Jan Swenson

List of Publications by Year
in descending order

118 papers	4,701 citations	101496 36 h-index	110317 64 g-index
119 all docs	119 docs citations	119 times ranked	4252 citing authors

#	Article	IF	Citations
1	A unified model of protein dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5129-5134.	3.3	662
2	Confined Water as Model of Supercooled Water. Chemical Reviews, 2016, 116, 7608-7625.	23.0	250
3	Relaxation Processes in Supercooled Confined Water and Implications for Protein Dynamics. Physical Review Letters, 2006, 96, 247802.	2.9	177
4	Glass Transition and Relaxation Processes in Supercooled Water. Physical Review Letters, 2004, 93, 245702.	2.9	158
5	Mixed Alkali Effect in Glasses. Physical Review Letters, 2003, 90, 155507.	2.9	142
6	The Role of Trehalose for the Stabilization of Proteins. Journal of Physical Chemistry B, 2016, 120, 4723-4731.	1.2	126
7	Investigating hydration dependence of dynamics of confined water: Monolayer, hydration water and Maxwellâ€“Wagner processes. Journal of Chemical Physics, 2008, 128, 154503.	1.2	109
8	The structure and dynamics of 2-dimensional fluids in swelling clays. Chemical Geology, 2006, 230, 182-196.	1.4	108
9	Diffraction and IR/Raman data do not prove tetrahedral water. Journal of Chemical Physics, 2008, 129, 084502.	1.2	94
10	The protein glass transition as measured by dielectric spectroscopy and differential scanning calorimetry. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 20-26.	1.1	93
11	Structure of mixed alkali/alkaline-earth silicate glasses from neutron diffraction and vibrational spectroscopy. Physical Review B, 2005, 72, .	1.1	77
12	Water dynamics in n-propylene glycol aqueous solutions. Journal of Chemical Physics, 2006, 124, 194501.	1.2	77
13	The glass transition and relaxation behavior of bulk water and a possible relation to confined water. Journal of Chemical Physics, 2010, 132, 014508.	1.2	73
14	Dynamics of water in a molecular sieve by quasielastic neutron scattering. Journal of Chemical Physics, 2005, 122, 084505.	1.2	72
15	Properties of hydration water and its role in protein dynamics. Journal of Physics Condensed Matter, 2007, 19, 205109.	0.7	72
16	Role of Solvent for the Dynamics and the Glass Transition of Proteins. Journal of Physical Chemistry B, 2011, 115, 4099-4109.	1.2	69
17	Bond valence analysis of transport pathways in RMC models of fast ion conducting glasses. Physical Chemistry Chemical Physics, 2002, 4, 3179-3184.	1.3	68
18	Relation between Solvent and Protein Dynamics as Studied by Dielectric Spectroscopy. Journal of Physical Chemistry B, 2005, 109, 24134-24141.	1.2	67

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19	Does confined water exhibit a fragile-to-strong transition?. European Physical Journal: Special Topics, 2007, 141, 53-56.	1.2	61
20	Comment on â€œPressure Dependence of Fragile-to-Strong Transition and a Possible Second Critical Point in Supercooled Confined Waterâ€. Physical Review Letters, 2006, 97, 189801; discussion 189803.	2.9	58
21	Dynamics of deeply supercooled interfacial water. Journal of Physics Condensed Matter, 2015, 27, 033102.	0.7	58
22	Solvent and lipid dynamics of hydrated lipid bilayers by incoherent quasielastic neutron scattering. Journal of Chemical Physics, 2008, 129, 045101.	1.2	56
23	Dynamics of Poly(ethylene oxide) around Its Melting Temperature. Macromolecules, 2013, 46, 6949-6954.	2.2	56
24	Hidden Slow Dynamics in Water. Physical Review Letters, 2010, 104, 017802.	2.9	54
25	Migration pathways in Ag-based superionic glasses and crystals investigated by the bond valence method. Physical Review B, 2000, 63, .	1.1	52
26	Glass Transition and Relaxation Processes of Nanocomposite Polymer Electrolytes. Journal of Physical Chemistry B, 2012, 116, 7762-7770.	1.2	51
27	Structure conductivity correlation in reverse Monte Carlo models of single and mixed alkali glasses. Solid State Ionics, 2004, 175, 665-669.	1.3	46
28	Application of the bond valence method to reverse Monte Carlo produced structural models of superionic glasses. Physical Review B, 2001, 64, .	1.1	43
29	Dielectric secondary relaxation of water in aqueous binary glass-formers. Physical Chemistry Chemical Physics, 2010, 12, 10452.	1.3	42
30	The temperature dependent structure of liquid 1-propanol as studied by neutron diffraction and EPSR simulations. Journal of Chemical Physics, 2013, 138, 214501.	1.2	42
31	Different behavior of water in confined solutions of high and low solute concentrations. Physical Chemistry Chemical Physics, 2013, 15, 18437.	1.3	41
32	Protein fluctuations explored by inelastic neutron scattering and dielectric relaxation spectroscopy. Philosophical Magazine, 2008, 88, 3877-3883.	0.7	40
33	Long-term frozen storage of wheat bread and dough â€“ Effect of time, temperature and fibre on sensory quality, microstructure and state of water. Journal of Cereal Science, 2013, 57, 125-133.	1.8	39
34	Cycling Stability of Poly(ethylene glycol) of Six Molecular Weights: Influence of Thermal Conditions for Energy Applications. ACS Applied Energy Materials, 2020, 3, 10578-10589.	2.5	39
35	Relaxation dynamics of a polymer in a 2D confinement. Journal of Chemical Physics, 2004, 120, 5736-5744.	1.2	38
36	Dynamics of sugar solutions as studied by dielectric spectroscopy. Journal of Non-Crystalline Solids, 2005, 351, 2858-2863.	1.5	38

#	Article	IF	Citations
37	Relation between structural and conductivity relaxation in PEO and PEO based electrolytes. Solid State Ionics, 2014, 262, 785-789.	1.3	38
38	Stable Air Nanobubbles in Water: the Importance of Organic Contaminants. Langmuir, 2018, 34, 11003-11009.	1.6	37
39	DOPC <i>versus</i> DOPE as a helper lipid for gene-therapies: molecular dynamics simulations with DLin-MC3-DMA. Physical Chemistry Chemical Physics, 2020, 22, 28256-28268.	1.3	37
40	Conduction mechanism in polymeric membranes based on PEO or PVdF-HFP and containing a piperidinium ionic liquid. Electrochimica Acta, 2019, 299, 979-986.	2.6	36
41	Dynamics of a protein and its surrounding environment: A quasielastic neutron scattering study of myoglobin in water and glycerol mixtures. Journal of Chemical Physics, 2009, 130, 205101.	1.2	35
42	Calorimetric and relaxation properties of xylitol-water mixtures. Journal of Chemical Physics, 2012, 136, 104508.	1.2	35
43	Why is there no clear glass transition of confined water?. Chemical Physics, 2013, 424, 20-25.	0.9	35
44	Mixed Mobile Ion Effect and Cooperative Motions in Silver-Sodium Phosphate Glasses. Physical Review Letters, 2008, 101, 195901.	2.9	34
45	Differentiating bulk nanobubbles from nanodroplets and nanoparticles. Current Opinion in Colloid and Interface Science, 2021, 53, 101427.	3.4	34
46	Bond valence analysis of reverse Monte Carlo produced structural models; a way to understand ion conduction in glasses. Journal of Physics Condensed Matter, 2005, 17, S87-S101.	0.7	33
47	Size and Refractive Index Determination of Subwavelength Particles and Air Bubbles by Holographic Nanoparticle Tracking Analysis. Analytical Chemistry, 2020, 92, 1908-1915.	3.2	32
48	Slow Debye-type peak observed in the dielectric response of polyalcohols. Journal of Chemical Physics, 2010, 132, 044504.	1.2	31
49	A dielectric relaxation study of nanocomposite polymer electrolytes. Solid State Ionics, 2012, 225, 346-349.	1.3	31
50	Formation and distribution of ice upon freezing of different formulations of wheat bread. Journal of Cereal Science, 2012, 55, 279-284.	1.8	31
51	Possible relations between supercooled and glassy confined water and amorphous bulk ice. Physical Chemistry Chemical Physics, 2018, 20, 30095-30103.	1.3	31
52	Structural Comparison between Sucrose and Trehalose in Aqueous Solution. Journal of Physical Chemistry B, 2020, 124, 3074-3082.	1.2	31
53	Properties of normal and glycated human hemoglobin in presence and absence of antioxidant. Biochemical and Biophysical Research Communications, 2005, 334, 954-959.	1.0	30
54	Dielectric and Calorimetric Studies of Hydrated Purple Membrane. Biophysical Journal, 2005, 89, 3120-3128.	0.2	30

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55	Impact of long-term frozen storage on the dynamics of water and ice in wheat bread. Journal of Cereal Science, 2013, 57, 120-124.	1.8	30
56	Mechanism of Trehalose-Induced Protein Stabilization from Neutron Scattering and Modeling. Journal of Physical Chemistry B, 2019, 123, 3679-3687.	1.2	28
57	Protic Ionic Liquids Based on the Alkyl-Imidazolium Cation: Effect of the Alkyl Chain Length on Structure and Dynamics. Journal of Physical Chemistry B, 2019, 123, 4044-4054.	1.2	27
58	Relaxations of Hydrogen-Bonded Liquids Confined in Two-Dimensional Vermiculite Clay. Journal of Physical Chemistry B, 2004, 108, 11596-11603.	1.2	25
59	Exploring the antioxidant property of bioflavonoid quercetin in preventing DNA glycation: A calorimetric and spectroscopic study. Biochemical and Biophysical Research Communications, 2006, 339, 355-361.	1.0	25
60	Evidence of Coupling between the Motions of Water and Peptides. Journal of Physical Chemistry Letters, 2016, 7, 4093-4098.	2.1	25
61	The slow dielectric Debye relaxation of monoalcohols in confined geometries. Journal of Chemical Physics, 2011, 134, 104504.	1.2	23
62	Interplay between Hydration Water and Headgroup Dynamics in Lipid Bilayers. Journal of Physical Chemistry B, 2011, 115, 1825-1832.	1.2	22
63	Comment on â€œQuasielastic neutron scattering of two-dimensional water in a vermiculite clayâ€•[J. Chem. Phys. 113, 2873 (2000)] and â€œA neutron spin-echo study of confined waterâ€•[J. Chem. Phys. 115, 11299 (2001)]. Journal of Chemical Physics, 2004, 121, 9193-9194.	1.2	20
64	A SANS Study of 3PEGâˆ'LiClO4âˆ'TiO2Nanocomposite Polymer Electrolytes. Macromolecules, 2005, 38, 6666-6671.	2.2	20
65	Intermediate-range structure and conductivity of fast ion-conducting borate glasses. Journal of Non-Crystalline Solids, 1998, 232-234, 658-664.	1.5	19
66	Structure ofCa0.4K0.6(NO3)1.4from the glass to the liquid state. Physical Review B, 2001, 64, .	1.1	19
67	Comparative study of ion conducting pathways in borate glasses. Physical Review B, 2006, 74, .	1.1	19
68	Water dynamics in the hydration shells of biological and non-biological polymers. Journal of Chemical Physics, 2019, 150, 234904.	1.2	19
69	Dynamical changes of hemoglobin and its surrounding water during thermal denaturation as studied by quasielastic neutron scattering and temperature modulated differential scanning calorimetry. Journal of Chemical Physics, 2008, 128, 245104.	1.2	17
70	Stabilization of proteins embedded in sugars and water as studied by dielectric spectroscopy. Physical Chemistry Chemical Physics, 2020, 22, 21197-21207.	1.3	17
71	Comment on â€œFraction of Boroxol Rings in Vitreous Boron Oxide from a First-Principles Analysis of Raman and NMR Spectraâ€• Physical Review Letters, 2006, 96, 199701; author reply 199702.	2.9	16
72	Dynamics of aqueous binary glass-formers confined in MCM-41. Physical Chemistry Chemical Physics, 2015, 17, 12978-12987.	1.3	16

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73	Dynamics of Fresh and Freeze-Dried Strawberry and Red Onion by Quasielastic Neutron Scattering. Journal of Physical Chemistry B, 2006, 110, 13786-13792.	1.2	15
74	Structural relaxations of phospholipids and water in planar membranes. Journal of Chemical Physics, 2009, 130, 035101.	1.2	15
75	Dynamics of supercooled water in a biological model system of the amino acid <scp>l</scp>-lysine. Physical Chemistry Chemical Physics, 2014, 16, 22382-22390.	1.3	15
76	Brownian motion of single glycerol molecules in an aqueous solution as studied by dynamic light scattering. Physical Review E, 2015, 91, 032306.	0.8	15
77	Structure of Aqueous Trehalose Solution by Neutron Diffraction and Structural Modeling. Journal of Physical Chemistry B, 2016, 120, 12669-12678.	1.2	15
78	The nature of conduction pathways in mixed alkali phosphate glasses. Ionics, 2004, 10, 396-404.	1.2	14
79	Hydrogen Bond Induced Nonmonotonic Composition Behavior of the Glass Transition in Aqueous Binary Mixtures. Journal of Physical Chemistry B, 2011, 115, 10013-10017.	1.2	14
80	Anomalous dynamics of aqueous solutions of di-propylene glycol methylether confined in MCM-41 by quasielastic neutron scattering. Journal of Chemical Physics, 2014, 141, 214501.	1.2	14
81	The role of disaccharides for proteinâ€“protein interactions â€“ a SANS study. Molecular Physics, 2019, 117, 3408-3416.	0.8	14
82	Motions of water and solutesâ€”Slaving versus plasticization phenomena. Journal of Chemical Physics, 2019, 150, 124902.	1.2	14
83	The glass transition and fragility of supercooled confined water. Journal of Physics Condensed Matter, 2004, 16, S5317-S5327.	0.7	13
84	Predictability of ion transport properties from the structure of solid electrolytes. Ionics, 2004, 10, 317-326.	1.2	12
85	Dynamics of DiPGMEâ€“Water Mixtures in Mesoporous Silica. Journal of Physical Chemistry C, 2017, 121, 6796-6806.	1.5	12
86	Component of Cannabis, Cannabidiol, as a Possible Drug against the Cytotoxicity of AÎ²(31â€“35) and AÎ²(25â€“35) Peptides: An Investigation by Molecular Dynamics and Well-Tempered Metadynamics Simulations. ACS Chemical Neuroscience, 2021, 12, 660-674.	1.7	12
87	Local dimensionality and intermediate range ordering of ion conduction pathways in borate glasses. Journal of Non-Crystalline Solids, 2006, 352, 5164-5169.	1.5	11
88	Structure of Ag_{<i>x</i>}Na_{1âˆ’<i>x</i>}PO₃glasses by neutron diffraction and reverse Monte Carlo modelling. Journal of Physics Condensed Matter, 2007, 19, 415115.	0.7	11
89	Slow dielectric response of Debye-type in water and other hydrogen bonded liquids. Journal of Molecular Structure, 2010, 972, 92-98.	1.8	11
90	Influence of graphene oxide on asphaltene nanoaggregates. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 630, 127614.	2.3	11

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91	Dynamics of propylene glycol and its oligomers confined to a single molecular layer. Journal of Chemical Physics, 2005, 122, 244702.	1.2	10
92	Dynamics of water in strawberry and red onion as studied by dielectric spectroscopy. Physical Review E, 2005, 71, 011901.	0.8	9
93	Protein and solvent dynamics as studied by QENS and dielectric spectroscopy. Journal of Non-Crystalline Solids, 2006, 352, 4410-4416.	1.5	9
94	Structural investigations of polymer electrolyte poly(propylene oxide)-LiClO4 using diffraction experiments and reverse Monte Carlo simulation. Journal of Chemical Physics, 2004, 121, 12026-12037.	1.2	8
95	Glass transition and relaxation dynamics of propylene glycolâ€“water solutions confined in clay. Journal of Chemical Physics, 2014, 141, 034505.	1.2	8
96	Conductivityâ€"Relaxation Relations in Nanocomposite Polymer Electrolytes Containing Ionic Liquid. Journal of Physical Chemistry B, 2017, 121, 9699-9707.	1.2	8
97	Effect of Glycation on the Structure and Dynamics of DNA:Â A Critical Spectroscopic Approach. Journal of Physical Chemistry B, 2007, 111, 646-651.	1.2	7
98	Long-Range Diffusion in Xylitolâ€“Water Mixtures. Journal of Physical Chemistry B, 2013, 117, 7363-7369.	1.2	6
99	Structural properties determining the ionic conductivity ofCsI-dopedAgPO3glasses. Physical Review B, 2004, 69, .	1.1	5
100	Diffusive solvent dynamics in a polymer gel electrolyte studied by quasielastic neutron scattering. Journal of Chemical Physics, 2005, 122, 234905.	1.2	5
101	Structure of Li_{<i>x</i>}Rb_{1â^'<i>x</i>}PO₃glasses near the glass transition. Journal of Physics Condensed Matter, 2009, 21, 245106.	0.7	5
102	Reduced mobility of di-propylene glycol methylether in its aqueous mixtures by quasielastic neutron scattering. Journal of Chemical Physics, 2010, 133, 234506.	1.2	5
103	Effects of Water Contamination on the Supercooled Dynamics of a Hydrogen-Bonded Model Glass Former. Journal of Physical Chemistry B, 2011, 115, 1842-1847.	1.2	5
104	Mechanistic Insight into the Structure and Dynamics of Entangled and Hydrated Î»-Phage DNA. Journal of Physical Chemistry A, 2012, 116, 4274-4284.	1.1	5
105	A Porosimetric Mapping of Breadcrumb Structures by Differential Scanning Calorimetry and Nuclear Magnetic Resonance. Food Biophysics, 2013, 8, 209-215.	1.4	5
106	Dynamical Accuracy of Water Models on Supercooling. Journal of Physical Chemistry Letters, 2020, 11, 7469-7475.	2.1	5
107	Effect of encapsulated protein on the dynamics of lipid sponge phase: a neutron spin echo and molecular dynamics simulation study. Nanoscale, 2022, , .	2.8	5
108	Response to â€œComment on â€˜Slow Debye-type peak observed in the dielectric response of polyalcohols'â€‰â€• [J. Chem. Phys. 134, 037101 (2011)]. Journal of Chemical Physics, 2011, 134, 037102.	1.2	3

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109	Molecular Insights into Dipole Relaxation Processes in Waterâ€"Lysine Mixtures. Journal of Physical Chemistry B, 2019, 123, 6056-6064.	1.2	3
110	Influence of ice formation on the dynamic and thermodynamic properties of aqueous solutions. Journal of Molecular Liquids, 2022, 356, 119039.	2.3	3
111	Complex modulus and compliance for airway smooth muscle cells. Physical Review E, 2020, 101, 032410.	0.8	2
112	Atomistic molecular dynamics simulations of tubulin heterodimers explain the motion of a microtubule. European Biophysics Journal, 2021, 50, 927-940.	1.2	2
113	Frequency dependent conductivity of single alkali and mixed alkali phosphate glasses. Journal of Non-Crystalline Solids, 2004, 345-346, 514-517.	1.5	1
114	Reply to â€œComment on â€˜Investigating hydrogen dependence of dynamics of confined water: Monolayer, hydration water and Maxwell-Wagner processesâ€™ [J. Chem. Phys. 133, 037101 (2010)]â€• Journal of Chemical Physics, 2010, 133, 037102.	1.2	1
115	Two statins and cromolyn as possible drugs against the cytotoxicity of AÎ²(31â€"35) and AÎ²(25â€"35) peptides: a comparative study by advanced computer simulation methods. RSC Advances, 2022, 12, 13352-13366.	1.7	1
116	Bond valence analysis of ion transport in reverse Monte Carlo models of mixed alkali glasses. Materials Research Society Symposia Proceedings, 2002, 756, 1.	0.1	0
117	Reply to â€œComment on â€˜Dynamics of water in a molecular sieve by quasielastic neutron scatteringâ€™â€‰â€• [J. Chem. Phys. 125, 077101 (2006)]. Journal of Chemical Physics, 2006, 125, 077102.	1.2	0
118	Dynamics of Water in Partially Crystallized Solutions of Glass Forming Materials and Polymers: Implications on the Behavior of Bulk Water. Advances in Dielectrics, 2020, , 169-194.	1.2	0