

Damien Laage

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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.

70
papers

5,097
citations

35
h-index

71
g-index

75
ext. papers

5,642
ext. citations

7.6
avg, IF

6.23
L-index

#	Paper	IF	Citations
70	A molecular jump mechanism of water reorientation. <i>Science</i> , 2006 , 311, 832-5	33.3	866
69	Water Dynamics in the Hydration Shells of Biomolecules. <i>Chemical Reviews</i> , 2017 , 117, 10694-10725	68.1	410
68	On the molecular mechanism of water reorientation. <i>Journal of Physical Chemistry B</i> , 2008 , 112, 14230-43	3.4	335
67	Why water reorientation slows without iceberg formation around hydrophobic solutes. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 2428-35	3.4	310
66	Reorientation and allied dynamics in water and aqueous solutions. <i>Annual Review of Physical Chemistry</i> , 2011 , 62, 395-416	15.7	268
65	Reorientational dynamics of water molecules in anionic hydration shells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 11167-72	11.5	255
64	Mechanisms of acceleration and retardation of water dynamics by ions. <i>Journal of the American Chemical Society</i> , 2013 , 135, 11824-31	16.4	166
63	Water dynamics in protein hydration shells: the molecular origins of the dynamical perturbation. <i>Journal of Physical Chemistry B</i> , 2014 , 118, 7715-29	3.4	163
62	Magnitude and molecular origin of water slowdown next to a protein. <i>Journal of the American Chemical Society</i> , 2012 , 134, 4116-9	16.4	150
61	On the residence time for water in a solute hydration shell: application to aqueous halide solutions. <i>Journal of Physical Chemistry B</i> , 2008 , 112, 7697-701	3.4	131
60	Characterization of the Local Structure in Liquid Water by Various Order Parameters. <i>Journal of Physical Chemistry B</i> , 2015 , 119, 8406-18	3.4	108
59	Do more strongly hydrogen-bonded water molecules reorient more slowly ?. <i>Chemical Physics Letters</i> , 2006 , 433, 80-85	2.5	106
58	Water hydrogen-bond dynamics around amino acids: the key role of hydrophilic hydrogen-bond acceptor groups. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 2083-9	3.4	100
57	Water hydrogen bond dynamics in aqueous solutions of amphiphiles. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 3052-9	3.4	97
56	Water reorientation, hydrogen-bond dynamics and 2D-IR spectroscopy next to an extended hydrophobic surface. <i>Faraday Discussions</i> , 2010 , 146, 263-81; discussion 283-98, 395-401	3.6	93
55	Water jump reorientation: from theoretical prediction to experimental observation. <i>Accounts of Chemical Research</i> , 2012 , 45, 53-62	24.3	82
54	Biomolecular hydration dynamics: a jump model perspective. <i>Chemical Society Reviews</i> , 2013 , 42, 5672-83	38.5	81

53	Dynamical Disorder in the DNA Hydration Shell. <i>Journal of the American Chemical Society</i> , 2016 , 138, 7610-20	16.4	80
52	Reorientation dynamics of nanoconfined water: power-law decay, hydrogen-bond jumps, and test of a two-state model. <i>Journal of Chemical Physics</i> , 2012 , 136, 044513	3.9	64
51	Dynamics of water in concentrated solutions of amphiphiles: key roles of local structure and aggregation. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 3254-62	3.4	64
50	On the ultrafast infrared spectroscopy of anion hydration shell hydrogen bond dynamics. <i>Journal of Physical Chemistry A</i> , 2006 , 110, 11237-43	2.8	60
49	Communication: On the origin of the non-Arrhenius behavior in water reorientation dynamics. <i>Journal of Chemical Physics</i> , 2012 , 137, 031101	3.9	52
48	Reinterpretation of the liquid water quasi-elastic neutron scattering spectra based on a nondiffusive jump reorientation mechanism. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 2684-7	3.4	52
47	Charged PushPull Polyenes in Solution: Anomalous Solvatochromism and Nonlinear Optical Properties. <i>Journal of Physical Chemistry A</i> , 2003 , 107, 6032-6046	2.8	52
46	Non-monotonic dependence of water reorientation dynamics on surface hydrophilicity: competing effects of the hydration structure and hydrogen-bond strength. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 19911-7	3.6	51
45	Water reorientation dynamics in the first hydration shells of F- and I-. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 19895-901	3.6	49
44	Comparative study of hydration shell dynamics around a hyperactive antifreeze protein and around ubiquitin. <i>Journal of Chemical Physics</i> , 2014 , 141, 22D529	3.9	42
43	On the reorientation and hydrogen-bond dynamics of alcohols. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 12173-8	3.4	41
42	On the dissociation of aromatic radical anions in solution. <i>ChemPhysChem</i> , 2003 , 4, 61-6	3.2	41
41	Nuclear Quantum Effects in Water Reorientation and Hydrogen-Bond Dynamics. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 2602-2607	6.4	40
40	Direct Evidence of Angular Jumps During Water Reorientation Through Two-Dimensional Infrared Anisotropy. <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 1511-1516	6.4	39
39	On the Dissociation of Aromatic Radical Anions in Solution. 2. Reaction Path and Rate Constant Analysis. <i>Journal of Physical Chemistry A</i> , 2003 , 107, 11292-11306	2.8	38
38	Orientalional Dynamics of Water at an Extended Hydrophobic Interface. <i>Journal of the American Chemical Society</i> , 2016 , 138, 5551-60	16.4	38
37	Reorientational dynamics of water confined in zeolites. <i>ChemPhysChem</i> , 2014 , 15, 521-9	3.2	37
36	On the Dissociation of Aromatic Radical Anions in Solution. 1. Formulation and Application top-Cyanochlorobenzene Radical Anion. <i>Journal of Physical Chemistry A</i> , 2003 , 107, 11271-11291	2.8	35

35	Origins of the non-exponential reorientation dynamics of nanoconfined water. <i>Journal of Chemical Physics</i> , 2014 , 141, 18C523	3.9	33
34	On the Structural and Dynamical Properties of DOPC Reverse Micelles. <i>Langmuir</i> , 2016 , 32, 10610-10620	4	32
33	Are there dynamical effects in enzyme catalysis? Some thoughts concerning the enzymatic chemical step. <i>Archives of Biochemistry and Biophysics</i> , 2015 , 582, 42-55	4.1	30
32	Temperature dependence of hydrophobic hydration dynamics: from retardation to acceleration. <i>Journal of Physical Chemistry B</i> , 2014 , 118, 1574-83	3.4	30
31	Photoinduced intramolecular charge transfer in push-pull polyenes: effects of solvation, electron-donor group, and polyenic chain length. <i>Journal of Physical Chemistry B</i> , 2008 , 112, 358-68	3.4	30
30	Excited-State Dynamics in Polar Solvents of PushPull Polyenes Designed for Nonlinear Optics. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 2396-2401	2.8	28
29	Water Structure, Dynamics, and Sum-Frequency Generation Spectra at Electrified Graphene Interfaces. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 624-631	6.4	28
28	Charge transport in poly-imidazole membranes: a fresh appraisal of the Grothuss mechanism. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 10910-8	3.6	26
27	Perspective: Structure and ultrafast dynamics of biomolecular hydration shells. <i>Structural Dynamics</i> , 2017 , 4, 044018	3.2	23
26	Effect of Ions on Water Dynamics in Dilute and Concentrated Aqueous Salt Solutions. <i>Journal of Physical Chemistry B</i> , 2019 , 123, 3312-3324	3.4	23
25	Ab Initio Simulations of Water Dynamics in Aqueous TMAO Solutions: Temperature and Concentration Effects. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 11189-11197	3.4	21
24	Size and Origins of Long-Range Orientational Water Correlations in Dilute Aqueous Salt Solutions. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 2031-2035	6.4	20
23	Intermolecular vibration-vibration energy transfer in solution: Hydrogen fluoride in water. <i>Chemical Physics Letters</i> , 2005 , 405, 453-458	2.5	16
22	Simulations of the infrared, Raman, and 2D-IR photon echo spectra of water in nanoscale silica pores. <i>Journal of Chemical Physics</i> , 2016 , 144, 194709	3.9	15
21	Ion-Induced Long-Range Orientational Correlations in Water: Strong or Weak, Physiologically Relevant or Unimportant, and Unique to Water or Not?. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 2056-2057	6.4	12
20	Confined Water's Dielectric Constant Reduction Is Due to the Surrounding Low Dielectric Media and Not to Interfacial Molecular Ordering. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 4319-4326	6.4	12
19	Reorientation of Isomeric Butanols: The Multiple Effects of Steric Bulk Arrangement on Hydrogen-Bond Dynamics. <i>Journal of Physical Chemistry B</i> , 2016 , 120, 1546-59	3.4	11
18	Backbone effects on the charge transport in poly-imidazole membranes: a theoretical study. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 7751	13	10

17	Water reorientation in the hydration shells of hydrophilic and hydrophobic solutes. <i>Science China: Physics, Mechanics and Astronomy</i> , 2010 , 53, 1068-1072	3.6	10
16	Water dynamics at electrified graphene interfaces: a jump model perspective. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 10581-10591	3.6	9
15	Multiple relaxation pathways in push-pull polyenes. <i>Photochemical and Photobiological Sciences</i> , 2002 , 1, 526-35	4.2	9
14	Coupled Valence-Bond State Molecular Dynamics Description of an Enzyme-Catalyzed Reaction in a Non-Aqueous Organic Solvent. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 7027-7041	3.4	8
13	Activation energies and the extended jump model: How temperature affects reorientation and hydrogen-bond exchange dynamics in water. <i>Journal of Chemical Physics</i> , 2020 , 153, 074110	3.9	8
12	Protein Preferential Solvation in Water:Glycerol Mixtures. <i>Journal of Physical Chemistry B</i> , 2020 , 124, 1424-1437	3.4	7
11	Water jump reorientation and ultrafast vibrational spectroscopy. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2012 , 234, 75-82	4.7	7
10	Water Librations in the Hydration Shell of Phospholipids. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 4492-4497	6.4	7
9	Echoes of a salty exchange. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 967-8	11.5	7
8	Water dynamics in concentrated electrolytes: Local ion effect on hydrogen-bond jumps rather than collective coupling to ion clusters. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E4953-E4954	11.5	6
7	On the role of hydrogen-bond exchanges in the spectral diffusion of water. <i>Journal of Chemical Physics</i> , 2021 , 154, 064501	3.9	6
6	Differences in thermal structural changes and melting between mesophilic and thermophilic dihydrofolate reductase enzymes. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 18361-18373	3.6	5
5	Water Reorientation and Ultrafast Infrared Spectroscopy 2013 , 73-98		3
4	Using Activation Energies to Elucidate Mechanisms of Water Dynamics. <i>Journal of Physical Chemistry A</i> , 2021 , 125, 9941-9952	2.8	3
3	Thermal Adaptation of Enzymes: Impacts of Conformational Shifts on Catalytic Activation Energy and Optimum Temperature. <i>Chemistry - A European Journal</i> , 2020 , 26, 10045-10056	4.8	2
2	A Model Electron Transfer Reaction in Confined Aqueous Solution. <i>ChemPhysChem</i> , 2021 , 22, 2247-2255	3.2	1
1	Water Diffusion Proceeds via a Hydrogen-Bond Jump Exchange Mechanism. <i>Journal of Physical Chemistry Letters</i> , 2022 , 13, 4660-4666	6.4	0