Peter Stilbs

List of Publications by Year
in descending order

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100 papers	5,864 citations	87723 38 h-index	74018 75 g-index
101 all docs	101 docs citations	101 times ranked	3153 citing authors

#	Article	IF	Citations
1	Fourier transform pulsed-gradient spin-echo studies of molecular diffusion. Progress in Nuclear Magnetic Resonance Spectroscopy, 1987, 19, 1-45.	3.9	1,328
2	NMR studies of complex surfactant systems. Progress in Nuclear Magnetic Resonance Spectroscopy, 1994, 26, 445-482.	3.9	310
3	Fourier transform NMR pulsed-gradient spinâ€"echo (FT-PGSE) self-diffusion measurements of solubilization equilibria in SDS solutions. Journal of Colloid and Interface Science, 1982, 87, 385-394.	5.0	260
4	Aggregation of poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) triblock copolymers in the presence of sodium dodecyl sulfate in aqueous solution. The Journal of Physical Chemistry, 1991, 95, 5677-5684.	2.9	185
5	Fourier transform nmr self-diffusion and microemulsion structure. Journal of Colloid and Interface Science, 1981, 83, 569-582.	5.0	170
6	Micelle formation of anionic and cationic surfactants from Fourier transform proton and lithium-7 nuclear magnetic resonance and tracer self-diffusion studies. The Journal of Physical Chemistry, 1984, 88, 5048-5057.	2.9	167
7	Analysis of mixtures based on molecular size and hydrophobicity by means of diffusion-ordered 2D NMR. Analytical Chemistry, 1994, 66, 211-215.	3.2	163
8	NMR studies of surfactants. Concepts in Magnetic Resonance Part A: Bridging Education and Research, 2004, 23A, 121-135.	0.2	144
9	NMR â€œdiffusion-diffractionâ€•of water revealing alignment of erythrocytes in a magnetic field and their dimensions and membrane transport characteristics. Magnetic Resonance in Medicine, 1997, 37, 637-643.	1.9	134
10	Size and shape of nonionic amphiphile (C12E6) micelles in dilute aqueous solutions as derived from quasielastic and intensity light scattering, sedimentation, and pulsed-field-gradient nuclear magnetic resonance self-diffusion data. The Journal of Physical Chemistry, 1983, 87, 4548-4553.	2.9	131
11	Molecular self-diffusion coefficients in Fourier transform nuclear magnetic resonance spectrometric analysis of complex mixtures. Analytical Chemistry, 1981, 53, 2135-2137.	3.2	114
12	NMR relaxation in isotropic surfactant systems. A deuterium, carbon-13, and nitrogen-14 NMR study of the micellar (L1) and cubic (I1) phases in the dodecyltrimethylammonium chloride water system. The Journal of Physical Chemistry, 1985, 89, 3693-3701.	2.9	106
13	Effect of alcohol cosurfactant length on microemulsion structure. Journal of Colloid and Interface Science, 1983, 95, 583-585.	5.0	100
14	A comparative study of micellar solubilization for combinations of surfactants and solubilizates using the fourier transform pulsed-gradient spinâ€"echo NMR multicomponent selfâ€"diffusion technique. Journal of Colloid and Interface Science, 1983, 94, 463-469.	5.0	97
15	Determination of organic counterion binding to micelles through Fourier transform NMR self-diffusion measurements. The Journal of Physical Chemistry, 1981, 85, 2587-2589.	2.9	92
16	Micellar breakdown by short-chain alcohols. A multicomponent FT-PGSE-NMR self-diffusion study. Journal of Colloid and Interface Science, 1982, 89, 547-554.	5.0	85
17	Substrate binding to cyclodextrins in aqueous solution: A multicomponent self-diffusion study. Journal of Inclusion Phenomena, 1983, 1, 159-167.	0.6	83
18	Associative thickeners: NMR self-diffusion and rheology studies of aqueous solutions of hydrophobically modified poly(oxyethylene) polymers. The Journal of Physical Chemistry, 1993, 97, 8336-8342.	2.9	83

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19	The composition of mixed micelles of fluorocarbon and hydrocarbon surfactants as derived from nuclear magnetic resonance self-diffusion measurements. The Journal of Physical Chemistry, 1984, 88, 4410-4414.	2.9	80
20	Micellar dynamics and organization. A multifield carbon-13 NMR spin-lattice relaxation and {proton} carbon-13 nuclear Overhauser effect study. The Journal of Physical Chemistry, 1984, 88, 1655-1662.	2.9	80
21	PGSE-WATERGATE, a new tool for NMR diffusion-based studies of ligand-macromolecule binding. Magnetic Resonance in Chemistry, 2002, 40, 391-395.	1.1	75
22	Surfactant/Nonionic Polymer Interaction. A NMR Diffusometry and NMR Electrophoretic Investigation. Langmuir, 2004, 20, 1138-1143.	1.6	70
23	Molecular dynamics and NMR study of methane-water systems. Molecular Physics, 1991, 74, 747-764.	0.8	65
24	1H NMR Self-Diffusion and Multifield 2H Spin Relaxation Study of Model Associative Polymer and Sodium Dodecyl Sulfate Aggregation in Aqueous Solution. The Journal of Physical Chemistry, 1994, 98, 6359-6367.	2.9	65
25	Heat-Set Bovine Serum Albuminâ"Sodium Dodecyl Sulfate Gels Studied by Fluorescence Probe Methods, NMR, and Light Scattering. Langmuir, 2001, 17, 3208-3215.	1.6	65
26	Molecular motion and solvation of benzene in water, carbon tetrachloride, carbon disulfide and benzene: A combined molecular dynamics simulation and nuclear magnetic resonance study. Journal of Chemical Physics, 1998, 108, 455-468.	1.2	62
27	Organic counterion binding to micelles. Effects of counterion structure on micellar aggregation and counterion binding and location. The Journal of Physical Chemistry, 1987, 91, 113-116.	2.9	61
28	Global leastâ€squares analysis of large, correlated spectral data sets and application to chemical kinetics and timeâ€resolved fluorescence. Review of Scientific Instruments, 1996, 67, 4380-4386.	0.6	61
29	A comparative study of organic counterion binding to micelles with the Fourier transform NMR self-diffusion technique. The Journal of Physical Chemistry, 1985, 89, 4868-4873.	2.9	60
30	Macroscopic counterion diffusion in solutions of cylindrical polyelectrolytes. The Journal of Physical Chemistry, 1985, 89, 3385-3391.	2.9	54
31	Mixed Micelles of Fluorinated and Hydrogenated Surfactants. Journal of the American Chemical Society, 2006, 128, 6704-6712.	6.6	54
32	Macroscopic Background Gradient and Radiation Damping Effects on High-Field PGSE NMR Diffusion Measurements. Journal of Magnetic Resonance, 2001, 150, 49-56.	1.2	52
33	A hydrogen-2 NMR study of two cationic surfactants adsorbed on silica particles. Langmuir, 1993, 9, 2024-2034.	1.6	48
34	Aerosol OT aggregation in water and hydrocarbon solution from NMR self-diffusion measurements. Journal of Colloid and Interface Science, 1984, 99, 290-293.	5.0	46
35	Chain conformation of ionic surfactants adsorbed on solid surfaces from carbon-13 NMR chemical shifts. Langmuir, 1993, 9, 1678-1683.	1.6	46
36	Sensitive and robust electrophoretic NMR: Instrumentation and experiments. Journal of Magnetic Resonance, 2008, 192, 69-77.	1.2	45

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37	Nucleotide aggregation in aqueous solution. Biophysical Chemistry, 1985, 21, 145-156.	1.5	43
38	Solubilization equilibria determined through fourier transform NMR self-diffusion measurements. Journal of Colloid and Interface Science, 1981, 80, 608-610.	5.0	40
39	Phase diagrams and self-diffusion behavior in ionic microemulsion systems containing different cosurfactants. The Journal of Physical Chemistry, 1984, 88, 5420-5425.	2.9	40
40	Fourier transform carbon-13 relaxation and self-diffusion studies of microemulsions. Faraday Discussions of the Chemical Society, 1983, 76, 317-329.	2.2	38
41	On experimental aspects of electrophoretic NMR. Concepts in Magnetic Resonance Part A: Bridging Education and Research, 2004, 22A, 61-68.	0.2	37
42	Ion association in aqueous and non-aqueous solutions probed by diffusion and electrophoretic NMR. Physical Chemistry Chemical Physics, 2015, 17, 3402-3408.	1.3	35
43	Aggregation in tetraalkylammonium dodecanoate systems. Colloids and Surfaces, 1991, 59, 387-397.	0.9	34
44	Solubilization in sodium perfluorooctanoate micelles: A multicomponent self-diffusion study. Journal of Colloid and Interface Science, 1985, 103, 332-336.	5.0	33
45	Friction coefficients in self-diffusion, velocity sedimentation, and mutual diffusion for poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlo	1.0	29
46	Ion Pairing in Ethanol/Water Solution Probed by Electrophoretic and Diffusion NMR. Journal of the American Chemical Society, 2009, 131, 13900-13901.	6.6	29
47	The protonâ€"deuteron isotope effect on micellar solubilization: A multicomponent self-diffusion investigation. Journal of Colloid and Interface Science, 1985, 104, 489-499.	5.0	28
48	Self-diffusion of poly(ethylene oxide) in aqueous dextran solutions measured using FT-pulsed field gradient n.m.r.. Polymer, 1983, 24, 188-192.	1.8	26
49	An NMR investigation of adsorbed 2H-labeled surfactants at the solid/water interface. Journal of Colloid and Interface Science, 1991, 143, 586-588.	5.0	26
50	Component Separation in NMR Imaging and Multidimensional Spectroscopy through Global Least-Squares Analysis, Based on Prior Knowledge. Journal of Magnetic Resonance, 1998, 135, 236-241.	1.2	26
51	On the Self-Assembly of Monoolein in Mixtures of Water and a Polar Aprotic Solvent. Journal of Physical Chemistry B, 2003, 107, 2311-2318.	1.2	26
52	A multicomponent self-diffusion NMR study of aggregation of nucleotides, nucleosides, nucleic acid bases and some derivatives in aqueous solution with divalent metal ions added. Biophysical Chemistry, 1985, 22, 65-75.	1.5	25
53	Binding of Monovalent and Multivalent Metal Cations to Polyethylene Oxide in Methanol Probed by Electrophoretic and Diffusion NMR. Journal of Physical Chemistry B, 2016, 120, 10358-10366.	1.2	25
54	Vesicle membrane-water partition coefficients determined from Fourier transform pulsed-gradient spin-echo NMR based self-diffusion data. Application to anesthetic binding in tetracaine-phosphatidylcholine-water systems. Chemistry and Physics of Lipids, 1984, 35, 309-314.	1.5	24

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55	Electrophoretic NMR. Current Opinion in Colloid and Interface Science, 2006, 11, 3-6.	3.4	24
56	Micellar fluidity. A deuterium nuclear magnetic resonance spin relaxation study of the anisotropic reorientation of solubilized trans-Decalin-d18. The Journal of Physical Chemistry, 1983, 87, 4762-4769.	2.9	23
57	Localized interaction of the polyamine methylspermidine with double-helical DNA as monitored by proton NMR self-diffusion measurements. Biochemistry, 1993, 32, 961-967.	1.2	20
58	Self-diffusion of small molecules in cellulose gels using FT-pulsed field gradient NMR. Journal of Applied Polymer Science, 1984, 29, 823-827.	1.3	19
59	RECORD processing â€“ A robust pathway to component-resolved HR-PGSE NMR diffusometry. Journal of Magnetic Resonance, 2010, 207, 332-336.	1.2	19
60	Automated CORE, RECORD, and GRECORD processing of multi-component PGSE NMR diffusometry data. European Biophysics Journal, 2013, 42, 25-32.	1.2	19
61	On the solution conformation of poly(ethylene oxide). An FT-pulsed field gradient n.m.r. self-diffusion study. Polymer, 1982, 23, 1780-1784.	1.8	18
62	Orientational order and dynamics of a micellarly-associated organic counterion. The Journal of Physical Chemistry, 1989, 93, 1448-1451.	2.9	18
63	NMR study of organic counterion binding and micellization of decylammonium dicarboxylate surfactants. The Journal of Physical Chemistry, 1989, 93, 6458-6463.	2.9	18
64	Using End-Confined Chains To Model End-Absorbing, Triblock Copolymers:Â 2. Numerical Approachâ€. Macromolecules, 1998, 31, 9033-9043.	2.2	18
65	Electrophoretic Nuclear Magnetic Resonance (ENMR)A New Tool for Studying Counterion Binding in Mixed Surfactant Systems. Langmuir, 2003, 19, 8605-8607.	1.6	17
66	Counterion binding in surfactant systems. Electron spin relaxation of the vanadyl ion. Journal of Colloid and Interface Science, 1977, 60, 232-241.	5.0	16
67	Amphiphilic Polymer Gel Electrolytes. 4. Ion Transport and Dynamics As Studied by Multinuclear Pulsed Field Gradient Spin-Echo NMR. Macromolecules, 2002, 35, 5097-5104.	2.2	16
68	NMR self diffusion measurements of the Monooleoylglycerol/Poly ethylene glycol/water L3 phase. Colloids and Surfaces B: Biointerfaces, 2002, 26, 21-29.	2.5	15
69	Counterion mobility in micellar solutions from electron spin relaxation. Journal of Colloid and Interface Science, 1974, 46, 177-179.	5.0	14
70	A PGSE diffusion and electrophoretic NMR study of Cs+ and Na+ dynamics in aqueous crown ether systems. Magnetic Resonance in Chemistry, 2007, 45, 152-156.	1.1	14
71	Molecular Complexation and Binding Studied by Electrophoretic NMR Spectroscopy. Journal of the American Chemical Society, 2008, 130, 7550-7551.	6.6	14
72	Counterion self-diffusion in aqueous solutions of poly(acrylic acid) and poly(methacrylic acid). The Journal of Physical Chemistry, 1985, 89, 2425-2428.	2.9	13

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73	Migration and self-diffusion of divalent counterions in micellar solutions containing mainly monovalent counterions. The Journal of Physical Chemistry, 1985, 89, 2666-2671.	2.9	12
74	Molecular Mobility and Order of Didodecyldimethylammonium Chloride Adsorbed on Silica Particles from 2H Nuclear Spin Relaxation. Langmuir, 1994, 10, 890-898.	1.6	12
75	Component-Resolved Diffusion in Multicomponent Mixtures. A Case Study of High-Field PGSEâ˜NMR Self-Diffusion Measurements in Asphaltene/Naphthenic Acid/Solvent Systems. Energy & Fuels, 2004, 18, 531-538.	2.5	12
76	Mixed Adsorption of Fluorinated and Hydrogenated Surfactants. Langmuir, 2006, 22, 7969-7974.	1.6	12
77	Concentration and molecular weight dependence of counterion self-diffusion in aqueous poly(acrylic acid) solution. The Journal of Physical Chemistry, 1985, 89, 3502-3505.	2.9	11
78	Counterion self diffusion in polystyrenesulfonate solutions. Die Makromolekulare Chemie Rapid Communications, 1985, 6, 163-168.	1.1	10
79	Water Self-Diffusion in Aqueous Associative Polymer Solutions. The Journal of Physical Chemistry, 1996, 100, 6691-6697.	2.9	9
80	Dynamics of macromolecular chains. 13C spin relaxation study of short-chain polystyrenes in deutero-chloroform solution. Polymer, 1981, 22, 321-326.	1.8	7
81	Steady state effects in a two-pulse diffusion-weighted sequence. Journal of Chemical Physics, 2015, 142, 154201.	1.2	7
82	Historical: early multiâ€component FTâ€PGSE NMR selfâ€diffusion measurementsâ€”some personal reflections. Magnetic Resonance in Chemistry, 2017, 55, 386-394.	1.1	7
83	FT NMR self-diffusion for the study of counterion binding in polyelectrolyte solutions. Journal of Magnetic Resonance, 1982, 48, 132-137.	0.5	6
84	Micellar Kinetics of a Fluorosurfactant through Stopped-Flow NMR. Langmuir, 2006, 22, 2002-2004.	1.6	6
85	Chemiluminescence of phthalhydrazide derivatives in organized media: Interactions with surfactants and cyclodextrins. Journal of Luminescence, 2011, 131, 662-668.	1.5	6
86	Spectral deconvolution of NMR cross polarization data sets. Solid State Nuclear Magnetic Resonance, 2009, 35, 208-213.	1.5	5
87	Microstructure and Molecular Dynamics of Surfactant Solutions: an Overview of NMR Self-Diffusion and Relaxation Studies. , 1989, , 1-24.		5
88	Comment on the paper, â€œsolubilization of heptanols and Î±,Ï‰-alkanediols in aqueous solution of sodium dodecyl sulfateâ€• Journal of Colloid and Interface Science, 1988, 122, 593-596.	5.0	4
89	Fourier-transform nuclear magnetic resonance measurements of self-diffusion in the 1,1,2,2-tetrabromoethane + n-alkylbenzene system. Comment on approximate hydrodynamic models for the interpretation of diffusion data. Journal of the Chemical Society Faraday Transactions I, 1983, 79, 1351.	1.0	3
90	NMR Studies of Polymer-Surfactant Systems. , 2020, , 239-266.		2

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91	1H, 7Li and 133Cs multicomponent self-diffusion NMR study on ion binding of Li+ and Cs+ to nucleotides and aggregation of nucleotides in aqueous solution. Biophysical Chemistry, 1986, 24, 61-69.	1.5	1
92	Diffusion Studied Using NMR Spectroscopy. , 1999, , 369-375.		1
93	Diffusion Studied Using NMR Spectroscopy*. , 1999, , 423-428.		1
94	Characterization Mesoscale Structure and Phenomena in Fluids Using NMR. ACS Symposium Series, 2003, , 27-43.	0.5	1
95	The First Study of Cartilage by Magnetic Resonance. Cartilage, 2016, 7, 293-297.	1.4	1
96	Diffusion Studied Using NMR Spectroscopy. , 2017, , 409-414.		0
97	2. Basic concepts. , 2019, , 30-99.		0
98	6. Data preparation, evaluation and presentation. , 2019, , 195-249.		0
99	8. Electrophoretic NMR (eNMR). , 2019, , 266-302.		0
100	5. Nonobvious pitfalls and other potentially confusing elements in PGSE studies. , 2019, , 175-194.		0