Hui Zhao

List of Publications by Year
in descending order

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39	986	430442	433756
papers	citations	18	31
		h-index	g-index

39	39	39	1124
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dynamic Aqueous Multiphase Reaction System for One-Pot CRISPR-Cas12a-Based Ultrasensitive and Quantitative Molecular Diagnosis. Analytical Chemistry, 2020, 92, 8561-8568.	3.2	109
2	Inducing Propulsion of Colloidal Dimers by Breaking the Symmetry in Electrohydrodynamic Flow. Physical Review Letters, 2015, 115, 208302.	2.9	80
3	On the Effect of Induced Electro-Osmosis on a Cylindrical Particle Next to a Surface. Langmuir, 2007, 23, 4053-4063.	1.6	75
4	Microfluidic chaotic stirrer utilizing induced-charge electro-osmosis. Physical Review E, 2007, 75, 066217.	0.8	62
5	Multiplexed colorimetric detection of SARS-CoV-2 and other pathogens in wastewater on a 3D printed integrated microfluidic chip. Sensors and Actuators B: Chemical, 2021, 344, 130242.	4.0	51
6	Doubleâ€layer polarization of a nonâ€conducting particle in an alternating current field with applications to dielectrophoresis. Electrophoresis, 2011, 32, 2232-2244.	1.3	39
7	Diffuse-charge dynamics of ionic liquids in electrochemical systems. Physical Review E, 2011, 84, 051504.	0.8	38
8	The polarization of a nanoparticle surrounded by a thick electric double layer. Journal of Colloid and Interface Science, 2009, 333, 663-671.	5.0	35
9	Confinement and Manipulation of Actin Filaments by Electric Fields. Biophysical Journal, 2007, 93, L42-L44.	0.2	34
10	Bulk Synthesis of Metalâ€“Organic Hybrid Dimers and Their Propulsion under Electric Fields. ACS Applied Materials & Interfaces, 2014, 6, 4560-4569.	4.0	33
11	Streaming potential generated by a pressure-driven flow over superhydrophobic stripes. Physics of Fluids, 2011, 23, .	1.6	30
12	Effect of Secondary Flows on Taylorâ^'Aris Dispersion. Analytical Chemistry, 2007, 79, 7792-7798.	3.2	28
13	Dynamics of electrical double layer formation in room-temperature ionic liquids under constant-current charging conditions. Journal of Physics Condensed Matter, 2014, 26, 284109.	0.7	28
14	Electro-osmotic flow over a charged superhydrophobic surface. Physical Review E, 2010, 81, 066314.	0.8	27
15	Colloidal structures of asymmetric dimers via orientation-dependent interactions. Soft Matter, 2014, 10, 8349-8357.	1.2	25
16	The influence of particle size and residual charge on electrostatic interactions between charged colloidal particles at an oilâ€“water interface. Soft Matter, 2014, 10, 4555.	1.2	25
17	Fabrication of Hardâ€“Soft Microfluidic Devices Using Hybrid 3D Printing. Micromachines, 2020, 11, 567.	1.4	23
18	AC Insulator-Based Dielectrophoretic Focusing of Particles and Cells in an â€œInfiniteâ€•Microchannel. Analytical Chemistry, 2021, 93, 5947-5953.	3.2	20

#	Article	IF	Citations
19	On the effect of hydrodynamic slip on the polarization of a nonconducting spherical particle in an alternating electric field. Physics of Fluids, 2010, 22, .	1.6	19
20	Polarization of Nanorods Submerged in an Electrolyte Solution and Subjected to an ac Electrical Field. Langmuir, 2010, 26, 5412-5420.	1.6	19
21	Influence of nonelectrostatic ion-ion interactions on double-layer capacitance. Physical Review E, 2012, 86, 051502.	0.8	18
22	Nanopatterned silk fibroin films with high transparency and high haze for optical applications. RSC Advances, 2019, 9, 40792-40799.	1.7	18
23	Effect of Double-Layer Polarization on the Forces That Act on a Nanosized Cylindrical Particle in an ac Electrical Field. Langmuir, 2008, 24, 6050-6059.	1.6	17
24	On the Influence of Ion Excluded Volume (Steric) Effects on the Double-Layer Polarization of a Nonconducting Spherical Particle in an AC Field. Journal of Physical Chemistry C, 2010, 114, 8389-8397.	1.5	16
25	The influence of dielectric decrement on electrokinetics. Journal of Fluid Mechanics, 2013, 724, 69-94.	1.4	16
26	High-Efficiency Omnidirectional Broadband Light-Management Coating Using the Hierarchical Orderedâ€“Disordered Nanostructures with Ultra-Mechanochemical Resistance. ACS Applied Materials & Interfaces, 2019, 11, 12978-12985.	4.0	13
27	Polarization of a Diffuse Soft Particle Subjected to an Alternating Current Field. Langmuir, 2012, 28, 11164-11172.	1.6	12
28	Silica-coated metallic nanoparticle-based hierarchical super-hydrophobic surfaces fabricated by spin-coating and inverse nanotransfer printing. Applied Physics Letters, 2019, 114, .	1.5	12
29	Suppression of Rayleigh-BÃ©nard convection with proportional-derivative controller. Physics of Fluids, 2007, 19, 017102.	1.6	11
30	Role of hydrodynamic behavior of DNA molecules in dielectrophoretic polarization under the action of an electric field. Physical Review E, 2011, 84, 021910.	0.8	11
31	Direct Writing of Metallic Nanoparticle Concentric Multiâ€Ring Structures by Templateâ€Directed Convective Selfâ€Assembly Processes. Advanced Optical Materials, 2014, 2, 632-635.	3.6	9
32	On the Impact of Electrostatic Correlations on the Double-Layer Polarization of a Spherical Particle in an Alternating Current Field. Langmuir, 2018, 34, 5592-5599.	1.6	8
33	Limitations of linear control of thermal convection in a porous medium. Physics of Fluids, 2006, 18, 074109.	1.6	7
34	Enhancement of Sensitivity of the Solution-Phase Localized Surface Plasmon by a Nanostructured Substrate. MRS Advances, 2016, 1, 2059-2064.	0.5	5
35	Influence of concentration polarization on DNA translocation through a nanopore. Physical Review E, 2016, 93, 052409.	0.8	4
36	The effects of electrostatic correlations on the ionic current rectification in conical nanopores. Electrophoresis, 2019, 40, 2655-2661.	1.3	3

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37	Silk fibroin supraparticles created by the evaporation of colloidal Ouzo droplets. AIP Advances, 2021, 11, .	0.6	3
38	Interplay of induced charge electroosmosis and electrothermal flow in insulator-based dielectrophoresis. Physical Review Fluids, 2021, 6, .	1.0	3
39	Finite element approximations to a fourth-order modified Poisson-Fermi equation for electrostatic correlations in concentrated electrolytes. Computers and Mathematics With Applications, 2022, 117, 229-244.	1.4	0