

# Theo Odijk

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

78  
papers

4,484  
citations

28  
h-index

66  
g-index

80  
ext. papers

4,701  
ext. citations

4.4  
avg, IF

5.76  
L-index

#	Paper	IF	Citations
78	Mean-field theory of the interaction of the magnesium ion with biopolymers: the case of lysozyme. <i>Journal of Biological Physics</i> , <b>2021</b> , 47, 521-528	1.6	
77	Material line fluctuations slaved to bulk correlations in two-dimensional turbulence. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2017</b> , 467, 180-183	3.3	1
76	Electrostatic confinement and manipulation of DNA molecules for genome analysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 13400-13405	11.5	20
75	Unfolding Kinetics of a Wormlike Chain under Elongational Flow. <i>Polymers</i> , <b>2017</b> , 9,	4.5	3
74	Compaction of isolated Escherichia coli nucleoids: Polymer and H-NS protein synergetics. <i>Journal of Structural Biology</i> , <b>2016</b> , 194, 129-37	3.4	9
73	A tree swaying in a turbulent wind: a scaling analysis. <i>Journal of Biological Physics</i> , <b>2015</b> , 41, 1-7	1.6	2
72	Structure of DNA within the Bacterial Cell: Physics and Physiology <b>2014</b> , 171-187		18
71	Presentation of large DNA molecules for analysis as nanoconfined dumbbells. <i>Macromolecules</i> , <b>2013</b> , 46, 8356-8368	5.5	36
70	Characterization of Escherichia coli nucleoids released by osmotic shock. <i>Journal of Structural Biology</i> , <b>2012</b> , 178, 260-9	3.4	16
69	Depletion theory and the precipitation of protein by polymer. <i>Journal of Physical Chemistry B</i> , <b>2009</b> , 113, 3941-6	3.4	16
68	A single-molecule barcoding system using nanoslits for DNA analysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 2673-8	11.5	265
67	Collective diffusion coefficient of proteins with hydrodynamic, electrostatic, and adhesive interactions. <i>Journal of Chemical Physics</i> , <b>2007</b> , 127, 115102	3.9	16
66	Fluid-crystal coexistence for proteins and inorganic nanocolloids: Dependence on ionic strength. <i>Journal of Chemical Physics</i> , <b>2006</b> , 125, 074903	3.9	16
65	Application of the optimized Baxter model to the hard-core attractive Yukawa system. <i>Journal of Chemical Physics</i> , <b>2006</b> , 125, 194506	3.9	2
64	DNA confined in nanochannels: hairpin tightening by entropic depletion. <i>Journal of Chemical Physics</i> , <b>2006</b> , 125, 204904	3.9	84
63	Diffusion of water and sodium counter-ions in nanopores of a $\beta$ -lactoglobulin crystal: a molecular dynamics study. <i>Nanotechnology</i> , <b>2005</b> , 16, S522-30	3.4	19
62	Optimized Baxter model of protein solutions: electrostatics versus adhesion. <i>Journal of Chemical Physics</i> , <b>2004</b> , 121, 6525-37	3.9	28

61	Diffusion in protein crystals--a computer simulation. <i>ChemPhysChem</i> , <b>2004</b> , 5, 1596-9	3.2	23
60	Convective depletion during the fast propagation of a nanosphere through a polymer solution. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2004</b> , 337, 389-397	3.3	3
59	Nonuniform Donnan Equilibrium within Bacteriophages Packed with DNA. <i>Journal of Physical Chemistry B</i> , <b>2003</b> , 107, 8074-8077	3.4	31
58	Turbulent drag reduction in one and two dimensions. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2001</b> , 298, 140-154	3.3	5
57	Polymer-mediated compaction and internal dynamics of isolated Escherichia coli nucleoids. <i>Journal of Structural Biology</i> , <b>2001</b> , 136, 53-66	3.4	111
56	Isolation of the Escherichia coli nucleoid. <i>Biochimie</i> , <b>2001</b> , 83, 149-54	4.6	42
55	Depletion theory of protein transport in semi-dilute polymer solutions. <i>Biophysical Journal</i> , <b>2000</b> , 79, 2314-21	2.9	45
54	Electrostatic-undulatory theory of plectonemically supercoiled DNA. <i>Biophysical Journal</i> , <b>1999</b> , 76, 2502-10	3.9	64
53	Osmotic compaction of supercoiled DNA into a bacterial nucleoid. <i>Biophysical Chemistry</i> , <b>1998</b> , 73, 23-9	3.5	114
52	Dimensions of a plectonemic DNA supercoil under fairly general perturbations. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>1998</b> , 252, 61-66	3.3	7
51	Polymer-induced vortex modification in decaying two-dimensional turbulence. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>1998</b> , 258, 329-340	3.3	3
50	Rarefaction in the Sedimentation of Polymerlike Micelles. <i>Langmuir</i> , <b>1998</b> , 14, 2577-2578	4	1
49	Hexagonally packed DNA within bacteriophage T7 stabilized by curvature stress. <i>Biophysical Journal</i> , <b>1998</b> , 75, 1223-7	2.9	93
48	Microfibrillar buckling within fibers under compression. <i>Journal of Chemical Physics</i> , <b>1998</b> , 108, 6923-6928	3.9	36
47	Depletion around a Protein Sphere Interacting with a Semidilute Polymer Solution. <i>Langmuir</i> , <b>1997</b> , 13, 3579-3581	4	18
46	Many-body depletion interactions among protein spheres in a semidilute polymer solution. <i>Journal of Chemical Physics</i> , <b>1997</b> , 106, 3402-3406	3.9	47
45	Ilya M. Lifshitz. An appreciation. <i>Physics Reports</i> , <b>1997</b> , 288, 9-12	27.7	1
44	DNA in a liquid-crystalline environment: Tight bends, rings, supercoils. <i>Journal of Chemical Physics</i> , <b>1996</b> , 105, 1270-1286	3.9	48

43	Viscosity of Wormlike Micelles: Determination of the End Cap Energy and Persistence Length. <i>Langmuir</i> , <b>1996</b> , 12, 4718-4722	4	11
42	Remarks on the Hierarchical Organization of Fibers. <i>Macromolecules</i> , <b>1996</b> , 29, 4796-4798	5.5	
41	Protein-Macromolecule Interactions. <i>Macromolecules</i> , <b>1996</b> , 29, 1842-1843	5.5	74
40	Ordered phases of elongated micelles. <i>Current Opinion in Colloid and Interface Science</i> , <b>1996</b> , 1, 337-340	7.6	28
39	Multimolecular aggregation of mononucleosomal DNA in concentrated isotropic solutions. <i>Macromolecules</i> , <b>1995</b> , 28, 2315-2328	5.5	70
38	Stiff Chains and Filaments under Tension. <i>Macromolecules</i> , <b>1995</b> , 28, 7016-7018	5.5	337
37	Dynamic sedimentation of linear micellar aggregates in a centrifugal field. <i>Journal of Chemical Physics</i> , <b>1994</b> , 100, 4569-4574	3.9	9
36	Multimolecular aggregation in concentrated isotropic solutions of mononucleosomal DNA in 1 M sodium chloride. <i>Macromolecules</i> , <b>1994</b> , 27, 306-308	5.5	21
35	Long-Range Attraction in Polyelectrolyte Solutions. <i>Macromolecules</i> , <b>1994</b> , 27, 4998-5003	5.5	25
34	Equilibrium distribution of linear micellar aggregates in a gravitational or centrifugal field. <i>Langmuir</i> , <b>1993</b> , 9, 1160-1161	4	5
33	Novel dynamic scaling hypothesis for semidilute and concentrated solutions of polymers and polyelectrolytes. <i>Macromolecules</i> , <b>1993</b> , 26, 6489-6497	5.5	20
32	Physics of tightly curved semiflexible polymer chains. <i>Macromolecules</i> , <b>1993</b> , 26, 6897-6902	5.5	39
31	Undulation-Enhanced Forces in Hexagonal Gels of Semiflexible Polyelectrolytes. <i>ACS Symposium Series</i> , <b>1993</b> , 86-97	0.4	2
30	Undulation-enhanced electrostatic forces in hexagonal polyelectrolyte gels. <i>Biophysical Chemistry</i> , <b>1993</b> , 46, 69-75	3.5	40
29	Statistical theory and structure factor of a semidilute solution of rodlike macromolecules interacting by van der Waals forces. <i>Journal of Chemical Physics</i> , <b>1992</b> , 97, 515-524	3.9	48
28	Self-consistent theory of a charged multimembrane system. <i>Langmuir</i> , <b>1992</b> , 8, 1690-1691	4	18
27	Aggregation in solutions of poly( $\beta$ -benzyl-L-glutamate) monitored by static and dynamic light scattering. <i>Polymer</i> , <b>1992</b> , 33, 5328-5330	3.9	5
26	Static and dynamic light scattering by semidilute rod-like polyelectrolyte solutions. <i>Biochemical Society Transactions</i> , <b>1991</b> , 19, 482-3	5.1	1

25	Light scattering from liquid crystalline solutions of rod-like macromolecules. <i>Biochemical Society Transactions</i> , <b>1991</b> , 19, 503	5.1	
24	Growth of linear charged micelles. <i>Biophysical Chemistry</i> , <b>1991</b> , 41, 23-9	3.5	18
23	Impact of nonuniform counterion condensation on the growth of linear charged micelles. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>1991</b> , 176, 201-205	3.3	17
22	Formation of polyelectrolyte-micelle complexes. <i>Langmuir</i> , <b>1991</b> , 7, 1991-1992	4	23
21	Electrostatic interactions in a solution of linear micelles. <i>Journal of Chemical Physics</i> , <b>1990</b> , 93, 5172-5176.9		28
20	Static and dynamic light scattering from liquid crystalline solutions of rodlike macromolecules. <i>Journal of Chemical Physics</i> , <b>1990</b> , 93, 3580-3592	3.9	7
19	Adsorption of a polymer to a randomly interacting surface. <i>Macromolecules</i> , <b>1990</b> , 23, 1875-1876	5.5	15
18	Structure factor of a semidilute solution of rodlike macromolecules. <i>Macromolecules</i> , <b>1990</b> , 23, 4181-4182.5	5.5	16
17	Induced chain rigidity, splay modulus and other properties of nematic polymer liquid crystals. <i>Macromolecules</i> , <b>1988</b> , 21, 2848-2858	5.5	72
16	Disentanglement of rods in semidilute and liquid-crystalline solutions in elongational flow. <i>Macromolecules</i> , <b>1988</b> , 21, 3511-3515	5.5	9
15	Analysis of the stability of the nematic phase consisting of semiflexible surfaces. <i>Journal of Chemical Physics</i> , <b>1988</b> , 88, 7167-7171	3.9	4
14	Elastic moduli of a nematic liquid crystalline solution of polyelectrolytes. <i>Journal of Chemical Physics</i> , <b>1987</b> , 87, 4223-4232	3.9	27
13	Depletion layer of a lyotropic polymer liquid crystal at the air-solution interface. <i>Macromolecules</i> , <b>1987</b> , 20, 1423-1424	5.5	6
12	Elastic constants of nematic solutions of rod-like and semi-flexible polymers. <i>Liquid Crystals</i> , <b>1986</b> , 1, 553-559	2.3	82
11	Osmotic pressure of a nematic solution of polydisperse rod-like macromolecules. <i>Liquid Crystals</i> , <b>1986</b> , 1, 97-100	2.3	12
10	Theory of lyotropic polymer liquid crystals. <i>Macromolecules</i> , <b>1986</b> , 19, 2313-2329	5.5	425
9	Translational friction coefficient of hydrodynamically screened rodlike macromolecules. <i>Macromolecules</i> , <b>1986</b> , 19, 2073-2074	5.5	12
8	Similarity applied to the statistics of confined stiff polymers. <i>Macromolecules</i> , <b>1984</b> , 17, 502-503	5.5	24

7	On the limiting law solution of the cylindrical Poisson-Boltzmann equation for polyelectrolytes. <i>Chemical Physics Letters</i> , <b>1983</b> , 100, 145-150	2.5	13
6	The statistics and dynamics of confined or entangled stiff polymers. <i>Macromolecules</i> , <b>1983</b> , 16, 1340-1344	5.5	502
5	Binding of Long Flexible Chains to a Rodlike Macromolecule. <i>Macromolecules</i> , <b>1980</b> , 13, 1542-1546	5.5	49
4	Possible Scaling Relations for Semidilute Polyelectrolyte Solutions. <i>Macromolecules</i> , <b>1979</b> , 12, 688-693	5.5	321
3	On the theory of the excluded-volume effect of a polyelectrolyte in a 1-1 electrolyte solution. <i>Journal of Polymer Science, Polymer Physics Edition</i> , <b>1978</b> , 16, 627-639		222
2	The influence of chain-flexibility on the colligative properties of polyelectrolyte solutions. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>1978</b> , 93, 298-306	3.3	20
1	Polyelectrolytes near the rod limit. <i>Journal of Polymer Science, Polymer Physics Edition</i> , <b>1977</b> , 15, 477-483		562