

Zhe Wang

List of Publications by Year in descending order

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47
papers

1,605
citations

394421

19
h-index

302126

39
g-index

48
all docs

48
docs citations

48
times ranked

2622
citing authors

#	ARTICLE	IF	CITATIONS
1	Selective production of arenes via direct lignin upgrading over a niobium-based catalyst. <i>Nature Communications</i> , 2017, 8, 16104.	12.8	346
2	Reversible adsorption of nitrogen dioxide within a robust porous metal-organic framework. <i>Nature Materials</i> , 2018, 17, 691-696.	27.5	162
3	Capture of nitrogen dioxide and conversion to nitric acid in a porous metal-organic framework. <i>Nature Chemistry</i> , 2019, 11, 1085-1090.	13.6	116
4	Spin-phonon couplings in transition metal complexes with slow magnetic relaxation. <i>Nature Communications</i> , 2018, 9, 2572.	12.8	93
5	Resolution of VISION, a crystal-analyzer spectrometer. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 604, 719-728.	1.6	79
6	Quantitative production of butenes from biomass-derived δ^3 -valerolactone catalysed by hetero-atomic MFI zeolite. <i>Nature Materials</i> , 2020, 19, 86-93.	27.5	74
7	Post-synthetic modulation of the charge distribution in a metal-organic framework for optimal binding of carbon dioxide and sulfur dioxide. <i>Chemical Science</i> , 2019, 10, 1472-1482.	7.4	62
8	Understanding the breathing phenomena in nano-ZIF-7 upon gas adsorption. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20938-20946.	10.3	50
9	X-ray and Neutron Scattering Study of the Formation of Core-Shell-Type Polyoxometalates. <i>Journal of the American Chemical Society</i> , 2016, 138, 2638-2643.	13.7	49
10	Magnetic proximity effect and interlayer exchange coupling of ferromagnetic/topological insulator/ferromagnetic trilayer. <i>Physical Review B</i> , 2015, 91, .	3.2	44
11	Fingerprinting Molecular Relaxation in Deformed Polymers. <i>Physical Review X</i> , 2017, 7, .	8.9	41
12	Cesium Substitution Disrupts Concerted Cation Dynamics in Formamidinium Hybrid Perovskites. <i>Chemistry of Materials</i> , 2020, 32, 6266-6277.	6.7	38
13	Spatial-Temporal Characteristics of Confined Polymer Motion Determine Proton Conduction of Polyoxometalate-Poly(ethylene glycol) Hybrid Nanocomposites. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 5772-5777.	4.6	32
14	Neutron Instruments for Research in Coordination Chemistry. <i>European Journal of Inorganic Chemistry</i> , 2019, 2019, 1065-1089.	2.0	29
15	Liquid-Liquid Phase Transition and Its Phase Diagram in Deeply-Cooled Heavy Water Confined in a Nanoporous Silica Matrix. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2009-2014.	4.6	27
16	Comparison of two multifunctional catalysts $[M/Nb_2O_5]$ ($M = Pd, Pt$) for one-pot hydrodeoxygenation of lignin. <i>Catalysis Science and Technology</i> , 2018, 8, 6129-6136.	4.1	26
17	Boson Peak in Deeply Cooled Confined Water: A Possible Way to Explore the Existence of the Liquid-to-Liquid Transition in Water. <i>Physical Review Letters</i> , 2014, 112, 237802.	7.8	24
18	Dynamic crossover in deeply cooled water confined in MCM-41 at 4 kbar and its relation to the liquid-liquid transition hypothesis. <i>Journal of Chemical Physics</i> , 2015, 143, 114508.	3.0	24

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19	Nanoscale Mobility of Aqueous Polyacrylic Acid in Dental Restorative Cements. ACS Applied Materials & Interfaces, 2018, 10, 9904-9915.	8.0	23
20	Inelastic X-ray Scattering Studies of the Short-Time Collective Vibrational Motions in Hydrated Lysozyme Powders and Their Possible Relation to Enzymatic Function. Journal of Physical Chemistry B, 2013, 117, 1186-1195.	2.6	21
21	Insight into the Selectivity of Isopropanol Conversion at Strontium Titanate (100) Surfaces: A Combination Kinetic and Spectroscopic Study. ACS Catalysis, 2017, 7, 8118-8129.	11.2	19
22	Reconstruction of three-dimensional anisotropic structure from small-angle scattering experiments. Physical Review E, 2017, 96, 022612.	2.1	16
23	Evaluation of the Two-Dimensional Temperature Field and Instability of a Dual-Jet DC Arc Plasma Based on the Image Chain Coding Technique. IEEE Transactions on Plasma Science, 2011, 39, 2884-2885.	1.3	15
24	Evidence of the existence of the high-density and low-density phases in deeply-cooled confined heavy water under high pressures. Journal of Chemical Physics, 2014, 141, 014501.	3.0	15
25	Dynamical behaviors of structural, constrained and free water in calcium- and magnesium-silicate-hydrate gels. Journal of Colloid and Interface Science, 2016, 469, 157-163.	9.4	15
26	Pressure Effect on the Boson Peak in Deeply Cooled Confined Water: Evidence of a Liquid-Liquid Transition. Physical Review Letters, 2015, 115, 235701.	7.8	13
27	Scaling Behavior of Anisotropy Relaxation in Deformed Polymers. Physical Review Letters, 2018, 121, 117801.	7.8	13
28	Volt-Ampere and Thermal Features of a Direct-Current Dual-Jet Plasma Generator With a Cold Gas Injection. IEEE Transactions on Plasma Science, 2010, 38, 2906-2913.	1.3	12
29	Effect of a floating electrode on an atmospheric-pressure non-thermal arc discharge. Journal of Applied Physics, 2011, 110, .	2.5	12
30	Hydration-dependent dynamic crossover phenomenon in protein hydration water. Physical Review E, 2014, 90, 042705.	2.1	12
31	One role of hydration water in proteins: key to the "softening" of short time intraprotein collective vibrations of a specific length scale. Soft Matter, 2014, 10, 4298-4303.	2.7	12
32	The Boson peak in confined water: An experimental investigation of the liquid-liquid phase transition hypothesis. Frontiers of Physics, 2015, 10, 1.	5.0	10
33	Analysis of Small-Angle Neutron Scattering Spectra from Deformed Polymers with the Spherical Harmonic Expansion Method and a Network Model. Macromolecules, 2018, 51, 9011-9018.	4.8	10
34	Study of a nested neutron-focusing supermirror system for small-angle neutron scattering. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 940, 380-386.	1.6	10
35	Chain conformation of polymer melts with associating groups. Journal of Physics Communications, 2019, 3, 035007.	1.2	10
36	Local elasticity in nonlinear rheology of interacting colloidal glasses revealed by neutron scattering and rheometry. Physical Chemistry Chemical Physics, 2019, 21, 38-45.	2.8	7

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37	Nanoconfinement Inside Molecular Metal Oxide Clusters: Dynamics and Modified Encapsulation Behavior. Chemistry - A European Journal, 2016, 22, 14131-14136.	3.3	6
38	Revealing the detailed structure in flow-induced crystallization of semicrystalline polymers. Physical Chemistry Chemical Physics, 2020, 22, 25206-25214.	2.8	6
39	Phonon Spectroscopy in Antimony and Tellurium Oxides. Journal of Physical Chemistry A, 2020, 124, 7869-7880.	2.5	6
40	Dynamic Equivalence between Soft Star Polymers and Hard Spheres. ACS Macro Letters, 2019, 8, 1467-1473.	4.8	5
41	Demonstration of small-angle neutron scattering measurements with a nested neutron-focusing supermirror assembly. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 972, 164072.	1.6	4
42	Search for the first-order liquid-to-liquid phase transition in low-temperature confined water by neutron scattering. AIP Conference Proceedings, 2013, , .	0.4	3
43	Tunable THz surface plasmon polariton based on a topological insulator/layered superconductor hybrid structure. Physical Review B, 2014, 89, .	3.2	3
44	Nanoconfinement Inside Molecular Metal Oxide Clusters: Dynamics and Modified Encapsulation Behavior. Chemistry - A European Journal, 2016, 22, 14073-14073.	3.3	3
45	Conceptual design of the grazing-incidence focusing small-angle neutron scattering (gif-SANS) instrument at CPHS. Journal of Neutron Research, 2021, 23, 201-205.	1.1	3
46	Wang<i>etÂal.</i>Reply:. Physical Review Letters, 2015, 115, 149802.	7.8	2
47	Size and shape fluctuations of ultrasoft colloids. Physical Review Research, 2021, 3, .	3.6	2