

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	Carbon nanotube integrated multifunctional multiscale composites. <i>Nanotechnology</i> , 2007, 18, 275708.	1.3	196
2	Dispersion and thermal conductivity of carbon nanotube composites. <i>Carbon</i> , 2009, 47, 53-57.	5.4	147
3	Electromagnetic interference shielding properties of carbon nanotube buckypaper composites. <i>Nanotechnology</i> , 2009, 20, 415702.	1.3	128
4	Poisson Ratio and Piezoresistive Sensing: A New Route to High-Performance 3D Flexible and Stretchable Sensors of Multimodal Sensing Capability. <i>Advanced Functional Materials</i> , 2016, 26, 2900-2908.	7.8	127
5	Carbon nanotube/carbon composite fiber with improved strength and electrical conductivity via interface engineering. <i>Carbon</i> , 2019, 144, 628-638.	5.4	86
6	Load-transfer in functionalized carbon nanotubes/polymer composites. <i>Chemical Physics Letters</i> , 2008, 457, 371-375.	1.2	83
7	4D Printing based piezoelectric composite for medical applications. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2019, 57, 109-115.	2.4	79
8	Effects of surfactants and alignment on the physical properties of single-walled carbon nanotube buckypaper. <i>Journal of Applied Physics</i> , 2009, 106, .	1.1	78
9	Electrical and thermal conductivity improvement of carbon nanotube and silver composites. <i>Carbon</i> , 2019, 146, 224-231.	5.4	75
10	Working mechanisms of strain sensors utilizing aligned carbon nanotube network and aerosol jet printed electrodes. <i>Carbon</i> , 2014, 73, 303-309.	5.4	74
11	Carbon-Nanotube-Based Electrical Conductors: Fabrication, Optimization, and Applications. <i>Advanced Electronic Materials</i> , 2019, 5, 1800811.	2.6	72
12	A Review of Spectral Methods for Dispersion Characterization of Carbon Nanotubes in Aqueous Suspensions. <i>Journal of Spectroscopy</i> , 2015, 2015, 1-11.	0.6	67
13	Geometrically constrained self-assembly and crystal packing of flattened and aligned carbon nanotubes. <i>Carbon</i> , 2015, 93, 953-966.	5.4	63
14	Three-dimensional-linked carbon fiber-carbon nanotube hybrid structure for enhancing thermal conductivity of silicon carbonitride matrix composites. <i>Carbon</i> , 2016, 108, 38-46.	5.4	61
15	Highly conductive carbon nanotube buckypapers with improved doping stability via conjugational cross-linking. <i>Nanotechnology</i> , 2011, 22, 485708.	1.3	60
16	Carbon Fiber/Carbon Nanotube Buckypaper Interply Hybrid Composites: Manufacturing Process and Tensile Properties. <i>Advanced Engineering Materials</i> , 2015, 17, 1442-1453.	1.6	57
17	Printable low-cost and flexible carbon nanotube buckypaper motion sensors. <i>Materials and Design</i> , 2017, 133, 47-53.	3.3	56
18	The high current-carrying capacity of various carbon nanotube-based buckypapers. <i>Nanotechnology</i> , 2008, 19, 185710.	1.3	55

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19	Strain-Induced Alignment Mechanisms of Carbon Nanotube Networks. <i>Advanced Engineering Materials</i> , 2015, 17, 349-358.	1.6	53
20	Ultra-high conductivity and metallic conduction mechanism of scale-up continuous carbon nanotube sheets by mechanical stretching and stable chemical doping. <i>Carbon</i> , 2017, 125, 649-658.	5.4	46
21	Carbon nanotube buckypaper to improve fire retardancy of high-temperature/high-performance polymer composites. <i>Nanotechnology</i> , 2010, 21, 235701.	1.3	45
22	Nanoscale infiltration behaviour and through-thickness permeability of carbon nanotube buckypapers. <i>Nanotechnology</i> , 2013, 24, 015704.	1.3	44
23	Carbon fibers from polyacrylonitrile/cellulose nanocrystal nanocomposite fibers. <i>Carbon</i> , 2019, 145, 764-771.	5.4	41
24	Microstructure evolution and self-assembling of CNT networks during mechanical stretching and mechanical properties of highly aligned CNT composites. <i>Composites Science and Technology</i> , 2018, 166, 125-130.	3.8	40
25	Recent Advances on 3D Printing Technique for Thermal-Related Applications. <i>Advanced Engineering Materials</i> , 2018, 20, 1700876.	1.6	40
26	Statistical characterization and robust design of RTM processes. <i>Composites Part A: Applied Science and Manufacturing</i> , 2005, 36, 564-580.	3.8	38
27	High electrical conductivity and anisotropy of aligned carbon nanotube nanocomposites reinforced by silicon carbonitride. <i>Scripta Materialia</i> , 2016, 124, 21-25.	2.6	37
28	In Situ Curing and Out-of-Autoclave of Interply Carbon Fiber/Carbon Nanotube Buckypaper Hybrid Composites Using Electrical Current. <i>Advanced Engineering Materials</i> , 2016, 18, 1906-1912.	1.6	35
29	Direct Printing of Thermal Management Device Using Low-Cost Composite Ink. <i>Macromolecular Materials and Engineering</i> , 2017, 302, 1700135.	1.7	35
30	The effect of thermal stability of carbon nanotubes on the flame retardancy of epoxy and bismaleimide/carbon fiber/buckypaper composites. <i>Journal of Thermal Analysis and Calorimetry</i> , 2011, 103, 237-242.	2.0	33
31	Single-walled carbon nanotube buckypaper and mesophase pitch carbon/carbon composites. <i>Carbon</i> , 2010, 48, 4276-4282.	5.4	32
32	Reinforcing polymer composites with epoxide-grafted carbon nanotubes. <i>Nanotechnology</i> , 2008, 19, 085710.	1.3	30
33	Lightweight carbon nanotube surface thermal shielding for carbon fiber/bismaleimide composites. <i>Carbon</i> , 2019, 153, 320-329.	5.4	27
34	Continuous Synthesis of Double-Walled Carbon Nanotubes with Water-Assisted Floating Catalyst Chemical Vapor Deposition. <i>Nanomaterials</i> , 2020, 10, 365.	1.9	26
35	Covalent addition of diethyltoluenediamines onto carbon nanotubes for composite application. <i>Polymer Composites</i> , 2009, 30, 1050-1057.	2.3	25
36	Analysis of a laser post-process on a buckypaper field emitter for high and uniform electron emission. <i>Nanotechnology</i> , 2009, 20, 325302.	1.3	25

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37	High-Performance and Lightweight Thermal Management Devices by 3D Printing and Assembly of Continuous Carbon Nanotube Sheets. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 27171-27177.	4.0	23
38	Structuring BaTiO ₃ /PDMS Nanocomposite via Dielectrophoresis for Fractional Flow Reserve Measurement. <i>Advanced Engineering Materials</i> , 2021, 23, 2100341.	1.6	23
39	Epoxide-terminated carbon nanotubes. <i>Carbon</i> , 2007, 45, 3047-3049.	5.4	22
40	Fire retardancy of a buckypaper membrane. <i>Carbon</i> , 2008, 46, 1164-1165.	5.4	22
41	Structural changes and Raman analysis of single-walled carbon nanotube buckypaper after high current density induced burning. <i>Carbon</i> , 2008, 46, 1175-1183.	5.4	22
42	A Highly Stretchable Polyacrylonitrile Elastomer with Nanoreservoirs of Lubricant Using Cyano-Silver Complexes. <i>Nano Letters</i> , 2019, 19, 3871-3877.	4.5	21
43	Roll-to-roll continuous carbon nanotube sheets with high electrical conductivity. <i>RSC Advances</i> , 2018, 8, 12692-12700.	1.7	20
44	Toward ultralight high-strength structural materials via collapsed carbon nanotube bonding. <i>Carbon</i> , 2020, 156, 538-548.	5.4	20
45	M3D aerosol jet printed buckypaper multifunctional sensors for composite structural health monitoring. <i>Results in Physics</i> , 2019, 13, 102094.	2.0	19
46	Binder-free composite electrodes using carbon nanotube networks as a host matrix for activated carbon microparticles. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 107, 723-731.	1.1	17
47	Polyacrylonitrile/boron nitride nanotubes composite precursor and carbon fibers. <i>Carbon</i> , 2019, 147, 419-426.	5.4	16
48	Strong and ultra-flexible polymer-derived silicon carbonitride nanocomposites by aligned carbon nanotubes. <i>Ceramics International</i> , 2016, 42, 13359-13367.	2.3	15
49	Cure Behavior Changes and Compression of Carbon Nanotubes in Aerospace Grade Bismaleimide-Carbon Nanotube Sheet Nanocomposites. <i>ACS Applied Nano Materials</i> , 2021, 4, 2476-2485.	2.4	14
50	Effects of solvent immersion and evaporation on the electrical conductance of pre-stressed carbon nanotube buckypapers. <i>Nanotechnology</i> , 2011, 22, 365706.	1.3	10
51	A hybrid ceramic-polymer composite fabricated by co-curing lay-up process for a strong bonding and enhanced transient thermal protection. <i>Ceramics International</i> , 2018, 44, 11497-11504.	2.3	10
52	Emitter spacing effects on field emission properties of laser-treated single-walled carbon nanotube buckypapers. <i>Nanotechnology</i> , 2010, 21, 495702.	1.3	9
53	High temperature vacuum assisted resin transfer molding of phenylethynyl terminated imide composites. <i>Polymer Composites</i> , 2011, 32, 52-58.	2.3	9
54	Alignment and properties of carbon nanotube buckypaper/liquid crystalline polymer composites. <i>Journal of Applied Polymer Science</i> , 2013, 128, 1360-1368.	1.3	6

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55	A Digital Twin Approach to a Quantitative Microstructure-Property Study of Carbon Fibers through HRTEM Characterization and Multiscale FEA. <i>Materials</i> , 2020, 13, 4231.	1.3	6
56	Application of response surface methodology in the optimization of laser treatment in buckypaper lighting for field emission displays. <i>International Journal of Advanced Manufacturing Technology</i> , 2013, 64, 515-536.	1.5	5
57	Fabrication of silicon nanowire on freestanding multiwalled carbon nanotubes by chemical vapor deposition. <i>Materials Letters</i> , 2015, 159, 353-356.	1.3	5
58	Comparative Characterization of Multiscale Carbon Fiber Composite with Long and Short MWCNTs at Higher Weight Fractions. <i>Journal of Nanomaterials</i> , 2012, 2012, 1-9.	1.5	4
59	Detecting Carbon Nanotube Orientation with Topological Analysis of Scanning Electron Micrographs. <i>Nanomaterials</i> , 2022, 12, 1251.	1.9	4
60	Carbon Nanotubes and Their Assemblies: Applications in Electromagnetic Interference Shielding. , 2019, , 335-357.		2
61	Influence of alcohol pre-infusion on the quality of VARTM composites. <i>Polymer Composites</i> , 2008, 29, 1310-1320.	2.3	0