Bogdan Cichocki

List of Publications by Year
in descending order

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124 papers	3,142 citations	172457 29 h-index	189892 50 g-index
125 all docs	125 docs citations	125 times ranked	1413 citing authors

#	Article	IF	Citations
1	Friction and mobility of many spheres in Stokes flow. Journal of Chemical Physics, 1994, 100, 3780-3790.	3.0	228
2	Shortâ€time diffusion coefficients and high frequency viscosity of dilute suspensions of spherical Brownian particles. Journal of Chemical Physics, 1988, 89, 1049-1054.	3.0	129
3	Dynamic computer simulation of concentrated hard sphere suspensions. Physica A: Statistical Mechanics and Its Applications, 1990, 166, 473-491.	2.6	126
4	Image representation of a spherical particle near a hard wall. Physica A: Statistical Mechanics and Its Applications, 1998, 258, 273-302.	2.6	114
5	Lubrication corrections for three-particle contribution to short-time self-diffusion coefficients in colloidal dispersions. Journal of Chemical Physics, 1999, 111, 3265-3273.	3.0	113
6	Friction and mobility for colloidal spheres in Stokes flow near a boundary: The multipole method and applications. Journal of Chemical Physics, 2000, 112, 2548-2561.	3.0	112
7	Longâ€time selfâ€diffusion coefficient and zeroâ€frequency viscosity of dilute suspensions of spherical Brownian particles. Journal of Chemical Physics, 1988, 89, 3705-3709.	3.0	105
8	On the memory function for the dynamic structure factor of interacting brownian particles. Physica A: Statistical Mechanics and Its Applications, 1987, 141, 475-488.	2.6	96
9	Diffusion coefficients and effective viscosity of suspensions of sticky hard spheres with hydrodynamic interactions. Journal of Chemical Physics, 1990, 93, 4427-4432.	3.0	87
10	Electrostatic interactions in periodic Coulomb and dipolar systems. Physical Review A, 1989, 39, 5350-5358.	2.5	74
11	Fibrinogen conformations and charge in electrolyte solutions derived from DLS and dynamic viscosity measurements. Journal of Colloid and Interface Science, 2012, 385, 244-257.	9.4	63
12	Diffusion of Brownian particles with hydrodynamic interaction and hard core repulsion. Journal of Chemical Physics, 1991, 94, 556-562.	3.0	59
13	Dynamic computer simulation of concentrated hard sphere suspensions. Physica A: Statistical Mechanics and Its Applications, 1992, 187, 133-144.	2.6	59
14	Stokes drag on conglomerates of spheres. Physics of Fluids, 1995, 7, 285-291.	4.0	55
15	Drag force on a sphere moving towards a corrugated wall. Journal of Fluid Mechanics, 2004, 513, 247-264.	3.4	55
16	Variational theory of average-atom and superconfigurations in quantum plasmas. Physical Review E, 2007, 75, 056402.	2.1	51
17	Linear viscoelasticity of semidilute hard-sphere suspensions. Physical Review A, 1991, 43, 5405-5411.	2.5	50
18	Electrostatic spectrum and dielectric constant of nonpolar hard sphere fluids. Journal of Chemical Physics, 1989, 90, 4960-4967.	3.0	49

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19	Short-time dynamics of permeable particles in concentrated suspensions. Journal of Chemical Physics, 2010, 132, 014503.	3.0	49
20	Three-particle contribution to sedimentation and collective diffusion in hard-sphere suspensions. Journal of Chemical Physics, 2002, 117, 1231-1241.	3.0	44
21	Dielectric constant of polarizable, nonpolar fluids and suspensions. Journal of Statistical Physics, 1988, 53, 499-521.	1.2	37
22	Sedimentation and self-diffusion in suspensions of spherical particles. Physica A: Statistical Mechanics and Its Applications, 1989, 154, 213-232.	2.6	37
23	Slow dynamics of linear relaxation systems. Physica A: Statistical Mechanics and Its Applications, 1994, 211, 165-192.	2.6	35
24	Rotational Diffusion of Spherical Colloids Close to a Wall. Physical Review Letters, 2012, 109, 098305.	7.8	33
25	Linear viscoelasticity of colloidal suspensions. Physical Review A, 1992, 46, 7723-7732.	2.5	31
26	Three-particle contribution to effective viscosity of hard-sphere suspensions. Journal of Chemical Physics, 2003, 119, 606-619.	3.0	31
27	Translational and rotational near-wall diffusion of spherical colloids studied by evanescent wave scattering. Soft Matter, 2014, 10, 4312.	2.7	31
28	Renormalized cluster expansion for multiple scattering in disordered systems. Journal of Statistical Physics, 1988, 51, 57-76.	1.2	30
29	Self-diffusion in suspensions of interacting Brownian particles. Physical Review A, 1990, 42, 6024-6031.	2.5	29
30	Variational approach to the average-atom-in-jellium and superconfigurations-in-jellium models with all electrons treated quantum-mechanically. High Energy Density Physics, 2007, 3, 34-47.	1.5	29
31	Time-dependent self-diffusion coefficient of interacting Brownian particles. Physical Review A, 1991, 44, 6551-6558.	2.5	27
32	Brownian dynamics: divergence of mobility tensor. Physica A: Statistical Mechanics and Its Applications, 2004, 335, 339-358.	2.6	27
33	Linear viscoelasticity of dense colloidal suspensions. Journal of Chemical Physics, 1994, 101, 7850-7855.	3.0	26
34	Velocity autocorrelation function of interacting Brownian particles. Physical Review E, 1995, 51, 5549-5555.	2.1	26
35	The effective viscosity of suspensions and emulsions of spherical particles. Physica A: Statistical Mechanics and Its Applications, 1989, 154, 233-256.	2.6	25
36	Self and Collective Diffusion Coefficients of Hard Sphere Suspensions. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1990, 94, 243-246.	0.9	25

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37	Dynamic scattering function of a dense suspension of hard spheres. Physica A: Statistical Mechanics and Its Applications, 1994, 204, 152-168.	2.6	24
38	Long-time tails in the solid-body motion of a sphere immersed in a suspension. Physical Review E, 2000, 62, 5383-5388.	2.1	24
39	Near-wall diffusion tensor of an axisymmetric colloidal particle. Journal of Chemical Physics, 2016, 145, 034904.	3.0	24
40	The generalized Smoluchowski equation for interacting Brownian particles with hard cores. European Physical Journal B, 1987, 66, 537-540.	1.5	23
41	Linear kinetic theory of a suspension of interacting Brownian particles. Physica A: Statistical Mechanics and Its Applications, 1988, 148, 165-190.	2.6	22
42	Diffusion, sedimentation, and rheology of concentrated suspensions of core-shell particles. Journal of Chemical Physics, 2012, 136, 104902.	3.0	22
43	Periodic fundamental solution of the linear Navier-Stokes equations. Physica A: Statistical Mechanics and Its Applications, 1989, 159, 19-27.	2.6	21
44	High-frequency viscosity of concentrated porous particles suspensions. Journal of Chemical Physics, 2010, 133, 084906.	3.0	21
45	Communication: Translational Brownian motion for particles of arbitrary shape. Journal of Chemical Physics, 2012, 136, 071102.	3.0	21
46	Rotational and translational self-diffusion in concentrated suspensions of permeable particles. Journal of Chemical Physics, 2011, 134, 244903.	3.0	20
47	One-particle correlation function in evanescent wave dynamic light scattering. Journal of Chemical Physics, 2012, 136, 204704.	3.0	20
48	Models of atoms in plasmas based on common formalism for bound and free electrons. High Energy Density Physics, 2013, 9, 687-695.	1.5	20
49	Linear kinetic theory of a suspension of interacting Brownian particles. Physica A: Statistical Mechanics and Its Applications, 1988, 148, 191-207.	2.6	19
50	Linear response of partially ionized, dense plasmas. Laser and Particle Beams, 1992, 10, 299-309.	1.0	19
51	Hydrodynamic friction coefficients of coated spherical particles. Journal of Chemical Physics, 2009, 130, 164712.	3.0	19
52	Cavity field and reaction field in nonpolar fluids. Journal of Chemical Physics, 1990, 92, 6104-6111.	3.0	18
53	Motion of spheres along a fluid-gas interface. Journal of Chemical Physics, 2004, 121, 2305-2316.	3.0	17
54	Brownian motion of a particle with arbitrary shape. Journal of Chemical Physics, 2015, 142, 214902.	3.0	17

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55	Density-functional approach to the absorption bands in a dense, partially ionized plasma. Physical Review A, 1990, 41, 6973-6981.	2.5	16
56	GRPY: An Accurate Bead Method for Calculation of Hydrodynamic Properties of Rigid Biomacromolecules. Biophysical Journal, 2018, 115, 782-800.	0.5	16
57	Selfâ€diffusion of Brownian particles with hydrodynamic interaction and square step or well potential. Journal of Chemical Physics, 1991, 94, 563-568.	3.0	15
58	Time-dependent self-diffusion of Brownian particles with square well interaction. Langmuir, 1992, 8, 2889-2897.	3.5	15
59	Long-time collective motion of rigid bodies immersed in a viscous fluid. Physica A: Statistical Mechanics and Its Applications, 1994, 211, 25-36.	2.6	15
60	Linear kinetic theory of hard-sphere fluids. Physica A: Statistical Mechanics and Its Applications, 1984, 127, 38-71.	2.6	14
61	Electrostatic interactions in two-dimensional Coulomb systems with periodic boundary conditions. Physica A: Statistical Mechanics and Its Applications, 1989, 158, 706-722.	2.6	14
62	Dynamic scattering function of a semidilute suspension of hard spheres. Journal of Chemical Physics, 1993, 98, 8186-8193.	3.0	14
63	Long-time rotational motion of a rigid body immersed in a viscous fluid. Physica A: Statistical Mechanics and Its Applications, 1995, 213, 465-473.	2.6	14
64	Dielectric function of an electron-ion plasma in the optical and X-ray regime. Physica A: Statistical Mechanics and Its Applications, 1995, 217, 161-174.	2.6	14
65	A diagrammatic approach to response problems in composite systems. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, P01025.	2.3	14
66	The intensity correlation function in evanescent wave scattering. Journal of Chemical Physics, 2010, 132, 074704.	3.0	14
67	Comment: On the memory function for a colloidal liquid. Journal of Chemical Physics, 1986, 85, 1705-1706.	3.0	13
68	Enskog renormalization in linear kinetic theory. Physica A: Statistical Mechanics and Its Applications, 1987, 142, 245-272.	2.6	12
69	Ladder approximation for threeâ€and fourâ€particle correlation functions. Journal of Chemical Physics, 1989, 91, 7467-7476.	3.0	12
70	High-frequency viscosity and generalized Stokesâ€“Einstein relations in dense suspensions of porous particles. Journal of Physics Condensed Matter, 2010, 22, 322101.	1.8	12
71	Non-Gaussian effects in the self-diffusion of a low density hard sphere suspension. European Physical Journal B, 1987, 68, 513-517.	1.5	11
72	Memory effects in the selfâ€diffusion of interacting Brownian particles. Journal of Chemical Physics, 1992, 96, 9055-9059.	3.0	11

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73	Timeâ€dependent selfâ€diffusion in a semidilute suspension of Brownian particles. Journal of Chemical Physics, 1992, 96, 4669-4675.	3.0	11
74	Continued fraction representation for the effective thermal conductivity coefficient of a regular two-component composite. International Journal of Heat and Mass Transfer, 1994, 37, 2165-2173.	4.8	11
75	Photoabsorption by an ion immersed in a plasma at any temperature. Journal of Plasma Physics, 1998, 60, 787-810.	2.1	11
76	Memory effects in collective dynamics of Brownian suspensions. Journal of Chemical Physics, 2004, 121, 3329-3346.	3.0	11
77	Steady-state particle distribution of a dilute sedimenting suspension. Europhysics Letters, 2005, 72, 936-942.	2.0	11
78	Dynamics of permeable particles in concentrated suspensions. Physical Review E, 2010, 81, 020404.	2.1	11
79	Transport properties of suspensionsâ€“critical assessment of Beenakker-Mazur method. Journal of Chemical Physics, 2012, 137, 184902.	3.0	11
80	DiffusionÂcoefficientsÂofÂelasticÂmacromolecules. Journal of Fluid Mechanics, 2019, 878, .	3.4	11
81	Generalization of the Foldy-Lax formula for the self-energy of a wave propagating in a disordered system of scatterers. Journal of Statistical Physics, 1989, 55, 1157-1168.	1.2	10
82	Influence of hydrodynamic interactions on self-diffusion and stress relaxation in a semidilute suspension of hard spheres. Physica A: Statistical Mechanics and Its Applications, 1993, 198, 423-440.	2.6	10
83	Hydrodynamic interactions between widely separated particles at a free surface. Europhysics Letters, 2004, 67, 383-389.	2.0	10
84	Generalized Ornstein-Zernike approach to many-particle equilibrium correlation functions. Physica A: Statistical Mechanics and Its Applications, 1989, 157, 857-890.	2.6	9
85	Self-diffusion of interacting Brownian particles in a plane. Journal of Physics Condensed Matter, 1994, 6, 7287-7302.	1.8	9
86	Polarizability of partially ionized, dense plasmas (application to photo-absorption calculations). Journal of Quantitative Spectroscopy and Radiative Transfer, 1994, 51, 49-58.	2.3	9
87	Collective contribution to the frequency-dependent polarizability of an ion or metallic cluster immersed in a plasma. Physica A: Statistical Mechanics and Its Applications, 1995, 217, 175-195.	2.6	9
88	Hydrodynamic interactions between spheres in a viscous fluid with a flat free surface or hard wall. Journal of Chemical Physics, 2007, 126, 184704.	3.0	9
89	Variational average atom in quantum plasmas (VAAQP)â€”first numerical results. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 214059.	2.1	9
90	Variational Average-Atom in Quantum Plasmas (VAAQP) â€“ A check of thermodynamic consistency. High Energy Density Physics, 2009, 5, 258-262.	1.5	9

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91	Electrostatic interactions in thin film Coulomb systems with periodic boundary conditions. Molecular Physics, 1989, 67, 1373-1384.	1.7	8
92	Manyâ€body contribution to the van der Waals binding energy of nonpolar fluids. Journal of Chemical Physics, 1990, 92, 6112-6115.	3.0	8
93	Density of states in the Drudeâ€“Lorentz model of a nonpolar fluid. Journal of Chemical Physics, 1996, 104, 3013-3021.	3.0	8
94	Motion of a sphero-cylindrical particle in a viscous fluid in confined geometry. European Journal of Mechanics, B/Fluids, 2011, 30, 405-408.	2.5	8
95	Near-wall dynamics of concentrated hard-sphere suspensions: comparison of evanescent wave DLS experiments, virial approximation and simulations. Soft Matter, 2015, 11, 7316-7327.	2.7	8
96	Comment on â€˜â€˜The rheological behavior of concentrated colloidal dispersionsâ€™â€™ [J. Chem. Phys. 99, 567 (1993)]. Journal of Chemical Physics, 1994, 101, 1757-1757.	3.0	7
97	Memory function for collective diffusion of interacting Brownian particles. Europhysics Letters, 2002, 59, 465-471.	2.0	7
98	First-order virial expansion of short-time diffusion and sedimentation coefficients of permeable particles suspensions. Physics of Fluids, 2011, 23, 083303.	4.0	7
99	Short-time dynamics and high-frequency rheology of suspensions of spherical coreâ€“shell particles with thin-shells. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 418, 22-28.	4.7	7
100	Hydrodynamic radius approximation for spherical particles suspended in a viscous fluid: Influence of particle internal structure and boundary. Journal of Chemical Physics, 2014, 140, 164902.	3.0	7
101	Frequency-dependent extinction cross section of a spherical ion or metallic cluster immersed in a plasma. Physica A: Statistical Mechanics and Its Applications, 1995, 217, 196-213.	2.6	6
102	Dielectric constant of the Drude-Lorentz model of a nonpolar fluid. Journal of Chemical Physics, 1997, 107, 6390-6399.	3.0	6
103	The short-time self-diffusion coefficient of a sphere in a suspension of rigid rods. Journal of Chemical Physics, 2008, 128, 094502.	3.0	6
104	Transient effects in diffusionâ€controlled absorption by a nonuniform sink of arbitrary constitution. Journal of Chemical Physics, 1995, 102, 1824-1835.	3.0	5
105	Long-time translation and rotational Brownian motion in two dimensions. Journal of Statistical Physics, 1997, 87, 989-1003.	1.2	5
106	Rotational velocity autocorrelation function of interacting Brownian particles. Physica A: Statistical Mechanics and Its Applications, 2001, 289, 409-418.	2.6	5
107	Stokesian Dynamicsâ€”The BBGKY Hierarchy for Correlation Functions. Journal of Statistical Physics, 2008, 132, 129-151.	1.2	5
108	Comment on â€˜â€˜Longâ€time tails in angular momentum correlationsâ€™â€™ [J. Chem. Phys. 103, 1582 (1995)]. Journal of Chemical Physics, 1996, 104, 7363-7365.	3.0	4

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109	Note: Brownian motion of colloidal particles of arbitrary shape. Journal of Chemical Physics, 2016, 144, 076101.	3.0	4
110	H-theorem for a linear kinetic theory. Journal of Statistical Physics, 1992, 66, 607-633.	1.2	3
111	Comment on â€œLong-time behavior of the angular velocity autocorrelation functionâ€•[J. Chem. Phys. 105, 9695 (1996)]. Journal of Chemical Physics, 1997, 107, 291-291.	3.0	3
112	Self-diffusion of a sphere in an effective medium of rods. Journal of Chemical Physics, 2009, 130, 214902.	3.0	3
113	Intrinsic viscosity of macromolecules within the generalized Rotneâ€“Pragerâ€“Yamakawa approximation. Journal of Fluid Mechanics, 2017, 822, .	3.4	3
114	Three-body problem in the theory of the dielectric constant. Journal of Statistical Physics, 1989, 57, 871-885.	1.2	2
115	Dielectric constant and density of states of the Drude-Lorentz model of a nonpolar fluid. Physica A: Statistical Mechanics and Its Applications, 1997, 241, 6-11.	2.6	2
116	Comment on â€œResponse to â€˜Rotational velocity autocorrelation function of interacting Brownian particlesâ€™â€•. Physica A: Statistical Mechanics and Its Applications, 2001, 297, 115-116.	2.6	2
117	Intrinsic viscosity for Brownian particles of arbitrary shape. Journal of Physics: Conference Series, 2012, 392, 012004.	0.4	2
118	Sedimentation of non-Brownian suspensions. Journal of Physics: Conference Series, 2012, 392, 012002.	0.4	2
119	Generalized Rotneâ€“Pragerâ€“Yamakawa approximation for Brownian dynamics in shear flow in bounded, unbounded, and periodic domains. Journal of Chemical Physics, 2021, 154, 124905.	3.0	2
120	GeneralH-Theorem for Hard Spheres. Journal of Statistical Physics, 2004, 114, 327-360.	1.2	1
121	Electrostatic spectrum of renormalized polarizability for nonpolar dielectric. Physica A: Statistical Mechanics and Its Applications, 1998, 261, 391-408.	2.6	0
122	Green tensors for Debyeâ€“BÃ¼cheâ€“Brinkman equations generalized for axisymmetric medium. Journal of Mathematical Physics, 2010, 51, 103101.	1.1	0
123	Interacting Brownian Particles. , 2000, , 65-71.		0
124	Lack of Plasma-like Screening Mechanism in Sedimentation of a Non-Brownian Suspension. Symmetry, 2022, 14, 63.	2.2	0