (Adv. Funct. Mater. 32/2019). Advanced Functional Materials, 2019, 29, 1970222.	7.8	0
200	10.1063/5.0031191.2. , 2021, , .		0
201	10.1063/5.0031191.1. , 2021, , .		0
202	10.1063/5.0085362.1. , 2022, , .		0
203	Title is missing!. , 2020, 15, e0228140.		0
204	Title is missing!. , 2020, 15, e0228140.		0
205	Title is missing!. , 2020, 15, e0228140.		0
206	Title is missing!. , 2020, 15, e0228140.		0