Shanyu Zhao

List of Publications by Year in descending order

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48 papers	2,694 citations	279798 23 h-index	214800 47 g-index
52 all docs	52 docs citations	52 times ranked	2529 citing authors

#	Article	IF	Citations
1	Biopolymer Aerogels and Foams: Chemistry, Properties, and Applications. Angewandte Chemie - International Edition, 2018, 57, 7580-7608.	13.8	470
2	Additive manufacturing of silica aerogels. Nature, 2020, 584, 387-392.	27.8	323
3	Flexible and Ultrathin Waterproof Cellular Membranes Based on Highâ€Conjunction Metalâ€Wrapped Polymer Nanofibers for Electromagnetic Interference Shielding. Advanced Materials, 2020, 32, e1908496.	21.0	234
4	Multiscale Assembly of Superinsulating Silica Aerogels Within Silylated Nanocellulosic Scaffolds: Improved Mechanical Properties Promoted by Nanoscale Chemical Compatibilization. Advanced Functional Materials, 2015, 25, 2326-2334.	14.9	229
5	Strong, Thermally Superinsulating Biopolymerâ€“Silica Aerogel Hybrids by Cogelation of Silicic Acid with Pectin. Angewandte Chemie - International Edition, 2015, 54, 14282-14286.	13.8	132
6	Printed aerogels: chemistry, processing, and applications. Chemical Society Reviews, 2021, 50, 3842-3888.	38.1	128
7	Surface Chemistry of Hydrophobic Silica Aerogels. Chemistry of Materials, 2015, 27, 6737-6745.	6.7	100
8	Fast and Minimalâ€Solvent Production of Superinsulating Silica Aerogel Granulate. Angewandte Chemie - International Edition, 2017, 56, 4753-4756.	13.8	99
9	Chemistry of Chitosan Aerogels: Threeâ€Dimensional Pore Control for Tailored Applications. Angewandte Chemie - International Edition, 2021, 60, 9828-9851.	13.8	98
10	Strong, Machinable, and Insulating Chitosanâ€“Urea Aerogels: Toward Ambient Pressure Drying of Biopolymer Aerogel Monoliths. ACS Applied Materials & Interfaces, 2020, 12, 22037-22049.	8.0	71
11	Facile One-Pot Synthesis of Mechanically Robust Biopolymerâ€“Silica Nanocomposite Aerogel by Cogelation of Silicic Acid with Chitosan in Aqueous Media. ACS Sustainable Chemistry and Engineering, 2016, 4, 5674-5683.	6.7	68
12	Thermal assessment of ambient pressure dried silica aerogel composite boards at laboratory and field scale. Energy and Buildings, 2016, 128, 111-118.	6.7	65
13	Silica aerogels with tailored chemical functionality. Materials and Design, 2020, 193, 108833.	7.0	53
14	Breakthroughs in cost-effective, scalable production of superinsulating, ambient-dried silica aerogel and silica-biopolymer hybrid aerogels: from laboratory to pilot scale. Journal of Sol-Gel Science and Technology, 2016, 79, 308-318.	2.4	52
15	Study of physical properties and microstructure of aerogel-cement mortars for improving the fire safety of high-performance concrete linings in tunnels. Cement and Concrete Composites, 2019, 104, 103414.	10.7	44
16	Polymer-Assisted Fabrication of Silver Nanowire Cellular Monoliths: Toward Hydrophobic and Ultraflexible High-Performance Electromagnetic Interference Shielding Materials. ACS Applied Materials & Interfaces, 2020, 12, 38584-38592.	8.0	38
17	Heterogeneous silica-polyimide aerogel-in-aerogel nanocomposites. Chemical Engineering Journal, 2022, 443, 136401.	12.7	35
18	Transparent, Aldehyde-Free Chitosan Aerogel. Carbohydrate Polymers, 2021, 251, 117089.	10.2	34

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19	Thermal-Switchable, Trifunctional Ceramicâ€“Hydrogel Nanocomposites Enable Full-Lifecycle Security in Practical Battery Systems. ACS Nano, 2022, 16, 10729-10741.	14.6	30
20	Dimensional and Structural Control of Silica Aerogel Membranes for Miniaturized Motionless Gas Pumps. ACS Applied Materials & Interfaces, 2015, 7, 18803-18814.	8.0	28
21	Reinforced and superinsulating silica aerogel through in situ cross-linking with silane terminated prepolymers. Acta Materialia, 2018, 147, 322-328.	7.9	28
22	Merging flexibility with superinsulation: Machinable, nanofibrous pullulan-silica aerogel composites. Materials and Design, 2018, 160, 294-302.	7.0	23
23	Synthesis and characteristics of mesoporous silica aerogels with one-step solvent exchange/surface modification. Journal Wuhan University of Technology, Materials Science Edition, 2009, 24, 613-618.	1.0	21
24	Biopolymerâ€Aerogele und â€šchÃume: Chemie, Eigenschaften und Anwendungen. Angewandte Chemie, 2018, 130, 7704-7733.	2.0	21
25	Template-free synthesis of hybrid silica nanoparticle with functionalized mesostructure for efficient methylene blue removal. Materials and Design, 2021, 201, 109494.	7.0	20
26	Phase transfer agents facilitate the production of superinsulating silica aerogel powders by simultaneous hydrophobization and solvent- and ion-exchange. Chemical Engineering Journal, 2020, 381, 122421.	12.7	19
27	Durability of silica aerogel cementitious composites â€“ freezeâ€“thaw resistance, water resistance and drying shrinkage. Advances in Cement Research, 2020, 32, 527-536.	1.6	17
28	Solvents, CO2 and biopolymers: Structure formation in chitosan aerogel. Carbohydrate Polymers, 2020, 247, 116680.	10.2	17
29	Fast and Minimalâ€šSolvent Production of Superinsulating Silica Aerogel Granulate. Angewandte Chemie, 2017, 129, 4831-4834.	2.0	14
30	Superinsulating nanocellulose aerogels: Effect of density and nanofiber alignment. Carbohydrate Polymers, 2022, 292, 119675.	10.2	14
31	Synthesis and thermal insulation performance of silica aerogel from recycled coal gangue by means of ambient pressure drying. Journal Wuhan University of Technology, Materials Science Edition, 2015, 30, 908-913.	1.0	13
32	Aerogel Springâ€Back Correlates with Strain Recovery: Effect of Silica Concentration and Aging. Advanced Engineering Materials, 2021, 23, 2100376.	3.5	13
33	Biomimetic Lightâ€Driven Aerogel Passive Pump for Volatile Organic Pollutant Removal. Advanced Science, 2022, 9, e2105819.	11.2	13
34	Tailoring the hydrophobicity of wrinkled silica nanoparticles and of the adsorption medium as a strategy for immobilizing lipase: An efficient catalyst for biofuel production. Microporous and Mesoporous Materials, 2021, 328, 111504.	4.4	12
35	High Efficiency Thermoacoustic Loudspeaker Made with a Silica Aerogel Substrate. Advanced Materials Technologies, 2018, 3, 1800139.	5.8	11
36	Synthesis of novel chitalineâ€“silica aerogels with spontaneous Au and Ag nanoparticles formation in aerogels matrix. Microporous and Mesoporous Materials, 2013, 171, 147-155.	4.4	10

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37	A Novel Environmental Route to Ambient Pressure Dried Thermal Insulating Silica Aerogel via Recycled Coal Gangue. Advances in Materials Science and Engineering, 2016, 2016, 1-9.	1.8	10
38	Structural characteristics and photocatalytic activity of ambient pressure dried SiO2/TiO2 aerogel composites by one-step solvent exchange/surface modification. Journal Wuhan University of Technology, Materials Science Edition, 2016, 31, 80-86.	1.0	10
39	Hydrophobic TiO₂â€SiO₂ Aerogel Composites for Fast Removal of Organic Pollutants. ChemistrySelect, 2018, 3, 10483-10490.	1.5	8
40	Facile ambient temperature synthesis and characterization of a stable nano-sized hollow silica particles using soluble-poly(methacrylic acid) sodium salt templating. Materials Letters, 2014, 126, 92-96.	2.6	7
41	Dynamics of Silica Aerogelâ€™s Hydrophobic Groups: A Quasielastic Neutron Scattering Study. Journal of Physical Chemistry C, 2017, 121, 20335-20344.	3.1	6
42	Synthesis of a sugar-organometallic compound 1,1â€²-difurfurylferrocene and its microwave preparation of carbon/iron oxide nanocomposite. Applied Surface Science, 2013, 264, 242-246.	6.1	4
43	Ureido Functionalization through Amine-Urea Transamidation under Mild Reaction Conditions. Polymers, 2021, 13, 1583.	4.5	4
44	Robust Barium Phosphonate Metalâ€“Organic Frameworks Synthesized under Aqueous Conditions. , 2021, 3, 1010-1015.		3
45	Microwave-assisted hydrothermal synthesis of carbon materials with tunable microstructure. Journal Wuhan University of Technology, Materials Science Edition, 2017, 32, 1032-1037.	1.0	2
46	Influence of drying methods on fractal geometric characteristics of mesoporous silica aerogels. Journal Wuhan University of Technology, Materials Science Edition, 2013, 28, 476-482.	1.0	1
47	Carbon Dots and Fluorescein: The Ideal FRET Pair for the Fabrication of a Precise and Fully Reversible Ammonia Sensor. Proceedings (mdpi), 2017, 1, 488.	0.2	1
48	Chemie der Chitosanâ€Aerogele: Lenkung der dreidimensionalen Poren fÃ¼r maÃŸgeschneiderte Anwendungen. Angewandte Chemie, 2021, 133, 9913-9938.	2.0	0