Ory Schnitzer

List of Publications by Year
in descending order

60	958	471509 17	501196 28
papers	citations	h-index	g-index

61	61	61	734
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Taylorâ€“Melcher leaky dielectric model as a macroscale electrokinetic description. Journal of Fluid Mechanics, 2015, 773, 1-33.	3.4	89
2	Macroscale description of electrokinetic flows at large zeta potentials: Nonlinear surface conduction. Physical Review E, 2012, 86, 021503.	2.1	68
3	Weakly nonlinear electrophoresis of a highly charged colloidal particle. Physics of Fluids, 2013, 25, .	4.0	55
4	Nonlinear electrophoresis at arbitrary field strengths: small-Dukhin-number analysis. Physics of Fluids, 2014, 26, .	4.0	50
5	Induced-charge electro-osmosis beyond weak fields. Physical Review E, 2012, 86, 061506.	2.1	49
6	Osmotic self-propulsion of slender particles. Physics of Fluids, 2015, 27, 031701.	4.0	44
7	Electrokinetic flows about conducting drops. Journal of Fluid Mechanics, 2013, 722, 394-423.	3.4	39
8	Streaming-potential phenomena in the thin-Debye-layer limit. Part 1. General theory. Journal of Fluid Mechanics, 2011, 685, 306-334.	3.4	36
9	Electrophoresis of bubbles. Journal of Fluid Mechanics, 2014, 753, 49-79.	3.4	32
10	Strong-field electrophoresis. Journal of Fluid Mechanics, 2012, 701, 333-351.	3.4	30
11	Dielectric-solid polarization at strong fields: Breakdown of Smoluchowski's electrophoresis formula. Physics of Fluids, 2012, 24, .	4.0	28
12	Ratcheting of Brownian swimmers in periodically corrugated channels: A reduced Fokker-Planck approach. Physical Review E, 2014, 90, 032115.	2.1	23
13	Strong electro-osmotic flows about dielectric surfaces of zero surface charge. Physical Review E, 2014, 89, 043005.	2.1	21
14	Surface plasmon resonances of arbitrarily shaped nanometallic structures in the small-screening-length limit. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160258.	2.1	20
15	Singular effective slip length for longitudinal flow over a dense bubble mattress. Physical Review Fluids, 2016, 1, .	2.5	19
16	Asymptotics of surface-plasmon redshift saturation at subnanometric separations. Physical Review B, 2016, 93, .	3.2	18
17	Slip length for longitudinal shear flow over an arbitrary-protrusion-angle bubble mattress: theÂsmall-solid-fraction singularity. Journal of Fluid Mechanics, 2017, 820, 580-603.	3.4	17
18	Spoof surface plasmons guided by narrow grooves. Physical Review B, 2017, 96, .	3.2	17

#	Article	IF	Citations
19	Nonlinear oscillations in an electrolyte solution under ac voltage. Physical Review E, 2014, 89, 032302.	2.1	16
20	Streaming-potential phenomena in the thin-Debye-layer limit. Part 2. Moderate PÃ©clet numbers. Journal of Fluid Mechanics, 2012, 704, 109-136.	3.4	15
21	Asymptotic network models of subwavelength metamaterials formed by closely packed photonic and phononic crystals. Europhysics Letters, 2017, 119, 64002.	2.0	13
22	Isotropically active colloids under uniform force fields: from forced to spontaneous motion. Journal of Fluid Mechanics, 2021, 916, .	3.4	13
23	Fast penetration of megagauss fields into metallic conductors. Physics of Plasmas, 2014, 21, .	1.9	12
24	Singular perturbations approach to localized surface-plasmon resonance: Nearly touching metal nanospheres. Physical Review B, 2015, 92, .	3.2	12
25	Waves in Slowly Varying Band-Gap Media. SIAM Journal on Applied Mathematics, 2017, 77, 1516-1535.	1.8	12
26	Bloch Waves in an Arbitrary Two-Dimensional Lattice of Subwavelength Dirichlet Scatterers. SIAM Journal on Applied Mathematics, 2017, 77, 2119-2135.	1.8	12
27	Longitudinal pressure-driven flows between superhydrophobic grooved surfaces: Large effective slip in the narrow-channel limit. Physical Review Fluids, 2017, 2, .	2.5	11
28	Nonlinear electrokinetic flow about a polarized conducting drop. Physical Review E, 2013, 87, 041002.	2.1	10
29	Electric conductance of highly selective nanochannels. Physical Review E, 2013, 87, 054301.	2.1	10
30	Acoustic impedance of a cylindrical orifice. Journal of Fluid Mechanics, 2020, 892, .	3.4	10
31	Streaming-potential phenomena in the thin-Debye-layer limit. PartÂ3. Shear-induced electroviscous repulsion. Journal of Fluid Mechanics, 2016, 786, 84-109.	3.4	9
32	Extraordinary transmission through a narrow slit. Wave Motion, 2019, 91, 102381.	2.0	9
33	A generalized Derjaguin approximation for electrical-double-layer interactions at arbitrary separations. Journal of Chemical Physics, 2015, 142, 244102.	3.0	8
34	Small-solid-fraction approximations for the slip-length tensor of micropillared superhydrophobic surfaces. Journal of Fluid Mechanics, 2018, 843, 637-652.	3.4	8
35	Slender-body theory for plasmonic resonance. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190294.	2.1	8
36	Shear-induced Electrokinetic Lift at Large PÃ©clet Numbers. Mathematical Modelling of Natural Phenomena, 2012, 7, 64-81.	2.4	7

#	Article	IF	Citations
37	The electrophoretic mobility of rod-like particles. Journal of Fluid Mechanics, 2013, 719, .	3.4	7
38	Acoustics of bubbles trapped in microgrooves: From isolated subwavelength resonators to superhydrophobic metasurfaces. Physical Review B, 2019, 99, .	3.2	7
39	Asymptotic approximations for the plasmon resonances of nearly touching spheres. European Journal of Applied Mathematics, 2020, 31, 246-276.	2.9	7
40	Electrokinetic particle-electrode interactions at high frequencies. Physical Review E, 2013, 87, 012310.	2.1	6
41	Slender-body approximations for advectionâ€“diffusion problems. Journal of Fluid Mechanics, 2015, 768, .	3.4	6
42	Pressure-driven plug flows between superhydrophobic surfaces of closely spaced circular bubbles. Journal of Engineering Mathematics, 2018, 111, 15-22.	1.2	6
43	Stokes resistance of a solid cylinder near a superhydrophobic surface. Part 1. Grooves perpendicular to cylinder axis. Journal of Fluid Mechanics, 2019, 868, 212-243.	3.4	6
44	Plasmonic resonances of slender nanometallic rings. Physical Review B, 2022, 105, .	3.2	6
45	Irreversible Electrokinetic Repulsion at Zero-Reynolds-Number Sedimentation. Physical Review Letters, 2011, 107, 278301.	7.8	5
46	Geometric quantization of localized surface plasmons. IMA Journal of Applied Mathematics, 2019, 84, 813-832.	1.6	5
47	Rolling of non-wetting droplets down a gently inclined plane. Journal of Fluid Mechanics, 2020, 903, .	3.4	5
48	Asymptotic modeling of Helmholtz resonators including thermoviscous effects. Wave Motion, 2020, 97, 102583.	2.0	5
49	Speed of rolling droplets. Physical Review Fluids, 2019, 4, .	2.5	5
50	Boundary-layer effects on electromagnetic and acoustic extraordinary transmission through narrow slits. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200444.	2.1	4
51	Spontaneous dynamics of two-dimensional Leidenfrost wheels. Physical Review Fluids, 2020, 5, .	2.5	4
52	Radiation from Structured-Ring Resonators. SIAM Journal on Applied Mathematics, 2017, 77, 1047-1067.	1.8	3
53	Resistive-force theory for mesh-like superhydrophobic surfaces. Physical Review Fluids, 2018, 3, .	2.5	3
54	Absorption characteristics of large acoustic metasurfaces. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, .	3.4	3

#	Article	IF	Citations
55	Comment on â€œOn the flow field about an electrophoretic particleâ€•[Phys. Fluids 24, 102001 (2012)]. Physics of Fluids, 2013, 25, 049102.	4.0	2
56	Asymptotic analysis of double-carrier, space-charge-limited transport in organic light-emitting diodes. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130263.	2.1	2
57	Deformation of leaky-dielectric fluid globules under strong electric fields: boundary layers and jets at large Reynolds numbers. Journal of Fluid Mechanics, 2013, 734, .	3.4	2
58	Ray-theory approach to electrical-double-layer interactions. Physical Review E, 2015, 91, 022307.	2.1	2
59	Asymptotic Modeling of Phononic Box Crystals. SIAM Journal on Applied Mathematics, 2019, 79, 506-524.	1.8	2
60	Leidenfrost levitation of a spherical particle above a liquid bath: Evolution of the vapour-film morphology with particle size. European Journal of Applied Mathematics, 2022, 33, 1117-1169.	2.9	1