Fabio Bruni

List of Publications by Year
in descending order

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88	4,841	101543	95266
papers	citations	36 h-index	68 g-index

88	88	88	3950
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hydration of Sodium, Potassium, and Chloride Ions in Solution and the Concept of Structure Maker/Breaker. Journal of Physical Chemistry B, 2007, 111, 13570-13577.	2.6	576
2	Siteâ€“site pair correlation functions of water from 25 to 400â€‰Â°C: Revised analysis of new and old diffraction data. Journal of Chemical Physics, 1997, 106, 247-254.	3.0	556
3	Perturbation of water structure due to monovalent ions in solution. Physical Chemistry Chemical Physics, 2007, 9, 2959.	2.8	303
4	Analysis of the hydrogen-bonded structure of water from ambient to supercritical conditions. Journal of Chemical Physics, 1998, 108, 8528-8540.	3.0	175
5	Water confined in Vycor glass. I. A neutron diffraction study. Journal of Chemical Physics, 1998, 109, 1478-1485.	3.0	148
6	Ions in water: The microscopic structure of concentrated NaOH solutions. Journal of Chemical Physics, 2004, 120, 10154-10162.	3.0	141
7	A molecular dynamics simulation of water confined in a cylindrical SiO2 pore. Journal of Chemical Physics, 1998, 108, 9859-9867.	3.0	127
8	Glass Transitions in Soybean Seed. Plant Physiology, 1991, 96, 660-663.	4.8	126
9	Water confined in Vycor glass. II. Excluded volume effects on the radial distribution functions. Journal of Chemical Physics, 1998, 109, 1486-1494.	3.0	125
10	Ions in water: The microscopic structure of a concentrated HCl solution. Journal of Chemical Physics, 2004, 121, 7840.	3.0	121
11	Ions in water: The microscopic structure of concentrated hydroxide solutions. Journal of Chemical Physics, 2005, 122, 194509.	3.0	114
12	Electrode and interfacial polarization in broadband dielectric spectroscopy measurements. Review of Scientific Instruments, 2001, 72, 2502-2504.	1.3	86
13	Aqueous solutions of divalent chlorides: Ions hydration shell and water structure. Journal of Chemical Physics, 2012, 136, 064520.	3.0	85
14	Excess of Proton Mean Kinetic Energy in Supercooled Water. Physical Review Letters, 2008, 100, 127802.	7.8	84
15	Water and Trehalose: How Much Do They Interact with Each Other?. Journal of Physical Chemistry B, 2010, 114, 4904-4908.	2.6	80
16	More than one dynamic crossover in protein hydration water. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 19873-19878.	7.1	79
17	Neutron diffraction study of high density supercritical water. Journal of Chemical Physics, 1998, 109, 3180-3184.	3.0	78
18	Solvation of hydroxyl ions in water. Journal of Chemical Physics, 2003, 119, 5001-5004.	3.0	76

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19	Structure of 2 molar NaOH in aqueous solution from neutron diffraction and empirical potential structure refinement. Physical Review B, 2006, 74, .	3.2	75
20	Water in confined geometries: experiments and simulations. Journal of Physics Condensed Matter, 2000, 12, A345-A350.	1.8	74
21	The Three-Dimensional Structure of Water Confined in Nanoporous Vycor Glass. Journal of Physical Chemistry B, 2007, 111, 5610-5620.	2.6	72
22	Structural characterization of NaOH aqueous solution in the glass and liquid states. Journal of Chemical Physics, 2001, 114, 8056-8063.	3.0	66
23	Multiscale Approach to the Structural Study of Water Confined in MCM41. Journal of Physical Chemistry B, 2009, 113, 16169-16177.	2.6	66
24	Controversial Evidence on the Point of Minimum Density in Deeply Supercooled Confined Water. Journal of Physical Chemistry Letters, 2010, 1, 1277-1282.	4.6	57
25	Pools of water in anhydrobiotic organisms. Biophysical Journal, 1992, 63, 663-672.	0.5	56
26	Solvation shell of OHâ˜ ions in water. Journal of Molecular Liquids, 2005, 117, 81-84.	4.9	54
27	Water structure around trehalose. Chemical Physics, 2008, 345, 159-163.	1.9	54
28	â€œSimilaritiesâ€•between confined and supercooled water. Faraday Discussions, 2009, 141, 347-358.	3.2	52
29	Two-dimensional protonic percolation on lightly hydrated purple membrane. Proceedings of the National Academy of Sciences of the United States of America, 1988, 85, 9022-9025.	7.1	50
30	Proton Momentum Distribution in a Protein Hydration Shell. Physical Review Letters, 2007, 98, 138102.	7.8	47
31	Viscosity of Aqueous Solutions and Local Microscopic Structure. Journal of Physical Chemistry B, 2011, 115, 14008-14013.	2.6	45
32	Critical exponents of protonic percolation in maize seeds. Physical Review A, 1989, 40, 2803-2805.	2.5	44
33	Dielectric properties of Artemia cysts at low water contents. Evidence for a percolative transition. Biophysical Journal, 1989, 55, 331-338.	0.5	43
34	Solvation of KSCN in Water. Journal of Physical Chemistry B, 2009, 113, 10014-10021.	2.6	40
35	Water-Peptide Site-Specific Interactions: A Structural Study on the Hydration of Glutathione. Biophysical Journal, 2014, 106, 1701-1709.	0.5	40
36	Dynamical behavior of microgels of interpenetrated polymer networks. Soft Matter, 2017, 13, 5185-5193.	2.7	39

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37	Probing water dynamics with OHâ^'. Chemical Physics, 2007, 336, 183-187.	1.9	37
38	Dielectric Relaxations in Confined Hydrated Myoglobin. Journal of Physical Chemistry B, 2009, 113, 9606-9613.	2.6	35
39	Cytoplasmic glass formation in maize embryos. Seed Science Research, 1992, 2, 251-253.	1.7	33
40	Experimental determination of the siteâ€"site radial distribution functions of supercooled ultrapure bulk water. Journal of Chemical Physics, 2002, 117, 6196-6199.	3.0	31
41	Hydration of Caffeine at High Temperature by Neutron Scattering and Simulation Studies. Journal of Physical Chemistry B, 2015, 119, 13294-13301.	2.6	29
42	Multiple relaxation processes versus the fragile-to-strong transition in confined water. Physical Chemistry Chemical Physics, 2011, 13, 19773.	2.8	28
43	Temperature dependence of dielectric relaxation in H2O and D2O ice. A dissipative quantum tunneling approach. Journal of Chemical Physics, 1993, 99, 538-547.	3.0	26
44	Unpredicted density dependence of hydrogen bonding in water found by neutron diffraction. Physical Review B, 1996, 54, 11876-11879.	3.2	26
45	Proton glass freezing in hydrated lysozyme powders. Physical Review E, 1999, 60, 7604-7607.	2.1	26
46	Trehalose in Water Revisited. Journal of Physical Chemistry B, 2018, 122, 7365-7374.	2.6	26
47	Hydrogen Bond Length as a Key To Understanding Sweetness. Journal of Physical Chemistry Letters, 2018, 9, 3667-3672.	4.6	25
48	Structure-activity relationships in carbohydrates revealed by their hydration. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 1486-1493.	2.4	22
49	Role of Water in Sucrose, Lactose, and Sucralose Taste: The Sweeter, The Wetter?. ACS Omega, 2019, 4, 22392-22398.	3.5	22
50	Glucose and Mannose: A Link between Hydration and Sweetness. Journal of Physical Chemistry B, 2017, 121, 7771-7776.	2.6	21
51	Influence of Concentration and Anion Size on Hydration of H⁺ Ions and Water Structure. Journal of Physical Chemistry B, 2009, 113, 4075-4081.	2.6	20
52	Protection against Dehydration: A Neutron Diffraction Study on Aqueous Solutions of a Model Peptide and Trehalose. Journal of Physical Chemistry B, 2018, 122, 10291-10295.	2.6	20
53	Dielectric investigation of the temperature dependence of the dynamics of a hydrated protein. Physical Chemistry Chemical Physics, 2004, 6, 1912-1919.	2.8	19
54	Isotope Quantum Effects on the Water Proton Mean Kinetic Energy. Physical Review Letters, 2011, 106, 255502.	7.8	19

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55	Hydration and aggregation of a simple amino acid: The case of glycine. Journal of Molecular Liquids, 2020, 301, 112407.	4.9	18
56	Proton tunneling in hydrated biological tissues near 200 K. Biophysical Chemistry, 1990, 37, 165-170.	2.8	17
57	A new water anomaly: The temperature dependence of the proton mean kinetic energy. Journal of Chemical Physics, 2009, 130, 236101.	3.0	17
58	Quantum Behavior of Water Protons in Protein Hydration Shell. Biophysical Journal, 2009, 96, 1939-1943.	0.5	16
59	Local structure of temperature and pH-sensitive colloidal microgels. Journal of Chemical Physics, 2015, 143, 114904.	3.0	15
60	Aqueous solution of betaine: Hydration and aggregation. Journal of Molecular Liquids, 2020, 318, 114253.	4.9	15
61	Study of percolation and clustering in supercritical water-CO2 mixtures. Journal of Chemical Physics, 2008, 128, 164504.	3.0	14
62	Aqueous solvation of glutathione probed by UV resonance Raman spectroscopy. Journal of Molecular Liquids, 2019, 283, 537-547.	4.9	14
63	Water structure in supercritical mixtures of water and rare gases. Journal of Chemical Physics, 2003, 118, 235-241.	3.0	13
64	Dynamic properties of solvent confined in silica gels studied by broadband dielectric spectroscopy. Journal of Non-Crystalline Solids, 2007, 353, 4546-4551.	3.1	13
65	Vibrational dynamics of confined supercooled water. Journal of Chemical Physics, 2019, 150, 224504.	3.0	13
66	Ice crystallization observed in highly supercooled confined water. Physical Chemistry Chemical Physics, 2019, 21, 4931-4938.	2.8	13
67	Structural studies of confined liquids: The case of water confined in MCM-41. Journal of Molecular Liquids, 2011, 159, 42-46.	4.9	12
68	Dielectric relaxation of a proton glass in hydrated protein powders. Solid State Ionics, 1999, 125, 257-261.	2.7	11
69	OH Stretching Dynamics in Hydroxide Aqueous Solutions. Journal of Physical Chemistry B, 2018, 122, 4077-4082.	2.6	11
70	N-Methylacetamide Aqueous Solutions: A Neutron Diffraction Study. Journal of Physical Chemistry B, 2019, 123, 1808-1814.	2.6	11
71	Microscopic structure of water in a water/oil emulsion. Journal of Chemical Physics, 2013, 138, 204503.	3.0	10
72	Hydration of monosaccharides studied by Raman scattering. Journal of Raman Spectroscopy, 2018, 49, 1066-1075.	2.5	10

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73	Designing an Optimal Ion Adsorber at the Nanoscale: The Unusual Nucleation of AgNP/Co²⁺â€“Ni²⁺ Binary Mixtures. Journal of Physical Chemistry C, 2019, 123, 3855-3860.	3.1	10
74	The structure of water near a charged crystalline surface. Journal of Non-Crystalline Solids, 2015, 407, 418-422.	3.1	9
75	Conformational Changes Involved in the Switch from Ovalbumin to S-Ovalbumin. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 1996, 51, 379-385.	1.4	8
76	Ectoine hydration, aggregation and influence on water structure. Molecular Physics, 2019, 117, 3311-3319.	1.7	7
77	Exploiting scaling laws for designing polymeric bottle brushes: a theoretical coarse-graining for homopolymeric branched polymers. Physical Chemistry Chemical Physics, 2019, 21, 14873-14878.	2.8	7
78	Hydration of Carboxyl Groups: A Route toward Molecular Recognition?. Journal of Physical Chemistry B, 2020, 124, 4358-4364.	2.6	7
79	Dissipative Quantum Tunnelling of Orientational Defects in Polycrystalline Ice. Europhysics Letters, 1992, 19, 547-551.	2.0	5
80	CO2â€“water supercritical mixtures: Test of a potential model against neutron diffraction data. Journal of Molecular Liquids, 2007, 136, 294-299.	4.9	5
81	Proton Momentum Distribution and Diffusion Coefficient in Water: Two Sides of the Same Coin?. Journal of Physical Chemistry Letters, 2012, 3, 2594-2597.	4.6	4
82	Hydration of two artificial sweeteners: Possible relevance for their taste. Journal of Molecular Liquids, 2020, 320, 114398.	4.9	4
83	GPG-NH2 solutions: A model system for <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si13.svg"><mml:mrow><mml:mi>Î²</mml:mi></mml:mrow></mml:math>-turns formation. Possible role of trehalose against drought. Journal of Molecular Liquids, 2021, 335, 116514.	4.9	4
84	Dissipative quantum tunneling of rotational defects in ice. The Pauling potential. Journal of Chemical Physics, 1993, 99, 4227-4228.	3.0	3
85	How safe is to safely enter in the water no-man's land?. Journal of Molecular Liquids, 2012, 176, 39-43.	4.9	3
86	Interaction of trehalose and glucose with a peptide <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si27.svg"><mml:mrow><mml:mi>Î²</mml:mi></mml:mrow></mml:math>-turn in aqueous solution. Journal of Molecular Liquids, 2022, 349, 118451.	4.9	2
87	Hydration, protons and onset of physiological activities in maize seeds. Physiologia Plantarum, 1991, 81, 359-366.	5.2	1
88	Multiparameter Approach to Dynamic Quantum Phase Estimation. Proceedings (mdpi), 2019, 12, 55.	0.2	0