Zhengtao Zhu

List of Publications by Year
in descending order

81	6,049	117625 34	69250 77
papers	citations	h-index	g-index

84	84	84	8577
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Transfer printing by kinetic control of adhesion to an elastomeric stamp. Nature Materials, 2006, 5, 33-38.	27.5	1,348
2	Humidity sensors based on pentacene thin-film transistors. Applied Physics Letters, 2002, 81, 4643-4645.	3.3	346
3	Highly Bendable, Transparent Thin-Film Transistors That Use Carbon-Nanotube-Based Conductors and Semiconductors with Elastomeric Dielectrics. Advanced Materials, 2006, 18, 304-309.	21.0	338
4	Electrospun polyimide nanofibers and their applications. Progress in Polymer Science, 2016, 61, 67-103.	24.7	332
5	Free-standing and mechanically flexible mats consisting of electrospun carbon nanofibers made from a natural product of alkali lignin as binder-free electrodes for high-performance supercapacitors. Journal of Power Sources, 2014, 247, 134-141.	7.8	289
6	Recent Advances in Flexible and Wearable Pressure Sensors Based on Piezoresistive 3D Monolithic Conductive Sponges. ACS Applied Materials & Interfaces, 2019, 11, 6685-6704.	8.0	261
7	Flexible and Compressible PEDOT:PSS@Melamine Conductive Sponge Prepared via One-Step Dip Coating as Piezoresistive Pressure Sensor for Human Motion Detection. ACS Applied Materials & Interfaces, 2018, 10, 16077-16086.	8.0	217
8	Composite of TiO2 nanofibers and nanoparticles for dye-sensitized solar cells with significantly improved efficiency. Energy and Environmental Science, 2010, 3, 1507.	30.8	191
9	Mechanically flexible thin-film transistors that use ultrathin ribbons of silicon derived from bulk wafers. Applied Physics Letters, 2006, 88, 213101.	3.3	157
10	High-speed mechanically flexible single-crystal silicon thin-film transistors on plastic substrates. IEEE Electron Device Letters, 2006, 27, 460-462.	3.9	154
11	Spin on dopants for high-performance single-crystal silicon transistors on flexible plastic substrates. Applied Physics Letters, 2005, 86, 133507.	3.3	145
12	Transparent flexible organic thin-film transistors that use printed single-walled carbon nanotube electrodes. Applied Physics Letters, 2006, 88, 113511.	3.3	138
13	Synergy of Porous Structure and Microstructure in Piezoresistive Material for High-Performance and Flexible Pressure Sensors. ACS Applied Materials & Interfaces, 2021, 13, 19211-19220.	8.0	123
14	Scalable and Facile Preparation of Highly Stretchable Electrospun PEDOT:PSS@PU Fibrous Nonwovens toward Wearable Conductive Textile Applications. ACS Applied Materials & Interfaces, 2017, 9, 30014-30023.	8.0	107
15	One-Step Preparation of Highly Hydrophobic and Oleophilic Melamine Sponges via Metal-Ion-Induced Wettability Transition. ACS Applied Materials & Interfaces, 2018, 10, 6652-6660.	8.0	87
16	Three-dimensional monolithic porous structures assembled from fragmented electrospun nanofiber mats/membranes: Methods, properties, and applications. Progress in Materials Science, 2020, 112, 100656.	32.8	84
17	A highly stretchable strain sensor based on electrospun carbon nanofibers for human motion monitoring. RSC Advances, 2016, 6, 79114-79120.	3.6	79
18	Bendable integrated circuits on plastic substrates by use of printed ribbons of single-crystalline silicon. Applied Physics Letters, 2007, 90, 213501.	3.3	78

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19	Three-dimensional and ultralight sponges with tunable conductivity assembled from electrospun nanofibers for a highly sensitive tactile pressure sensor. Journal of Materials Chemistry C, 2017, 5, 10288-10294.	5.5	74
20	Preparation, characterization, and encapsulation/release studies of a composite nanofiber mat electrospun from an emulsion containing poly(lactic-co-glycolic acid). Polymer, 2008, 49, 5294-5299.	3.8	73
21	A porous and air gap elastomeric dielectric layer for wearable capacitive pressure sensor with high sensitivity and a wide detection range. Journal of Materials Chemistry C, 2020, 8, 11468-11476.	5.5	73
22	Aligned electrospun ZnO nanofibers for simple and sensitive ultraviolet nanosensors. Chemical Communications, 2009, , 2568.	4.1	67
23	Electron Transport and Recombination in Photoanode of Electrospun TiO₂ Nanotubes for Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2013, 117, 1641-1646.	3.1	60
24	Photoluminescence anisotropy of uni-axially aligned electrospun conjugated polymer nanofibers of MEH-PPV and P3HT. Journal of Materials Chemistry, 2011, 21, 444-448.	6.7	57
25	Electrospun anatase-phase TiO2 nanofibers with different morphological structures and specific surface areas. Journal of Colloid and Interface Science, 2013, 398, 103-111.	9.4	57
26	SERS-active silver nanoparticles on electrospun nanofibers facilitated via oxygen plasma etching. RSC Advances, 2013, 3, 8998.	3.6	51
27	Transient photocurrent and photovoltage studies on charge transport in dye sensitized solar cells made from the composites of TiO2 nanofibers and nanoparticles. Applied Physics Letters, 2011, 98, 082114.	3.3	48
28	Fluorescence Quenching of a Conjugated Polymer by Synergistic Amine-Carboxylic Acid and Ï€â€“Ï€ Interactions for Selective Detection of Aromatic Amines in Aqueous Solution. ACS Sensors, 2017, 2, 842-847.	7.8	47
29	Effects of humidity on the ultraviolet nanosensors of aligned electrospun ZnO nanofibers. RSC Advances, 2013, 3, 6640.	3.6	46
30	Ultralight electrospun cellulose sponge with super-high capacity on absorption of organic compounds. Carbohydrate Polymers, 2018, 179, 164-172.	10.2	45
31	Preparation of keratin/PET nanofiber membrane and its high adsorption performance of Cr(VI). Science of the Total Environment, 2020, 710, 135546.	8.0	42
32	Flexible, Transferable, and Thermal-Durable Dye-Sensitized Solar Cell Photoanode Consisting of TiO₂ Nanoparticles and Electrospun TiO₂/SiO₂ Nanofibers. ACS Applied Materials & Interfaces, 2014, 6, 15925-15932.	8.0	41
33	Effects of surface modification on the fluorescence properties of conjugated polymer/ZnO nanocomposites. Materials Chemistry and Physics, 2010, 124, 417-421.	4.0	36
34	Electrospun carbon nano-felt surface-attached with Pd nanoparticles for hydrogen sensing application. Materials Letters, 2012, 68, 133-136.	2.6	36
35	Tunable Water Delivery in Carbon-Coated Fabrics for High-Efficiency Solar Vapor Generation. ACS Applied Materials & Interfaces, 2019, 11, 46938-46946.	8.0	36
36	Effects of hydrogen bonding on starch granule dissolution, spinnability of starch solution, and properties of electrospun starch fibers. Polymer, 2018, 153, 643-652.	3.8	33

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37	Nanomaterial Design for Efficient Solar-Driven Steam Generation. ACS Applied Energy Materials, 2019, 2, 6112-6126.	5.1	33
38	Fluorescence studies of electrospun MEH-PPV/PEO nanofibers. Synthetic Metals, 2009, 159, 1454-1459.	3.9	31
39	Flexible, Freestanding, and Functional SiO₂ Nanofibrous Mat for Dye-Sensitized Solar Cell and Photocatalytic Dye Degradation. ACS Applied Nano Materials, 2018, 1, 1141-1149.	5.0	29
40	Efficient Triboelectric Nanogenerator (TENG) Output Management for Improving Charge Density and Reducing Charge Loss. ACS Applied Electronic Materials, 2021, 3, 532-549.	4.3	29
41	Electrospun ZnO/SiO2 hybrid nanofibrous mat for flexible ultraviolet sensor. Applied Physics Letters, 2014, 104, .	3.3	27
42	Dye-sensitized solar cells based on organic dyes with naphtho[2,1-b:3,4-bâ€²]dithiophene as the conjugated linker. Journal of Materials Chemistry A, 2013, 1, 13328-13336.	10.3	26
43	Halloysite nanotubes sponges with skeletons made of electrospun nanofibers as innovative dye adsorbent and catalyst support. Chemical Engineering Journal, 2019, 360, 280-288.	12.7	26
44	Reduction of crack formation in TiO 2 mesoporous films prepared from binder-free nanoparticle pastes via incorporation of electrospun SiO 2 or TiO 2 nanofibers for dye-sensitized solar cells. Nano Energy, 2015, 12, 794-800.	16.0	25
45	Highâ€performance polyimide nanofibers reinforced polyimide nanocomposite films fabricated by coâ€electrospinning followed by hotâ€pressing. Journal of Applied Polymer Science, 2018, 135, 46849.	2.6	25
46	Preparation of Ag NWs and Ag NWs@PDMS stretchable sensors based on rapid polyol method and semi-dry process. Journal of Alloys and Compounds, 2019, 803, 332-340.	5.5	24
47	Preparation of the Au@TiO2 nanofibers by one-step electrospinning for the composite photoanode of dye-sensitized solar cells. Materials Chemistry and Physics, 2018, 208, 35-40.	4.0	23
48	Flexible composite felt of electrospun TiO2 and SiO2 nanofibers infused with TiO2 nanoparticles for lithium ion battery anode. Electrochimica Acta, 2016, 190, 811-816.	5.2	22
49	Optical Spectra and Electronic Band Structure Calculations of Î²â€˜Âà€˜-(ET)2SF5RSO3(R = CH2CF2, CHFCF2,) Tj ETQq1 1 0.784314 rg Materials, 2000, 12, 2490-2495.	6.7	21
50	â€œOne-potâ€•synthesis, characterization, and NH3 sensing of Pd/PEDOT:PSS nanocomposite. Synthetic Metals, 2010, 160, 1115-1118.	3.9	21
51	Low-temperature seeding and hydrothermal growth of ZnO nanorod on poly(3,4-ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	2.6	20
52	One-way water transport fabrics with hydrophobic rough surface formed in one-step electrospray. Materials Letters, 2018, 215, 110-113.	2.6	18
53	Electrospinning preparation of a large surface area, hierarchically porous, and interconnected carbon nanofibrous network using polysulfone as a sacrificial polymer for high performance supercapacitors. RSC Advances, 2018, 8, 28480-28486.	3.6	18
54	Fabrication and evaluation of dye-sensitized solar cells with photoanodes based on electrospun TiO2 nanotubes. Materials Letters, 2013, 106, 115-118.	2.6	17

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55	Mechanically flexible hybrid mat consisting of TiO2 and SiO2 nanofibers electrospun via dual spinnerets for photo-detector. Materials Letters, 2014, 120, 219-223.	2.6	17
56	Electrical properties of electrospun carbon nanofibers. Journal of Materials Science, 2011, 46, 6453-6456.	3.7	16
57	Biomimetic hydrophilic foam with micro/nano-scale porous hydrophobic surface for highly efficient solar-driven vapor generation. Science China Materials, 2022, 65, 1057-1067.	6.3	16
58	Optical Properties of Î²â€˜â€‰â€˜-(ET)2SF5RSO3 (R = CH2CF2, CHFCF2):â€‰ Changing Physical Properties by Chemical Tuning of the Counterion. Chemistry of Materials, 1999, 11, 3160-3165.	6.7	15
59	One-Way Water Transport Fabrics Based on Roughness Gradient Structure with No Low Surface Energy Substances. ACS Applied Materials & Interfaces, 2018, 10, 32792-32800.	8.0	15
60	Separator with high ionic conductivity and good stability prepared from keratin fibers for supercapacitor applications. Chemical Engineering Journal, 2022, 444, 136537.	12.7	15
61	High-strength electrospun carbon nanofibrous mats prepared via rapid stabilization as frameworks for Li-ion battery electrodes. Journal of Materials Science, 2019, 54, 11574-11584.	3.7	14
62	Polarized optical reflectance and electronic structure of the charge-density-wave materialsÎ·-andÎ³â^'Mo4O11. Physical Review B, 2000, 61, 10057-10065.	3.2	11
63	Detection of glutaraldehyde in aqueous environments based on fluorescence quenching of a conjugated polymer with pendant protonated primary amino groups. Journal of Materials Chemistry C, 2017, 5, 5010-5017.	5.5	11
64	Preparation and properties of meltâ€spun poly(fluorinated ethyleneâ€propylene)/graphene composite fibers. Polymer Composites, 2020, 41, 233-243.	4.6	9
65	Micropatterned Biphasic Nanocomposite Platform for Maintaining Chondrocyte Morphology. ACS Applied Materials & Interfaces, 2020, 12, 14814-14824.	8.0	9
66	Infrared and Optical Properties of Î²â€˜-(ET)2SF5CF2SO3:â€‰ Evidence for a 45 K Spin-Peierls Transition. Chemistry of Materials, 2001, 13, 1326-1333.	6.7	8
67	Dimensionality Effects on the Optical Properties of (PO2)4(WO3)2m(m= 2, 4, 6, 7). Chemistry of Materials, 2002, 14, 2607-2615.	6.7	8
68	Effects of Surface Modification on Dye-Sensitized Solar Cell Based on an Organic Dye with Naphtho[2,1-b:3,4-bâ€²]dithiophene as the Conjugated Linker. ACS Applied Materials & Interfaces, 2014, 6, 1926-1932.	8.0	8
69	Infrared studies of low-temperature symmetry breaking in the perrhenate family of ET-based organic molecular conductors. Physical Review B, 1999, 60, 931-941.	3.2	7
70	Optical Properties of a Supramolecular Assembly Containing Polydiacetylene. Chemistry of Materials, 1999, 11, 3275-3278.	6.7	6
71	Vibrational Properties of Monophosphate Tungsten Bronzes (PO2)4(WO3)2m (m = 4, 6). Chemistry of Materials, 2001, 13, 2940-2944.	6.7	6
72	Defect Tolerance and Nanomechanics in Transistors that Use Semiconductor Nanomaterials and Ultrathin Dielectrics. Advanced Functional Materials, 2008, 18, 2535-2540.	14.9	6

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73	Electrospun carbon nanofibrous mats surface-decorated with Pd nanoparticles via the supercritical CO2 method for sensing of H2. RSC Advances, 2012, 2, 10195.	3.6	6
74	An Innovative Approach for the Preparation of High-Performance Electrospun Poly(<i>p</i>-phenylene)-Based Polymer Nanofiber Belts. Macromolecules, 2017, 50, 9760-9772.	4.8	6
75	Infrared Study of the Broken Symmetry Ground States in Î·-Mo4O11. Synthetic Metals, 1999, 103, 2238-2241.	3.9	3
76	Electrospun nanofibers for tactile sensors. , 2021, , 159-196.		2
77	Optical studies of the Î²â€³-(ET)2SF5RSO3 (R = CH2CF2, CHFCF2 and CHF) system: chemical tuning of the counterion. Synthetic Metals, 2001, 120, 785-786.	3.9	1
78	Freestanding electrospun nanofibrous materials embedded in elastomers for stretchable strain sensors. , 2019, , .		1
79	Recycled high performance polyester fibers for cement designed from micromechanics theory. Journal of Polymer Research, 2021, 28, 1.	2.4	1
80	Far-infrared investigations of Î·-Mo4O11: Using a magnetic field to open the gap. Ferroelectrics, 2001, 249, 51-56.	0.6	0
81	A Novel Single-Phase to Three-Phase AC-AC Converter. , 2019, , .		0