

Qiwu Shi

List of Publications by Year in descending order

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331259

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docs citations

97
times ranked

1907
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic Photoinduced Controlling of the Large Phase Shift of Terahertz Waves via Vanadium Dioxide Coupling Nanostructures. ACS Photonics, 2018, 5, 3040-3050.	3.2	111
2	Giant Phase Transition Properties at Terahertz Range in VO ₂ films Deposited by Sol-gel Method. ACS Applied Materials & Interfaces, 2011, 3, 3523-3527.	4.0	92
3	One-Step Hydrothermal Synthesis of W-Doped VO ₂ (M) Nanorods with a Tunable Phase-Transition Temperature for Infrared Smart Windows. ACS Omega, 2016, 1, 1139-1148.	1.6	76
4	Effect of annealing temperature on thermochromic properties of vanadium dioxide thin films deposited by organic sol-gel method. Applied Surface Science, 2013, 268, 556-560.	3.1	68
5	A CTAB-assisted hydrothermal synthesis of VO ₂ (B) nanostructures for lithium-ion battery application. Ceramics International, 2013, 39, 6199-6206.	2.3	62
6	Sol-gel fabrication of WO ₃ /RGO nanocomposite film with enhanced electrochromic performance. RSC Advances, 2016, 6, 67488-67494.	1.7	58
7	THz medical imaging: from in vitro to in vivo. Trends in Biotechnology, 2022, 40, 816-830.	4.9	56
8	Near-perfect terahertz wave amplitude modulation enabled by impedance matching in VO ₂ thin films. Applied Physics Letters, 2018, 112, .	1.5	55
9	Synthesis and properties of Mo and W ions co-doped porous nano-structured VO ₂ films by sol-gel process. Journal of Sol-Gel Science and Technology, 2012, 64, 493-499.	1.1	47
10	Preparation and thermochromic properties of Ce-doped VO ₂ films. Materials Research Bulletin, 2013, 48, 2268-2271.	2.7	38
11	Terahertz transmission characteristics across the phase transition in VO ₂ films deposited on Si, sapphire, and SiO ₂ substrates. Journal of Applied Physics, 2012, 112, .	1.1	35
12	Preparation and characterization of δ -Ti ₃ O ₅ by carbothermal reduction of TiO ₂ . Journal of Alloys and Compounds, 2015, 621, 404-410.	2.8	32
13	Fabrication of nanostructured Li ₂ TiO ₃ ceramic pebbles as tritium breeders using powder particles synthesised via a CTAB-assisted method. Ceramics International, 2017, 43, 5680-5686.	2.3	31
14	Preparation and phase transition characterization of VO ₂ thin film on single crystal Si (100) substrate by sol-gel process. Journal of Sol-Gel Science and Technology, 2011, 59, 591-597.	1.1	28
15	A promising tritium breeding material: Nanostructured 2Li ₂ TiO ₃ -Li ₄ SiO ₄ biphasic ceramic pebbles. Journal of Nuclear Materials, 2018, 500, 265-269.	1.3	28
16	Gas-Phase and Solid-State Simultaneous Mechanism for Two-Step Carbothermal AlON Formation. Journal of the American Ceramic Society, 2015, 98, 1965-1973.	1.9	26
17	Stabilization of microcrystal δ -Ti ₃ O ₅ at room temperature by aluminum-ion doping. Applied Physics Letters, 2017, 111, .	1.5	25
18	A facile solvothermal method for high-quality Gd ₂ Zr ₂ O ₇ nanopowder preparation. Ceramics International, 2018, 44, 1334-1342.	2.3	25

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19	The role of lattice dynamics in ferroelectric switching. <i>Nature Communications</i> , 2022, 13, 1110.	5.8	25
20	Fabrication of nanocrystalline Ti_3O_5 with tunable terahertz wave transmission properties across a temperature induced phase transition. <i>Journal of Materials Chemistry C</i> , 2016, 4, 10279-10285.	2.7	24
21	Preparation and phase transition properties of Ti-doped VO ₂ films by sol-gel process. <i>Journal of Sol-Gel Science and Technology</i> , 2016, 78, 19-25.	1.1	23
22	Nanostructured VO ₂ film with high transparency and enhanced switching ratio in THz range. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	22
23	Thermal stability of VO ₂ thin films deposited by sol-gel method. <i>Journal of Sol-Gel Science and Technology</i> , 2015, 75, 189-197.	1.1	22
24	Microstructure and phase evolution of Li ₄ TiO ₄ ceramics pebbles prepared from a nanostructured precursor powder synthesized by hydrothermal method. <i>Journal of Nuclear Materials</i> , 2018, 508, 434-439.	1.3	22
25	Phase evolution and formation of β phase in Ti ₃ O ₅ induced by magnesium doping. <i>Journal of Alloys and Compounds</i> , 2019, 774, 1189-1194.	2.8	22
26	Curing of polyester powder coating modified with rutile nano-sized titanium dioxide studied by DSC and real-time FT-IR. <i>Journal of Thermal Analysis and Calorimetry</i> , 2012, 108, 1243-1249.	2.0	21
27	Flexible and Giant Terahertz Modulation Based on Ultra-Strain-Sensitive Conductive Polymer Composites. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 9790-9796.	4.0	21
28	Low temperature fabrication of hydrangea-like NiCo ₂ S ₄ as electrode materials for high performance supercapacitors. <i>Materials Letters</i> , 2017, 186, 206-209.	1.3	20
29	Enhanced Electrochromic Performance of Mesoporous Titanium Dioxide/Reduced Graphene Oxide Nanocomposite Film Prepared by Electrophoresis Deposition. <i>Journal of the Electrochemical Society</i> , 2018, 165, H804-H812.	1.3	19
30	Terahertz Switchable Focusing Planar Lens With a Nanoscale Vanadium Dioxide Integrated Metasurface. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2022, 12, 13-22.	2.0	19
31	Effects of porous nano-structure on the metal-insulator transition in VO ₂ films. <i>Applied Surface Science</i> , 2012, 259, 256-260.	3.1	18
32	Preparation and ageing-resistant properties of polyester composites modified with functional nanoscale additives. <i>Nanoscale Research Letters</i> , 2014, 9, 215.	3.1	18
33	Fabrication of attractive Li ₄ SiO ₄ pebbles with modified powders synthesized via surfactant-assisted hydrothermal method. <i>Ceramics International</i> , 2016, 42, 10014-10020.	2.3	18
34	Flexible reduced graphene oxide paper with excellent electromagnetic interference shielding for terahertz wave. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 17245-17253.	1.1	18
35	On-Chip THz Dynamic Manipulation Based on Tunable Spoof Surface Plasmon Polaritons. <i>IEEE Electron Device Letters</i> , 2019, 40, 1844-1847.	2.2	18
36	Synthesis of CoV ₂ O ₆ /CNTs composites via ultrasound as electrode materials for supercapacitors. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 2388-2397.	1.1	18

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37	Hollow structured black TiO ₂ with thickness-controllable microporous shells for enhanced visible-light-driven photocatalysis. <i>Microporous and Mesoporous Materials</i> , 2021, 323, 111228.	2.2	18
38	Fast fabrication of high quality Li ₂ TiO ₃ –Li ₄ SiO ₄ biphasic ceramic pebbles by microwave sintering: In comparison with conventional sintering. <i>Ceramics International</i> , 2019, 45, 19022-19026.	2.3	17
39	A novel mass production method for Li ₂ TiO ₃ tritium breeder ceramic pebbles using polyvinyl alcohol (PVA) and polyvinyl pyrrolidone (PVP) assisted granulation method. <i>Ceramics International</i> , 2020, 46, 4167-4173.	2.3	17
40	Reconfigurable Optical Physical Unclonable Functions Enabled by VO ₂ Nanocrystal Films. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 5785-5796.	4.0	17
41	Freeze-drying induced nanocrystallization of VO ₂ (M) with improved mid-infrared switching properties. <i>Journal of Alloys and Compounds</i> , 2017, 728, 1076-1082.	2.8	16
42	Porous nano-structured VO ₂ films with different surfactants: synthesis mechanisms, characterization, and applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2013, 24, 3823-3829.	1.1	15
43	Fast crystallization of amorphous Gd ₂ Zr ₂ O ₇ induced by thermally activated electron-beam irradiation. <i>Journal of Applied Physics</i> , 2015, 118, 214901.	1.1	15
44	Enhanced Electrochromic Performance of Vanadium Pentoxide/Reduced Graphene Oxide Nanocomposite Film Prepared by the Sol–Gel Method. <i>Journal of the Electrochemical Society</i> , 2016, 163, H891-H895.	1.3	15
45	Mesoporous hollow black TiO ₂ with controlled lattice disorder degrees for highly efficient visible-light-driven photocatalysis. <i>RSC Advances</i> , 2019, 9, 36907-36914.	1.7	15
46	Improving water dispersibility of non-covalent functionalized reduced graphene oxide with L-tryptophan via cleaning oxidative debris. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 7361-7368.	1.1	14
47	Effect of deposition time on the growth mode and stoichiometric of amorphous boron carbide thin films deposited by electron beam evaporation. <i>Ceramics International</i> , 2018, 44, 17298-17304.	2.3	14
48	Silica-Coated Gold Nanorods with High Photothermal Efficiency and Biocompatibility as a Contrast Agent for <i>In Vitro</i> Terahertz Imaging. <i>Journal of Biomedical Nanotechnology</i> , 2019, 15, 910-920.	0.5	14
49	Low-cost fabrication of Li ₂ TiO ₃ tritium breeding ceramic pebbles via low-temperature solid-state precursor method. <i>Ceramics International</i> , 2019, 45, 17114-17119.	2.3	13
50	In-situ stirring assisted hydrothermal synthesis of W-doped VO ₂ (M) nanorods with improved doping efficiency and mid-infrared switching property. <i>Journal of Alloys and Compounds</i> , 2020, 821, 153556.	2.8	13
51	Preparation of Li ₄ TiO ₄ -Li ₂ TiO ₃ core-shell ceramic pebbles with thick shells and high strength through an improved granulation method. <i>Journal of Nuclear Materials</i> , 2021, 543, 152580.	1.3	13
52	Optical-Transparent Self-Assembled MXene Film with High-Efficiency Terahertz Reflection Modulation. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 10574-10582.	4.0	13
53	Temperature dependence of charging characteristic of C-free Li ₂ O ₂ cathode in Li-O ₂ battery. <i>Journal of Solid State Electrochemistry</i> , 2013, 17, 2061-2069.	1.2	12
54	Rapid preparation and uniformity control of B ₄ C ceramic double-curvature shells: Aim to advance its applications as ICF capsules. <i>Journal of Alloys and Compounds</i> , 2018, 762, 67-72.	2.8	12

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55	A Phase Transition Oxide/Graphene Interface for Incident Angle Agile, Ultrabroadband, and Deep THz Modulation. <i>Advanced Materials Interfaces</i> , 2020, 7, 2001297.	1.9	12
56	Giant impact of self-photothermal on light-induced ultrafast insulator-to-metal transition in VO ₂ nanofilms at terahertz frequency. <i>Optics Express</i> , 2018, 26, 28051.	1.7	12
57	VO ₂ -metallic hybrid metasurfaces for agile terahertz wave modulation by phase transition. <i>APL Materials</i> , 2022, 10, .	2.2	12
58	Enhanced hydrophilicity of the Si substrate for deposition of VO ₂ film by sol-gel method. <i>Journal of Materials Science: Materials in Electronics</i> , 2012, 23, 1610-1615.	1.1	11
59	Shape-dependent thermochromic phenomenon in porous nano-structured VO ₂ films. <i>Materials Research Bulletin</i> , 2013, 48, 4146-4149.	2.7	11
60	Pressure Dependence of Electrical Conductivity of Black Titania Hydrogenated at Different Temperatures. <i>Journal of Physical Chemistry C</i> , 2019, 123, 4094-4102.	1.5	11
61	Synthesis, characterization and sintering of Li ₂ TiO ₃ nanoparticles via low temperature solid-state reaction. <i>Ceramics International</i> , 2020, 46, 1816-1823.	2.3	11
62	Characterization of Li-rich Li ₂ TiO ₃ ceramic pebbles prepared by rolling method sintered in air and vacuum. <i>Journal of Nuclear Materials</i> , 2021, 546, 152786.	1.3	11
63	Influence of helium ion radiation on the nano-grained Li ₂ TiO ₃ ceramic for tritium breeding. <i>Ceramics International</i> , 2021, 47, 28357-28366.	2.3	11
64	Preparation of a B ₄ C hollow microsphere through gel-casting for an inertial confinement fusion (ICF) target. <i>Ceramics International</i> , 2017, 43, 571-577.	2.3	10
65	Enhanced photoresponses of an optically driven VO ₂ -based terahertz wave modulator near percolation threshold. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	10
66	Transparent ALON ceramic combined with VO ₂ thin film for infrared and terahertz smart window. <i>Ceramics International</i> , 2018, 44, 13674-13680.	2.3	10
67	Tritium release behavior of Li ₄ SiO ₄ and Li ₄ SiO ₄ + 5Åmol% TiO ₂ ceramic pebbles with small grain size. <i>Journal of Nuclear Materials</i> , 2019, 514, 284-289.	1.3	10
68	Flexible VO ₂ /Mica thin films with excellent phase transition properties fabricated by RF magnetron sputtering. <i>Vacuum</i> , 2021, 192, 110407.	1.6	10
69	Phase transition properties of vanadium oxide films deposited by polymer-assisted deposition. <i>Journal of Sol-Gel Science and Technology</i> , 2014, 72, 565-570.	1.1	9
70	Geometrical morphology optimisation of laser drilling in B ₄ C ceramic: From plate to hollow microsphere. <i>Ceramics International</i> , 2018, 44, 1370-1375.	2.3	9
71	Improved chemical precipitation prepared rapidly NiCo ₂ S ₄ with high specific capacitance for supercapacitors. <i>Nanotechnology</i> , 2021, 32, 085604.	1.3	9
72	Volatile and Nonvolatile Switching of Phase Change Material Ge ₂ Sb ₂ Te ₅ Revealed by Time-Resolved Terahertz Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 947-953.	2.1	9

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73	Two-Channel VO ₂ Memory Meta-Device for Terahertz Waves. <i>Nanomaterials</i> , 2021, 11, 3409.	1.9	9
74	Photoluminescence enhancement of YAG:Ce nanophosphors with SiO ₂ additions. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 2451-2456.	1.1	8
75	Development of an advanced core-shell ceramic pebble with Li ₄ TiO ₄ pure phase core and Li ₂ TiO ₃ nanostructured shell by a physical coating method. <i>Journal of Nuclear Materials</i> , 2019, 520, 252-257.	1.3	8
76	Effect of coating layers on nano-TiO ₂ particles on the preparation of nanocrystalline λ -Ti ₃ O ₅ by carbonthermal reduction. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 4216-4222.	1.1	7
77	Low-temperature preparation of nanostructured Li ₂ TiO ₃ tritium breeder ceramic pebbles using CTAB-modified ultrafine powders by mixed solvent-thermal method. <i>Journal of Nuclear Materials</i> , 2019, 519, 315-321.	1.3	7
78	Surface morphology and microstructure evolution of B ₄ C ceramic hollow microspheres prepared by wet coating method on a pyrolysis substrate. <i>Ceramics International</i> , 2019, 45, 7916-7922.	2.3	7
79	An innovative process for synthesis of superfine nanostructured Li ₂ TiO ₃ tritium breeder ceramic pebbles via TBOT hydrolysis solvothermal method. <i>Ceramics International</i> , 2019, 45, 5189-5194.	2.3	7
80	Hydrothermal activated carbon cloth as electrode materials for symmetric supercapacitors. <i>Ionics</i> , 2020, 26, 1457-1464.	1.2	7
81	Characteristics of CeO _x /VO ₂ composite thin films synthesized by sol-gel process. <i>Journal of Materials Science: Materials in Electronics</i> , 2013, 24, 3496-3503.	1.1	6
82	Low-temperature fabrication of Li ₂ O porous ceramic pebbles by two-stage support decomposition. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 20249-20256.	3.8	6
83	In situ growth of sol-gel-derived nano-VO ₂ film and its phase transition characteristics. <i>Journal of Nanoparticle Research</i> , 2014, 16, 1.	0.8	5
84	Photothermal conversion of Ti ₂ O ₃ film for tuning terahertz waves. <i>IScience</i> , 2022, 25, 103661.	1.9	5
85	Synthesis of nanoscale λ -Ti ₃ O ₅ via a PEG assisted sol-gel method. <i>Journal of Alloys and Compounds</i> , 2020, 848, 156585.	2.8	4
86	Transcriptome profiling of cells exposed to particular and intense electromagnetic radiation emitted by the "SG-III" prototype laser facility. <i>Scientific Reports</i> , 2021, 11, 2017.	1.6	4
87	Synthesis of ultra-fine and controllable size distribution nanocrystalline MgAl ₂ O ₄ powders and ascertainment of aluminum loss by introducing inert atmosphere pre-calcination during combustion. <i>Journal of Sol-Gel Science and Technology</i> , 2015, 75, 336-344.	1.1	3
88	High-frequency response in Sr _{1-x} CaxTiO ₃ powders studied by terahertz time-domain spectroscopy. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 6318-6324.	1.1	3
89	Preparation of VO ₂ films via microspacing in-air sublimation method. <i>Vacuum</i> , 2022, 200, 110996.	1.6	3
90	Characterization of cation disorder and oxygen vacancies in Li ₂ TiO ₃ . <i>Journal of the American Ceramic Society</i> , 2022, 105, 6407-6416.	1.9	3

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91	Highly efficient preparation of Li ₂ O breeder materials with core-shell structure by oil-based granulation route. Journal of the American Ceramic Society, 2020, 103, 5612-5623.	1.9	2
92	The preparation and phase transformation characteristics of Ti_3O_5 thin film. Journal of Materials Science: Materials in Electronics, 2017, 28, 7868-7873.	1.1	1
93	Tunable terahertz planar lens based on the dynamic meta-surface. , 2019, , .		1
94	Highly stable visible-light photocatalytic properties of black rutile TiO ₂ hydrogenated in ultrafast flow. Journal of Materials Science: Materials in Electronics, 2021, 32, 14665-14676.	1.1	1
95	Ultrafast THz modulation characteristics of photo-induced metal-insulator transition of W-doped VO ₂ film. , 2015, , .		0
96	Compare the phase transition properties of VO ₂ films from infrared to terahertz range. Phase Transitions, 2018, 91, 649-658.	0.6	0
97	Ti_3O_5 with Temperature and Laser Induced Phase Transition Characteristics for Active Tuning of Terahertz Wave Transmission. , 2018, , .		0