Carmelo La Rosa

List of Publications by Year
in descending order

111 papers	2,689 citations	186209 28 h-index	223716 46 g-index
115 all docs	115 docs citations	115 times ranked	2528 citing authors

#	Article	IF	Citations
1	The corona of proteinâ€“gold nanoparticle systems: the role of ionic strength. Physical Chemistry Chemical Physics, 2022, 24, 1630-1637.	1.3	5
2	A unifying framework for amyloid-mediated membrane damage: The lipid-chaperone hypothesis. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2022, 1870, 140767.	1.1	15
3	Proteostasis of Islet Amyloid Polypeptide: A Molecular Perspective of Risk Factors and Protective Strategies for Type II Diabetes. Chemical Reviews, 2021, 121, 1845-1893.	23.0	129
4	Benchmarks of SMA-Copolymer Derivatives and Nanodisc Integrity. Langmuir, 2021, 37, 3113-3121.	1.6	11
5	Amyloid-Mediated Mechanisms of Membrane Disruption. Biophysica, 2021, 1, 137-156.	0.6	14
6	The role of alpha-helix on the structure-targeting drug design of amyloidogenic proteins. Chemistry and Physics of Lipids, 2021, 236, 105061.	1.5	7
7	The interplay between lipid and Aî² amyloid homeostasis in Alzheimerâ€™s Disease: risk factors and therapeutic opportunities. Chemistry and Physics of Lipids, 2021, 236, 105072.	1.5	16
8	Selfâ€Assembly and Neurotoxicity of î²â€Amyloid (21â€“40) Peptide Fragment: The Regulatory Role of GxxxG Motifs. ChemMedChem, 2020, 15, 293-301.	1.6	16
9	Lipid-Chaperone Hypothesis: A Common Molecular Mechanism of Membrane Disruption by Intrinsically Disordered Proteins. ACS Chemical Neuroscience, 2020, 11, 4336-4350.	1.7	101
10	Amyloidogenic Intrinsically Disordered Proteins: New Insights into Their Self-Assembly and Their Interaction with Membranes. Life, 2020, 10, 144.	1.1	25
11	Predicting the Miscibility and Rigidity of Poly(lactic-<i>co</i>-glycolic acid)/Polyethylene Glycol Blends via Molecular Dynamics Simulations. Macromolecules, 2020, 53, 3643-3654.	2.2	21
12	Symmetry-breaking transitions in the early steps of protein self-assembly. European Biophysics Journal, 2020, 49, 175-191.	1.2	28
13	Laser-Induced Synthesis and Processing of Nanoparticles in the Liquid Phase for Biosensing and Catalysis. Springer Series in Materials Science, 2020, , 133-162.	0.4	0
14	Influence of Free Fatty Acids on Lipid Membraneâ€“Nisin Interaction. Langmuir, 2020, 36, 13535-13544.	1.6	12
15	Protein Adsorption at the Airâ€“Water Interface by a Charge Sensing Interferometric Technique. Langmuir, 2019, 35, 16087-16100.	1.6	6
16	Amyloid growth and membrane damage: Current themes and emerging perspectives from theory and experiments on Aî² and hIAPP. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 1625-1638.	1.4	103
17	The active role of Ca²⁺ ions in Aî²-mediated membrane damage. Chemical Communications, 2018, 54, 3629-3631.	2.2	25
18	A blend of two resveratrol derivatives abolishes hIAPP amyloid growth and membrane damage. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 1793-1802.	1.4	36

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19	Detection and characterization at nM concentration of oligomers formed by hIAPP, AÎ²(1â€“40) and their equimolar mixture using SERS and MD simulations. Physical Chemistry Chemical Physics, 2018, 20, 20588-20596.	1.3	22
20	Phospholipids Critical Micellar Concentrations Trigger Different Mechanisms of Intrinsically Disordered Proteins Interaction with Model Membranes. Journal of Physical Chemistry Letters, 2018, 9, 5125-5129.	2.1	66
21	Reduced Lipid Bilayer Thickness Regulates the Aggregation and Cytotoxicity of Amyloid-Î². Journal of Biological Chemistry, 2017, 292, 4638-4650.	1.6	145
22	Inhibition of AÎ² Amyloid Growth and Toxicity by Silybins: The Crucial Role of Stereochemistry. ACS Chemical Neuroscience, 2017, 8, 1767-1778.	1.7	72
23	The Role of Cholesterol in Driving IAPP-Membrane Interactions. Biophysical Journal, 2016, 111, 140-151.	0.2	74
24	Lipid-assisted protein transport: A diffusion-reaction model supported by kinetic experiments and molecular dynamics simulations. Journal of Chemical Physics, 2016, 144, 184901.	1.2	45
25	Modeling the capture rate by a radially oscillating spherical bubble. A bio-mimetic model for studying the mechanically-mediated uptake by cells. Physica A: Statistical Mechanics and Its Applications, 2016, 461, 191-198.	1.2	1
26	Long range Trp-Trp interaction initiates the folding pathway of a pro-angiogenic Î²-hairpin peptide. Scientific Reports, 2015, 5, 16651.	1.6	10
27	Probing the Sources of the Apparent Irreproducibility of Amyloid Formation: Drastic Changes in Kinetics and a Switch in Mechanism Due to Micellelike Oligomer Formation at Critical Concentrations of IAPP. Journal of Physical Chemistry B, 2015, 119, 2886-2896.	1.2	85
28	Trapping of Sodium Dodecyl Sulfate at the Airâ€“Water Interface of Oscillating Bubbles. Langmuir, 2015, 31, 6277-6281.	1.6	16
29	Resveratrol interferes with the aggregation of membrane-bound human-IAPP: A molecular dynamics study. European Journal of Medicinal Chemistry, 2015, 92, 876-881.	2.6	47
30	The Role of Calcium, Lipid Membranes and Islet Amyloid Polypeptide in the Onset of Type 2 Diabetes: Innocent Bystanders or Partners in a Crime?. Frontiers in Endocrinology, 2014, 5, 216.	1.5	16
31	Peptide-induced membrane curvature in edge-stabilized open bilayers: A theoretical and molecular dynamics study. Journal of Chemical Physics, 2014, 141, 024901.	1.2	15
32	Synthesis, biophysical characterization and anti-HIV activity of d(TG3AG) Quadruplexes bearing hydrophobic tails at the 5â€²-end. Bioorganic and Medicinal Chemistry, 2014, 22, 960-966.	1.4	23
33	A Fokkerâ€“Planck equation for a piecewise entropy functional defined in different space domains. An application to solute partitioning at the membraneâ€“water interface. Physica A: Statistical Mechanics and Its Applications, 2014, 395, 171-182.	1.2	4
34	Characterization of micellar systems produced by new amphiphilic conjugates of poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 1	0.9	2
35	Zinc stabilization of prefibrillar oligomers of human islet amyloid polypeptide. Chemical Communications, 2013, 49, 3339.	2.2	72
36	Cations as Switches of Amyloid-Mediated Membrane Disruption Mechanisms: Calcium and IAPP. Biophysical Journal, 2013, 104, 173-184.	0.2	103

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37	Analytical model and multiscale simulations of AÎ² peptide aggregation in lipid membranes: towards a unifying description of conformational transitions, oligomerization and membrane damage. Physical Chemistry Chemical Physics, 2013, 15, 8940.	1.3	45
38	Anomalous viscosity effect in the early stages of the ion-assisted adhesion/fusion event between lipid bilayers: A theoretical and computational study. Journal of Chemical Physics, 2013, 138, 234901.	1.2	3
39	Î±-Helical Structures Drive Early Stages of Self-Assembly of Amyloidogenic Amyloid Polypeptide Aggregate Formation in Membranes. Scientific Reports, 2013, 3, 2781.	1.6	91
40	Combined depletion and electrostatic forces in polymer-induced membrane adhesion: A theoretical model. Journal of Chemical Physics, 2012, 136, 055101.	1.2	8
41	Hydrodynamic-induced enantiomeric enrichment of self-assemblies: Role of the solid-liquid interface in chiral nucleation and seeding. Journal of Chemical Physics, 2012, 137, 134902.	1.2	10
42	Transient Step-Like Kinetics of Enzyme Reaction on Fragmented-Condensed Substrates. Journal of Physical Chemistry B, 2012, 116, 9570-9579.	1.2	5
43	Interactions of two O-phosphorylresveratrol derivatives with model membranes. Archives of Biochemistry and Biophysics, 2012, 521, 111-116.	1.4	13
44	The role of aromatic side-chains in amyloid growth and membrane interaction of the islet amyloid polypeptide fragment LANFLVH. European Biophysics Journal, 2011, 40, 1-12.	1.2	50
45	The thermodynamics of simple biomembrane mimetic systems. Journal of Pharmacy and Bioallied Sciences, 2011, 3, 15.	0.2	13
46	Selfâ€Assembling Pathway of HiApp Fibrils within Lipid Bilayers. ChemBioChem, 2010, 11, 1856-1859.	1.3	38
47	Nucleation theory with delayed interactions: An application to the early stages of the receptor-mediated adhesion/fusion kinetics of lipid vesicles. Journal of Chemical Physics, 2010, 132, 045103.	1.2	8
48	Adhesion Kinetics between a Membrane and a Flat Substrate. An Ideal Upper Bound to the Spreading Rate of an Adhesive Patch. Journal of Physical Chemistry B, 2010, 114, 15495-15505.	1.2	4
49	Are fibrilgrowth and membrane damage linked processes? An experimental and computational study of IAPP12â€"18and IAPP21â€"27peptides. New Journal of Chemistry, 2010, 34, 200-207.	1.4	19
50	Unveiling the unfolding pathway of FALS associated G37R SOD1 mutant: a computational study. Molecular BioSystems, 2010, 6, 1032.	2.9	15
51	Low level of residual monomer and specific surface properties affect intraocular lens material biocompatibility. Acta Ophthalmologica, 2010, 88, 0-0.	0.6	0
52	Interaction of Human Amylin with Phosphatidylcholine and Phosphatidylserine Membranes. Molecular Crystals and Liquid Crystals, 2009, 500, 73-81.	0.4	3
53	Thermodynamics of azurin folding. Journal of Thermal Analysis and Calorimetry, 2008, 93, 575-581.	2.0	8
54	The role of the Cys2-Cys7 disulfide bridge in the early steps of Islet amyloid polypeptide aggregation: A molecular dynamics study. Chemical Physics Letters, 2008, 463, 396-399.	1.2	21

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55	Calcium-activated membrane interaction of the islet amyloid polypeptide: Implications in the pathogenesis of type II diabetes mellitus. Archives of Biochemistry and Biophysics, 2008, 477, 291-298.	1.4	40
56	An interpretative model for the anomalous behavior of some excess properties in mixed liquid systems: A relationship between excess molar volumes and excess compressibilities in strongly self-aggregated fluids. Journal of Chemical Physics, 2008, 129, 024510.	1.2	2
57	The Role Played by the Î±â€Helix in the Unfolding Pathway and Stability of Azurin: Switching Between Hierarchic and Nonhierarchic Folding. ChemBioChem, 2007, 8, 1941-1949.	1.3	9
58	Steered molecular dynamics studies reveal different unfolding pathways of prions from mammalian and non-mammalian species. New Journal of Chemistry, 2007, 31, 901.	1.4	18
59	Environmental Factors Differently Affect Human and Rat IAPP: Conformational Preferences and Membrane Interactions of IAPP17â€“29 Peptide Derivatives. Chemistry - A European Journal, 2007, 13, 10204-10215.	1.7	37
60	Role of electrostatics in the thermal stability of ubiquitin. Journal of Thermal Analysis and Calorimetry, 2006, 86, 311-314.	2.0	10
61	Environmental Effects on a Prion's Helix II Domain: Copper(II) and Membrane Interactions with PrP180â€“193 and Its Analogues. Chemistry - A European Journal, 2006, 12, 537-547.	1.7	35
62	Evaluation of thermodynamic properties of irreversible protein thermal unfolding measured by DSC. Journal of Thermal Analysis and Calorimetry, 2005, 80, 263-270.	2.0	20
63	Phase behaviour of polymer-grafted DPPC membranes for drug delivery systems design. Journal of Thermal Analysis and Calorimetry, 2005, 80, 413-418.	2.0	28
64	Molecular mechanism of the inhibition of cytochrome c aggregation by Phe-Gly. Archives of Biochemistry and Biophysics, 2005, 435, 182-189.	1.4	3
65	A molecular dynamics study on the conformational stability of PrP 180â€“193 helix II prion fragment. Chemical Physics Letters, 2004, 390, 511-516.	1.2	10
66	The different role of Cu++ and Zn++ ions in affecting the interaction of prion peptide PrP106-126 with model membranes. Chemical Communications, 2004, , 246.	2.2	9
67	Free energy perturbation and molecular dynamics calculations of copper binding to azurin. Journal of Computational Chemistry, 2003, 24, 779-785.	1.5	5
68	Monitoring of unfolding of metallo-proteins by electrospray ionization mass spectrometry. Journal of Mass Spectrometry, 2003, 38, 502-509.	0.7	12
69	Thermodynamic analysis of the contributions of the copper ion and the disulfide bridge to azurin stability: synergism among multiple depletions. Archives of Biochemistry and Biophysics, 2003, 414, 121-127.	1.4	9
70	The effect of copper/zinc replacement on the folding free energy of wild type and Cys3Ala/Cys26Ala azurin. International Journal of Biological Macromolecules, 2003, 31, 163-170.	3.6	5
71	Interaction of prion peptide PrP 180-193 with DPPC model membranes: a thermodynamic study. New Journal of Chemistry, 2003, 27, 359-364.	1.4	10
72	A model for the thermal unfolding of amicyanin. European Biophysics Journal, 2002, 30, 559-570.	1.2	18

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73	The interaction of a peptide with a scrambled hydrophobic/hydrophilic sequence (Pro-Asp-Ala-Asp-Ala-His-Ala-His-Ala-His-Ala-Ala-Ala-His-Gly) (PADH) with DPPC model membranes: a DSC study. Thermochimica Acta, 2002, 390, 73-78.	1.2	3
74	DSC study of the interaction of the prion peptide PrP106â€“126 with artificial membranes. New Journal of Chemistry, 2001, 25, 1543-1548.	1.4	31
75	Testing a fluorinated compound as a protective material for calcarenite. Journal of Cultural Heritage, 2001, 2, 55-62.	1.5	31
76	Free energy for blue copper protein unfolding determined by electrospray ionisation mass spectrometry. Rapid Communications in Mass Spectrometry, 2001, 15, 1817-1825.	0.7	11
77	Bistable molecular self-assembling. Current Opinion in Colloid and Interface Science, 2000, 5, 13-18.	3.4	13
78	A Spectroscopic and Calorimetric Investigation on the Thermal Stability of the Cys3Ala/Cys26Ala Azurin Mutant. Biophysical Journal, 1999, 77, 1052-1063.	0.2	48
79	Thermodynamics and kinetics of the thermal unfolding of plastocyanin. European Biophysics Journal, 1998, 27, 273-282.	1.2	33
80	Characterization of fly ash from municipal solid waste incinerators using differential scanning calorimetry. Thermochimica Acta, 1998, 321, 133-141.	1.2	12
81	Anomalous phase transition in dipalmitoylphosphatidylethanolamine/palmitoylphosphatidylcholine/water system. Biophysical Chemistry, 1998, 70, 11-20.	1.5	1
82	Solvent Isotope Effects on Azurin Thermal Unfolding. Journal of Physical Chemistry B, 1998, 102, 1021-1028.	1.2	26
83	An alternative approach in the structure-based predictions of the thermodynamics of protein unfolding. Biophysical Chemistry, 1997, 69, 43-51.	1.5	26
84	On the stability of the ripple phase in the DPPC/PLPC/water ternary system. Chemistry and Physics of Lipids, 1997, 90, 109-115.	1.5	0
85	Calorimetric evidence for different structural roles of Glu132 and Glu133 residues in human superoxide dismutase. Thermochimica Acta, 1996, 273, 25-30.	1.2	2
86	Contributions of polar and apolar groups to the thermodynamic stability of azurin. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1996, 18, 1347-1354.	0.4	1
87	Effect of 1-palmitoyl lysophosphatidylcholine on phase properties of 1,2-dipalmitoyl phosphatidylethanolamine: a thermodynamic and NMR study. Chemistry and Physics of Lipids, 1996, 82, 147-162.	1.5	8
88	Experimental model for the thermal denaturation of azurin: a kinetic study. Biophysical Chemistry, 1996, 60, 29-38.	1.5	27
89	Theoretical basis for differential scanning calorimetric analysis of multimeric proteins. Biophysical Chemistry, 1996, 62, 95-108.	1.5	9
90	A Thermodynamic and NMR Investigation of 1-Lysopalmitoyllecithin / 1,2-Dipalmitoylphosphatidylethanolamine/Water System. Molecular Crystals and Liquid Crystals, 1996, 290, 67-76.	0.3	0

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91	Lateral inhomogeneous lipid membranes: Theoretical aspects. Advances in Colloid and Interface Science, 1995, 57, 229-285.	7.0	28
92	The effects of scan rate and protein concentration on DSC thermograms of bovine superoxide dismutase. Thermochimica Acta, 1995, 265, 163-175.	1.2	23
93	Thermodynamics of the thermal unfolding of azurin. The Journal of Physical Chemistry, 1995, 99, 14864-14870.	2.9	77
94	Differential scanning calorimetry of the irreversible denaturation of bovine superoxide dismutase. Thermochimica Acta, 1994, 246, 183-191.	1.2	7
95	Extended theoretical analysis of irreversible protein thermal unfolding. Biophysical Chemistry, 1994, 52, 183-189.	1.5	52
96	A combined scanning dilatometric and differential scanning calorimetric study of the thermal unfolding of bovine serum albumin. Thermochimica Acta, 1994, 235, 231-237.	1.2	6
97	Liquid Crystalline Properties of <i>p</i>-<i>n</i>-alkoxybenzylidene-<i>p</i>-fluoroaniline. Molecular Crystals and Liquid Crystals, 1992, 221, 85-91.	0.3	2
98	Phospholipid vesicles as a drug delivery system. Thermochimica Acta, 1992, 195, 139-148.	1.2	17
99	Microcalorimetric measurements of thermal denaturation and renaturation processes of salmon sperm DNA in gel and liquid crystalline phases. Thermochimica Acta, 1992, 199, 239-245.	1.2	12
100	Phospholipid vesicles as drug delivery systems. Thermochimica Acta, 1992, 198, 181-190.	1.2	13
101	Reactions of azoesters and dimethyl acetylenedicarboxylate with 3â€methylâ€1,2,4â€triazoleâ€5â€thione. Journal of Heterocyclic Chemistry, 1991, 28, 325-327.	1.4	28
102	Isothermal volume variations in lipid vesicle suspensions. A new evidence of intervesicle fusion kinetics. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1991, 13, 1101-1110.	0.4	2
103	A calorimetric study of the different thermal behaviour of DNA in the isotropic and liquid-crystalline states. Liquid Crystals, 1991, 9, 299-305.	0.9	30
104	Polymer-induced lateral phase separation in mixed lipid membranes: a theoretical model and calorimetric investigation. The Journal of Physical Chemistry, 1990, 94, 1526-1535.	2.9	20
105	Characterization of Spin on Glass Using Thermo Analytical Techniques and Ftir Spectroscopy. Materials Research Society Symposia Proceedings, 1990, 204, 539.	0.1	1
106	Isothermal compressibility of phospholipid vesicles: A new fast experimental approach. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1990, 12, 1213-1218.	0.4	8
107	Thermal expansion and compressibility coefficients of phospholipid vesicles: experimental determination and theoretical modeling. The Journal of Physical Chemistry, 1990, 94, 4217-4223.	2.9	34
108	A thermodynamic and N.M.R. study of the ribbon lyotropic mesophases. An investigation of the potassium palmitate/potassium laurate/water system. Liquid Crystals, 1989, 6, 435-447.	0.9	4

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109	Study of Segregation Effects and Fusion Between Lipid Vesicles by Combined Scanning Dilatometric and Calorimetric Measurements. Liquid Crystals, 1988, 3, 1699-1705.	0.9	6
110	Ionotropic lateral phase separation in mixed lipid membranes: a theoretical study. The Journal of Physical Chemistry, 1987, 91, 6252-6257.	2.9	9
111	Application of red-edge effect on the mobility of membrane lipid polar head groups. FEBS Letters, 1983, 159, 43-46.	1.3	3