Pablo Garcia-Sanchez

List of Publications by Year
in descending order

62 papers	1,129 citations	361413 20 h-index	414414 32 g-index
62 all docs	62 docs citations	62 times ranked	858 citing authors

#	Article	IF	Citations
1	Alternating Current Electrokinetic Properties of Gold-Coated Microspheres. Langmuir, 2012, 28, 13861-13870.	3.5	80
2	Experiments on AC electrokinetic pumping of liquids using arrays of microelectrodes. IEEE Transactions on Dielectrics and Electrical Insulation, 2006, 13, 670-677.	2.9	69
3	AC electrokinetics of conducting microparticles: A review. Current Opinion in Colloid and Interface Science, 2016, 24, 79-90.	7.4	62
4	Electrothermally driven flows in ac electrowetting. Physical Review E, 2010, 81, 015303.	2.1	61
5	AC electrokinetic biased deterministic lateral displacement for tunable particle separation. Lab on A Chip, 2019, 19, 1386-1396.	6.0	49
6	Traveling-Wave Electrokinetic Micropumps: Velocity, Electrical Current, and Impedance Measurements. Langmuir, 2008, 24, 9361-9369.	3.5	44
7	Flow Reversal in Traveling-Wave Electrokinetics: An Analysis of Forces Due to Ionic Concentration Gradients. Langmuir, 2009, 25, 4988-4997.	3.5	44
8	Electro-orientation and electrorotation of metal nanowires. Physical Review E, 2013, 88, 063018.	2.1	44
9	A linear analysis of the effect of Faradaic currents on traveling-wave electroosmosis. Journal of Colloid and Interface Science, 2007, 309, 323-331.	9.4	42
10	Electroviscous Effect of Moderately Concentrated Colloidal Suspensions. Journal of Physical Chemistry B, 2003, 107, 9528-9534.	2.6	37
11	The microfluidic Kelvin water dropper. Lab on A Chip, 2013, 13, 4503.	6.0	36
12	AC electrokinetic pumping on symmetric electrode arrays. Microfluidics and Nanofluidics, 2009, 7, 767-772.	2.2	33
13	Effect of the combined action of Faradaic currents and mobility differences in ac electro-osmosis. Physical Review E, 2010, 81, 016320.	2.1	33
14	Breakup length of AC electrified jets in a microfluidic flow-focusing junction. Microfluidics and Nanofluidics, 2015, 19, 787-794.	2.2	29
15	Electric-field-induced rotation of Brownian metal nanowires. Physical Review E, 2013, 88, 033025.	2.1	26
16	Combining DC and AC electric fields with deterministic lateral displacement for micro- and nano-particle separation. Biomicrofluidics, 2019, 13, 054110.	2.4	26
17	Electrorotation of a metal sphere immersed in an electrolyte of finite Debye length. Physical Review E, 2015, 92, 052313.	2.1	25
18	Electrorotation of titanium microspheres. Electrophoresis, 2013, 34, 979-986.	2.4	24

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19	Self-assembly of metal nanowires induced by alternating current electric fields. Applied Physics Letters, 2015, 106, .	3.3	21
20	Control of two-phase flow in a microfluidic system using ac electric fields. Applied Physics Letters, 2007, 91, 254107.	3.3	20
21	AC electrified jets in a flow-focusing device: Jet length scaling. Biomicrofluidics, 2016, 10, 043504.	2.4	20
22	Stationary Electro-osmotic Flow Driven by ac Fields around Insulators. Physical Review Applied, 2021, 15, .	3.8	20
23	The effect of electrode height on the performance of travelling-wave electroosmotic micropumps. Microfluidics and Nanofluidics, 2008, 5, 307-312.	2.2	19
24	Electrical manipulation of electrolytes with conductivity gradients in microsystems. Journal of Electrostatics, 2009, 67, 372-376.	1.9	19
25	Electroviscous Effect of Moderately Concentrated Colloidal Suspensions under Overlapping Conditions. Journal of Physical Chemistry B, 2005, 109, 5289-5299.	2.6	17
26	Actuation of co-flowing electrolytes in a microfluidic system by microelectrode arrays. Microfluidics and Nanofluidics, 2012, 13, 441-449.	2.2	17
27	Electro-orientation of a metal nanowire counterbalanced by thermal torques. Physical Review E, 2014, 89, 062306.	2.1	16
28	Electrorotation and Electroorientation of Semiconductor Nanowires. Langmuir, 2017, 33, 8553-8561.	3.5	16
29	Electrokinetic biased deterministic lateral displacement: scaling analysis and simulations. Journal of Chromatography A, 2020, 1623, 461151.	3.7	15
30	Experiments on traveling-wave electroosmosis: effect of electrolyte conductivity. IEEE Transactions on Dielectrics and Electrical Insulation, 2009, 16, 417-423.	2.9	13
31	The role of particle-electrode wall interactions in mobility of active Janus particles driven by electric fields. Journal of Colloid and Interface Science, 2022, 616, 465-475.	9.4	13
32	Electroviscous Effect of Moderately Concentrated Colloidal Suspensions:Â Stern-Layer Influence. Journal of Physical Chemistry B, 2005, 109, 24369-24379.	2.6	12
33	Electrorotation of semiconducting microspheres. Physical Review E, 2019, 100, 042616.	2.1	11
34	Modeling the AC Electrokinetic Behavior of Semiconducting Spheres. Micromachines, 2019, 10, 100.	2.9	11
35	Stationary electro-osmotic flow driven by AC fields around charged dielectric spheres. Journal of Fluid Mechanics, 2021, 924, .	3.4	11
36	Wall Repulsion of Charged Colloidal Particles during Electrophoresis in Microfluidic Channels. Physical Review Letters, 2022, 128, 074501.	7.8	11

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37	An Experimental Test of Booth's Primary Electroviscous Effect Theory. Journal of Colloid and Interface Science, 2002, 255, 208-213.	9.4	9
38	Effects of Faradaic currents on AC electroosmotic flows with coplanar symmetric electrodes. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 376, 47-52.	4.7	9
39	Microwave-induced water flows in microsystems. Applied Physics Letters, 2009, 94, 024104.	3.3	8
40	Concentrationâ€"Polarization Electroosmosis near Insulating Constrictions within Microfluidic Channels. Analytical Chemistry, 2021, 93, 14667-14674.	6.5	7
41	Pumping of electrolytes by electrical forces induced on the diffusion layer: A weakly nonlinear analysis. Physical Review E, 2017, 95, 022802.	2.1	6
42	Fundamentals of Electrowetting and Applications in Microsystems. , 2011, , 85-125.		6
43	Stern-layer parameters of alumina suspensions. Journal of Colloid and Interface Science, 2003, 268, 400-407.	9.4	4
44	Dynamics of a Levitron under a periodic magnetic forcing. American Journal of Physics, 2015, 83, 133-142.	0.7	4
45	Droplet group production in an AC electro-flow-focusing microdevice. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	4
46	Electrokinetics of metal cylinders. Physical Review E, 2019, 99, 032603.	2.1	4
47	Dipolophoresis and Travelling-Wave Dipolophoresis of Metal Microparticles. Micromachines, 2020, 11, 259.	2.9	4
48	Short communication: A simple and accurate method of measuring the zetaâ€potential of microfluidic channels. Electrophoresis, 2021, , .	2.4	4
49	Water flows induced by microwave electric fields in microsystems. Journal of Electrostatics, 2009, 67, 377-380.	1.9	3
50	Experiments on pumping of liquids using arrays of microelectrodes subjected to travelling wave potentials. Journal of Physics: Conference Series, 2008, 142, 012055.	0.4	2
51	AC Electroosmosis: Basics and Lab-on-a-Chip Applications. , 2015, , 1-7.		2
52	Heat Transfer Enhancement in a Stagnant Dielectric Liquid by the Up and Down Motion of Conductive Particles Induced by Coulomb Forces. Journal of Applied Fluid Mechanics, 2017, 10, 169-182.	0.2	2
53	Effect of the difference in ion mobilities on traveling-wave electro-osmosis. , 2008, , .		1
54	Electrohydrodynamic actuation of co-flowing liquids by means of microelectrode arrays. Journal of Physics: Conference Series, 2011, 301, 012031.	0.4	1

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55	Levitation? Yes, it is possible!. American Journal of Physics, 2019, 87, 270-274.	0.7	1
56	Continuous Particle Separation in Microfluidics: Deterministic Lateral Displacement Assisted by Electric Fields. Micromachines, 2021, 12, 66.	2.9	1
57	Dielectrophoretic Force Equilibrium of Complex Particles. Physical Review Applied, 2020, 14, .	3.8	1
58	Pumping electrolytes with arrays of electrodes subjected to travelling-wave potentials: Electrode design. , 2007, , .		0
59	A symmetry electrode array for AC and traveling wave electroosmosis pumping. , 2008, , .		0
60	Flow of electrolytes induced by AC voltages in a point-plane electrode microsystem. , 2008, , .		0
61	Editorial for the Special Issue on AC Electrokinetics in Microfluidic Devices. Micromachines, 2019, 10, 345.	2.9	0
62	Controllable production of Janus ligaments by AC fields in a flow-focusing junction. Microfluidics and Nanofluidics, 2019, 23, 1.	2.2	0