Desheng Kong

List of Publications by Year
in descending order

82 papers	17,549 citations	47 h-index (46918)	78 g-index (66788)
84 all docs	84 docs citations	84 times ranked	22644 citing authors

#	Article	IF	Citations
1	Synthesis of MoS₂ and MoSe₂ Films with Vertically Aligned Layers. Nano Letters, 2013, 13, 1341-1347.	4.5	2,036
2	CoSe₂ Nanoparticles Grown on Carbon Fiber Paper: An Efficient and Stable Electrocatalyst for Hydrogen Evolution Reaction. Journal of the American Chemical Society, 2014, 136, 4897-4900.	6.6	1,317
3	First-row transition metal dichalcogenide catalysts for hydrogen evolution reaction. Energy and Environmental Science, 2013, 6, 3553.	15.6	946
4	Electrochemical tuning of vertically aligned MoS ₂ nanofilms and its application in improving hydrogen evolution reaction. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19701-19706.	3.3	894
5	A transparent electrode based on a metal nanotrough network. Nature Nanotechnology, 2013, 8, 421-425.	15.6	851
6	Aharonovâ€“Bohm interference in topological insulator nanoribbons. Nature Materials, 2010, 9, 225-229.	13.3	727
7	Rapid water disinfection using vertically aligned MoS2 nanofilms and visible light. Nature Nanotechnology, 2016, 11, 1098-1104.	15.6	681
8	Electrospun Metal Nanofiber Webs as High-Performance Transparent Electrode. Nano Letters, 2010, 10, 4242-4248.	4.5	660
9	MoSe₂ and WSe₂ Nanofilms with Vertically Aligned Molecular Layers on Curved and Rough Surfaces. Nano Letters, 2013, 13, 3426-3433.	4.5	653
10	Transition-metal doped edge sites in vertically aligned MoS2 catalysts for enhanced hydrogen evolution. Nano Research, 2015, 8, 566-575.	5.8	594
11	Electrochemical Tuning of MoS₂ Nanoparticles on Three-Dimensional Substrate for Efficient Hydrogen Evolution. ACS Nano, 2014, 8, 4940-4947.	7.3	566
12	Improved lithiumâ€“sulfur batteries with a conductive coating on the separator to prevent the accumulation of inactive S-related species at the cathodeâ€“separator interface. Energy and Environmental Science, 2014, 7, 3381-3390.	15.6	476
13	Electrochemical tuning of layered lithium transition metal oxides for improvement of oxygen evolution reaction. Nature Communications, 2014, 5, 4345.	5.8	411
14	Few-Layer Nanoplates of Bi₂Se₃ and Bi₂Te₃ with Highly Tunable Chemical Potential. Nano Letters, 2010, 10, 2245-2250.	4.5	403
15	Three-Dimensional Carbon Nanotubeâ^'Textile Anode for High-Performance Microbial Fuel Cells. Nano Letters, 2011, 11, 291-296.	4.5	388
16	Improving lithiumâ€“sulphur batteries through spatial control of sulphur species deposition on a hybrid electrode surface. Nature Communications, 2014, 5, 3943.	5.8	369
17	Ambipolar field effect in the ternary topological insulator (BixSb1â€“x)2Te3 by composition tuning. Nature Nanotechnology, 2011, 6, 705-709.	15.6	345
18	Rapid Surface Oxidation as a Source of Surface Degradation Factor for Bi₂Se₃. ACS Nano, 2011, 5, 4698-4703.	7.3	320

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19	Improving battery safety by early detection of internal shorting with a bifunctional separator. Nature Communications, 2014, 5, 5193.	5.8	301
20	Topological Insulator Nanowires and Nanoribbons. Nano Letters, 2010, 10, 329-333.	4.5	298
21	Sulfur Cathodes with Hydrogen Reduced Titanium Dioxide Inverse Opal Structure. ACS Nano, 2014, 8, 5249-5256.	7.3	297
22	Performance enhancement of metal nanowire transparent conducting electrodes by mesoscale metal wires. Nature Communications, 2013, 4, 2522.	5.8	279
23	Mechanically Durable and Highly Stretchable Transistors Employing Carbon Nanotube Semiconductor and Electrodes. Advanced Materials, 2016, 28, 4441-4448.	11.1	234
24	Opportunities in chemistry and materials science for topological insulators and their nanostructures. Nature Chemistry, 2011, 3, 845-849.	6.6	224
25	Ultra-low carrier concentration and surface-dominant transport in antimony-doped Bi2Se3 topological insulator nanoribbons. Nature Communications, 2012, 3, 757.	5.8	197
26	Vertical Heterostructure of Two-Dimensional MoS₂ and WSe₂ with Vertically Aligned Layers. Nano Letters, 2015, 15, 1031-1035.	4.5	194
27	Electrolessly Deposited Electrospun Metal Nanowire Transparent Electrodes. Journal of the American Chemical Society, 2014, 136, 10593-10596.	6.6	189
28	Weak Antilocalization in Bi₂(Se_{<i>x</i>}Te_{1â€“<i>x</i>})₃ Nanoribbons and Nanoplates. Nano Letters, 2012, 12, 1107-1111.	4.5	166
29	Ultrathin Topological Insulator Bi₂Se₃ Nanoribbons Exfoliated by Atomic Force Microscopy. Nano Letters, 2010, 10, 3118-3122.	4.5	163
30	Chemical Intercalation of Zerovalent Metals into 2D Layered Bi₂Se₃ Nanoribbons. Journal of the American Chemical Society, 2012, 134, 13773-13779.	6.6	160
31	High-Density Chemical Intercalation of Zero-Valent Copper into Bi₂Se₃ Nanoribbons. Journal of the American Chemical Society, 2012, 134, 7584-7587.	6.6	152
32	Magnetic Doping and Kondo Effect in Bi₂Se₃ Nanoribbons. Nano Letters, 2010, 10, 1076-1081.	4.5	119
33	Static Electricity Powered Copper Oxide Nanowire Microbicidal Electroporation for Water Disinfection. Nano Letters, 2014, 14, 5603-5608.	4.5	118
34	Intrinsically stretchable electronics with ultrahigh deformability to monitor dynamically moving organs. Science Advances, 2022, 8, eabl5511.	4.7	101
35	Optical transmission enhancement through chemically tuned two-dimensional bismuth chalcogenide nanoplates. Nature Communications, 2014, 5, 5670.	5.8	99
36	Low Reflectivity and High Flexibility of Tin-Doped Indium Oxide Nanofiber Transparent Electrodes. Journal of the American Chemical Society, 2011, 133, 27-29.	6.6	88

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37	Biomass-Derived Carbon Paper to Sandwich Magnetite Anode for Long-Life Li-Ion Battery. ACS Nano, 2019, 13, 11901-11911.	7.3	82
38	Capacitance Characterization of Elastomeric Dielectrics for Applications in Intrinsically Stretchable Thin Film Transistors. Advanced Functional Materials, 2016, 26, 4680-4686.	7.8	77
39	Significance of the double-layer capacitor effect in polar rubbery dielectrics and exceptionally stable low-voltage high transconductance organic transistors. Scientific Reports, 2015, 5, 17849.	1.6	66
40	Stretchable High-Permittivity Nanocomposites for Epidermal Alternating-Current Electroluminescent Displays. , 2019, 1, 511-518.		66
41	Bright Stretchable Electroluminescent Devices based on Silver Nanowire Electrodes and High-k Thermoplastic Elastomers. ACS Applied Materials & Interfaces, 2018, 10, 44760-44767.	4.0	65
42	Two-Dimensional Chalcogenide Nanoplates as Tunable Metamaterials via Chemical Intercalation. Nano Letters, 2013, 13, 5913-5918.	4.5	64
43	Skin-inspired electronics: emerging semiconductor devices and systems. Journal of Semiconductors, 2020, 41, 041601.	2.0	63
44	Stretchable and Superwettable Colorimetric Sensing Patch for Epidermal Collection and Analysis of Sweat. ACS Sensors, 2021, 6, 2261-2269.	4.0	61
45	Nickel Chains Assembled by Hollow Microspheres and Their Magnetic Properties. Journal of Physical Chemistry C, 2008, 112, 6613-6619.	1.5	59
46	Effects of Magnetic Doping on Weak Antilocalization in Narrow Bi₂Se₃ Nanoribbons. Nano Letters, 2012, 12, 4355-4359.	4.5	59
47	Partially-Screened Field Effect and Selective Carrier Injection at Organic Semiconductor/Graphene Heterointerface. Nano Letters, 2015, 15, 7587-7595.	4.5	58
48	Ultrastretchable and Washable Conductive Microtextiles by Coassembly of Silver Nanowires and Elastomeric Microfibers for Epidermal Humanâ€"Machine Interfaces. , 2021, 3, 912-920.		58
49	Ambipolar Field Effect in Sb-Doped Bi₂Se₃ Nanoplates by Solvothermal Synthesis. Nano Letters, 2013, 13, 632-636.	4.5	57
50	Printable Liquid Metal Microparticle Ink for Ultrastretchable Electronics. ACS Applied Materials & Interfaces, 2020, 12, 50852-50859.	4.0	54
51	Crumpled MXene Electrodes for Ultrastretchable and High-Area-Capacitance Supercapacitors. Nano Letters, 2021, 21, 7561-7568.	4.5	50
52	Fully Screen-Printed, Multicolor, and Stretchable Electroluminescent Displays for Epidermal Electronics. ACS Applied Materials & Interfaces, 2020, 12, 47902-47910.	4.0	47
53	Fast-Response and Low-Hysteresis Flexible Pressure Sensor Based on Silicon Nanowires. IEEE Electron Device Letters, 2018, 39, 1069-1072.	2.2	43
54	Fully solution processed liquid metal features as highly conductive and ultrastretchable conductors. Npj Flexible Electronics, 2021, 5, .	5.1	38

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55	A stretchable and breathable form of epidermal device based on elastomeric nanofibre textiles and silver nanowires. Journal of Materials Chemistry C, 2019, 7, 9748-9755.	2.7	37
56	Laser Sintering of Zn Microparticles and Its Application in Printable Biodegradable Electronics. Advanced Electronic Materials, 2019, 5, 1800693.	2.6	36
57	Maskless Patterning of Biodegradable Conductors by Selective Laser Sintering of Microparticle Inks and Its Application in Flexible Transient Electronics. ACS Applied Materials & Interfaces, 2019, 11, 45844-45852.	4.0	35
58	Highly Permeable and Ultrastretchable Liquid Metal Micromesh for Skin-Attachable Electronics. , 2022, 4, 634-641.		34
59	Preparation and Characterization of Ring-Shaped Co Nanomaterials. Chemistry of Materials, 2008, 20, 5163-5168.	3.2	31
60	A Highly Stretchable and Permeable Liquid Metal Micromesh Conductor by Physical Deposition for Epidermal Electronics. ACS Applied Materials & Interfaces, 2022, 14, 13713-13721.	4.0	31
61	Omnidirectional Printing of Soft Elastomer for Liquid-State Stretchable Electronics. ACS Applied Materials & Interfaces, 2019, 11, 18590-18598.	4.0	29
62	Soft elastomeric composite materials with skin-inspired mechanical properties for stretchable electronic circuits. Lab on A Chip, 2019, 19, 2709-2717.	3.1	25
63	Investigation of a Solution-Processable, Nonspecific Surface Modifier for Low Cost, High Work Function Electrodes. ACS Applied Materials & Interfaces, 2016, 8, 19658-19664.	4.0	24
64	An Ultrastretchable Reflective Electrode Based on a Liquid Metal Film for Deformable Optoelectronics. , 2021, 3, 1104-1111.		21
65	Strain-invariant conductance in an elastomeric nanocomposite mesh conductor for stretchable electronics. Journal of Materials Chemistry C, 2020, 8, 9440-9448.	2.7	17
66	An intrinsically stretchable aqueous Zn-MnO2 battery based on microcracked electrodes for self-powering wearable electronics. Energy Storage Materials, 2022, 47, 386-393.	9.5	15
67	Magnetization ground states and phase diagrams for a nanosized Co hollow sphere: An onion-type magnetization state. Journal of Applied Physics, 2008, 104, .	1.1	14
68	Multistage targeted â€œPhotoactive neutrophilâ€•for enhancing synergistic photo-chemotherapy. Biomaterials, 2021, 279, 121224.	5.7	14
69	Phase Separation of Dirac Electrons in Topological Insulators at the Spatial Limit. Nano Letters, 2017, 17, 97-103.	4.5	13
70	Giant Thermal Transport Tuning at a Metal/Ferroelectric Interface. Advanced Materials, 2022, 34, e2105778.	11.1	13
71	Metal Nanoparticle Harvesting by Continuous Rotating Electrodeposition and Separation. Matter, 2020, 3, 1294-1307.	5.0	11
72	Artificial Reflex Arc: An Environment-Adaptive Neuromorphic Camouflage Device. IEEE Electron Device Letters, 2021, 42, 1224-1227.	2.2	9

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73	A Printable and Conductive Yield-Stress Fluid as an Ultrastretchable Transparent Conductor. Research, 2021, 2021, 9874939.	2.8	9
74	Collective magnetization flux closure state with circular array of single-domained nanomagnets: Magnetization reversal and chirality control. Journal of Applied Physics, 2008, 103, 114312.	1.1	7
75	Use of an intermediate solid-state electrode to enable efficient hydrogen production from dilute organic matter. Nano Energy, 2017, 39, 499-505.	8.2	7
76	On the Working Mechanisms of Solidâ€State Doubleâ€Layerâ€Dielectricâ€Based Organic Fieldâ€Effect Transistors and Their Implication for Sensors. Advanced Electronic Materials, 2018, 4, 1700326.	2.6	7
77	Magnetism and the effect of anisotropy with a one-dimensional monatomic chain of cobalt using a Monte Carlo simulation. Journal of Physics Condensed Matter, 2007, 19, 446207.	0.7	6
78	Topological insulator nanostructures. MRS Bulletin, 2014, 39, 873-879.	1.7	6
79	The First FRET-Based RNA Aptamer NanoKit for Sensitively and Specifically Detecting c-di-GMP. Nano Letters, 2022, 22, 716-725.	4.5	5
80	Photoactive 3D-Printed Hypertensile Metamaterials for Improving Dynamic Modeling of Stem Cells. Nano Letters, 2022, 22, 135-144.	4.5	5
81	Solution-based fabrication of mechanically transformative materials for implantable applications. Biomaterials Science, 2021, 9, 6950-6956.	2.6	4
82	Development of organic semiconducting technology to realize low driving voltages. , 2016, , .		0