

# Stjepan Marcelja

## List of Publications by Year in descending order

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64  
papers

5,692  
citations

117625

34  
h-index

110387

64  
g-index

64  
all docs

64  
docs citations

64  
times ranked

2960  
citing authors

#	ARTICLE	IF	CITATIONS
1	Physical principles of membrane organization. Quarterly Reviews of Biophysics, 1980, 13, 121-200.	5.7	1,322
2	Repulsion of interfaces due to boundary water. Chemical Physics Letters, 1976, 42, 129-130.	2.6	561
3	Correlation and image charge effects in electric double layers. Chemical Physics Letters, 1984, 112, 49-53.	2.6	320
4	Inhomogeneous Coulomb fluids with image interactions between planar surfaces. I. Journal of Chemical Physics, 1985, 82, 2122-2135.	3.0	236
5	Double layer interactions in mono- and divalent electrolytes: A comparison of the anisotropic HNC theory and Monte Carlo simulations. Journal of Chemical Physics, 1992, 97, 1424-1431.	3.0	194
6	Charge reversal seen in electrical double layer interaction of surfaces immersed in 2:1 calcium electrolyte. Journal of Chemical Physics, 1993, 99, 6098-6113.	3.0	186
7	A theoretical and experimental study of forces between charged mica surfaces in aqueous CaCl <sub>2</sub> solutions. Journal of Chemical Physics, 1990, 92, 4399-4407.	3.0	183
8	Theory of spatial position and spatial frequency relations in the receptive fields of simple cells in the visual cortex. Biological Cybernetics, 1982, 43, 187-198.	1.3	176
9	Attractive double-layer interactions between calcium clay particles. Journal of Colloid and Interface Science, 1988, 126, 194-211.	9.4	161
10	How to explain microemulsions formed by solvent mixtures without conventional surfactants. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4260-4265.	7.1	160
11	Spatially varying polarization in water. A model for the electric double layer and the hydration force. Journal of the Chemical Society, Faraday Transactions 2, 1983, 79, 225-242.	1.1	152
12	Double-layer interaction in the primitive model and the corresponding Poisson-Boltzmann description. The Journal of Physical Chemistry, 1986, 90, 1230-1232.	2.9	145
13	Interaction of charged surfaces in electrolyte solutions. Chemical Physics Letters, 1986, 127, 402-407.	2.6	127
14	Electrical Conductivity of a Superconductor. Physical Review, 1969, 188, 745-754.	2.7	101
15	Role of solvent structure in solution theory. Journal of the Chemical Society, Faraday Transactions 2, 1977, 73, 630-648.	1.1	99
16	Perturbation of hydrogen bonding in water near polar surfaces. Chemical Physics Letters, 1985, 120, 393-396.	2.6	92
17	Electrostatics of phosphoinositide bilayer membranes. Theoretical and experimental results. Biophysical Journal, 1990, 57, 335-349.	0.5	91
18	Inhomogeneous Coulomb fluids with image interactions between planar surfaces. III. Distribution functions. Journal of Chemical Physics, 1988, 88, 7138-7146.	3.0	68

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19	Hydration in electrical double layers. <i>Nature</i> , 1997, 385, 689-690.	27.8	68
20	Selective Coalescence of Bubbles in Simple Electrolytes. <i>Journal of Physical Chemistry B</i> , 2006, 110, 13062-13067.	2.6	68
21	Effective surface charge for symmetric electrolytes in the primitive model double layer. <i>Electrochimica Acta</i> , 1996, 41, 2115-2124.	5.2	62
22	Electrostatics of membrane adhesion. <i>Biophysical Journal</i> , 1992, 61, 1117-1121.	0.5	61
23	Phase transition in charged lipid membranes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1977, 469, 335-344.	2.6	54
24	Application of Double-Layer Theories to the Extensive Crystalline Swelling of Li-Montmorillonite. <i>Langmuir</i> , 1997, 13, 6241-6248.	3.5	52
25	Surface interactions in simple electrolytes. <i>Journal De Physique</i> , 1988, 49, 1009-1015.	1.8	52
26	Evaluation of effective ion-ion potentials in aqueous electrolytes. <i>Physical Review E</i> , 2002, 65, 041202.	2.1	45
27	Molecular Model for Phase Transition in Biological Membranes. <i>Nature</i> , 1973, 241, 451-453.	27.8	43
28	Theory of polarization profiles and the "hydration force". <i>Chemical Physics Letters</i> , 1981, 82, 315-320.	2.6	43
29	Superconducting order parameter in the transition region. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1968, 28, 180-181.	2.1	41
30	Spatially varying polarization in ice. <i>Journal of the Chemical Society, Faraday Transactions 2</i> , 1983, 79, 211-223.	1.1	41
31	Electrolyte solutions between uncharged walls. <i>Chemical Physics Letters</i> , 1987, 142, 485-491.	2.6	40
32	End-chain ordering in nematic liquid crystals. <i>Solid State Communications</i> , 1973, 13, 759-762.	1.9	39
33	Phase transitions in aqueous suspensions of spherical colloid particles. <i>Chemical Physics Letters</i> , 1976, 43, 353-357.	2.6	39
34	Gaussian random fields with two level-cuts "Model for asymmetric microemulsions with nonzero spontaneous curvature?". <i>Journal of Chemical Physics</i> , 2001, 115, 3923-3936.	3.0	37
35	Short-range forces in surface and bubble interaction. <i>Current Opinion in Colloid and Interface Science</i> , 2004, 9, 165-167.	7.4	35
36	Electrical Conductivity of a Two-Dimensional Superconductor. <i>Physical Review Letters</i> , 1969, 22, 124-127.	7.8	34

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37	Onsager transition in hard plate fluid. Journal of the Chemical Society, Faraday Transactions 2, 1977, 73, 84-88.	1.1	34
38	Conformation of surface bound polyelectrolytes. 2. A Monte Carlo study of medium-length lattice chains. Macromolecules, 1990, 23, 4760-4768.	4.8	32
39	Statistical mechanics of random bicontinuous phases. Journal De Physique II, 1992, 2, 235-247.	0.9	31
40	Effect of Spin-Lattice Coupling on the Critical Resistivity of a Ferromagnet. Physical Review Letters, 1970, 25, 1204-1207.	7.8	29
41	McMillan's Mayer theory for solvent effects in inhomogeneous systems: Calculation of interaction pressure in aqueous electrical double layers. Journal of Chemical Physics, 2001, 114, 9565-9577.	3.0	29
42	Exact Description of Aqueous Electrical Double Layers. Langmuir, 2000, 16, 6081-6083.	3.5	28
43	Molecular Forces in Liquid-Liquid Extraction. Langmuir, 2021, 37, 10637-10656.	3.5	27
44	Potential of Mean Force Computations of Ions Approaching a Surface. Langmuir, 2001, 17, 7929-7934.	3.5	26
45	Monte Carlo Simulation of Curvature-Elastic Interfaces. Langmuir, 1994, 10, 345-350.	3.5	25
46	Hydration forces near charged interfaces in terms of effective ion potentials. Current Opinion in Colloid and Interface Science, 2011, 16, 579-583.	7.4	22
47	Spontaneous Ouzo Emulsions Coexist with Pre-Ouzo Ultraflexible Microemulsions. Langmuir, 2021, 37, 3817-3827.	3.5	22
48	Information content of signals using correlation function expansions of the entropy. Physical Review E, 1997, 56, 4052-4067.	2.1	20
49	Electronic Properties of the Superconductor in the Transition Region. Physical Review B, 1970, 1, 2351-2353.	3.2	16
50	Degradation of Long-Range Order in "One-Dimensional" Superconductors. Physical Review Letters, 1967, 19, 1328-1333.	7.8	15
51	Toward a Realistic Theory of the Interaction of Membrane Inclusions. Biophysical Journal, 1999, 76, 593-594.	0.5	15
52	Nematic-smectic a transition entropies in a homologous series. Physics Letters, Section A: General, Atomic and Solid State Physics, 1973, 43, 273-274.	2.1	13
53	Solvent contribution to the debye screening length. Chemical Physics Letters, 1978, 55, 377-379.	2.6	13
54	The timescale and extent of thermal expansion of the global ocean due to climate change. Ocean Science, 2010, 6, 179-184.	3.4	10

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55	Entropy of level-cut random Gaussian structures at different volume fractions. <i>Physical Review E</i> , 2017, 96, 042147.	2.1	9
56	Phase separation of binary mixtures induced by soft centrifugal fields. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 8261-8272.	2.8	9
57	Entropy of phase-separated structures. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1996, 231, 168-177.	2.6	8
58	Salt penetration into electrical double layers. <i>Langmuir</i> , 1992, 8, 2778-2780.	3.5	7
59	Variational theory of undulating multilayer systems. <i>Journal De Physique II</i> , 1994, 4, 763-772.	0.9	6
60	Initial processing of visual information within the retina and the LGN. <i>Biological Cybernetics</i> , 1979, 32, 217-226.	1.3	5
61	Optimal lateral interactions in a compound eye. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1979, 132, 159-166.	1.6	5
62	Exact solution for the superconducting transition in one dimension. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1971, 35, 335-336.	2.1	4
63	Theory of polarization profiles and the "dehydration force": <i>Advances in Colloid and Interface Science</i> , 1982, 16, 79-80.	14.7	3
64	Electrical coupling of photoreceptors in retinal network models. <i>Biological Cybernetics</i> , 1980, 39, 15-20.	1.3	1