

Xiaodong Wang

List of Publications by Year in descending order

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69
papers

1,939
citations

257450

24
h-index

276875

41
g-index

70
all docs

70
docs citations

70
times ranked

2040
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanocellulose-derived highly porous carbon aerogels for supercapacitors. <i>Carbon</i> , 2016, 99, 203-211.	10.3	226
2	Research progress and application prospect of solid-state electrolytes in commercial lithium-ion power batteries. <i>Energy Storage Materials</i> , 2021, 35, 70-87.	18.0	126
3	Sol-gel derived durable antireflective coating for solar glass. <i>Journal of Sol-Gel Science and Technology</i> , 2010, 53, 322-327.	2.4	90
4	Optical Constants of Crystallized TiO ₂ Coatings Prepared by Sol-Gel Process. <i>Materials</i> , 2013, 6, 2819-2830.	2.9	87
5	Active biochar support nano zero-valent iron for efficient removal of U(VI) from sewage water. <i>Journal of Alloys and Compounds</i> , 2021, 852, 156993.	5.5	86
6	3D porous MnO ₂ @carbon nanosheet synthesized from rambutan peel for high-performing supercapacitor electrodes materials. <i>Applied Surface Science</i> , 2020, 530, 147230.	6.1	83
7	An energy-efficient two-stage hybrid flow shop scheduling problem in a glass production. <i>International Journal of Production Research</i> , 2020, 58, 2283-2314.	7.5	73
8	Opacifier embedded and fiber reinforced alumina-based aerogel composites for ultra-high temperature thermal insulation. <i>Ceramics International</i> , 2019, 45, 644-650.	4.8	70
9	Raman spectroscopy of sol-gel derived titanium oxide thin films. <i>Journal of Raman Spectroscopy</i> , 2011, 42, 1578-1582.	2.5	68
10	Superelastic Triple-Network Polyorganosiloxane-Based Aerogels as Transparent Thermal Superinsulators and Efficient Separators. <i>Chemistry of Materials</i> , 2020, 32, 1595-1604.	6.7	57
11	A flexible high-performance symmetric quasi-solid supercapacitor based on Ni-doped MnO ₂ nano-array @ carbon cloth. <i>Electrochimica Acta</i> , 2020, 348, 136209.	5.2	52
12	A positive-negative alternate adsorption effect for capacitive deionization in nano-porous carbon aerogel electrodes to enhance desalination capacity. <i>Desalination</i> , 2019, 458, 45-53.	8.2	51
13	A review of contamination-resistant antireflective sol-gel coatings. <i>Journal of Sol-Gel Science and Technology</i> , 2012, 61, 206-212.	2.4	49
14	Thermal Annealing Effect on Optical Properties of Binary TiO ₂ -SiO ₂ Sol-Gel Coatings. <i>Materials</i> , 2013, 6, 76-84.	2.9	44
15	Promising High-Performance Supercapacitor Electrode Materials from MnO ₂ Nanosheets@Bamboo Leaf Carbon. <i>ACS Omega</i> , 2020, 5, 16299-16306.	3.5	42
16	Resilient, fire-retardant and mechanically strong polyimide-polyvinylpolymethylsiloxane composite aerogel prepared via stepwise chemical liquid deposition. <i>Materials and Design</i> , 2019, 183, 108096.	7.0	38
17	Metal Cation-Assisted Synthesis of Amorphous B, N Co-Doped Carbon Nanotubes for Superior Sodium Storage. <i>Small</i> , 2020, 16, e2001607.	10.0	35
18	Two-dimensional Mg-doped MnO ₂ @ carbon cloth nanosheets for high performance typical flexible solid supercapacitor. <i>Journal of Alloys and Compounds</i> , 2021, 877, 160243.	5.5	34

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19	Performance of high-temperature thermosetting polyimide composites modified with thermoplastic polyimide. <i>Polymer Testing</i> , 2020, 90, 106746.	4.8	30
20	3D flame-retardant skeleton reinforced polymer electrolyte for solid-state dendrite-free lithium metal batteries. <i>Journal of Energy Chemistry</i> , 2022, 71, 174-181.	12.9	30
21	Effect of crystal structure on optical properties of sol-gel derived zirconia thin films. <i>Journal of Alloys and Compounds</i> , 2013, 556, 182-187.	5.5	29
22	Highly thermally stable alumina-based aerogels modified by partially hydrolyzed aluminum tri-sec-butoxide. <i>Journal of Sol-Gel Science and Technology</i> , 2017, 84, 507-514.	2.4	28
23	Sol-gel Preparation of Laser Damage Resistant and Moisture-Proof Antireflective Coatings for KDP Crystals. <i>Langmuir</i> , 2018, 34, 10262-10269.	3.5	28
24	Cellulose-reinforced poly(cyclocarbonate-ether)-based composite polymer electrolyte and facile gel interfacial modification for solid-state lithium-ion batteries. <i>Chemical Engineering Journal</i> , 2022, 446, 137194.	12.7	27
25	Superhydrophobic highly flexible doubly cross-linked aerogel/carbon nanotube composites as strain/pressure sensors. <i>Journal of Materials Chemistry B</i> , 2020, 8, 4883-4889.	5.8	25
26	Preparation of Carbon Aerogel Electrode for Electrosorption of Copper Ions in Aqueous Solution. <i>Materials</i> , 2019, 12, 1864.	2.9	24
27	Adsorption of cationic dyes from aqueous solution using hydrophilic silica aerogel via ambient pressure drying. <i>Chinese Journal of Chemical Engineering</i> , 2020, 28, 2467-2473.	3.5	22
28	Surface free energy and microstructure dependent environmental stability of sol-gel SiO ₂ antireflective coatings: Effect of combined vapor phase surface treatment. <i>Journal of Colloid and Interface Science</i> , 2019, 555, 124-131.	9.4	20
29	Multipath conduction and large capacity silicon-based anodes for high stabilizing lithium-ion batteries. <i>Applied Surface Science</i> , 2021, 557, 149860.	6.1	19
30	Low-Temperature Preparation of Mechanically Robust and Contamination-Resistant Antireflective Coatings for Flexible Polymeric Glasses via Embedding of Silica Nanoparticles and HMDS Modification. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 37084-37093.	8.0	18
31	Ambient Pressure-Dried Graphene-Composite Carbon Aerogel for Capacitive Deionization. <i>Processes</i> , 2019, 7, 29.	2.8	18
32	Applying multi-scale silica-like three-dimensional networks in a PEO matrix <i>via in situ</i> crosslinking for high-performance solid composite electrolytes. <i>Materials Chemistry Frontiers</i> , 2021, 5, 7767-7777.	5.9	18
33	Anion-regulated selective growth ultrafine copper templates in carbon nanosheets network toward highly efficient gas capture. <i>Journal of Colloid and Interface Science</i> , 2020, 564, 296-302.	9.4	17
34	Improvement on laser-induced damage threshold of sol-gel ZrO ₂ coatings by crystal structure tuning. <i>Optics Express</i> , 2012, 20, 24482.	3.4	16
35	Metal oxide aerogels for high-temperature applications. <i>Journal of Sol-Gel Science and Technology</i> , 2023, 106, 360-380.	2.4	15
36	Porous alumina aerogel with tunable pore structure for facile, ultrasensitive, and reproducible SERS platform. <i>Journal of Raman Spectroscopy</i> , 2019, 50, 1429-1437.	2.5	13

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37	Homogeneous deposition of Ni(OH) ₂ onto cellulose-derived carbon aerogels for low-cost energy storage electrodes. RSC Advances, 2017, 7, 10583-10591.	3.6	12
38	Highly Porous Carbon Xerogels Doped with Cuprous Chloride for Effective CO Adsorption. ACS Omega, 2019, 4, 6138-6143.	3.5	11
39	Al ³⁺ coordinated chitosan hydrogel with ultrahigh water absorbency and environmental response. Materials and Design, 2022, 214, 110390.	7.0	11
40	Valence Band Splitting in Wurtzite InGaAs Nanoneedles Studied by Photoluminescence Excitation Spectroscopy. ACS Nano, 2014, 8, 11440-11446.	14.6	10
41	A Bi-Objective Vehicle-Routing Problem with Soft Time Windows and Multiple Depots to Minimize the Total Energy Consumption and Customer Dissatisfaction. Sustainability, 2018, 10, 4257.	3.2	10
42	Durable silica antireflective coating prepared by combined treatment of ammonia and KH570 vapor. Journal of Coatings Technology Research, 2019, 16, 615-622.	2.5	10
43	Fabrication of methyl acrylate modified silica aerogel for capture of Cu ²⁺ from aqueous solutions. Journal of Sol-Gel Science and Technology, 2021, 98, 389-400.	2.4	10
44	A high energy density flexible symmetric supercapacitor based on Al-doped MnO ₂ nanosheets @ carbon cloth electrode materials. Journal of Materials Science: Materials in Electronics, 2020, 31, 16027-16036.	2.2	9
45	Hydrothermal self-assembled Fe ₃ O ₄ /CA core-shell composites for broadband microwave absorption. Journal of Magnetism and Magnetic Materials, 2022, 541, 168511.	2.3	9
46	Preparation protocol of urea cross-linked chitosan aerogels with improved mechanical properties using aqueous aluminum ion medium. Journal of Supercritical Fluids, 2022, 179, 105414.	3.2	9
47	Organic/inorganic double-precursor cross-linked alumina aerogel with high specific surface area and high-temperature resistance. Ceramics International, 2022, 48, 17261-17269.	4.8	9
48	Preparation and stress evolution of sol-gel SiO ₂ antireflective coatings for small-size anisotropic lithium triborate crystals. AIP Advances, 2016, 6, .	1.3	8
49	Effect of different chemical liquid deposition methods on the microstructure and properties of polyimide-polyvinylpolymethylsiloxane composite aerogels. Journal of Supercritical Fluids, 2020, 160, 104811.	3.2	8
50	Properties improvement of linear polyimide aerogels via formation of doubly cross-linked polyimide-polyvinylpolymethylsiloxane network structure. Journal of Non-Crystalline Solids, 2021, 559, 120679.	3.1	8
51	Embedding constructed refractive index graded antireflective coating with high abrasion resistance and environmental stability for polycarbonate glass. Journal of Colloid and Interface Science, 2022, 608, 13-21.	9.4	8
52	Silica Aerogel Monoliths Derived from Silica Hydrosol with Various Surfactants. Molecules, 2018, 23, 3192.	3.8	7
53	Two-stage no-wait hybrid flow-shop scheduling with sequence-dependent setup times. International Journal of Systems Science: Operations and Logistics, 2020, 7, 291-307.	3.0	7
54	Environmental Stable SiO ₂ Antireflective Coating Modified via NH ₃ /HTMS Vapor Phase Treatment. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2018, 33, 1219.	1.3	7

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55	Fluoride removal performance of highly porous activated alumina. <i>Journal of Sol-Gel Science and Technology</i> , 0, , 1.	2.4	7
56	MoS ₂ nanosheet loaded Fe ₂ O ₃ @ carbon cloth flexible composite electrode material for quasi-solid asymmetric supercapacitors. <i>Journal of Electroanalytical Chemistry</i> , 2022, 919, 116556.	3.8	7
57	Moisture-Resistant and Mechanically Strong Polyimide-Polymethylsilsesquioxane Hybrid Aerogels with Tunable Microstructure. <i>Macromolecular Materials and Engineering</i> , 2021, 306, 2000612.	3.6	6
58	Alumina-Doped Silica Aerogels for High-Temperature Thermal Insulation. <i>Gels</i> , 2021, 7, 122.	4.5	6
59	Novel electrode design of three-dimensional carbon foam modified with MnO ₂ nanosheet arrays for high-performance quasi-solid supercapacitor. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 26555-26566.	2.2	6
60	Synthesis of highly cross-linked uniform polyurea aerogels. <i>Journal of Supercritical Fluids</i> , 2019, 151, 8-14.	3.2	5
61	Polyaniline-supported Al-doped MnO ₂ @carbon cloth-based electrode material for quasi-solid-state flexible supercapacitor. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 19820-19831.	2.2	5
62	Aqueous-based, high-density nanoporous carbon xerogels with high specific surface area for supercapacitors. <i>Journal of Porous Materials</i> , 2022, 29, 87-95.	2.6	5
63	A Facile Method for Fabricating a Monolithic Mullite Fiber-Reinforced Alumina Aerogel with Excellent Mechanical and Thermal Properties. <i>Gels</i> , 2022, 8, 380.	4.5	5
64	Silver Nanoparticle-Decorated Chitosan Aerogels as Three-Dimensional Porous Surface-Enhanced Raman Scattering Substrates for Ultrasensitive Detection. <i>ACS Applied Nano Materials</i> , 2022, 5, 5398-5406.	5.0	4
65	Cast-In-Situ, Large-Sized Monolithic Silica Xerogel Prepared in Aqueous System. <i>Molecules</i> , 2018, 23, 1178.	3.8	3
66	Influence of diamine rigidity and dianhydride rigidity on the microstructure, thermal and mechanical properties of cross-linked polyimide aerogels. <i>Journal of Porous Materials</i> , 2021, 28, 717-725.	2.6	3
67	A quasi-solid asymmetric supercapacitor based on MnO ₂ -coated and N-doped pinecone porous carbon. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 1899-1909.	2.2	3
68	UV resistance of sol-gel hydrophobic silica antireflective coatings. <i>Journal of Sol-Gel Science and Technology</i> , 2023, 106, 381-392.	2.4	3
69	Study on Hexagonal Mesoporous Silica Film for Antireflective Coating. <i>Key Engineering Materials</i> , 2012, 509, 74-81.	0.4	0