

# Francesca Natali

## List of Publications by Year in descending order

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89  
papers

1,478  
citations

361413

20  
h-index

377865

34  
g-index

94  
all docs

94  
docs citations

94  
times ranked

1725  
citing authors

#	ARTICLE	IF	CITATIONS
1	Polystyrene perturbs the structure, dynamics, and mechanical properties of DPPC membranes: An experimental and computational study. <i>Journal of Colloid and Interface Science</i> , 2022, 605, 110-119.	9.4	15
2	Strikingly Different Roles of SARS-CoV-2 Fusion Peptides Uncovered by Neutron Scattering. <i>Journal of the American Chemical Society</i> , 2022, 144, 2968-2979.	13.7	30
3	The dynamical Matryoshka model: 2. Modeling of local lipid dynamics at the sub-nanosecond timescale in phospholipid membranes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2022, 1864, 183950.	2.6	7
4	The dynamical Matryoshka model: 3. Diffusive nature of the atomic motions contained in a new dynamical model for deciphering local lipid dynamics. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2022, 1864, 183949.	2.6	7
5	Proteinlike dynamical transition of hydrated polymer chains. <i>Physical Review Research</i> , 2021, 3, .	3.6	6
6	Smart Device for Biologically Enhanced Functional Regeneration of Osteoâ€Tendon Interface. <i>Pharmaceutics</i> , 2021, 13, 1996.	4.5	8
7	A Structurally Simple Vaccine Candidate Reduces Progression and Dissemination of Triple-Negative Breast Cancer. <i>IScience</i> , 2020, 23, 101250.	4.1	14
8	The molecular dynamics of bacterial spore and the role of calcium dipicolinate in core properties at the sub-nanosecond time-scale. <i>Scientific Reports</i> , 2020, 10, 8265.	3.3	2
9	Atomic scale investigation of the volume phase transition in concentrated PNIPAM microgels. <i>Journal of Chemical Physics</i> , 2020, 152, 204904.	3.0	7
10	Surviving salt fluctuations: stress and recovery in <i>Halobacterium salinarum</i> , an extreme halophilic Archaeon. <i>Scientific Reports</i> , 2020, 10, 3298.	3.3	23
11	Brain lateralization probed by water diffusion at the atomic to micrometric scale. <i>Scientific Reports</i> , 2019, 9, 14694.	3.3	5
12	Anomalous water dynamics in brain: a combined diffusion magnetic resonance imaging and neutron scattering investigation. <i>Journal of the Royal Society Interface</i> , 2019, 16, 20190186.	3.4	14
13	A Quasielastic Neutron Scattering Investigation on the Molecular Self-Dynamics of Human Myelin Protein P2. <i>Journal of Physical Chemistry B</i> , 2019, 123, 8178-8185.	2.6	4
14	Effect of host and environmental factors on asthma control: AIS LIFE project. , 2019, , .		0
15	Dynamical properties of water in living cells. <i>Frontiers of Physics</i> , 2018, 13, 1.	5.0	7
16	Evidence of a low-temperature dynamical transition in concentrated microgels. <i>Science Advances</i> , 2018, 4, eaat5895.	10.3	28
17	IN13 Neutron guide and primary spectrometer upgrade. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2018, 908, 182-188.	1.6	3
18	Probing the dynamics of complexed local anesthetics via neutron scattering spectroscopy and DFT calculations. <i>International Journal of Pharmaceutics</i> , 2017, 524, 397-406.	5.2	14

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19	Raman and Infrared spectroscopies and X-ray diffraction data on bupivacaine and ropivacaine complexed with 2-hydroxypropyl- $\beta$ -cyclodextrin. <i>Data in Brief</i> , 2017, 15, 25-29.	1.0	14
20	Electric Field Induced Polarization Effects Measured by in Situ Neutron Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017, 121, 23582-23591.	3.1	8
21	The Dynamical Transition of Lipid Multilamellar Bilayers as a Matter of Cooperativity. <i>Journal of Physical Chemistry B</i> , 2017, 121, 6860-6868.	2.6	20
22	Mobility of a Mononucleotide within a Lipid Matrix: A Neutron Scattering Study. <i>Life</i> , 2017, 7, 2.	2.4	9
23	Bile Acid Recognition by NAPE-PLD. <i>ACS Chemical Biology</i> , 2016, 11, 2908-2914.	3.4	36
24	The fluctuating ribosome: thermal molecular dynamics characterized by neutron scattering. <i>Scientific Reports</i> , 2016, 6, 37138.	3.3	12
25	Direct comparison of elastic incoherent neutron scattering experiments with molecular dynamics simulations of DMPC phase transitions. <i>European Physical Journal E</i> , 2016, 39, 48.	1.6	20
26	mQfit, a new program for analyzing quasi-elastic neutron scattering data. <i>EPJ Web of Conferences</i> , 2015, 83, 03010.	0.3	2
27	Proton dynamics in bacterial spores, a neutron scattering investigation. <i>EPJ Web of Conferences</i> , 2015, 83, 02003.	0.3	2
28	Neutron scattering studies on protein dynamics using the human myelin peripheral membrane protein P2. <i>EPJ Web of Conferences</i> , 2015, 83, 02010.	0.3	4
29	Thermal fluctuations in chemically cross-linked polymers of cyclodextrins. <i>Soft Matter</i> , 2015, 11, 2183-2192.	2.7	17
30	Dynamics of the Peripheral Membrane Protein P2 from Human Myelin Measured by Neutron Scattering – A Comparison between Wild-Type Protein and a Hinge Mutant. <i>PLoS ONE</i> , 2015, 10, e0128954.	2.5	17
31	Molecular mobility in <i>Medicago truncatula</i> seed during early stage of germination: Neutron scattering and NMR investigations. <i>Chemical Physics</i> , 2014, 428, 181-185.	1.9	6
32	Structural and dynamical properties of reconstituted myelin sheaths in the presence of myelin proteins MBP and P2 studied by neutron scattering. <i>Soft Matter</i> , 2014, 10, 519-529.	2.7	34
33	The Boson Peak of Amyloid Fibrils: Probing the Softness of Protein Aggregates by Inelastic Neutron Scattering. <i>Journal of Physical Chemistry B</i> , 2014, 118, 2913-2923.	2.6	6
34	Influence of myelin proteins on the structure and dynamics of a model membrane with emphasis on the low temperature regime. <i>Journal of Chemical Physics</i> , 2014, 141, 205101.	3.0	5
35	Perspectives in biological physics: The nDDB project for a neutron Dynamics Data Bank for biological macromolecules. <i>European Physical Journal E</i> , 2013, 36, 80.	1.6	6
36	Water Dynamics in Neural Tissue. <i>Journal of the Physical Society of Japan</i> , 2013, 82, SA017.	1.6	22

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37	The Influence of the Myelin Basic Protein C8 Mutant on the Dynamics of Myelin Membranes. Journal of the Physical Society of Japan, 2013, 82, SA018.	1.6	0
38	Anomalous proton dynamics of water molecules in neural tissue as seen by quasi-elastic neutron scattering. Impact on medical imaging techniques. AIP Conference Proceedings, 2013, , .	0.4	14
39	Dynamics of Cardiomyopathy-Causing Mutant of Troponin Measured by Neutron Scattering. Journal of the Physical Society of Japan, 2013, 82, SA020.	1.6	4
40	Thermal fluctuations of haemoglobin from different species: adaptation to temperature via conformational dynamics. Journal of the Royal Society Interface, 2012, 9, 2845-2855.	3.4	37
41	Physical Origin of Anharmonic Dynamics in Proteins: New Insights From Resolution-Dependent Neutron Scattering on Homomeric Polypeptides. Physical Review Letters, 2012, 109, 128102.	7.8	57
42	2H1400 Dynamics of cardiomyopathy-causing mutant of troponin observed by neutron scattering (Muscle, Oral Presentation, The 50th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2012, 52, S51.	0.1	0
43	The "Protein Dynamical Transition" Does Not Require the Protein Polypeptide Chain. Journal of Physical Chemistry Letters, 2011, 2, 2275-2279.	4.6	41
44	Polymer and Water Dynamics in Poly(vinyl alcohol)/Poly(methacrylate) Networks. A Molecular Dynamics Simulation and Incoherent Neutron Scattering Investigation. Polymers, 2011, 3, 1805-1832.	4.5	21
45	Dynamics of Model Membranes. , 2011, , 36-46.		1
46	Study of Protein Dynamics vs. Amyloid Formation. Zeitschrift Fur Physikalische Chemie, 2010, 224, 215-225.	2.8	2
47	Dynamic properties of a reconstituted myelin sheath. Spectroscopy, 2010, 24, 585-592.	0.8	21
48	Direct Evidence of the Amino Acid Side Chain and Backbone Contributions to Protein Anharmonicity. Journal of the American Chemical Society, 2010, 132, 1371-1376.	13.7	75
49	Molecular origin and hydration dependence of protein anharmonicity: an elastic neutron scattering study. Physical Chemistry Chemical Physics, 2010, 12, 10215.	2.8	31
50	Flexibility and drug release features of lipid/saccharide nanoparticles. Soft Matter, 2010, 6, 685-691.	2.7	14
51	Structural and Functional Characterization of Human Peripheral Nervous System Myelin Protein P2. PLoS ONE, 2010, 5, e10300.	2.5	57
52	Ergodicity breaking in strong and network-forming glassy systems. Physical Review B, 2009, 79, .	3.2	16
53	A benchmark for protein dynamics: Ribonuclease A measured by neutron scattering in a large wavevector-energy transfer range. Chemical Physics, 2008, 345, 305-314.	1.9	39
54	Hydration dependent dynamics in sol-gel encapsulated myoglobin. European Biophysics Journal, 2008, 37, 543-549.	2.2	19

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55	Dynamics of myoglobin in confinement: An elastic and quasi-elastic neutron scattering study. <i>Chemical Physics</i> , 2008, 345, 259-266.	1.9	26
56	New sources and instrumentation for neutrons in biology. <i>Chemical Physics</i> , 2008, 345, 133-151.	1.9	53
57	Spectroscopic investigation of ionizing-radiation tolerance of a <i>Chlorophyceae</i> green micro-alga. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 104216.	1.8	11
58	Water, Solute, and Segmental Dynamics in Polysaccharide Hydrogels. <i>Macromolecular Bioscience</i> , 2006, 6, 579-589.	4.1	26
59	Incoherent elastic and quasi-elastic neutron scattering investigation of hemoglobin dynamics. <i>Biophysical Chemistry</i> , 2005, 116, 219-225.	2.8	21
60	A new gradient monochromator for the IN13 back-scattering spectrometer. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2005, 544, 649-658.	1.6	1
61	Absence of molecular mobility on nano-second time scales in amorphous ice phases. <i>Physical Chemistry Chemical Physics</i> , 2005, 7, 1423.	2.8	29
62	Dynamic Properties of an Oriented Lipid/DNA Complex Studied by Neutron Scattering. <i>Biophysical Journal</i> , 2005, 88, 1081-1090.	0.5	25
63	X-ray and neutron reflectivity study of solid-supported lipid membranes prepared by spin coating. <i>Journal of Applied Physics</i> , 2004, 96, 6839-6844.	2.5	29
64	Dynamical properties of oriented lipid membranes studied by elastic incoherent neutron scattering. <i>Physica B: Condensed Matter</i> , 2004, 350, E955-E958.	2.7	1
65	The influence of the lipid-protein interaction on the membrane dynamics. <i>Physica B: Condensed Matter</i> , 2004, 350, E623-E626.	2.7	13
66	IN13 backscattering spectrometer: an instrument in evolution. <i>Physica B: Condensed Matter</i> , 2004, 350, E819-E822.	2.7	5
67	Elastic neutron scattering study of proton dynamics in glycerol. <i>Physica B: Condensed Matter</i> , 2004, 350, E951-E954.	2.7	6
68	Absence of fast precursor dynamics of low-density amorphous ice around its hypothetical glass transition temperature. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 677.	2.8	12
69	Protein-membrane interaction: effect of myelin basic protein on the dynamics of oriented lipids. <i>Chemical Physics</i> , 2003, 292, 455-464.	1.9	21
70	Recent Neutron Investigations on Biomolecular Dynamics: From Model Systems towards Complex Macromolecular Machines. <i>Journal of Neutron Research</i> , 2002, 10, 115-122.	1.1	5
71	Upgrade of the backscattering spectrometer IN13 at ILL. <i>Applied Physics A: Materials Science and Processing</i> , 2002, 74, s1505-s1507.	2.3	3
72	Changes in protein dynamics induced under Gdn-HCl denaturation. <i>Applied Physics A: Materials Science and Processing</i> , 2002, 74, s1579-s1581.	2.3	3

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73	Changes in the anisotropy of oriented membrane dynamics induced by myelin basic protein. Applied Physics A: Materials Science and Processing, 2002, 74, s1582-s1584.	2.3	7
74	A new approach for the study of cationic lipid-DNA complexes by energy dispersive X-ray diffraction. Chemical Physics Letters, 2002, 366, 200-204.	2.6	17
75	Evidence of local structural transition during oxidation process of RBCO epitaxial films using time resolved reflexafs measurements. European Physical Journal B, 2002, 27, 467-472.	1.5	2
76	Co-rebinding in myoglobin as seen by time-resolved X-ray absorption spectroscopy. European Biophysics Journal, 2001, 30, 63-68.	2.2	0
77	Myelin basic protein reduces molecular motions in DMPA, an elastic neutron scattering study. Physica B: Condensed Matter, 2001, 301, 145-149.	2.7	10
78	LOCAL STRUCTURE OF THE CHARGE ORDERED La <sub>0.5</sub> Ca <sub>0.5</sub> MnO <sub>3</sub> . International Journal of Modern Physics B, 2000, 14, 2852-2857.	2.0	2
79	Multiple-scattering x-ray absorption investigation of the local structure around substitutional Ge impurities in Ag. Physical Review B, 1999, 60, 6-9.	3.2	5
80	TDXAS study of the conformational landscape of MbCO. Journal of Synchrotron Radiation, 1999, 6, 389-391.	2.4	2
81	Undulator QEXAFS at the ESRF beamline ID26. Journal of Synchrotron Radiation, 1999, 6, 174-175.	2.4	29
82	Local structure and Tc suppression in Bi <sub>2</sub> Sr <sub>2</sub> Ca <sub>1-x</sub> Y <sub>x</sub> (Cu <sub>1-y</sub> Zn <sub>y</sub> ) <sub>2</sub> O <sub>8</sub> +δ superconductor at 1/8 doping. Journal of Synchrotron Radiation, 1999, 6, 752-754.	2.4	1
83	Light induced states in MbCO denatured with Guanidine hydrochloride. European Biophysics Journal, 1998, 27, 1-7.	2.2	5
84	A TRANSITION FROM LARGE TO SMALL POLARONS IN THE La <sub>0.75</sub> Ca <sub>0.25</sub> MnO <sub>3</sub> PEROVSKITE SYSTEM. Journal of Physics and Chemistry of Solids, 1998, 59, 2220-2223.	4.0	5
85	Crossover from Large to Small Polarons across the Metal-Insulator Transition in Manganites. Physical Review Letters, 1998, 81, 878-881.	7.8	190
86	From manganites to cuprates: a comparative study of the local lattice instability. Zeitschrift für Physik B-Condensed Matter, 1997, 104, 699-702.	1.1	6
87	Aluminum site structure in serum transferrin and lactoferrin revealed by synchrotron radiation X-ray spectroscopy. BioMetals, 1997, 10, 363-367.	4.1	14
88	Electrical conductivity and ion permeation in planar lipid membranes. Bioelectrochemistry, 1996, 41, 197-200.	1.0	5
89	Impact of the Environment on the PNIPAM Dynamical Transition Probed by Elastic Neutron Scattering. Macromolecules, 0, , .	4.8	3