Geoff R Willmott

List of Publications by Year
in descending order

72 papers	1,545 citations	361413 20 h-index	330143 37 g-index
78 all docs	78 docs citations	78 times ranked	1530 citing authors

#	Article	IF	Citations
1	Quantitative Sizing of Nano/Microparticles with a Tunable Elastomeric Pore Sensor. Analytical Chemistry, 2011, 83, 3499-3506.	6.5	256
2	Applications of tunable resistive pulse sensing. Analyst, The, 2015, 140, 3318-3334.	3.5	110
3	A Variable Pressure Method for Characterizing Nanoparticle Surface Charge Using Pore Sensors. Analytical Chemistry, 2012, 84, 3125-3131.	6.5	93
4	Use of tunable nanopore blockade rates to investigate colloidal dispersions. Journal of Physics Condensed Matter, 2010, 22, 454116.	1.8	88
5	Small molecule detection in solution via the size contraction response of aptamer functionalized nanoparticles. Biosensors and Bioelectronics, 2014, 57, 262-268.	10.1	87
6	Resistive Pulse Sensing of Analyteâ€Induced Multicomponent Rod Aggregation Using Tunable Pores. Small, 2012, 8, 2436-2444.	10.0	84
7	Resistive pulse asymmetry for nanospheres passing through tunable submicron pores. Journal of Applied Physics, 2011, 109, .	2.5	46
8	Dynamics of a sphere with inhomogeneous slip boundary conditions in Stokes flow. Physical Review E, 2008, 77, 055302.	2.1	43
9	Pulse Size Distributions in Tunable Resistive Pulse Sensing. Analytical Chemistry, 2016, 88, 8648-8656.	6.5	41
10	Reversible mechanical actuation of elastomeric nanopores. Nanotechnology, 2008, 19, 475504.	2.6	40
11	Size and charge characterisation of a submicrometre oil-in-water emulsion using resistive pulse sensing with tunable pores. Journal of Colloid and Interface Science, 2013, 394, 243-251.	9.4	37
12	Taylor impact of glass rods. Journal of Applied Physics, 2005, 97, 093522.	2.5	32
13	Resistive pulse sensing of magnetic beads and supraparticle structures using tunable pores. Biomicrofluidics, 2012, 6, 014103.	2.4	32
14	Tunable SERS using gold nanoaggregates on an elastomeric substrate. Nanoscale, 2013, 5, 8945.	5.6	30
15	Uptake of water droplets by non-wetting capillaries. Soft Matter, 2011, 7, 2357-2363.	2.7	29
16	Nanoparticle Î¶-potential measurements using tunable resistive pulse sensing with variable pressure. Journal of Colloid and Interface Science, 2014, 429, 45-52.	9.4	29
17	Tunable Resistive Pulse Sensing: Better Size and Charge Measurements for Submicrometer Colloids. Analytical Chemistry, 2018, 90, 2987-2995.	6.5	29
18	Conductive and Biphasic Pulses in Tunable Resistive Pulse Sensing. Journal of Physical Chemistry B, 2015, 119, 5328-5335.	2.6	25

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19	Asymmetries in the spread of drops impacting on hydrophobic micropillar arrays. Soft Matter, 2016, 12, 4853-4865.	2.7	22
20	Measurement of Newtonian fluid slip using a torsional ultrasonic oscillator. Physical Review E, 2007, 76, 066306.	2.1	20
21	An experimental study of interactions between droplets and a nonwetting microfluidic capillary. Faraday Discussions, 2010, 146, 233.	3.2	20
22	Preclinical studies evaluating the effect of semifluorinated alkanes on ocular surface and tear fluid dynamics. Ocular Surface, 2019, 17, 241-249.	4.4	19
23	Magnetic microbead transport during resistive pulse sensing. Biomicrofluidics, 2013, 7, 64106.	2.4	16
24	Slip-induced dynamics of patterned and Janus-like spheres in laminar flows. Physical Review E, 2009, 79, 066309.	2.1	14
25	Spot Size Engineering in Microscope-Based Laser Spectroscopy. Journal of Physical Chemistry C, 2016, 120, 21104-21113.	3.1	14
26	Comment on â€˜Modeling the conductance and DNA blockade of solid-state nanoporesâ€™. Nanotechnology, 2012, 23, 088001.	2.6	13
27	Superhydrophobic New Zealand leaves: contact angle and drop impact experiments. Journal of the Royal Society of New Zealand, 2013, 43, 198-210.	1.9	13
28	Actuation of Tunable Elastomeric Pores: Resistance Measurements and Finite Element Modelling. Experimental Mechanics, 2014, 54, 153-163.	2.0	13
29	Co-ordinated detection of microparticles using tunable resistive pulse sensing and fluorescence spectroscopy. Biomicrofluidics, 2015, 9, 014110.	2.4	13
30	Molecular dynamics simulations of Janus nanoparticles in a fluid flow. Soft Matter, 2019, 15, 6742-6752.	2.7	12
31	The shock Hugoniot of Tuffisitic Kimberlite Breccia. International Journal of Rock Mechanics and Minings Sciences, 2007, 44, 228-237.	5.8	11
32	Tunable Elastomeric Nanopores. , 2011, , 209-261.		11
33	MODELLING OF RESISTIVE PULSE SENSING: FLEXIBLE METHODS FOR SUBMICRON PARTICLES. ANZIAM Journal, 2014, 55, 197-213.	0.2	11
34	Highâ€speed photography of water drop impacts on sand and soil. European Journal of Soil Science, 2019, 70, 245-256.	3.9	11
35	On the measurement and prediction of rainfall noise. Applied Acoustics, 2021, 171, 107636.	3.3	11
36	Dual Nano-Electrospray and Mixing in the Taylor Cone. Mass Spectrometry Letters, 2016, 7, 21-25.	0.5	11

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37	Turning industrial paints superhydrophobic via femtosecond laser surface hierarchical structuring. Progress in Organic Coatings, 2022, 163, 106625.	3.9	11
38	Water drop impacts on regular micropillar arrays: The impact region. Physics of Fluids, 2022, 34, .	4.0	11
39	Analysis and Finite Element Modelling of Resizable Nanopores. AIP Conference Proceedings, 2009, , .	0.4	10
40	Mechanical properties of bovine erythrocytes derived from ion current measurements using micropipettes. Bioelectrochemistry, 2019, 128, 204-210.	4.6	10
41	Polymer Brush Functionalization of Polyurethane Tunable Nanopores for Resistive Pulse Sensing. ACS Applied Polymer Materials, 2021, 3, 279-289.	4.4	10
42	Drop impact of non-Newtonian dairy-based solutions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 625, 126895.	4.7	10
43	Remotely Controlled in Situ Growth of Silver Microwires Forming Bioelectronic Interfaces. ACS Applied Materials & Interfaces, 2019, 11, 8928-8936.	8.0	9
44	The Effect of Structure on Failure Front Velocities in Glass Rods. AIP Conference Proceedings, 2004, , .	0.4	8
45	Use of microaspiration to study the mechanical properties of polymer gel microparticles. Soft Matter, 2019, 15, 7286-7294.	2.7	8
46	A high-speed photographic study of fast cracks in shocked diamond. Philosophical Magazine, 2006, 86, 4305-4318.	1.6	6
47	Depletion of HP1Î± alters the mechanical properties of MCF7 nuclei. Biophysical Journal, 2021, 120, 2631-2643.	0.5	6
48	Pressure dependence of particle transport through resizable nanopores. , 2010, , .		5
49	Fast piezoelectric actuation of an elastomeric micropore. Measurement: Journal of the International Measurement Confederation, 2013, 46, 3560-3567.	5.0	5
50	Electrospray-deposited vanadium oxide anode interlayers for high-efficiency organic solar cells. Organic Electronics, 2018, 57, 239-246.	2.6	5
51	Inertial capillary uptake of drops. Physical Review E, 2020, 101, 043109.	2.1	5
52	Analysis of bacteria-derived outer membrane vesicles using tunable resistive pulse sensing. Proceedings of SPIE, 2015, , .	0.8	4
53	Scanning ion conductance microscopy mapping of tunable nanopore membranes. Biomicrofluidics, 2017, 11, 054102.	2.4	4
54	Use of Tunable Pores for Accurate Characterization of Micro- and Nanoparticle Systems in Nanomedicine. Regenerative Medicine, Artificial Cells and Nanomedicine, 2013, , 219-255.	0.1	4

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55	Individual nanoparticle zeta potential measurements using tunable resistive pulse sensing. , 2013, , .		3
56	Stability of amphiphilic Janus dimers in shear flow: a molecular dynamics study. Soft Matter, 2020, 16, 7116-7125.	2.7	3
57	Poly(vinyl pyrrolidone)-modified metal oxide anode interlayers for stable organic solar cells. Journal of Photonics for Energy, 2020, 10, 1.	1.3	3
58	Wet-core temperature and concentration profiles in a single skim milk droplet drying process. Applied Thermal Engineering, 2022, 212, 118571.	6.0	3
59	Shock Properties of Kimberlite. AIP Conference Proceedings, 2004, , .	0.4	2
60	Cellular and Sub-Cellular Mechanics: Measurement of Material Properties. , 2019, , 227-244.		2
61	Eï¬€ects of a microscale ridge on dynamic wetting during drop impact. Journal of the Royal Society of New Zealand, 2020, 50, 523-537.	1.9	2
62	Asymmetric assembly of Lennard-Jones Janus dimers. Physical Review E, 2021, 104, 024602.	2.1	2
63	Biomechanical responses of encysted zoospores of the oomycete Achlya bisexualis to hyperosmotic stress are consistent with an ability to turgor regulate. Fungal Genetics and Biology, 2022, 159, 103676.	2.1	2
64	Nanoscale slip measurements using a torsional ultrasonic oscillator. Current Applied Physics, 2008, 8, 433-435.	2.4	1
65	Enumeration of colloidal sub-micron particles using tunable resistive pulse sensing. International Journal of Nanotechnology, 2017, 14, 38.	0.2	1
66	High Throughput Analysis of Liquid Droplet Impacts. Journal of Visualized Experiments, 2020, , .	0.3	1
67	Measurement of Slip and Surface Forces using a Torsional Oscillator. Australian Journal of Chemistry, 2007, 60, 672.	0.9	1
68	Tunable resistive pulse sensing and nanoindentation of pH-responsive expansile nanoparticles. International Journal of Nanotechnology, 2017, 14, 1.	0.2	1
69	Measurement of viscoelastic particle deformation using pipette ion currents. Sensors and Actuators A: Physical, 2022, 344, 113698.	4.1	1
70	Tunable resistive pulse sensing and nanoindentation of pH-responsive expansile nanoparticles. International Journal of Nanotechnology, 2017, 14, 446.	0.2	0
71	Towards Nanomechanical Properties from Pipette Ion Currents. Biophysical Journal, 2020, 118, 601a.	0.5	0
72	Ka rere ngÄ•mea katoa â€“ everything flows. Journal of the Royal Society of New Zealand, 2021, 51, 187-193.	1.9	0