Richard Liang

List of Publications by Year
in descending order

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61 papers	2,540 citations	159525 30 h-index	197736 49 g-index
61 all docs	61 docs citations	61 times ranked	3247 citing authors

#	Article	IF	Citations
1	Detecting Carbon Nanotube Orientation with Topological Analysis of Scanning Electron Micrographs. Nanomaterials, 2022, 12, 1251.	1.9	4
2	Cure Behavior Changes and Compression of Carbon Nanotubes in Aerospace Grade Bismaleimide-Carbon Nanotube Sheet Nanocomposites. ACS Applied Nano Materials, 2021, 4, 2476-2485.	2.4	14
3	Structuring BaTiO₃ /PDMS Nanocomposite via Dielectrophoresis for Fractional Flow Reserve Measurement. Advanced Engineering Materials, 2021, 23, 2100341.	1.6	23
4	Toward ultralight high-strength structural materials via collapsed carbon nanotube bonding. Carbon, 2020, 156, 538-548.	5.4	20
5	A Digital Twin Approach to a Quantitative Microstructure-Property Study of Carbon Fibers through HRTEM Characterization and Multiscale FEA. Materials, 2020, 13, 4231.	1.3	6
6	Continuous Synthesis of Double-Walled Carbon Nanotubes with Water-Assisted Floating Catalyst Chemical Vapor Deposition. Nanomaterials, 2020, 10, 365.	1.9	26
7	Lightweight carbon nanotube surface thermal shielding for carbon fiber/bismaleimide composites. Carbon, 2019, 153, 320-329.	5.4	27
8	Carbon fibers from polyacrylonitrile/cellulose nanocrystal nanocomposite fibers. Carbon, 2019, 145, 764-771.	5.4	41
9	Electrical and thermal conductivity improvement of carbon nanotube and silver composites. Carbon, 2019, 146, 224-231.	5.4	75
10	A Highly Stretchable Polyacrylonitrile Elastomer with Nanoreservoirs of Lubricant Using Cyano-Silver Complexes. Nano Letters, 2019, 19, 3871-3877.	4.5	21
11	Carbon Nanotubes and Their Assemblies: Applications in Electromagnetic Interference Shielding. , 2019, , 335-357.		2
12	Polyacrylonitrile/boron nitride nanotubes composite precursor and carbon fibers. Carbon, 2019, 147, 419-426.	5.4	16
13	Carbonâ€Nanotubeâ€Based Electrical Conductors: Fabrication, Optimization, and Applications. Advanced Electronic Materials, 2019, 5, 1800811.	2.6	72
14	M3D aerosol jet printed buckypaper multifunctional sensors for composite structural health monitoring. Results in Physics, 2019, 13, 102094.	2.0	19
15	Carbon nanotube/carbon composite fiber with improved strength and electrical conductivity via interface engineering. Carbon, 2019, 144, 628-638.	5.4	86
16	4D Printing based piezoelectric composite for medical applications. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 109-115.	2.4	79
17	A hybrid ceramic-polymer composite fabricated by co-curing lay-up process for a strong bonding and enhanced transient thermal protection. Ceramics International, 2018, 44, 11497-11504.	2.3	10
18	Roll-to-roll continuous carbon nanotube sheets with high electrical conductivity. RSC Advances, 2018, 8, 12692-12700.	1.7	20

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19	Microstructure evolution and self-assembling of CNT networks during mechanical stretching and mechanical properties of highly aligned CNT composites. Composites Science and Technology, 2018, 166, 125-130.	3.8	40
20	Recent Advances on 3D Printing Technique for Thermalâ€Related Applications. Advanced Engineering Materials, 2018, 20, 1700876.	1.6	40
21	High-Performance and Lightweight Thermal Management Devices by 3D Printing and Assembly of Continuous Carbon Nanotube Sheets. ACS Applied Materials & Interfaces, 2018, 10, 27171-27177.	4.0	23
22	Ultra-high conductivity and metallic conduction mechanism of scale-up continuous carbon nanotube sheets by mechanical stretching and stable chemical doping. Carbon, 2017, 125, 649-658.	5.4	46
23	Direct Printing of Thermal Management Device Using Lowâ€Cost Composite Ink. Macromolecular Materials and Engineering, 2017, 302, 1700135.	1.7	35
24	Printable low-cost and flexible carbon nanotube buckypaper motion sensors. Materials and Design, 2017, 133, 47-53.	3.3	56
25	Three-dimensional-linked carbon fiber-carbon nanotube hybrid structure for enhancing thermal conductivity of silicon carbonitride matrix composites. Carbon, 2016, 108, 38-46.	5.4	61
26	Strong and ultra-flexible polymer-derived silicon carbonitride nanocomposites by aligned carbon nanotubes. Ceramics International, 2016, 42, 13359-13367.	2.3	15
27	High electrical conductivity and anisotropy of aligned carbon nanotube nanocomposites reinforced by silicon carbonitride. Scripta Materialia, 2016, 124, 21-25.	2.6	37
28	In Situ Curing and Outâ€ofâ€Autoclave of Interply Carbon Fiber/Carbon Nanotube Buckypaper Hybrid Composites Using Electrical Current. Advanced Engineering Materials, 2016, 18, 1906-1912.	1.6	35
29	Poisson Ratio and Piezoresistive Sensing: A New Route to Highâ€Performance 3D Flexible and Stretchable Sensors of Multimodal Sensing Capability. Advanced Functional Materials, 2016, 26, 2900-2908.	7.8	127
30	Strainâ€Induced Alignment Mechanisms of Carbon Nanotube Networks. Advanced Engineering Materials, 2015, 17, 349-358.	1.6	53
31	Carbon Fiber/Carbon Nanotube Buckypaper Interply Hybrid Composites: Manufacturing Process and Tensile Properties. Advanced Engineering Materials, 2015, 17, 1442-1453.	1.6	57
32	A Review of Spectral Methods for Dispersion Characterization of Carbon Nanotubes in Aqueous Suspensions. Journal of Spectroscopy, 2015, 2015, 1-11.	0.6	67
33	Fabrication of silicon nanowire on freestanding multiwalled carbon nanotubes by chemical vapor deposition. Materials Letters, 2015, 159, 353-356.	1.3	5
34	Geometrically constrained self-assembly and crystal packing of flattened and aligned carbon nanotubes. Carbon, 2015, 93, 953-966.	5.4	63
35	Working mechanisms of strain sensors utilizing aligned carbon nanotube network and aerosol jet printed electrodes. Carbon, 2014, 73, 303-309.	5.4	74
36	Alignment and properties of carbon nanotube buckypaper/liquid crystalline polymer composites. Journal of Applied Polymer Science, 2013, 128, 1360-1368.	1.3	6

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37	Application of response surface methodology in the optimization of laser treatment in buckypaper lighting for field emission displays. International Journal of Advanced Manufacturing Technology, 2013, 64, 515-536.	1.5	5
38	Nanoscale infiltration behaviour and through-thickness permeability of carbon nanotube buckypapers. Nanotechnology, 2013, 24, 015704.	1.3	44
39	Comparative Characterization of Multiscale Carbon Fiber Composite with Long and Short MWCNTs at Higher Weight Fractions. Journal of Nanomaterials, 2012, 2012, 1-9.	1.5	4
40	Binder-free composite electrodes using carbon nanotube networks as a host matrix for activated carbon microparticles. Applied Physics A: Materials Science and Processing, 2012, 107, 723-731.	1.1	17
41	Highly conductive carbon nanotube buckypapers with improved doping stability via conjugational cross-linking. Nanotechnology, 2011, 22, 485708.	1.3	60
42	The effect of thermal stability of carbon nanotubes on the flame retardancy of epoxy and bismaleimide/carbon fiber/buckypaper composites. Journal of Thermal Analysis and Calorimetry, 2011, 103, 237-242.	2.0	33
43	High temperature vacuum assisted resin transfer molding of phenylethynyl terminated imide composites. Polymer Composites, 2011, 32, 52-58.	2.3	9
44	Effects of solvent immersion and evaporation on the electrical conductance of pre-stressed carbon nanotube buckypapers. Nanotechnology, 2011, 22, 365706.	1.3	10
45	Single-walled carbon nanotube buckypaper and mesophase pitch carbon/carbon composites. Carbon, 2010, 48, 4276-4282.	5.4	32
46	Carbon nanotube buckypaper to improve fire retardancy of high-temperature/high-performance polymer composites. Nanotechnology, 2010, 21, 235701.	1.3	45
47	Emitter spacing effects on field emission properties of laser-treated single-walled carbon nanotube buckypapers. Nanotechnology, 2010, 21, 495702.	1.3	9
48	Covalent addition of diethyltoluenediamines onto carbon nanotubes for composite application. Polymer Composites, 2009, 30, 1050-1057.	2.3	25
49	Dispersion and thermal conductivity of carbon nanotube composites. Carbon, 2009, 47, 53-57.	5.4	147
50	Analysis of a laser post-process on a buckypaper field emitter for high and uniform electron emission. Nanotechnology, 2009, 20, 325302.	1.3	25
51	Effects of surfactants and alignment on the physical properties of single-walled carbon nanotube buckypaper. Journal of Applied Physics, 2009, 106, .	1.1	78
52	Electromagnetic interference shielding properties of carbon nanotube buckypaper composites. Nanotechnology, 2009, 20, 415702.	1.3	128
53	Influence of alcohol pre-infusion on the quality of VARTM composites. Polymer Composites, 2008, 29, 1310-1320.	2.3	0
54	Load-transfer in functionalized carbon nanotubes/polymer composites. Chemical Physics Letters, 2008, 457, 371-375.	1.2	83

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55	Fire retardancy of a buckypaper membrane. Carbon, 2008, 46, 1164-1165.	5.4	22
56	Structural changes and Raman analysis of single-walled carbon nanotube buckypaper after high current density induced burning. Carbon, 2008, 46, 1175-1183.	5.4	22
57	Reinforcing polymer composites with epoxide-grafted carbon nanotubes. Nanotechnology, 2008, 19, 085710.	1.3	30
58	The high current-carrying capacity of various carbon nanotube-based buckypapers. Nanotechnology, 2008, 19, 185710.	1.3	55
59	Carbon nanotube integrated multifunctional multiscale composites. Nanotechnology, 2007, 18, 275708.	1.3	196
60	Epoxide-terminated carbon nanotubes. Carbon, 2007, 45, 3047-3049.	5.4	22
61	Statistical characterization and robust design of RTM processes. Composites Part A: Applied Science and Manufacturing, 2005, 36, 564-580.	3.8	38