Ray H Baughman

List of Publications by Year in Descending Order

280 papers	38,356 citations	81 h-index	194 g-index
302 ext. papers	41,958 ext. citations	12 avg, IF	7.4 L-index

#	Paper	IF	Citations
280	Improved thermoacoustic sound projectors by vibration mode modification. *Journal of Sound and Vibration*, **2022**, 524, 116753	3.9	1
279	The strongest and toughest predicted materials: Linear atomic chains without a Peierls instability. *Matter*, **2022**, 5, 1192-1203	12.7	1
278	More powerful twistron carbon nanotube yarn mechanical energy harvesters.. *Advanced Materials*, **2022**, e2201826	24	3
277	Understanding the low frequency response of carbon nanotube thermoacoustic projectors. *Journal of Sound and Vibration*, **2021**, 498, 115940	3.9	
276	The Power of Fiber Twist. *Accounts of Chemical Research*, **2021**, 54, 2624-2636	24.3	11
275	Self-Powered Carbon Nanotube Yarn for Acceleration Sensor Application. *IEEE Transactions on Industrial Electronics*, **2021**, 68, 2676-2683	8.9	3
274	Unipolar stroke, electroosmotic pump carbon nanotube yarn muscles. *Science*, **2021**, 371, 494-498	33.3	34
273	Humidity- and Water-Responsive Torsional and Contractile Lotus Fiber Yarn Artificial Muscles. *ACS Applied Materials & Interfaces*, **2021**, 13, 6642-6649	9.5	16
272	High-strength scalable graphene sheets by freezing stretch-induced alignment. *Nature Materials*, **2021**, 20, 624-631	27	42
271	Using ultra-thin interlaminar carbon nanotube sheets to enhance the mechanical and electrical properties of carbon fiber reinforced polymer composites. *Composites Part B: Engineering*, **2021**, 216, 108842	10	8
270	Bounds on the in-plane Poisson‘s ratios and the in-plane linear and area compressibilities for sheet crystals. *Journal of the Mechanics and Physics of Solids*, **2021**, 152, 104409	5	3
269	The Interfacial Shear Strength of Carbon Nanotube Sheet Modified Carbon Fiber Composites. *Conference Proceedings of the Society for Experimental Mechanics*, **2021**, 25-32	0.3	9
268	Three-dimensional carbon nanotube networks from beta zeolite templates: Thermal stability and mechanical properties. *Computational Materials Science*, **2020**, 182, 109781	3.2	3
267	Two-Ply Carbon Nanotube Fiber-Typed Enzymatic Biofuel Cell Implanted in Mice. *IEEE Transactions on Nanobioscience*, **2020**, 19, 333-338	3.4	4
266	Additive Functionalization and Embroidery for Manufacturing Wearable and Washable Textile Supercapacitors. *Advanced Functional Materials*, **2020**, 30, 1910541	15.6	32
265	Programmable and Thermally Hardening Composite Yarn Actuators with a Wide Range of Operating Temperature. *Advanced Materials Technologies*, **2020**, 5, 2000329	6.8	9
264	Super-tough MXene-functionalized graphene sheets. *Nature Communications*, **2020**, 11, 2077	17.4	132

263	Shaping nanomaterials by short electrical pulses. *Nanotechnology*, **2020**, 31, 365302	3.4	0
262	Electrical energy harvesting from ferritin biscrolled carbon nanotube yarn. *Biosensors and Bioelectronics*, **2020**, 164, 112318	11.8	8
261	Predicted Confinement-Enhanced Stability and Extraordinary Mechanical Properties for Carbon Nanotube Wrapped Chains of Linear Carbon. *ACS Nano*, **2020**,	16.7	10
260	Self-Powered, Electrochemical Carbon Nanotube Pressure Sensors for Wave Monitoring. *Advanced Functional Materials*, **2020**, 30, 2004564	15.6	9
259	Bidirectional Core Sandwich Structure of Reduced Graphene Oxide and Spinnable Multiwalled Carbon Nanotubes for Electromagnetic Interference Shielding Effectiveness. *ACS Applied Materials & Interfaces*, **2020**, 12, 46883-46891	9.5	7
258	Wearable Energy Generating and Storing Textile Based on Carbon Nanotube Yarns. *Advanced Functional Materials*, **2020**, 30, 2000411	15.6	21
257	Self-Powered Coiled Carbon-Nanotube Yarn Sensor for Gastric Electronics. *ACS Sensors*, **2019**, 4, 2893-2899	9.2	14
256	Carbon nanotubes□lastomer actuator driven electrothermally by low-voltage. *Nanoscale Advances*, **2019**, 1, 965-968	5.1	21
255	Electrochemical graphene/carbon nanotube yarn artificial muscles. *Sensors and Actuators B: Chemical*, **2019**, 286, 237-242	8.5	26
254	Highly loaded MXene/carbon nanotube yarn electrodes for improved asymmetric supercapacitor performance. *MRS Communications*, **2019**, 9, 114-121	2.7	26
253	Orthogonal pattern of spinnable multiwall carbon nanotubes for electromagnetic interference shielding effectiveness. *Carbon*, **2019**, 152, 33-39	10.4	11
252	Enhancing the strength, toughness, and electrical conductivity of twist-spun carbon nanotube yarns by □bridging. *Carbon*, **2019**, 150, 268-274	10.4	22
251	Moisture Sensitive Smart Yarns and Textiles from Self-Balanced Silk Fiber Muscles. *Advanced Functional Materials*, **2019**, 29, 1808241	15.6	119
250	Enhancing the Work Capacity of Electrochemical Artificial Muscles by Coiling Plies of Twist-Released Carbon Nanotube Yarns. *ACS Applied Materials & Interfaces*, **2019**, 11, 13533-13537	9.5	18
249	A multiscale model to study the enhancement in the compressive strength of multi-walled CNT sheet overwrapped carbon fiber composites. *Composite Structures*, **2019**, 219, 170-178	5.3	8
248	Temperature-independent capacitance of carbon-based supercapacitor from □100 to 60 □C. *Energy Storage Materials*, **2019**, 22, 323-329	19.4	61
247	Controllable Preparation of Ordered and Hierarchically Buckled Structures for Inflatable Tumor Ablation, Volumetric Strain Sensor, and Communication via Inflatable Antenna. *ACS Applied Materials & Interfaces*, **2019**, 11, 10862-10873	9.5	10
246	Silver Nanowires on Carbon Nanotube Aerogel Sheets for Flexible, Transparent Electrodes. *ACS Applied Materials & Interfaces*, **2019**, 11, 32235-32243	9.5	16

245	Electrodeposition of MnO/MnO on Carbon Nanotube for Yarn Supercapacitor. *Scientific Reports*, **2019**, 9, 11271	4.9	36
244	Modeling the Compressive Buckling Strain as a Function of the Nanocomposite Interphase Thickness in a Carbon Nanotube Sheet Wrapped Carbon Fiber Composite. *Journal of Applied Mechanics, Transactions ASME*, **2019**, 86,	2.7	2
243	Torsional refrigeration by twisted, coiled, and supercoiled fibers. *Science*, **2019**, 366, 216-221	33.3	65
242	Intelligently Actuating Liquid Crystal Elastomer-Carbon Nanotube Composites. *Advanced Functional Materials*, **2019**, 29, 1905063	15.6	62
241	Sheath-run artificial muscles. *Science*, **2019**, 365, 150-155	33.3	120
240	Enhancement of electromagnetic interference shielding effectiveness with alignment of spinnable multiwalled carbon nanotubes. *Carbon*, **2019**, 142, 528-534	10.4	16
239	Biomolecule based fiber supercapacitor for implantable device. *Nano Energy*, **2018**, 47, 385-392	17.1	52
238	Weavable asymmetric carbon nanotube yarn supercapacitor for electronic textiles.. *RSC Advances*, **2018**, 8, 13112-13120	3.7	32
237	General Synthesis of 3D Ordered Macro-/Mesoporous Materials by Templating Mesoporous Silica Confined in Opals. *Chemistry of Materials*, **2018**, 30, 1617-1624	9.6	34
236	Harvesting electrical energy from torsional thermal actuation driven by natural convection. *Scientific Reports*, **2018**, 8, 8712	4.9	9
235	Biscrolled Carbon Nanotube Yarn Structured Silver-Zinc Battery. *Scientific Reports*, **2018**, 8, 11150	4.9	23
234	Stretchable Fiber Biofuel Cell by Rewrapping Multiwalled Carbon Nanotube Sheets. *Nano Letters*, **2018**, 18, 5272-5278	11.5	22
233	Strong, Conductive, Foldable Graphene Sheets by Sequential Ionic and Bridging. *Advanced Materials*, **2018**, 30, e1802733	24	53
232	Sequentially bridged graphene sheets with high strength, toughness, and electrical conductivity. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 5359-5364	11.5	77
231	Large-Stroke Electrochemical Carbon Nanotube/Graphene Hybrid Yarn Muscles. *Small*, **2018**, 14, e1801883	13	23
230	High-Performance Biscrolled MXene/Carbon Nanotube Yarn Supercapacitors. *Small*, **2018**, 14, e1802225	11	114
229	Ag/MnO Composite Sheath-Core Structured Yarn Supercapacitors. *Scientific Reports*, **2018**, 8, 13309	4.9	23
228	Tensile fatigue behavior of single carbon nanotube yarns. *Journal of Materials Science*, **2018**, 53, 11426-11432	4.3	6

227	Thermoacoustic sound projector: exceeding the fundamental efficiency of carbon nanotubes. *Nanotechnology*, **2018**, 29, 325704	3.4	13
226	Magnetic torsional actuation of carbon nanotube yarn artificial muscle.. *RSC Advances*, **2018**, 8, 17421-17425	3.7	9
225	High Power Density Electrochemical Thermocells for Inexpensively Harvesting Low-Grade Thermal Energy. *Advanced Materials*, **2017**, 29, 1605652	24	108
224	Compact and low-cost humanoid hand powered by nylon artificial muscles. *Bioinspiration and Biomimetics*, **2017**, 12, 026004	2.6	74
223	Design of a 3D printed lightweight orthotic device based on twisted and coiled polymer muscle: iGrab hand orthosis **2017**,		5
222	Microscopically Buckled and Macroscopically Coiled Fibers for Ultra-Stretchable Supercapacitors. *Advanced Energy Materials*, **2017**, 7, 1602021	21.8	81
221	Enhanced rate performance of flexible and stretchable linear supercapacitors based on polyaniline@Au@carbon nanotube with ultrafast axial electron transport. *Journal of Power Sources*, **2017**, 340, 302-308	8.9	55
220	Electrochemically Powered, Energy-Conserving Carbon Nanotube Artificial Muscles. *Advanced Materials*, **2017**, 29, 1700870	24	69
219	Tunable, Fast, Robust Hydrogel Actuators Based on Evaporation-Programmed Heterogeneous Structures. *Chemistry of Materials*, **2017**, 29, 9793-9801	9.6	73
218	Harvesting electrical energy from carbon nanotube yarn twist. *Science*, **2017**, 357, 773-778	33.3	214
217	Polar-Electrode-Bridged Electroluminescent Displays: 2D Sensors Remotely Communicating Optically. *Advanced Materials*, **2017**, 29, 1703552	24	34
216	iGrab: hand orthosis powered by twisted and coiled polymer muscles. *Smart Materials and Structures*, **2017**, 26, 105048	3.4	39
215	A Bi-Sheath Fiber Sensor for Giant Tensile and Torsional Displacements. *Advanced Functional Materials*, **2017**, 27, 1702134	15.6	68
214	Subwoofer and nanotube butterfly acoustic flame extinction. *Journal Physics D: Applied Physics*, **2017**, 50, 29LT01	3	2
213	Bioinspired Multifunctional Ceramic Platelet-Reinforced Piezoelectric Polymer Composite . *Advanced Engineering Materials*, **2017**, 19, 1600570	3.5	9
212	Probe Sensor Using Nanostructured Multi-Walled Carbon Nanotube Yarn for Selective and Sensitive Detection of Dopamine. *Sensors*, **2017**, 17,	3.8	26
211	Electrothermally Driven Carbon-Based Materials as EAPs: Fundamentals and Device Configurations **2016**, 455-470		
210	Twistable and Stretchable Sandwich Structured Fiber for Wearable Sensors and Supercapacitors. *Nano Letters*, **2016**, 16, 7677-7684	11.5	166

209	Electrochemically Driven Carbon-Based Materials as EAPs: Fundamentals and Device Configurations **2016**, 439-454		
208	Conducting Fibers: Downsized Sheath-Core Conducting Fibers for Weavable Superelastic Wires, Biosensors, Supercapacitors, and Strain Sensors (Adv. Mater. 25/2016). *Advanced Materials*, **2016**, 28, 4946	24	5
207	Brazing techniques for the fabrication of biocompatible carbon-based electronic devices. *Carbon*, **2016**, 107, 180-189	10.4	12
206	Bio-inspired Hybrid Carbon Nanotube Muscles. *Scientific Reports*, **2016**, 6, 26687	4.9	20
205	Ultraviolet-induced irreversible tensile actuation of diacetylene/nylon microfibers. *Smart Materials and Structures*, **2016**, 25, 075031	3.4	1
204	Woven-Yarn Thermoelectric Textiles. *Advanced Materials*, **2016**, 28, 5038-44	24	138
203	Electrothermally Driven Carbon-Based Materials as EAPs: Fundamentals and Device Configurations **2016**, 1-16		
202	Temperature-Responsive Tensile Actuator Based on Multi-walled Carbon Nanotube Yarn. *Nano-Micro Letters*, **2016**, 8, 254-259	19.5	12
201	Strong, Twist-Stable Carbon Nanotube Yarns and Muscles by Tension Annealing at Extreme Temperatures. *Advanced Materials*, **2016**, 28, 6598-605	24	72
200	Biothermal sensing of a torsional artificial muscle. *Nanoscale*, **2016**, 8, 3248-53	7.7	40
199	Ordered Mesoporous Nickel Sphere Arrays for Highly Efficient Electrocatalytic Water Oxidation. *ACS Catalysis*, **2016**, 6, 1446-1450	13.1	89
198	Highly stretchable hybrid nanomembrane supercapacitors. *RSC Advances*, **2016**, 6, 24756-24759	3.7	20
197	Architectured materials: Straining to expand entanglements. *Nature Materials*, **2016**, 15, 7-8	27	7
196	Chapter 13:Bio-inspired Polymer Artificial Muscles. *RSC Polymer Chemistry Series*, **2016**, 429-459	1.3	4
195	Electrochemically Driven Carbon-Based Materials as EAPs: Fundamentals and Device Configurations **2016**, 1-16		
194	Artificial Muscle: Carbon Nanotube Yarn-Based Glucose Sensing Artificial Muscle (Small 15/2016). *Small*, **2016**, 12, 2100-2100	11	1
193	Elastomeric and Dynamic MnO2/CNT Core–Shell Structure Coiled Yarn Supercapacitor. *Advanced Energy Materials*, **2016**, 6, 1502119	21.8	148
192	Carbon Nanotube Yarn-Based Glucose Sensing Artificial Muscle. *Small*, **2016**, 12, 2085-91	11	45

191	Downsized Sheath-Core Conducting Fibers for Weavable Superelastic Wires, Biosensors, Supercapacitors, and Strain Sensors. *Advanced Materials*, **2016**, 28, 4998-5007	24	107
190	Stretchable Triboelectric Fiber for Self-powered Kinematic Sensing Textile. *Scientific Reports*, **2016**, 6, 35153	4.9	82
189	Improvement of system capacitance via weavable superelastic biscrolled yarn supercapacitors. *Nature Communications*, **2016**, 7, 13811	17.4	111
188	Bio-inspired, Moisture-Powered Hybrid Carbon Nanotube Yarn Muscles. *Scientific Reports*, **2016**, 6, 23016	4.9	47
187	High-efficiency electrochemical thermal energy harvester using carbon nanotube aerogel sheet electrodes. *Nature Communications*, **2016**, 7, 10600	17.4	172
186	Mediator-free carbon nanotube yarn biofuel cell. *RSC Advances*, **2016**, 6, 48346-48350	3.7	13
185	A deformable robot with tensegrity structure using nylon artificial muscle **2016**,		15
184	Knitted Carbon-Nanotube-Sheath/Spandex-Core Elastomeric Yarns for Artificial Muscles and Strain Sensing. *ACS Nano*, **2016**, 10, 9129-9135	16.7	147
183	New twist on artificial muscles. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 11709-11716	11.5	173
182	Tensile actuators of carbon nanotube coiled yarn based on polydiacetylene–pluronic copolymers as temperature indicators. *Smart Materials and Structures*, **2016**, 25, 075021	3.4	3
181	Three-dimensionally bonded spongy graphene material with super compressive elasticity and near-zero Poisson's ratio. *Nature Communications*, **2015**, 6, 6141	17.4	389
180	Stability of carbon nanotube yarn biofuel cell in human body fluid. *Journal of Power Sources*, **2015**, 286, 103-108	8.9	20
179	High performance electrochemical and electrothermal artificial muscles from twist-spun carbon nanotube yarn. *Nano Convergence*, **2015**, 2,	9.2	8
178	Three-dimensionally ordered macro-/mesoporous Ni as a highly efficient electrocatalyst for the hydrogen evolution reaction. *Journal of Materials Chemistry A*, **2015**, 3, 11367-11375	13	37
177	Nylon-muscle-actuated robotic finger **2015**,		23
176	Stretchable, weavable coiled carbon nanotube/MnO2/polymer fiber solid-state supercapacitors. *Scientific Reports*, **2015**, 5, 9387	4.9	189
175	Optical, electrical, and electromechanical properties of hybrid graphene/carbon nanotube films. *Advanced Materials*, **2015**, 27, 3053-9	24	88
174	Harvesting temperature fluctuations as electrical energy using torsional and tensile polymer muscles. *Energy and Environmental Science*, **2015**, 8, 3336-3344	35.4	43

173	Alternative nanostructures for thermophones. *ACS Nano*, **2015**, 9, 4743-56	16.7	38
172	Efficient, Absorption-Powered Artificial Muscles Based on Carbon Nanotube Hybrid Yarns. *Small*, **2015**, 11, 3113-8	11	64
171	Torsional behaviors of polymer-infiltrated carbon nanotube yarn muscles studied with atomic force microscopy. *Nanoscale*, **2015**, 7, 2489-96	7.7	21
170	Flexible, stretchable and weavable piezoelectric fiber. *Advanced Engineering Materials*, **2015**, 17, 1270-1275	3.5	63
169	Nanotube aerogel sheet flutter for actuation, power generation, and infrasound detection. *Scientific Reports*, **2014**, 4, 6105	4.9	6
168	Artificial muscles from fishing line and sewing thread. *Science*, **2014**, 343, 868-72	33.3	724
167	Superior rechargeability and efficiency of lithium-oxygen batteries: hierarchical air electrode architecture combined with a soluble catalyst. *Angewandte Chemie - International Edition*, **2014**, 53, 3926-31	16.4	360
166	Flexible supercapacitor made of carbon nanotube yarn with internal pores. *Advanced Materials*, **2014**, 26, 2059-65	24	303
165	Hybrid carbon nanotube yarn artificial muscle inspired by spider dragline silk. *Nature Communications*, **2014**, 5, 3322	17.4	102
164	All-solid-state carbon nanotube torsional and tensile artificial muscles. *Nano Letters*, **2014**, 14, 2664-9	11.5	77
163	Thermoacoustic excitation of sonar projector plates by free-standing carbon nanotube sheets. *Journal Physics D: Applied Physics*, **2014**, 47, 355302	3	8
162	Thermal management of thermoacoustic sound projectors using a free-standing carbon nanotube aerogel sheet as a heat source. *Nanotechnology*, **2014**, 25, 405704	3.4	25
161	Primary liver cells cultured on carbon nanotube substrates for liver tissue engineering and drug discovery applications. *ACS Applied Materials & Interfaces*, **2014**, 6, 10373-80	9.5	22
160	Superior Rechargeability and Efficiency of Lithium□Oxygen Batteries: Hierarchical Air Electrode Architecture Combined with a Soluble Catalyst. *Angewandte Chemie*, **2014**, 126, 4007-4012	3.6	80
159	High-power biofuel cell textiles from woven biscrolled carbon nanotube yarns. *Nature Communications*, **2014**, 5, 3928	17.4	117
158	Advancements toward a high-power, carbon nanotube, thin-film loudspeaker. *Noise Control Engineering Journal*, **2014**, 62, 360-367	0.6	10
157	Automated quantification of neurite outgrowth orientation distributions on patterned surfaces. *Journal of Neural Engineering*, **2014**, 11, 046006	5	4
156	Highly Conductive Carbon Nanotube-Graphene Hybrid Yarn. *Advanced Functional Materials*, **2014**, 24, 5859-5865	15.6	95

155	Flexible, ultralight, porous superconducting yarns containing shell-core magnesium diboride-carbon nanotube nanofibers. *Advanced Materials*, **2014**, 26, 7510-5	24	17
154	Simple and strong: twisted silver painted nylon artificial muscle actuated by Joule heating **2014**,		32
153	Towards ionic liquid-based thermoelectrochemical cells for the harvesting of thermal energy. *Electrochimica Acta*, **2013**, 113, 87-93	6.7	58
152	Amyloidogenic peptide/single-walled carbon nanotube composites based on tau-protein-related peptides derived from AcPHF6: preparation and dispersive properties. *Journal of Physical Chemistry B*, **2013**, 117, 7593-604	3.4	5
151	A new catalyst-embedded hierarchical air electrode for high-performance LiO_2 batteries. *Energy and Environmental Science*, **2013**, 6, 3570	35.4	134
150	Conductive functional biscrolled polymer and carbon nanotube yarns. *RSC Advances*, **2013**, 3, 24028	3.7	10
149	Carbon nanotubes: present and future commercial applications. *Science*, **2013**, 339, 535-9	33.3	3946
148	Enhanced power and rechargeability of a Li-O2 battery based on a hierarchical-fibril CNT electrode. *Advanced Materials*, **2013**, 25, 1348-52	24	282
147	Niobium Nanowire Yarns and their Application as Artificial Muscles. *Advanced Functional Materials*, **2013**, 23, 4311-4316	15.6	67
146	Ultrafast charge and discharge biscrolled yarn supercapacitors for textiles and microdevices. *Nature Communications*, **2013**, 4, 1970	17.4	429
145	Carbon nanotube - reduced graphene oxide composites for thermal energy harvesting applications. *Advanced Materials*, **2013**, 25, 6602-6	24	130
144	Increasing the efficiency of thermoacoustic carbon nanotube sound projectors. *Nanotechnology*, **2013**, 24, 235501	3.4	44
143	Free-standing nanocomposites with high conductivity and extensibility. *Nanotechnology*, **2013**, 24, 165401	3.4	21
142	Protic ionic liquid-based thermoelectrochemical cells for the harvesting of waste heat.. *Materials Research Society Symposia Proceedings*, **2013**, 1575, 1		7
141	Electrical Power From Nanotube and Graphene Electrochemical Thermal Energy Harvesters. *Advanced Functional Materials*, **2012**, 22, 477-489	15.6	141
140	Catalytic Twist-Spun Yarns of Nitrogen-Doped Carbon Nanotubes. *Advanced Functional Materials*, **2012**, 22, 1069-1075	15.6	33
139	Electrically, chemically, and photonically powered torsional and tensile actuation of hybrid carbon nanotube yarn muscles. *Science*, **2012**, 338, 928-32	33.3	462
138	Regulation of morphogenesis and neural differentiation of human mesenchymal stem cells using carbon nanotube sheets. *Integrative Biology (United Kingdom)*, **2012**, 4, 587-94	3.7	33

137	Reconstructed Ribbon Edges in Thermally Reduced Graphene Nanoribbons. *Journal of Physical Chemistry C*, **2012**, 116, 24006-24015	3.8	16
136	Electromechanical actuator with controllable motion, fast response rate, and high-frequency resonance based on graphene and polydiacetylene. *ACS Nano*, **2012**, 6, 4508-19	16.7	125
135	Electrical stimulation of myoblast proliferation and differentiation on aligned nanostructured conductive polymer platforms. *Advanced Healthcare Materials*, **2012**, 1, 801-8	10.1	55
134	Oriented graphene nanoribbon yarn and sheet from aligned multi-walled carbon nanotube sheets. *Advanced Materials*, **2012**, 24, 5695-701	24	64
133	Hybrid nanomembranes for high power and high energy density supercapacitors and their yarn application. *ACS Nano*, **2012**, 6, 327-34	16.7	72
132	Hydrogen-fuel-powered bell segments of biomimetic jellyfish. *Smart Materials and Structures*, **2012**, 21, 045013	3.4	30
131	Weak-acceptor-polyacrylonitrile/donor-polyaniline core□shell nanofibers: A novel 1D polymeric heterojunction with high photoconductive properties. *Organic Electronics*, **2012**, 13, 2319-2325	3.5	10
130	Fibers of reduced graphene oxide nanoribbons. *Nanotechnology*, **2012**, 23, 235601	3.4	68
129	Synergistic toughening of composite fibres by self-alignment of reduced graphene oxide and carbon nanotubes. *Nature Communications*, **2012**, 3, 650	17.4	322
128	Preparation and characterization of hybrid conducting polymer-carbon nanotube yarn. *Nanoscale*, **2012**, 4, 940-5	7.7	49
127	Carbon nanotube/graphene nanocomposite as efficient counter electrodes in dye-sensitized solar cells. *Nanotechnology*, **2012**, 23, 085201	3.4	125
126	Terahertz surface plasmon polaritons on freestanding multi-walled carbon nanotube aerogel sheets. *Optical Materials Express*, **2012**, 2, 782	2.6	19
125	A reel-wound carbon nanotube polarizer for terahertz frequencies. *Nano Letters*, **2011**, 11, 4227-31	11.5	81
124	Structural model for dry-drawing of sheets and yarns from carbon nanotube forests. *ACS Nano*, **2011**, 5, 985-93	16.7	105
123	Torsional carbon nanotube artificial muscles. *Science*, **2011**, 334, 494-7	33.3	407
122	. *IEEE/ASME Transactions on Mechatronics*, **2011**, 16, 90-97	5.5	24
121	Mirage effect from thermally modulated transparent carbon nanotube sheets. *Nanotechnology*, **2011**, 22, 435704	3.4	27
120	Biscrolling nanotube sheets and functional guests into yarns. *Science*, **2011**, 331, 51-5	33.3	292

119	Thermal actuation of graphene oxide nanoribbon mats. *Chemical Physics Letters*, **2011**, 505, 31-36	2.5	14
118	Au-doped polyacrylonitrile-polyaniline core-shell electrospun nanofibers having high field-effect mobilities. *Small*, **2011**, 7, 597-600	11	46
117	Electromechanical Actuators Based on Graphene and Graphene/Fe3O4 Hybrid Paper. *Advanced Functional Materials*, **2011**, 21, 3778-3784	15.6	159
116	Artificial muscles based on polypyrrole/carbon nanotube laminates. *Advanced Materials*, **2011**, 23, 2966-70	24	60
115	Photoinduced Optical Transparency in Dye-Sensitized Solar Cells Containing Graphene Nanoribbons. *Journal of Physical Chemistry C*, **2011**, 115, 25125-25131	3.8	35
114	Aligned, isotropic and patterned carbon nanotube substrates that control the growth and alignment of Chinese hamster ovary cells. *Nanotechnology*, **2011**, 22, 205102	3.4	25
113	Load transfer between cross-linked walls of a carbon nanotube. *Physical Review B*, **2010**, 81,	3.3	36
112	Structure and process-dependent properties of solid-state spun carbon nanotube yarns. *Journal of Physics Condensed Matter*, **2010**, 22, 334221	1.8	46
111	Underwater sound generation using carbon nanotube projectors. *Nano Letters*, **2010**, 10, 2374-80	11.5	106
110	Carbon Nanotube/Platinum (Pt) Sheet as an Improved Cathode for Microbial Fuel Cells. *Energy & Fuels*, **2010**, 24, 5897-5902	4.1	33
109	Thermal conductivity of multi-walled carbon nanotube sheets: radiation losses and quenching of phonon modes. *Nanotechnology*, **2010**, 21, 035709	3.4	175
108	Harvesting waste thermal energy using a carbon-nanotube-based thermo-electrochemical cell. *Nano Letters*, **2010**, 10, 838-46	11.5	323
107	Template synthesis of ordered arrays of mesoporous titania spheres. *Chemical Communications*, **2010**, 46, 1872-4	5.8	58
106	Elastomeric conductive composites based on carbon nanotube forests. *Advanced Materials*, **2010**, 22, 2663-7	24	328
105	Electron field emission from transparent multiwalled carbon nanotube sheets for inverted field emission displays. *Carbon*, **2010**, 48, 41-46	10.4	107
104	Spinnable carbon nanotube forests grown on thin, flexible metallic substrates. *Carbon*, **2010**, 48, 3621-3627	6.2	99
103	Photon drag effect in carbon nanotube yarns. *Applied Physics Letters*, **2009**, 94, 231112	3.4	16
102	Carbon Nanotube Yarn Actuators: An Electrochemical Impedance Model. *Journal of the Electrochemical Society*, **2009**, 156, K97	3.9	25

101	Electrochemically Tuned Properties for Electrolyte-Free Carbon Nanotube Sheets. *Advanced Functional Materials*, **2009**, 19, 2266-2272	15.6	25
100	Directional growth of polypyrrole and polythiophene wires. *Applied Physics Letters*, **2009**, 94, 033104	3.4	41
99	Giant-stroke, superelastic carbon nanotube aerogel muscles. *Science*, **2009**, 323, 1575-8	33.3	458
98	Molecular, Supramolecular, and Macromolecular Motors and Artificial Muscles. *MRS Bulletin*, **2009**, 34, 671-681	3.2	67
97	Multiwalled carbon nanotube sheets as transparent electrodes in high brightness organic light-emitting diodes. *Applied Physics Letters*, **2008**, 93, 183506	3.4	75
96	Preparation and electrochemical characterization of porous SWNT/PPy nanocomposite sheets for supercapacitor applications. *Synthetic Metals*, **2008**, 158, 638-641	3.6	51
95	Carbon Nanotube Electroactive Polymer Materials: Opportunities and Challenges. *MRS Bulletin*, **2008**, 33, 215-224	3.2	43
94	Carbon Nanotube Yarns as High Load Actuators and Sensors. *Advances in Science and Technology*, **2008**, 61, 65-74	0.1	21
93	Carbon nanotube yarns: sensors, actuators, and current carriers **2008**,		3
92	Carbon Nanotube Yarn Actuators: An Electrochemical Impedance Model. *ECS Transactions*, **2008**, 13, 13-27	1	
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