

Alessandro Paciaroni

List of Publications by Year in descending order

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112
papers

2,722
citations

172386

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112
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112
docs citations

112
times ranked

2607
citing authors

#	ARTICLE	IF	CITATIONS
1	Translational diffusion of hydration water correlates with functional motions in folded and intrinsically disordered proteins. <i>Nature Communications</i> , 2015, 6, 6490.	5.8	199
2	Coincidence of Dynamical Transitions in a Soluble Protein and Its Hydration Water: Direct Measurements by Neutron Scattering and MD Simulations. <i>Journal of the American Chemical Society</i> , 2008, 130, 4586-4587.	6.6	184
3	Effect of the Environment on the Protein Dynamical Transition: A Neutron Scattering Study. <i>Biophysical Journal</i> , 2002, 83, 1157-1164.	0.2	172
4	X-ray and Neutron Scattering of Water. <i>Chemical Reviews</i> , 2016, 116, 7570-7589.	23.0	170
5	Combining structure and dynamics: non-denaturing high-pressure effect on lysozyme in solution. <i>Journal of the Royal Society Interface</i> , 2009, 6, S619-34.	1.5	86
6	Controlling the Protein Dynamical Transition with Sugar-Based Bioprotectant Matrices: A Neutron Scattering Study. <i>Biophysical Journal</i> , 2006, 91, 289-297.	0.2	68
7	Broadband Depolarized Light Scattering Study of Diluted Protein Aqueous Solutions. <i>Journal of Physical Chemistry B</i> , 2010, 114, 8262-8269.	1.2	62
8	Anomalous Proton Dynamics in Ice at Low Temperatures. <i>Physical Review Letters</i> , 2009, 103, 165901.	2.9	61
9	Evidence of Coexistence of Change of Caged Dynamics at T_g and the Dynamic Transition at T_d in Solvated Proteins. <i>Journal of Physical Chemistry B</i> , 2012, 116, 1745-1757.	1.2	61
10	Collective Dynamics of Protein Hydration Water by Brillouin Neutron Spectroscopy. <i>Journal of the American Chemical Society</i> , 2009, 131, 4664-4669.	6.6	60
11	On the Coupling between the Collective Dynamics of Proteins and Their Hydration Water. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1181-1186.	2.1	59
12	Neutron scattering evidence of a boson peak in protein hydration water. <i>Physical Review E</i> , 1999, 60, R2476-R2479.	0.8	55
13	Picosecond-Time-Scale Fluctuations of Proteins in Glassy Matrices: The Role of Viscosity. <i>Physical Review Letters</i> , 2005, 95, 158104.	2.9	54
14	Moving in the Right Direction: Protein Vibrations Steering Function. <i>Biophysical Journal</i> , 2017, 112, 933-942.	0.2	50
15	Glasslike dynamical behavior of the plastocyanin hydration water. <i>Physical Review E</i> , 2000, 62, 3991-3999.	0.8	48
16	The dimer-monomer equilibrium of SARS-CoV-2 main protease is affected by small molecule inhibitors. <i>Scientific Reports</i> , 2021, 11, 9283.	1.6	48
17	Fingerprints of Amorphous Icelike Behavior in the Vibrational Density of States of Protein Hydration Water. <i>Physical Review Letters</i> , 2008, 101, 148104.	2.9	45
18	Incoherent neutron scattering of copper azurin: a comparison with molecular dynamics simulation results. <i>European Biophysics Journal</i> , 1999, 28, 447-456.	1.2	44

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19	Protein dynamics on the picosecond timescale as affected by the environment: a quasielastic neutron scattering study. <i>Chemical Physics</i> , 2003, 292, 397-404.	0.9	43
20	Collective Ion Dynamics in Liquid Zinc: Evidence for Complex Dynamics in a Non-Free-Electron Liquid Metal. <i>Physical Review Letters</i> , 2015, 114, 187801.	2.9	42
21	Fast fluctuations in protein powders: The role of hydration. <i>Chemical Physics Letters</i> , 2005, 410, 400-403.	1.2	38
22	Vibrational Collective Dynamics of Dry Proteins in the Terahertz Region. <i>Journal of Physical Chemistry B</i> , 2012, 116, 3861-3865.	1.2	38
23	Temperature-Dependent Dynamics of Water Confined in Nafion Membranes. <i>Journal of Physical Chemistry B</i> , 2006, 110, 13769-13776.	1.2	36
24	Low-frequency Vibrational Anomalies in β -Lactoglobulin: A Contribution of Different Hydrogen Classes Revealed by Inelastic Neutron Scattering. <i>Journal of Physical Chemistry B</i> , 2001, 105, 12150-12156.	1.2	35
25	Critical structural fluctuations of proteins upon thermal unfolding challenge the Lindemann criterion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 9361-9366.	3.3	35
26	The impact of high hydrostatic pressure on structure and dynamics of β -lactoglobulin. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2013, 1830, 4974-4980.	1.1	31
27	Structure of human telomere G-quadruplex in the presence of a model drug along the thermal unfolding pathway. <i>Nucleic Acids Research</i> , 2018, 46, 11927-11938.	6.5	31
28	Molecular-dynamics simulation evidences of a boson peak in protein hydration water. <i>Physical Review E</i> , 1998, 57, R6277-R6280.	0.8	30
29	Nature of the water specific relaxation in hydrated proteins and aqueous mixtures. <i>Chemical Physics</i> , 2013, 424, 37-44.	0.9	30
30	Change of caged dynamics at $\langle i \rangle T \langle /i \rangle$ $\langle i \rangle g \langle /i \rangle$ in hydrated proteins: Trend of mean squared displacements after correcting for the methyl-group rotation contribution. <i>Journal of Chemical Physics</i> , 2013, 138, 235102.	1.2	29
31	Vibrational Density of States and Elastic Properties of Cross-Linked Polymers: Combining Inelastic Light and Neutron Scattering. <i>Journal of Physical Chemistry B</i> , 2014, 118, 624-633.	1.2	27
32	Hydration and dynamics of aerosol OT reverse micelles. <i>Journal of Molecular Liquids</i> , 2002, 101, 55-68.	2.3	26
33	Hydration-dependent internal dynamics of reverse micelles: A quasielastic neutron scattering study. <i>Physical Review E</i> , 2003, 68, 021406.	0.8	26
34	Thermal stability and internal dynamics of lysozyme as affected by hydration. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 3591.	1.3	24
35	The effect of hydrogen bond on the vibrational dynamics of genistein free and complexed with β -cyclodextrins. <i>Journal of Raman Spectroscopy</i> , 2010, 41, 764-770.	1.2	24
36	Probing Intermolecular Interactions in Phospholipid Bilayers by Far-Infrared Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2017, 121, 1204-1210.	1.2	24

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37	Low-frequency vibrational modes in proteins: a neutron scattering investigation. <i>European Biophysics Journal</i> , 2001, 30, 443-449.	1.2	21
38	Dynamics of Different Hydrogen Classes in \hat{I}^2 -lactoglobulin: A Quasielastic Neutron Scattering Investigation. <i>Journal of Physical Chemistry B</i> , 2002, 106, 7348-7354.	1.2	21
39	Temperature dependence of fast fluctuations in single- and double-stranded DNA molecules: a neutron scattering investigation. <i>Philosophical Magazine</i> , 2007, 87, 509-515.	0.7	21
40	Coupled relaxations at the protein-water interface in the picosecond time scale. <i>Journal of the Royal Society Interface</i> , 2009, 6, S635-40.	1.5	21
41	Collective density fluctuations of DNA hydration water in the time-window below 1 ps. <i>Journal of Chemical Physics</i> , 2011, 135, 025101.	1.2	21
42	Picosecond Internal Dynamics of Lysozyme as Affected by Thermal Unfolding in Nonaqueous Environment. <i>Biophysical Journal</i> , 2004, 86, 480-487.	0.2	19
43	Conditioning action of the environment on the protein dynamics studied through elastic neutron scattering. <i>European Biophysics Journal</i> , 2006, 35, 591-599.	1.2	19
44	Thermal activation of $\hat{\sim}$ allosteric-like $\hat{\sim}$ large-scale motions in a eukaryotic Lactate Dehydrogenase. <i>Scientific Reports</i> , 2017, 7, 41092.	1.6	19
45	Neutron scattering investigation of high-frequency dynamics in glassy glucose. <i>Physical Review B</i> , 2012, 85, .	1.1	18
46	Multiple Interacting Collective Modes and Phonon Gap in Phospholipid Membranes. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 4367-4372.	2.1	18
47	Polymorphism of human telomeric quadruplexes with drugs: a multi-technique biophysical study. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 11583-11592.	1.3	18
48	Thermal fluctuations in chemically cross-linked polymers of cyclodextrins. <i>Soft Matter</i> , 2015, 11, 2183-2192.	1.2	17
49	Heat-induced self-assembling of BSA at the isoelectric point. <i>International Journal of Biological Macromolecules</i> , 2021, 177, 40-47.	3.6	17
50	Low frequency vibrational anomalies in hydrated copper azurin: A neutron scattering and MD simulation study. <i>Journal of Molecular Liquids</i> , 2000, 84, 3-16.	2.3	16
51	Glassy Character of DNA Hydration Water. <i>Journal of Physical Chemistry B</i> , 2013, 117, 2026-2031.	1.2	15
52	SANS investigation of water adsorption in tunable cyclodextrin-based polymeric hydrogels. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 6022-6029.	1.3	15
53	Hydration and temperature dependent dynamics of lysozyme in glucose-water matrices. A neutron scattering study. <i>Chemical Physics</i> , 2005, 317, 274-281.	0.9	14
54	Collective THz dynamics in living <i>Escherichia coli</i> cells. <i>Chemical Physics</i> , 2013, 424, 84-88.	0.9	14

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55	Comparative study of protein dynamics in hydrated powders and in solutions: A neutron scattering investigation. <i>Chemical Physics</i> , 2008, 345, 224-229.	0.9	13
56	Elastic neutron scattering investigation of AOT/D ₂ O/CCl ₄ systems in the reverse micellar phase. <i>Chemical Physics Letters</i> , 2001, 348, 311-316.	1.2	12
57	Coupled thermal fluctuations of proteins and protein hydration water on the picosecond timescale. <i>Philosophical Magazine</i> , 2008, 88, 4071-4077.	0.7	12
58	Effect of the chiral discrimination on the vibrational properties of (R)-, (S)- and (R,S)-ibuprofen/methyl- β -cyclodextrin inclusion complexes. <i>Philosophical Magazine</i> , 2011, 91, 1776-1785.	0.7	12
59	Melting of DNA Nonoriented Fibers: A Wide-Angle X-ray Diffraction Study. <i>Journal of Physical Chemistry B</i> , 2014, 118, 3785-3792.	1.2	12
60	Brillouin spectroscopy of protein hydration water: new experimental potentialities opened up by the thermal neutron spectrometer BRISP. <i>Measurement Science and Technology</i> , 2008, 19, 034026.	1.4	11
61	Dynamics of water confined in fuel cell Nafion membranes containing zirconium phosphate nanofiller. <i>Journal of Physics Condensed Matter</i> , 2006, 18, S2029-S2038.	0.7	10
62	Influence of the Host-Guest Interactions on the Mobility of Genistein/ β -Cyclodextrin Inclusion Complex. <i>Journal of Physical Chemistry B</i> , 2009, 113, 11032-11038.	1.2	10
63	Protein-Polymer Dynamics as Affected by Polymer Coating and Interactions. <i>Langmuir</i> , 2019, 35, 2674-2679.	1.6	10
64	Porphyrim Binding and Irradiation Promote G-Quadruplex DNA Dimeric Structure. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 8096-8102.	2.1	10
65	Influence of hydration on dynamical properties of reverse micelles. <i>Journal of Non-Crystalline Solids</i> , 2002, 307-310, 874-877.	1.5	9
66	Configurational Disorder of Water Hydrogen-Bond Network at the Protein Dynamical Transition. <i>Journal of Physical Chemistry B</i> , 2017, 121, 6792-6798.	1.2	9
67	A relationship between solvent viscosity and biomolecule picosecond thermal fluctuations. <i>Chemical Physics</i> , 2008, 345, 219-223.	0.9	8
68	Water dynamics as affected by interaction with biomolecules and change of thermodynamic state: a neutron scattering study. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 064105.	0.7	8
69	Collective Dynamics of Intracellular Water in Living Cells. <i>Journal of Physics: Conference Series</i> , 2012, 340, 012091.	0.3	8
70	Vibrational excitations of proteins and their hydration water in the far-infrared range. <i>Chemical Physics</i> , 2013, 424, 80-83.	0.9	8
71	Base-specific pre-melting and melting transitions of DNA in presence of ionic liquids probed by synchrotron-based UV resonance Raman scattering. <i>Journal of Molecular Liquids</i> , 2021, 330, 115433.	2.3	8
72	Synchrotron radiation reveals the identity of the large felid from Monte Argentario (Early Tertiary). <i>Journal of Molecular Evolution</i> , 2016, 82, 101-110.	1.6	7

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73	Diffusivelike Motions in a Solvent-Free Protein-Polymer Hybrid. <i>Physical Review Letters</i> , 2021, 126, 088102.	2.9	7
74	Specific Interactions and Environment Flexibility Tune Protein Stability under Extreme Crowding. <i>Journal of Physical Chemistry B</i> , 2021, 125, 6103-6111.	1.2	7
75	The Dynamics of Hydrated Proteins Are the Same as Those of Highly Asymmetric Mixtures of Two Glass-Formers. <i>ACS Omega</i> , 2021, 6, 340-347.	1.6	7
76	Elastic neutron scattering study of proton dynamics in glycerol. <i>Physica B: Condensed Matter</i> , 2004, 350, E951-E954.	1.3	6
77	Acoustic Dissipation and Density of States in Liquid, Supercooled, and Glassy Glycerol. <i>Physical Review Letters</i> , 2011, 106, 155701.	2.9	6
78	Cyclodextrin-Complexation Effects on the Low-Frequency Vibrational Dynamics of Ibuprofen by Combined Inelastic Light and Neutron Scattering Experiments. <i>Journal of Physical Chemistry B</i> , 2013, 117, 3917-3926.	1.2	6
79	Structural and molecular response in cyclodextrin-based pH-sensitive hydrogels by the joint use of Brillouin, UV Raman and Small Angle Neutron Scattering techniques. <i>Journal of Molecular Liquids</i> , 2018, 271, 738-746.	2.3	6
80	Influence of Chirality on Vibrational and Relaxational Properties of (<i>S</i>)- and (<i>R</i>)-ibuprofen/methyl- β -cyclodextrin Inclusion Complexes: An INS and QENS Study. <i>Journal of Physical Chemistry B</i> , 2013, 117, 11466-11472.	1.2	5
81	Uncovering a novel transition in the dynamics of proteins in the dry state. <i>Journal of Molecular Liquids</i> , 2019, 286, 110810.	2.3	5
82	Analysis of the thermal fluctuations in inclusion complexes of genistein with β -cyclodextrin derivatives. <i>Chemical Physics</i> , 2019, 516, 125-131.	0.9	5
83	Terahertz collective dynamics of DNA as affected by hydration and counterions. <i>Journal of Molecular Liquids</i> , 2020, 318, 113956.	2.3	5
84	Pressure effect on water dynamics in tert-butyl alcohol/water solutions. <i>Journal of Physics Condensed Matter</i> , 2006, 18, S2363-S2371.	0.7	4
85	Elastic neutron scattering of dry and rehydrated trehalose coated carboxy-myoglobin. <i>Chemical Physics</i> , 2008, 345, 283-288.	0.9	4
86	Influence of methanol on catalytic activity, stability and internal dynamics of myoglobin. <i>Chemical Physics Letters</i> , 2009, 478, 260-265.	1.2	4
87	Terahertz Dynamics in Human Cells and Their Chromatin. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2177-2181.	2.1	4
88	Vibrational dynamics changes of protein hydration water across the dynamic transition. <i>Journal of Non-Crystalline Solids</i> , 2015, 407, 465-471.	1.5	4
89	Solvent Vibrations as a Proxy of the Telomere G-Quadruplex Rearrangements across Thermal Unfolding. <i>International Journal of Molecular Sciences</i> , 2022, 23, 5123.	1.8	4
90	A Monte Carlo analysis of the elastic incoherent neutron scattering data in hydrated azurin. <i>Chemical Physics</i> , 2000, 261, 39-45.	0.9	3

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91	Upgrade of the backscattering spectrometer IN13 at ILL. Applied Physics A: Materials Science and Processing, 2002, 74, s1505-s1507.	1.1	3
92	Thermal fluctuations of DNA enclosed by glycerol-water glassy matrices: an elastic neutron scattering investigation. European Biophysics Journal, 2008, 37, 583-590.	1.2	3
93	Chiral recognition and complexation behaviour of β -CyD vs. l- and dl-serine by FTIR-ATR spectroscopy. Journal of Molecular Structure, 2011, 993, 376-381.	1.8	3
94	Impact of the Environment on the PNIPAM Dynamical Transition Probed by Elastic Neutron Scattering. Macromolecules, 0, , .	2.2	3
95	Antiphase domain and magnetic interactions in partially ordered Ni ₃ Mn. Physical Review B, 1995, 52, 3049-3052.	1.1	2
96	Spin density distribution in Ni ₉₅ Mn ₅ . Solid State Communications, 1997, 103, 97-101.	0.9	2
97	Low frequency anomaly in the hydration water of Copper Azurin. Physica B: Condensed Matter, 1999, 269, 409-415.	1.3	2
98	First experimental results from the IN13-Collaborative Research Group (CRG) at the ILL. Physica B: Condensed Matter, 2000, 276-278, 512-513.	1.3	2
99	Neutron Scattering Study of the Dynamics of Hydronium Ion in (H ₃ O)Zr ₂ (PO ₄) ₃ Nasicon Across the Order-Disorder Transition. Journal of Physical Chemistry B, 2004, 108, 8910-8914.	1.2	2
100	Hydration-dependent internal dynamics of macromolecules: a neutron scattering study. Journal of Molecular Liquids, 2005, 117, 99-105.	2.3	2
101	A comparison between acoustic compliance and self-particle susceptibility in associated liquids: The case of water and glycerol. Journal of Molecular Liquids, 2012, 176, 76-78.	2.3	2
102	All-DNA System Close to the Percolation Threshold. ACS Macro Letters, 2019, 8, 84-87.	2.3	2
103	Temperature Dependence of Spin Density in Ni ₃ Al: Comparison with Pure Ni. Journal De Physique, I, 1997, 7, 865-875.	1.2	2
104	A COINCIDENCE EXPERIMENT OF TWO COHERENT BEAMS OF THERMAL NEUTRONS. Foundations of Physics Letters, 2000, 13, 1-9.	0.6	1
105	High-temperature dynamical transition in β -lactoglobulin. Physica B: Condensed Matter, 2004, 350, E595-E598.	1.3	1
106	Low-frequency dynamics of water absorbed in Nafion membranes as a function of temperature. Philosophical Magazine, 2007, 87, 477-483.	0.7	1
107	Longitudinal acoustic compliance and tagged particle susceptibility in liquid and supercooled glycerol. Journal of Non-Crystalline Solids, 2011, 357, 515-517.	1.5	1
108	Molecular dynamics simulation of inelastic neutron scattering spectra of Copper Azurin hydration water. , 1999, , .		0

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109	Advanced neutron scattering and complementary techniques to study biological systems. European Biophysics Journal, 2008, 37, 529-529.	1.2	0
110	Vibrational density of states measurements in disordered systems. Journal of Physics: Conference Series, 2012, 340, 012082.	0.3	0
111	Probing the Thermal Stability of Lysozyme in Crowded Environments: Tracking Lindemann Criterion. Biophysical Journal, 2016, 110, 213a.	0.2	0
112	Multi-Scale Simulations and Neutron Scattering Experiments Reveal Dynamical Properties of the Bacterial Cytoplasm Near Cell-Death Temperature. Biophysical Journal, 2021, 120, 298a-299a.	0.2	0