Carmelo Corsaro

List of Publications by Year in Descending Order

102 papers	3,020 citations	30 h-index	52 g-index
109 ext. papers	3,355 ext. citations	4.2 avg, IF	5 L-index

#	Paper	IF	Citations
102	NMR in Metabolomics: From Conventional Statistics to Machine Learning and Neural Network Approaches. *Applied Sciences (Switzerland)*, **2022**, 12, 2824	2.6	2
101	Nano-Hybrid Au@LCCs Systems Displaying Anti-Inflammatory Activity. *Materials*, **2022**, 15, 3701	3.5	1
100	Metal-Oxide Based Nanomaterials: Synthesis, Characterization and Their Applications in Electrical and Electrochemical Sensors. *Sensors*, **2021**, 21,	3.8	18
99	Gaussian Parameters Correlate with the Spread of COVID-19 Pandemic: The Italian Case. *Applied Sciences (Switzerland)*, **2021**, 11, 6119	2.6	3
98	Direct Analysis in Foodomics: NMR approaches **2021**, 517-535		1
97	Antimicrobial Effect and Cytotoxic Evaluation of Mg-Doped Hydroxyapatite Functionalized with Au-Nano Rods. *Molecules*, **2021**, 26,	4.8	6
96	Weibull Modeling of Controlled Drug Release from Ag-PMA Nanosystems. *Polymers*, **2021**, 13,	4.5	7
95	Hydrophilicity and hydrophobicity: Key aspects for biomedical and technological purposes. *Physica A: Statistical Mechanics and Its Applications*, **2021**, 580, 126189	3.3	4
94	Acrylate and Methacrylate PolymersTApplications: Second Life with Inexpensive and Sustainable Recycling Approaches.. *Materials*, **2021**, 15,	3.5	2
93	Plasmon-Enhanced Controlled Drug Release from Ag-PMA Capsules. *Molecules*, **2020**, 25,	4.8	10
92	Specific Heat and Transport Functions ofWater. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	8
91	Silver fir characterized by micro-imaging NMR and FTIR spectroscopy. *IOP Conference Series: Materials Science and Engineering*, **2020**, 777, 012004	0.4	4
90	Experimental tests for a liquid-liquid critical point in water. *Science China: Physics, Mechanics and Astronomy*, **2020**, 63, 1	3.6	6
89	Paper aging and degradation monitoring by the non-destructive two-dimensional micro-Raman mapping. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2020**, 228, 117660	4.4	5
88	Some considerations on the water polymorphism and the liquid-liquid transition by the density behavior in the liquid phase. *Journal of Chemical Physics*, **2019**, 151, 044504	3.9	9
87	Aggregation States of A, A and Ap Amyloid Beta Peptides: A SANS Study. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	9
86	The Stokes-Einstein relation in water/methanol solutions. *Journal of Chemical Physics*, **2019**, 150, 234506	3.9	11

85	A study of the hydrogen bonds effect on the water density and the liquid-liquid transition. *Science China: Physics, Mechanics and Astronomy*, **2019**, 62, 1	3.6	2
84	The onset of the tetrabonded structure in liquid water. *Science China: Physics, Mechanics and Astronomy*, **2019**, 62, 1	3.6	9
83	Hydrophilic and hydrophobic competition in water-methanol solutions. *Science China: Physics, Mechanics and Astronomy*, **2019**, 62, 1	3.6	3
82	The Boson peak interpretation and evolution in confined amorphous water. *Science China: Physics, Mechanics and Astronomy*, **2019**, 62, 1	3.6	4
81	Liquid water structure from X-ray absorption and emission, NMR shielding and X-ray diffraction. *Science China: Physics, Mechanics and Astronomy*, **2019**, 62, 1	3.6	3
80	Analysis of the thermal fluctuations in inclusion complexes of genistein with Ecyclodextrin derivatives. *Chemical Physics*, **2019**, 516, 125-131	2.3	3
79	SANS study of Amyloid 1140: Unfolded monomers in DMSO, multidimensional aggregates in water medium. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 517, 385-391	3.3	4
78	Proton NMR study of extra Virgin Olive Oil with temperature: Freezing and melting kinetics. *Physica A: Statistical Mechanics and Its Applications*, **2018**, 499, 20-27	3.3	3
77	The evaluation of the hydrophilic-hydrophobic interactions and their effect in water-methanol solutions: A study in terms of the thermodynamic state functions in the frame of the transition state theory. *Colloids and Surfaces B: Biointerfaces*, **2018**, 168, 193-200	6	1
76	ESR evidence of the dynamic crossover in the supercooled liquid states of a series of solid n-alkanes. *Physical Chemistry Chemical Physics*, **2018**, 20, 11145-11151	3.6	4
75	Contrasting microscopic interactions determine the properties of water/methanol solutions. *Frontiers of Physics*, **2018**, 13, 1	3.7	9
74	NMR investigation of degradation processes of ancient and modern paper at different hydration levels. *Frontiers of Physics*, **2018**, 13, 1	3.7	5
73	The Role of Hydrogen Bonding in the Folding/Unfolding Process of Hydrated Lysozyme: A Review of Recent NMR and FTIR Results. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	30
72	Calorimetric analysis points out the physical-chemistry of organic olive oils and reveals the geographical origin. *Physica A: Statistical Mechanics and Its Applications*, **2017**, 486, 925-932	3.3	11
71	Influence of Alcohols on the Lateral Diffusion in Phospholipid Membranes. *Journal of Physical Chemistry B*, **2016**, 120, 1285-90	3.4	8
70	Energy landscape in protein folding and unfolding. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 3159-63	11.5	62
69	Dynamics of water clusters in solution with LiCl. *Physica A: Statistical Mechanics and Its Applications*, **2016**, 442, 261-267	3.3	4
68	Statistical Analysis of Mineral Concentration for the Geographic Identification of Garlic Samples from Sicily (Italy), Tunisia and Spain. *Foods*, **2016**, 5,	4.9	29

67	Some Considerations on Confined Water: The Thermal Behavior of Transport Properties in Water-Glycerol and Water-Methanol Mixtures. *MRS Advances*, **2016**, 1, 1891-1902	0.7	2
66	The role of water in the degradation process of paper using H HR-MAS NMR spectroscopy. *Physical Chemistry Chemical Physics*, **2016**, 18, 33335-33343	3.6	12
65	NMR spectroscopy study of local correlations in water. *Journal of Chemical Physics*, **2016**, 145, 214503	3.9	6
64	Some considerations on the transport properties of water-glycerol suspensions. *Journal of Chemical Physics*, **2016**, 144, 014501	3.9	6
63	Dynamical properties of water-methanol solutions. *Journal of Chemical Physics*, **2016**, 144, 064506	3.9	25
62	HR-MAS and NMR towards Foodomics. *Food Research International*, **2016**, 89, 1085-1094	7	38
61	Some thermodynamical aspects of protein hydration water. *Journal of Chemical Physics*, **2015**, 142, 215103	3.9	19
60	The metabolic profile of lemon juice by proton HR-MAS NMR: the case of the PGI Interdonato Lemon of Messina. *Natural Product Research*, **2015**, 29, 1894-902	2.3	42
59	The dynamical fragile-to-strong crossover in attractive colloidal systems. *Journal of Non-Crystalline Solids*, **2015**, 407, 355-360	3.9	2
58	Enhanced detection of aldehydes in Extra-Virgin Olive Oil by means of band selective NMR spectroscopy. *Physica A: Statistical Mechanics and Its Applications*, **2015**, 420, 258-264	3.3	54
57	The fragile-to-strong dynamical crossover and the system viscoelasticity in attractive glass forming colloids. *Colloid and Polymer Science*, **2015**, 293, 3337-3349	2.4	4
56	Dynamical changes in hydration water accompanying lysozyme thermal denaturation. *Frontiers of Physics*, **2015**, 10, 1	3.7	7
55	The Boson peak in confined water: An experimental investigation of the liquid-liquid phase transition hypothesis. *Frontiers of Physics*, **2015**, 10, 1	3.7	10
54	Water and lysozyme: Some results from the bending and stretching vibrational modes. *Frontiers of Physics*, **2015**, 10, 1	3.7	4
53	(1)H HR-MAS NMR Spectroscopy and the Metabolite Determination of Typical Foods in Mediterranean Diet. *Journal of Analytical Methods in Chemistry*, **2015**, 2015, 175696	2	38
52	The role of water in protein's behavior: The two dynamical crossovers studied by NMR and FTIR techniques. *Computational and Structural Biotechnology Journal*, **2015**, 13, 33-7	6.8	47
51	The influence of water on protein properties. *Journal of Chemical Physics*, **2014**, 141, 165104	3.9	33
50	Thermodynamic properties of bulk and confined water. *Journal of Chemical Physics*, **2014**, 141, 18C504	3.9	29

49	On some experimental reasons for an inhomogeneous structure of ambient water on the nanometer length scale **2014**, 107-125		
48	The protein irreversible denaturation studied by means of the bending vibrational mode. *Physica A: Statistical Mechanics and Its Applications*, **2014**, 412, 39-44	3.3	8
47	Lipid diffusion in alcoholic environment. *Journal of Physical Chemistry B*, **2014**, 118, 9349-55	3.4	11
46	A multivariate statistical analysis coming from the NMR metabolic profile of cherry tomatoes (The Sicilian Pachino case). *Physica A: Statistical Mechanics and Its Applications*, **2014**, 401, 112-117	3.3	34
45	On the ergodicity of supercooled molecular glass-forming liquids at the dynamical arrest: the o-terphenyl case. *Scientific Reports*, **2014**, 4, 3747	4.9	22
44	The thermodynamical response functions and the origin of the anomalous behavior of liquid water. *Faraday Discussions*, **2013**, 167, 95-108	3.6	31
43	Impact of environmental pollution on caged mussels Mytilus galloprovincialis using NMR-based metabolomics. *Marine Pollution Bulletin*, **2013**, 77, 132-9	6.7	103
42	Transport and Dynamics in Supercooled Confined Water. *Advances in Chemical Physics*, **2013**, 203-262		9
41	1H NMR study of water/methanol solutions as a function of temperature and concentration. *Physica A: Statistical Mechanics and Its Applications*, **2013**, 392, 596-601	3.3	20
40	The dynamical crossover in attractive colloidal systems. *Journal of Chemical Physics*, **2013**, 139, 214502	3.9	11
39	Molecular degradation of ancient documents revealed by 1H HR-MAS NMR spectroscopy. *Scientific Reports*, **2013**, 3, 2896	4.9	35
38	Digestive cells from Mytilus galloprovincialis show a partial regulatory volume decrease following acute hypotonic stress through mechanisms involving inorganic ions. *Cell Biochemistry and Function*, **2013**, 31, 489-95	4.2	37
37	Possible relation of water structural relaxation to water anomalies. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 4899-904	11.5	53
36	The fragile to strong dynamical crossover in supercooled liquids. The o-terphenyl case and its ergodicity at the dynamical arrest **2013**,		2
35	Metabolomic investigation of Mytilus galloprovincialis (Lamarck 1819) caged in aquatic environments. *Ecotoxicology and Environmental Safety*, **2012**, 84, 139-46	7	108
34	A singular thermodynamically consistent temperature at the origin of the anomalous behavior of liquid water. *Scientific Reports*, **2012**, 2, 993	4.9	71
33	The dynamic crossover in water does not require bulk water. *Physical Chemistry Chemical Physics*, **2012**, 14, 8067-73	3.6	27
32	The dynamical crossover phenomenon in bulk water, confined water and protein hydration water. *Journal of Physics Condensed Matter*, **2012**, 24, 064103	1.8	42

31	The structure and terahertz dynamics of water confined in nanoscale pools in salt solutions. *Faraday Discussions*, **2011**, 150, 493-504; discussion 505-32	3.6	18
30	Thermodynamical properties of glass forming systems: A Nuclear Magnetic Resonance analysis. *Journal of Non-Crystalline Solids*, **2011**, 357, 286-292	3.9	2
29	The role of the dynamic crossover temperature and the arrest in glass-forming fluids. *European Physical Journal E*, **2011**, 34, 94	1.5	32
28	Synthesis and characterization of a colloidal novel folic acid–cyclodextrin conjugate for targeted drug delivery. *Journal of Inclusion Phenomena and Macrocyclic Chemistry*, **2011**, 69, 321-325		10
27	A Nuclear Magnetic Resonance study of the reversible denaturation of hydrated lysozyme. *Physica A: Statistical Mechanics and Its Applications*, **2011**, 390, 2904-2908	3.3	15
26	A possible role of water in the protein folding process. *Journal of Physical Chemistry B*, **2011**, 115, 14280-94	3.4	37
25	Reply to Elmatad: Supercooled viscous liquids display a fragile-to-strong dynamic crossover. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, E231-E231	11.5	7
24	Interaction of alcohol with phospholipid membrane: NMR and XRD investigations on DPPC–hexanol system. *Spectroscopy*, **2010**, 24, 375-380		16
23	Transport properties of glass-forming liquids suggest that dynamic crossover temperature is as important as the glass transition temperature. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 22457-62	11.5	168
22	Dynamical crossover and breakdown of the Stokes-Einstein relation in confined water and in methanol-diluted bulk water. *Journal of Physical Chemistry B*, **2010**, 114, 1870-8	3.4	77
21	Clustering dynamics in water/methanol mixtures: a nuclear magnetic resonance study at 205 k. *Journal of Physical Chemistry B*, **2008**, 112, 10449-54	3.4	70
20	Water diffusion in nanoporous glass: an NMR study at different hydration levels. *Journal of Physical Chemistry B*, **2008**, 112, 3927-30	3.4	25
19	NMR evidence of a sharp change in a measure of local order in deeply supercooled confined water. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 12725-9	11.5	120
18	Physical study of dynamics in fully hydrated phospholipid bilayers. *Philosophical Magazine*, **2008**, 88, 4033-4046	2.6	9
17	Low-temperature dynamics of hydrated peptides. *Chemical Physics*, **2008**, 345, 245-249	2.3	2
16	Transport properties of supercooled confined water. *European Physical Journal: Special Topics*, **2008**, 161, 19-33	2.3	32
15	Role of the solvent in the dynamical transitions of proteins: the case of the lysozyme-water system. *Journal of Chemical Physics*, **2007**, 127, 045104	3.9	85
14	Evidence of the existence of the low-density liquid phase in supercooled, confined water. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 424-8	11.5	243

13	The anomalous behavior of the density of water in the range 30 K Proceedings of the National Academy of Sciences of the United States of America, **2007**, 104, 18387-91	11.5	185
12	The fragile-to-strong dynamic crossover transition in confined water: nuclear magnetic resonance results. *Journal of Chemical Physics*, **2006**, 124, 161102	3.9	175
11	Dynamical properties of confined supercooled water: an NMR study. *Journal of Physics Condensed Matter*, **2006**, 18, S2285-S2297	1.8	37
10	The violation of the Stokes-Einstein relation in supercooled water. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 12974-8	11.5	252
9	Inelastic neutron scattering study of water in hydrated LTA-type zeolites. *Journal of Physical Chemistry A*, **2006**, 110, 1190-5	2.8	23
8	Diffusive dynamics of water in ion-exchanged zeolites. *Molecular Physics*, **2006**, 104, 587-598	1.7	10
7	Mobility of water in Linde type A synthetic zeolites: an inelastic neutron scattering study. *Journal of Physics Condensed Matter*, **2005**, 17, 7925-7934	1.8	10
6	Elastic neutron scattering study of water dynamics in ion-exchanged type-A zeolites. *Physical Review E*, **2005**, 72, 061504	2.4	9
5	Vibrational spectroscopy of maleimide. *Physica B: Condensed Matter*, **2004**, 350, E591-E593	2.8	5
4	Dynamics of collagen from bovine connective tissues. *Physica B: Condensed Matter*, **2004**, 350, E631-E633	2.8	1
3	Structural and vibrational properties of carbon nanotubes by TEM and infrared spectroscopy. *Diamond and Related Materials*, **2004**, 13, 1249-1253	3.5	9
2	Proton mobilities in crambin and glutathione S-transferase. *Chemical Physics*, **2003**, 292, 445-450	2.3	10
1	Water and Biological Macromolecules. *Advances in Chemical Physics*,263-308		5