Zhang Chen

List of Publications by Year
in descending order

60 papers	5,324 citations	136950 32 h-index	133252 59 g-index
61 all docs	61 docs citations	61 times ranked	3766 citing authors

#	Article	IF	Citations
1	Realization of an anion insertion mechanism for high-rate electrochemical energy storage in highly crystalline few-layered potassium manganese dioxide nanosheets. Journal of Materials Chemistry A, 2022, 10, 9402-9407.	10.3	4
2	Microporous Carbons Derived from <scp>d</scp>-Fructose Carbon with Excellent Microwave Absorption Performance. ACS Applied Electronic Materials, 2022, 4, 2424-2431.	4.3	6
3	Phytotoxicity of VO2 nanoparticles with different sizes to pea seedlings. Ecotoxicology and Environmental Safety, 2022, 242, 113885.	6.0	7
4	Large-Scale Preparation of Durable VO₂ Nanocomposite Coatings. ACS Applied Nano Materials, 2021, 4, 4048-4054.	5.0	21
5	Scalable and Flexible Electrospun Film for Daytime Subambient Radiative Cooling. ACS Applied Materials & Interfaces, 2021, 13, 29558-29566.	8.0	67
6	Cytotoxicity of vanadium oxide nanoparticles and titanium dioxideâ€coated vanadium oxide nanoparticles to human lung cells. Journal of Applied Toxicology, 2020, 40, 567-577.	2.8	30
7	Effect of Dew Point and Alloy Composition on Reactive Wetting of Hot Dip Galvanized Medium Manganese Lightweight Steel. Coatings, 2020, 10, 37.	2.6	7
8	WO3 quantum-dots electrochromism. Nano Energy, 2020, 68, 104350.	16.0	84
9	Transparent Wood Composites Fabricated by Impregnation of Epoxy Resin and W-Doped VO₂ Nanoparticles for Application in Energy-Saving Windows. ACS Applied Materials & Interfaces, 2020, 12, 34777-34783.	8.0	54
10	Phaseâ€Controlled Synthesis of Monolayer W 1â^' x Re x S 2 Alloy with Improved Photoresponse Performance. Small, 2020, 16, 2000852.	10.0	18
11	Effect of Hot-Dip Galvanizing Process on Selective Oxidation and Galvanizability of Medium Manganese Steel for Automotive Application. Coatings, 2020, 10, 1265.	2.6	5
12	Colorful Wall-Bricks with Superhydrophobic Surfaces for Enhanced Smart Indoor Humidity Control. ACS Omega, 2019, 4, 13896-13901.	3.5	6
13	Preparation of 1-dodecanol microcapsules with cellulose nanofibers-modified melamine-formaldehyde resin as a potential phase change material. Materials Research Express, 2019, 6, 125376.	1.6	9
14	Short-term and long-term toxicological effects of vanadium dioxide nanoparticles on A549 cells. Environmental Science: Nano, 2019, 6, 565-579.	4.3	27
15	Physical vapour deposition of vanadium dioxide for thermochromic smart window applications. Journal of Materials Chemistry C, 2019, 7, 2121-2145.	5.5	83
16	Bioinspired Ant-Nest-Like Hierarchical Porous Material Using CaCl₂ as Additive for Smart Indoor Humidity Control. Industrial & Engineering Chemistry Research, 2019, 58, 7139-7145.	3.7	11
17	Synthesis of CsxWO3 nanoparticles and their NIR shielding properties. Ceramics International, 2018, 44, 13469-13475.	4.8	47
18	Waterâ€Resistant and Hazeâ€Tunable Transparent Cellulose Nanopaper for Patterned Electroluminescence Devices. Macromolecular Materials and Engineering, 2018, 303, 1800142.	3.6	2

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19	VO₂(D) hollow coreâ€“shell microspheres: synthesis, methylene blue dye adsorption and their transformation into C/VO_xnanoparticles. Inorganic Chemistry Frontiers, 2018, 5, 550-558.	6.0	17
20	VO2@SiO2/Poly(N-isopropylacrylamide) Hybrid Nanothermochromic Microgels for Smart Window. Industrial & Engineering Chemistry Research, 2018, 57, 12801-12808.	3.7	33
21	Thermo- and pH-responsive starch derivatives for smart window. Carbohydrate Polymers, 2018, 196, 209-216.	10.2	18
22	Thermochromic VO2 for Energy-Efficient Smart Windows. Joule, 2018, 2, 1707-1746.	24.0	536
23	Atomic and electronic structures of thermochromic VO2 with Sb-doping. Computational Materials Science, 2017, 130, 103-108.	3.0	12
24	Low temperature fabrication of thermochromic VO₂ thin films by low-pressure chemical vapor deposition. RSC Advances, 2017, 7, 10798-10805.	3.6	24
25	Transparent wood containing Cs_xWO₃ nanoparticles for heat-shielding window applications. Journal of Materials Chemistry A, 2017, 5, 6019-6024.	10.3	194
26	Dual-Phase Transformation: Spontaneous Self-Template Surface-Patterning Strategy for Ultra-transparent VO₂ Solar Modulating Coatings. ACS Nano, 2017, 11, 407-415.	14.6	81
27	A multi-functional textile that combines self-cleaning, water-proofing and VO2-based temperature-responsive thermoregulating. Solar Energy Materials and Solar Cells, 2017, 159, 102-111.	6.2	53
28	Crystallized TiO₂ (A)â€“VO₂ (M/R) nanocomposite films with electrochromismâ€“thermochromism dual-response properties. RSC Advances, 2016, 6, 32176-32182.	3.6	15
29	An abnormal phase transition behavior in VO₂ nanoparticles induced by an M1â€“M2â€“R process: two anomalous high (>68 Â°C) transition temperatures. RSC Advances, 2016, 6, 50521-50528.	3.6	9
30	Phase and morphology evolution of VO₂ nanoparticles using a novel hydrothermal system for thermochromic applications: the growth mechanism and effect of ammonium (NH₄⁺). RSC Advances, 2016, 6, 81559-81568.	3.6	37
31	Novel synthesis of pure VO₂@SiO₂ core@shell nanoparticles to improve the optical and anti-oxidant properties of a VO₂ film. RSC Advances, 2016, 6, 108286-108289.	3.6	31
32	Lowered phase transition temperature and excellent solar heat shielding properties of well-crystallized VO₂ by W doping. Physical Chemistry Chemical Physics, 2016, 18, 28010-28017.	2.8	31
33	Thermal kinetic analysis of metalâ€“insulator transition mechanism in W-doped VO2. Journal of Thermal Analysis and Calorimetry, 2016, 126, 949-957.	3.6	13
34	An intermediate phase (NH₄)₂V₄O₉ and its effects on the hydrothermal synthesis of VO₂ (M) nanoparticles. CrystEngComm, 2016, 18, 558-565.	2.6	28
35	VO₂-based thermochromic smart window: From energy savings to generation. Chinese Science Bulletin, 2016, 61, 1661-1678.	0.7	7
36	Printed Smart Photovoltaic Window Integrated with an Energyâ€Saving Thermochromic Layer. Advanced Optical Materials, 2015, 3, 1524-1529.	7.3	43

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37	Solid-state-reaction synthesis of VO₂ nanoparticles with low phase transition temperature, enhanced chemical stability and excellent thermochromic properties. RSC Advances, 2015, 5, 108015-108022.	3.6	24
38	Direct Chemical Vapor Deposition-Derived Graphene Glasses Targeting Wide Ranged Applications. Nano Letters, 2015, 15, 5846-5854.	9.1	176
39	Fine crystalline VO2 nanoparticles: synthesis, abnormal phase transition temperatures and excellent optical properties of a derived VO2 nanocomposite foil. Journal of Materials Chemistry A, 2014, 2, 2718.	10.3	204
40	The synthesis and performance of Zr-doped and Wâ€“Zr-codoped VO₂ nanoparticles and derived flexible foils. Journal of Materials Chemistry A, 2014, 2, 15087-15093.	10.3	131
41	Crystallised mesoporous TiO₂(A)â€“VO₂(M/R) nanocomposite films with self-cleaning and excellent thermochromic properties. Journal of Materials Chemistry A, 2014, 2, 11874-11884.	10.3	67
42	Asymmetrically modulating the insulatorâ€“metal transition of thermochromic VO2 films upon heating and cooling by mild surface-etching. Applied Surface Science, 2014, 311, 676-683.	6.1	19
43	F-doped VO2 nanoparticles for thermochromic energy-saving foils with modified color and enhanced solar-heat shielding ability. Physical Chemistry Chemical Physics, 2013, 15, 11723.	2.8	160
44	The visible transmittance and solar modulation ability of VO2 flexible foils simultaneously improved by Ti doping: an optimization and first principle study. Physical Chemistry Chemical Physics, 2013, 15, 17537.	2.8	101
45	Enhancing thermochromic performance of VO2 films via increased microroughness by phase separation. Solar Energy Materials and Solar Cells, 2013, 110, 1-7.	6.2	43
46	VO2 thermochromic smart window for energy savings and generation. Scientific Reports, 2013, 3, 3029.	3.3	246
47	The demonstration and simulation of the application performance of the vanadium dioxide single glazing. Solar Energy Materials and Solar Cells, 2013, 117, 168-173.	6.2	62
48	Mg-doped VO2 nanoparticles: hydrothermal synthesis, enhanced visible transmittance and decreased metalâ€“insulator transition temperature. Physical Chemistry Chemical Physics, 2013, 15, 7505.	2.8	178
49	VO2â€“Sb:SnO2 composite thermochromic smart glass foil. Energy and Environmental Science, 2012, 5, 8234.	30.8	186
50	Nanoceramic VO2 thermochromic smart glass: A review on progress in solution processing. Nano Energy, 2012, 1, 221-246.	16.0	507
51	Enhanced chemical stability of VO2 nanoparticles by the formation of SiO2/VO2 core/shell structures and the application to transparent and flexible VO2-based composite foils with excellent thermochromic properties for solar heat control. Energy and Environmental Science, 2012, 5, 6104.	30.8	278
52	Nanoporous Thermochromic VO₂ Films with Low Optical Constants, Enhanced Luminous Transmittance and Thermochromic Properties. ACS Applied Materials & Interfaces, 2011, 3, 135-138.	8.0	247
53	Solution-based fabrication of vanadium dioxide on F:SnO2 substrates with largely enhanced thermochromism and low-emissivity for energy-saving applications. Energy and Environmental Science, 2011, 4, 4290.	30.8	159
54	Formation and metal-to-insulator transition properties of VO2â€“ZrV2O7 composite films by polymer-assisted deposition. Solar Energy Materials and Solar Cells, 2011, 95, 1604-1609.	6.2	54

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55	VO2-based double-layered films for smart windows: Optical design, all-solution preparation and improved properties. Solar Energy Materials and Solar Cells, 2011, 95, 2677-2684.	6.2	210
56	Significant changes in phase-transition hysteresis for Ti-doped VO2 films prepared by polymer-assisted deposition. Solar Energy Materials and Solar Cells, 2011, 95, 469-475.	6.2	158
57	Effects of Annealing Parameters on Optical Properties of Thermochromic VO₂ Films Prepared in Aqueous Solution. Journal of Physical Chemistry C, 2010, 114, 1901-1911.	3.1	173
58	Thermochromic VO₂ Thin Films: Solution-Based Processing, Improved Optical Properties, and Lowered Phase Transformation Temperature. Langmuir, 2010, 26, 10738-10744.	3.5	255
59	Solution Processing of Nanoceramic VO2 Thin Films for Application to Smart Windows. , 0, , .		2
60	The discovery of conductive ionic bonds in NiO/Ni transparent counter electrodes for electrochromic smart windows with an ultra-long cycling life. Materials Advances, 0, , .	5.4	13