Avinoam Nir

List of Publications by Year
in descending order

49 papers	880 citations	623734 14 h-index	501196 28 g-index
49 all docs	49 docs citations	49 times ranked	462 citing authors

#	Article	IF	Citations
1	Deformation of an axisymmetric viscoplastic drop in extensional/compressional flow. Journal of Non-Newtonian Fluid Mechanics, 2021, 292, 104534.	2.4	3
2	Approximating stationary deformation of flat and toroidal drops in compressional viscous flow using generalized Cassini ovals. Journal of Fluid Mechanics, 2021, 921, .	3.4	4
3	Dynamic and stationary shapes of rotating toroidal drops in viscous linear flows. Journal of Fluid Mechanics, 2021, 923, .	3.4	3
4	Viscoplastic toroidal drop in compressional Stokes flow. Physics of Fluids, 2021, 33, 073101.	4.0	3
5	Shapes and stability of viscous rotating drops in a compressional/extensional flow. Physical Review Fluids, 2020, 5, .	2.5	4
6	Evolution and stationarity of liquid toroidal drop in compressional Stokes flow. Journal of Fluid Mechanics, 2018, 835, 1-23.	3.4	8
7	Effect of added mass on the interaction of bubbles in a low-Reynolds-number shear flow. Physical Review E, 2016, 93, 023105.	2.1	3
8	Shear-induced particles migration in a Bingham fluid. Journal of Non-Newtonian Fluid Mechanics, 2016, 238, 80-91.	2.4	11
9	Non-Newtonian slender drops in a simple shear flow. Journal of Non-Newtonian Fluid Mechanics, 2016, 228, 38-45.	2.4	8
10	Liquid toroidal drop in compressional StokesÂflow. Journal of Fluid Mechanics, 2015, 785, 372-400.	3.4	20
11	Viscous drop in compressional Stokes flow. Journal of Fluid Mechanics, 2013, 720, 169-191.	3.4	23
12	On the evolution and breakup of slender drops in an extensional flow. Physics of Fluids, 2012, 24, .	4.0	10
13	Generalized Analytic Functions in an Extensional Stokes Flow with a Deformable Drop. SIAM Journal on Applied Mathematics, 2011, 71, 925-951.	1.8	20
14	Motion and shape of an axisymmetric viscoplastic drop slowly falling through a viscous fluid. Rheologica Acta, 2011, 50, 361-374.	2.4	12
15	Interaction of viscous drops in a yield stress material. Rheologica Acta, 2011, 50, 375-387.	2.4	7
16	Deformation of a partially engulfed compound drop slowly moving in an immiscible viscous fluid. Physics of Fluids, 2011, 23, 023101.	4.0	3
17	Viscoplastic flows with free boundaries and interfaces. Reviews in Chemical Engineering, 2010, 26, .	4.4	4
18	Marangoni and Natural Convection in a Horizontal Layer of Viscoplastic Fluid with Concentration Dependent Yield Stress. Exact Analytical Solutions. Microgravity Science and Technology, 2009, 21, 59-65.	1.4	6

#	Article	IF	Citations
19	On the thermocapillary motion of partially engulfed compound drops. Journal of Fluid Mechanics, 2009, 626, 263-289.	3.4	17
20	Thermocapillary motion of hybrid drops. Physics of Fluids, 2008, 20, 072102.	4.0	12
21	Spontaneous thermocapillary drops interaction: The effect of a surface reaction. AICHE Journal, 2007, 53, 2783-2794.	3.6	1
22	Interaction and ordering of bubbles levitated in vortical flow. Microgravity Science and Technology, 2007, 19, 78-80.	1.4	4
23	Deformation and breakup of a non-Newtonian slender drop in an extensional flow: inertial effects and stability. Journal of Fluid Mechanics, 2006, 563, 133.	3.4	13
24	Stationary regimes of axisymmetric thermal wake interaction of two buoyant drops at low Reynolds and high Peclet number. Physics of Fluids, 2006, 18, 072103.	4.0	8
25	Deformation and breakup of a non-Newtonian slender drop in an extensional flow. Journal of Non-Newtonian Fluid Mechanics, 2005, 125, 49-59.	2.4	26
26	The leading effect of fluid inertia on the motion of rigid bodies at low Reynolds number. Journal of Fluid Mechanics, 2004, 505, 235-248.	3.4	7
27	The weakly inertial settling of particles in a viscous fluid. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2003, 459, 3079-3098.	2.1	5
28	Axisymmetric thermal wake interaction of two drops in a gravity field at low Reynolds and high Peclet numbers. Physics of Fluids, 2003, 15, 3006.	4.0	8
29	Spontaneous thermocapillary interaction of drops: Effect of surface deformation at nonzero capillary number. Physics of Fluids, 2002, 14, 1326-1339.	4.0	10
30	Spontaneous Interaction of Drops, Bubbles and Particles in Viscous Fluid Driven by Capillary Inhomogeneities. Industrial & Engineering Chemistry Research, 2002, 41, 357-366.	3.7	10
31	The Fertilization Dance: A Mechanical View of the Egg Rotation During the Initial Spermatozoaâ€“Ovum Interaction. Journal of Theoretical Biology, 2002, 214, 171-179.	1.7	7
32	Thermocapillary migration of bubbles: convective effects at low PÃ©clet number. Journal of Fluid Mechanics, 2001, 443, 377-401.	3.4	15
33	Spontaneous thermocapillary interaction of drops: Unsteady convective effects at high Peclet numbers. Physics of Fluids, 2001, 13, 368-381.	4.0	9
34	Spontaneous thermocapillary interaction of drops, bubbles and particles: Unsteady convective effects at low Peclet numbers. Physics of Fluids, 1999, 11, 1768-1780.	4.0	16
35	Shear-induced particle migration in a polydisperse concentrated suspension. Journal of Rheology, 1998, 42, 1329-1348.	2.6	72
36	Thermocapillary interaction between a solid particle and a liquid-gas interface. Physics of Fluids, 1997, 9, 2818-2827.	4.0	21

#	Article	IF	Citations
37	Viscous dissipation rate in concentrated suspensions. Physics of Fluids, 1994, 6, 3189-3191.	4.0	9
38	Modelling Twin Rotor Mixers and Extruders. International Polymer Processing, 1992, 7, 204-211.	0.5	3
39	Modelling Twin Rotor Mixers and Extruders. International Polymer Processing, 1990, 5, 155-163.	0.5	10
40	EFFECTIVE CONDUCTIVITY OF A DILUTE SUSPENSION AT MODERATE PARTICLE PECLET NUMBERS. Chemical Engineering Communications, 1989, 82, 163-175.	2.6	1
41	On the viscous deformation of biological cells under anisotropic surface tension. Journal of Fluid Mechanics, 1988, 193, 217.	3.4	36
42	A Dispersive Mixing Testing Apparatus. International Polymer Processing, 1987, 2, 13-20.	0.5	8
43	Dispersive Mixing in Rubber and Plastics. Rubber Chemistry and Technology, 1984, 57, 583-620.	1.2	43
44	Surface diffusion as rate determining step in activated chemisorption. Canadian Journal of Chemical Engineering, 1984, 62, 233-240.	1.7	9
45	ENHANCED TRANSFER FROM SUSPENSION TO POROUS BOUNDARIES. Chemical Engineering Communications, 1983, 21, 251-257.	2.6	0
46	Dispersive Mixing in Internal Mixersâ€"A Theoretical Model Based on Agglomerate Rupture. Rubber Chemistry and Technology, 1982, 55, 1250-1285.	1.2	115
47	The effect of a steady drift on the dispersion of a particle in turbulent fluid. Journal of Fluid Mechanics, 1979, 94, 369-381.	3.4	61
48	On the motion of suspended particles in stationary homogeneous turbulence. Journal of Fluid Mechanics, 1978, 84, 193.	3.4	119
49	The effective thermal conductivity of sheared suspensions. Journal of Fluid Mechanics, 1976, 78, 33-48.	3.4	53