Lujun Pan

List of Publications by Year
in descending order

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83 papers	2,852 citations	147801 31 h-index	189892 50 g-index
83 all docs	83 docs citations	83 times ranked	2037 citing authors

#	Article	IF	Citations
1	Mechanics of a Carbon Nanocoil. Nano Letters, 2003, 3, 1299-1304.	9.1	333
2	Synthesis of Carbon Tubule Nanocoils in High Yield Using Iron-Coated Indium Tin Oxide as Catalyst. Japanese Journal of Applied Physics, 2000, 39, L1242-L1244.	1.5	132
3	Structural Engineering of Hierarchical Aerogels Comprised of Multi-dimensional Gradient Carbon Nanoarchitectures for Highly Efficient Microwave Absorption. Nano-Micro Letters, 2021, 13, 144.	27.0	122
4	In situ construction of hierarchical coreâ€“shell Fe3O4@C nanoparticlesâ€“helical carbon nanocoil hybrid composites for highly efficient electromagnetic wave absorption. Carbon, 2021, 171, 395-408.	10.3	119
5	Growth mechanism of carbon nanocoils. Journal of Applied Physics, 2002, 91, 10058.	2.5	114
6	Field Emission Properties of Carbon Tubule Nanocoils. Japanese Journal of Applied Physics, 2001, 40, L235-L237.	1.5	97
7	Highly conductive, ultra-flexible and continuously processable PEDOT:PSS fibers with high thermoelectric properties for wearable energy harvesting. Nano Energy, 2020, 78, 105361.	16.0	96
8	Facile Fabrication of High-Performance Pen Ink-Decorated Textile Strain Sensors for Human Motion Detection. ACS Applied Materials & Interfaces, 2020, 12, 19874-19881.	8.0	74
9	Flexible, self-powered and multi-functional strain sensors comprising a hybrid of carbon nanocoils and conducting polymers. Chemical Engineering Journal, 2021, 404, 126064.	12.7	71
10	Hierarchical macro-/meso-/microporous oxygen-doped carbon derived from sodium alginate: A cost-effective biomass material for binder-free supercapacitors. Materials and Design, 2019, 182, 108048.	7.0	70
11	Highly efficient synthesis of carbon nanocoils by catalyst particles prepared by a solâ€“gel method. Carbon, 2010, 48, 170-175.	10.3	54
12	Growth of Carbon Nanocoils by Porous Î±-Fe2O3/SnO2 Catalyst and Its Buckypaper for High Efficient Adsorption. Nano-Micro Letters, 2020, 12, 23.	27.0	49
13	A super stretchable and sensitive strain sensor based on a carbon nanocoil network fabricated by a simple peeling-off approach. Nanoscale, 2017, 9, 16404-16411.	5.6	48
14	High performance strain sensor based on buckypaper for full-range detection of human motions. Nanoscale, 2018, 10, 14966-14975.	5.6	48
15	Electrical conductivity of single polycrystalline-amorphous carbon nanocoils. Carbon, 2016, 98, 285-290.	10.3	47
16	Thermal Diffusivity of a Single Carbon Nanocoil: Uncovering the Correlation with Temperature and Domain Size. ACS Nano, 2016, 10, 9710-9719.	14.6	47
17	A flexible, ultra-sensitive strain sensor based on carbon nanocoil network fabricated by an electrophoretic method. Nanoscale, 2017, 9, 9872-9878.	5.6	46
18	Synthesis of Multiwalled Carbon Nanocoils Using Codeposited Thin Film of Feâ€“Sn as Catalyst. Japanese Journal of Applied Physics, 2008, 47, 1949-1951.	1.5	41

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19	Highly Flexible, Stretchable, and Self-Powered Strain-Temperature Dual Sensor Based on Free-Standing PEDOT:PSS/Carbon Nanocoilsâ€“Poly(vinyl) Alcohol Films. ACS Sensors, 2021, 6, 1120-1128.	7.8	40
20	High-performance stretchable thermoelectric fibers for wearable electronics. Chemical Engineering Journal, 2021, 426, 130816.	12.7	40
21	Flexible and Alternately Layered Highâ€Loading Film Electrode based on 3D Carbon Nanocoils and PEDOT:PSS for Highâ€Energyâ€Density Supercapacitor. Advanced Functional Materials, 2022, 32, .	14.9	40
22	Three-dimensional porous reduced graphene oxide/PEDOT:PSS aerogel: Facile preparation and high performance for supercapacitor electrodes. Electrochimica Acta, 2020, 364, 137297.	5.2	36
23	Strong and tough PVA/PAA hydrogel fiber with highly strain sensitivity enabled by coating MWCNTs. Composites Part A: Applied Science and Manufacturing, 2020, 138, 106050.	7.6	36
24	Self-healing and anti-freezing grapheneâ€“hydrogelâ€“graphene sandwich strain sensor with ultrahigh sensitivity. Journal of Materials Chemistry B, 2021, 9, 3088-3096.	5.8	36
25	Relationship between the structure of carbon nanocoils and their electrical property. Carbon, 2014, 73, 71-77.	10.3	35
26	Photo-driven nanoactuators based on carbon nanocoils and vanadium dioxide bimorphs. Nanoscale, 2018, 10, 11158-11164.	5.6	35
27	Construction of a binder-free non-enzymatic glucose sensor based on Cu@Ni coreâ€“shell nanoparticles anchored on 3D chiral carbon nanocoils-nickel foam hierarchical scaffold. Journal of Colloid and Interface Science, 2022, 624, 320-337.	9.4	35
28	All-fabric-based multifunctional textile sensor for detection and discrimination of humidity, temperature, and strain stimuli. Journal of Materials Chemistry C, 2021, 9, 13789-13798.	5.5	34
29	Effect of Morphology on Field Emission Properties of Carbon Nanocoils and Carbon Nanotubes. Japanese Journal of Applied Physics, 2005, 44, 1652-1654.	1.5	33
30	A highly sensitive and wide-range pressure sensor based on a carbon nanocoil network fabricated by an electrophoretic method. Journal of Materials Chemistry C, 2017, 5, 11892-11900.	5.5	32
31	Carbon nanocoils-nickel foam decorated with silver nanoparticles/sheets using a novel stirring assisted electrodeposition technique for non-enzymatic glucose sensor. Carbon, 2020, 157, 761-766.	10.3	32
32	Effects of iron and indium tin oxide on the growth of carbon tubule nanocoils. Physica B: Condensed Matter, 2002, 323, 350-351.	2.7	31
33	Wearable strain sensor made of carbonized cotton cloth. Journal of Materials Science: Materials in Electronics, 2017, 28, 3535-3541.	2.2	30
34	Flexible, multi-functional sensor based on all-carbon sensing medium with low coupling for ultrahigh-performance strain, temperature and humidity sensing. Chemical Engineering Journal, 2021, 426, 130364.	12.7	30
35	Near-infrared response of a single carbon nanocoil. Nanoscale, 2013, 5, 1153.	5.6	29
36	Nickel foamâ€“graphene/MnO2/PANI nanocomposite based electrode material for efficient supercapacitors. Journal of Materials Research, 2015, 30, 3192-3200.	2.6	28

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37	Sensitivity-Tunable Strain Sensors Based on Carbon Nanotube@Carbon Nanocoil Hybrid Networks. ACS Applied Materials & Interfaces, 2019, 11, 38160-38168.	8.0	28
38	Thermal conductivity of a single carbon nanocoil measured by field-emission induced thermal radiation. Carbon, 2012, 50, 778-783.	10.3	27
39	Surface modification of helical carbon nanocoil (CNC) with N-doped and Co-anchored carbon layer for efficient microwave absorption. Journal of Colloid and Interface Science, 2022, 608, 1894-1906.	9.4	26
40	Facile synthesis of CNCâ€“MnO2 hybrid as a supercapacitor electrode. Applied Surface Science, 2015, 324, 349-354.	6.1	25
41	Electromechanical vibration of carbon nanocoils. Carbon, 2015, 81, 758-766.	10.3	25
42	Synthesis of a highly efficient 3D grapheneâ€“CNTâ€“MnO₂â€“PANI nanocomposite as a binder free electrode material for supercapacitors. Physical Chemistry Chemical Physics, 2016, 18, 26854-26864.	2.8	25
43	Lotus root structure-inspired Ti3C2-MXene-Based flexible and wearable strain sensor with ultra-high sensitivity and wide sensing range. Composites Part A: Applied Science and Manufacturing, 2022, 152, 106702.	7.6	23
44	Catalytic anisotropy induced by multi-particles for growth of carbon nanocoils. Carbon, 2020, 166, 101-112.	10.3	22
45	Synthesis of carbon nanocoils on substrates made of plant fibers. Carbon, 2015, 89, 47-52.	10.3	21
46	Infrared micro-detectors with high sensitivity and high response speed using VO₂-coated helical carbon nanocoils. Journal of Materials Chemistry C, 2019, 7, 12095-12103.	5.5	21
47	Cheap, reliable, reusable, thermally and chemically stable fluorinated hexagonal boron nitride nanosheets coated Au nanoparticles substrate for surface enhanced Raman spectroscopy. Sensors and Actuators B: Chemical, 2020, 304, 127394.	7.8	21
48	Carbon nanocoils decorated with a porous NiCo₂O₄ nanosheet array as a highly efficient electrode for supercapacitors. Nanoscale, 2021, 13, 11943-11952.	5.6	19
49	A flexible tissueâ€“carbon nanocoilâ€“carbon nanotube-based humidity sensor with high performance and durability. Nanoscale, 2022, 14, 7025-7038.	5.6	19
50	Y-junction carbon nanocoils: synthesis by chemical vapor deposition and formation mechanism. Scientific Reports, 2015, 5, 11281.	3.3	18
51	Growth of black TiO2 nanowire/carbon fiber composites with dendritic structure for efficient visible-light-driven photocatalytic degradation of methylene blue. Journal of Materials Science, 2019, 54, 7576-7588.	3.7	18
52	Structure changes of an individual carbon nanocoil and its field-emission enhancement by laser treatment. Diamond and Related Materials, 2012, 22, 33-36.	3.9	17
53	Investigation of strain sensing mechanisms on ultra-thin carbon nanotube networks with different densities. Carbon, 2019, 155, 421-431.	10.3	16
54	Supramolecular assemblies of carbon nanocoils and tetraphenylporphyrin derivatives for sensing of catechol and hydroquinone in aqueous solution. Scientific Reports, 2021, 11, 5044.	3.3	16

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55	Facile fabrication of polyaniline@Î³-MnOOH on a buckypaper ternary composite electrode for free-standing supercapacitors. RSC Advances, 2017, 7, 44523-44530.	3.6	15
56	In situ investigation of annealing effect on thermophysical properties of single carbon nanocoil. International Journal of Heat and Mass Transfer, 2020, 151, 119416.	4.8	15
57	Alignment of Carbon Nanocoils in Polymer Matrix Using Dielectrophoresis. Japanese Journal of Applied Physics, 2008, 47, 1991-1993.	1.5	14
58	Electrically driven light emission from a single suspended carbon nanocoil. Carbon, 2012, 50, 5537-5542.	10.3	14
59	Controlled synthesis of carbon nanocoils and carbon nanotubes on common paper substrates. Carbon, 2014, 76, 455-458.	10.3	13
60	Controlled preparation of Ag nanoparticle films by a modified photocatalytic method on TiO2 films with Ag seeds for surface-enhanced Raman scattering. Applied Surface Science, 2016, 363, 412-420.	6.1	13
61	Helical gold nanotube film as stretchable micro/nanoscale strain sensor. Journal of Materials Science, 2018, 53, 2181-2192.	3.7	13
62	Controlled synthesis of carbon nanocoils with selective coil diameters and structures by optimizing the thickness of catalyst film. Carbon, 2015, 93, 361-369.	10.3	12
63	Carbon Nanocoil-Supported Three-Dimensional Structure of Nickelâ€“Cobalt Nitrides as the Electrode Material for Supercapacitors. ACS Applied Energy Materials, 2021, 4, 6678-6687.	5.1	12
64	Novel Wearable Pyrothermoelectric Hybrid Generator for Solar Energy Harvesting. ACS Applied Materials & Interfaces, 2022, 14, 17330-17339.	8.0	12
65	Revealing the linear relationship between electrical, thermal, mechanical and structural properties of carbon nanocoils. Physical Chemistry Chemical Physics, 2018, 20, 13316-13321.	2.8	11
66	Understanding the relationship between the geometrical structure of interfacial water and operating voltage window in graphene and nitrogen-doped graphene-based supercapacitors. Carbon, 2022, 195, 341-348.	10.3	11
67	CNCâ€“Al2O3â€“Ti: a new unit for micro scale strain sensing. RSC Advances, 2016, 6, 107683-107688.	3.6	10
68	Highly efficient synthesis of carbon nanocoils on alumina spheres. RSC Advances, 2016, 6, 30125-30129.	3.6	9
69	Highly Efficient Near-Infrared Photothermal Conversion of a Single Carbon Nanocoil Indicated by Cell Ejection. Journal of Physical Chemistry C, 2018, 122, 27696-27701.	3.1	9
70	Controlled synthesis of carbon nanocoils on monolayered silica spheres. Carbon, 2016, 99, 43-48.	10.3	8
71	Micro-bubble generated by laser irradiation on an individual carbon nanocoil. Applied Surface Science, 2015, 345, 428-432.	6.1	6
72	Tearing-off method based on single carbon nanocoil for liquid surface tension measurement. Japanese Journal of Applied Physics, 2016, 55, 118001.	1.5	6

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73	A carbon nanocoil-based flexible tip for a live cell study of mechanotransduction and electro-physiological characteristics. Journal of Materials Chemistry B, 2020, 8, 1405-1410.	5.8	6
74	Growth of multiwall carbon nanocoils using Fe catalyst films prepared by ion sputtering. Journal of Materials Research, 2013, 28, 1316-1325.	2.6	5
75	Growth of a Carbon Microâ€•and Nanocoils Mixture using NiSO₄ as the Catalyst Precursor. Chemical Vapor Deposition, 2015, 21, 78-83.	1.3	5
76	Facile Synthesis of A Unique Structure: CuOx@C Bead-Like Nanowire Array and Its Electrochemical Performance. Electrochimica Acta, 2016, 210, 111-116.	5.2	5
77	Optically Actuated Carbon Nanocoils. Nano, 2018, 13, 1850112.	1.0	5
78	Fabrication of flower-like TiO₂ on Bucky paper with enhanced photocatalytic activity. International Journal of Modern Physics B, 2019, 33, 1950017.	2.0	5
79	Controlled preparation of Ag nanoparticles on graphene with different amount of defects for surface-enhanced Raman scattering. RSC Advances, 2017, 7, 27105-27112.	3.6	3
80	Effect of ethanol soaking on the structure and physical properties of carbon nanocoils. Diamond and Related Materials, 2019, 97, 107426.	3.9	3
81	Helical Carbon Nanowires for Magnetic-Field-Controlled Swimming. ACS Applied Nano Materials, 2022, 5, 9981-9989.	5.0	3
82	Carbon nanocoils manipulated by optical tweezers. , 2010, , .		2
83	Carrier Mobility of Polycrystalline-Amorphous Carbon Nanocoils and Its Distribution in Length Direction. Materials Today Nano, 2022, , 100207.	4.6	0