

# Antonio Rey

## List of Publications by Year in descending order

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70  
papers

1,309  
citations

331259

21  
h-index

414034

32  
g-index

70  
all docs

70  
docs citations

70  
times ranked

714  
citing authors

#	ARTICLE	IF	CITATIONS
1	A method for predicting protein structure from sequence. <i>Current Biology</i> , 1993, 3, 414-423.	1.8	80
2	Comparison of lattice Monte Carlo dynamics and Brownian dynamics folding pathways of $\hat{\mu}$ -helical hairpins. <i>Chemical Physics</i> , 1991, 158, 199-219.	0.9	71
3	Monte Carlo calculations for linear chains and star polymers with intermolecular interactions. 3. Dimensions and hydrodynamic properties in good solvent conditions. <i>Macromolecules</i> , 1987, 20, 342-346.	2.2	69
4	Monte Carlo calculations for linear and star polymers with intramolecular interactions. 1. Dimensions. <i>Macromolecules</i> , 1986, 19, 452-457.	2.2	60
5	Efficient algorithm for the reconstruction of a protein backbone from the $\gamma$ -carbon coordinates. <i>Journal of Computational Chemistry</i> , 1992, 13, 443-456.	1.5	49
6	Monte Carlo calculations for linear and star polymers with intramolecular interactions. 2. Nonpreaveraged study of hydrodynamic properties at the $\hat{\mu}$ state. <i>Macromolecules</i> , 1986, 19, 457-462.	2.2	44
7	Computer modeling and folding of four-helix bundles. <i>Proteins: Structure, Function and Bioinformatics</i> , 1993, 16, 8-28.	1.5	39
8	Effect of double bonds on the dynamics of hydrocarbon chains. <i>Journal of Chemical Physics</i> , 1992, 97, 1240-1249.	1.2	36
9	Dimensions and intrinsic viscosities of long linear and star chains in good- and $\hat{\mu}$ -solvent conditions. <i>Macromolecules</i> , 1991, 24, 6494-6499.	2.2	35
10	The shape of linear and star polymers with and without excluded volume. <i>Journal of Chemical Physics</i> , 1991, 94, 4009-4011.	1.2	35
11	Thermodynamics of GÅ-type models for protein folding. <i>Journal of Chemical Physics</i> , 2005, 123, 154903.	1.2	35
12	Experimental and theoretical study of the equation of state of trifluoromethane in the near-critical region. <i>The Journal of Physical Chemistry</i> , 1991, 95, 3351-3357.	2.9	30
13	Influence of the native topology on the folding barrier for small proteins. <i>Journal of Chemical Physics</i> , 2007, 127, 175101.	1.2	30
14	Steric confinement and enhanced local flexibility assist knotting in simple models of protein folding. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 26391-26403.	1.3	30
15	Investigation of the end-to-end vector distribution function for linear polymers in different regimes. <i>Journal of Chemical Physics</i> , 1991, 95, 4589-4592.	1.2	28
16	Brownian dynamics simulation of flexible polymer chains with excluded volume and hydrodynamic interactions. A comparison with Monte Carlo and theoretical results. <i>Polymer</i> , 1992, 33, 3477-3481.	1.8	27
17	Monte Carlo calculations for linear chains and star polymers with intramolecular interactions. 4. Dimensions and hydrodynamic properties below the $\theta$ state. <i>Macromolecules</i> , 1987, 20, 2385-2390.	2.2	25
18	A refined hydrogen bond potential for flexible protein models. <i>Journal of Chemical Physics</i> , 2010, 132, 235102.	1.2	25

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19	Radius of gyration and viscosity of linear and star polymers in different regimes. <i>Macromolecules</i> , 1992, 25, 1311-1315.	2.2	24
20	Why Do Protein Folding Rates Correlate with Metrics of Native Topology?. <i>PLoS ONE</i> , 2012, 7, e35599.	1.1	24
21	Numerical simulation of the cyclization dynamics for flexible chains with excluded volume. <i>Macromolecules</i> , 1991, 24, 4673-4678.	2.2	23
22	Brownian dynamics of a flexible polymer. Internal modes and quasielastic scattering function. <i>Journal of Chemical Physics</i> , 1989, 90, 2035-2041.	1.2	21
23	Self-Consistent Mean Field Calculations of Polyelectrolyte-Surfactant Mixtures in Solution and upon Adsorption onto Negatively Charged Surfaces. <i>Polymers</i> , 2020, 12, 624.	2.0	21
24	Translational diffusion, relaxation times, and quasi-elastic scattering of flexible chains with excluded volume and fluctuating hydrodynamic interactions: a Brownian dynamics study. <i>Macromolecules</i> , 1991, 24, 4666-4672.	2.2	20
25	Intramolecular Reaction Rates of Flexible Polymers. 1. Simulation Results and the Classical Theory. <i>Macromolecules</i> , 1998, 31, 8356-8362.	2.2	19
26	A simple simulation model can reproduce the thermodynamic folding intermediate of apoflavodoxin. <i>Proteins: Structure, Function and Bioinformatics</i> , 2010, 78, 73-82.	1.5	18
27	Hydrophobic confinement modulates thermal stability and assists knotting in the folding of tangled proteins. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 11764-11775.	1.3	18
28	Lower bounds for the intrinsic viscosity of flexible polymers. Comparison with Brownian dynamics simulation results for different types of chains. <i>Computer Physics Communications</i> , 1990, 61, 297-303.	3.0	17
29	Improvement of Structure-Based Potentials for Protein Folding by Native and Nonnative Hydrogen Bonds. <i>Biophysical Journal</i> , 2011, 101, 1474-1482.	0.2	17
30	Simple model for the simulation of peptide folding and aggregation with different sequences. <i>Journal of Chemical Physics</i> , 2012, 136, 215103.	1.2	17
31	Brownian dynamics of nonlinear Gaussian chains with fluctuating hydrodynamic interactions. 1. Star chains. <i>Macromolecules</i> , 1990, 23, 3948-3953.	2.2	16
32	Computer simulation of the folding of coiled coils. <i>Journal of Chemical Physics</i> , 1994, 100, 2267-2276.	1.2	16
33	Topology-based models and NMR structures in protein folding simulations. <i>Journal of Computational Chemistry</i> , 2009, 30, 1212-1219.	1.5	16
34	Cyclization dynamics of flexible polymers. Numerical results from Brownian trajectories. <i>Macromolecules</i> , 1990, 23, 2057-2061.	2.2	15
35	The shape of two-dimensional linear and star polymers with and without excluded volume. <i>Journal of Chemical Physics</i> , 1991, 95, 608-611.	1.2	15
36	Monte Carlo simulation of the dynamics and quasielastic scattering in many-chain polymer systems. <i>Macromolecules</i> , 1992, 25, 3266-3272.	2.2	14

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37	Dynamicâ€mechanical and light scattering study of the glass transition of poly(vinylacetate) and a poly(vinylacetate) +poly(4â€hydroxystyrene) blend. Journal of Chemical Physics, 1994, 100, 3258-3267.	1.2	14
38	Intramolecular Reaction Rates of Flexible Polymers. 2. Comparison with the Renormalization Group Theory. Macromolecules, 1998, 31, 8363-8369.	2.2	14
39	The protein folding transition state: Insights from kinetics and thermodynamics. Journal of Chemical Physics, 2010, 133, 125102.	1.2	14
40	How determinant is N-terminal to C-terminal coupling for protein folding?. Physical Chemistry Chemical Physics, 2015, 17, 3512-3524.	1.3	14
41	Conformation of A2B and A3B Miktoarm Star Copolymers in Dilute Solutions. Macromolecules, 1996, 29, 5599-5604.	2.2	13
42	Influence of the chain stiffness on the thermodynamics of a GÅ•type model for protein folding. Journal of Chemical Physics, 2007, 126, 165103.	1.2	12
43	Simulating protein unfolding under pressure with a coarse-grained model. Journal of Chemical Physics, 2012, 137, 185102.	1.2	12
44	Conformational properties of flexible polymer chains in highly confined environments. Journal of Chemical Physics, 1997, 106, 5720-5730.	1.2	11
45	Evaluation of coarse grained models for hydrogen bonds in proteins. Journal of Computational Chemistry, 2007, 28, 1187-1199.	1.5	11
46	Simulations of the protein folding process using topology-based models depend on the experimental structure. Journal of Chemical Physics, 2008, 129, 115101.	1.2	8
47	Frequencyâ€dependent viscosity of linear, ring, and star Gaussian chains with fluctuating hydrodynamic interactions. Journal of Chemical Physics, 1990, 92, 6278-6282.	1.2	7
48	Energy minimizations with a combination of two knowledgeâ€based potentials for protein folding. Journal of Computational Chemistry, 2008, 29, 1684-1692.	1.5	7
49	Topology-based potentials and the study of the competition between protein folding and aggregation. Journal of Chemical Physics, 2009, 130, 115101.	1.2	7
50	Dynamic scattering function for diblock copolymer chains in dilute solutions. Journal of Chemical Physics, 1994, 101, 2455-2462.	1.2	6
51	Frequencyâ€dependent viscosity of linear polymer chains. Influence of nonâ€Gaussian effects. Journal of Chemical Physics, 1995, 102, 6900-6907.	1.2	6
52	Dynamics of chains in excluded volume conditions: Frequencyâ€dependent viscosity of regular star chains. Journal of Chemical Physics, 1996, 104, 758-766.	1.2	6
53	Numerical simulation of the scattering form factor of star polymers. Computational and Theoretical Polymer Science, 1997, 7, 243-252.	1.1	6
54	Relaxation of flexible chains in dilute and non-dilute systems. Dynamic Monte Carlo results for linear and star chains. Macromolecular Theory and Simulations, 1999, 8, 321-327.	0.6	6

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55	Evolutionary method for the assembly of rigid protein fragments. <i>Journal of Computational Chemistry</i> , 2005, 26, 131-141.	1.5	6
56	Design of a Rotamer Library for Coarse-Grained Models in Protein-Folding Simulations. <i>Journal of Chemical Information and Modeling</i> , 2014, 54, 302-313.	2.5	6
57	Behavior of Proteins under Pressure from Experimental Pressure-Dependent Structures. <i>Journal of Physical Chemistry B</i> , 2021, 125, 6179-6191.	1.2	6
58	Crosslinking of poly(allylamine) with esters of diimidic acids in aqueous media. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1989, 10, 675-681.	1.1	5
59	Influence of the hydrophobic face width on the degree of association of coiled-coil proteins. <i>Journal of Chemical Physics</i> , 2002, 117, 10321-10328.	1.2	4
60	Assessment of protein folding potentials with an evolutionary method. <i>Journal of Chemical Physics</i> , 2006, 125, 014904.	1.2	4
61	Sketching protein aggregation with a physics-based toy model. <i>Journal of Chemical Physics</i> , 2013, 139, 115101.	1.2	4
62	Brownian dynamics of nonlinear Gaussian chains with fluctuating hydrodynamic interactions. 2. Rings. <i>Macromolecules</i> , 1990, 23, 3953-3957.	2.2	3
63	Simplified model for the analysis of interaction types in two-stranded coiled-coils. <i>Journal of Chemical Physics</i> , 1999, 111, 2311-2321.	1.2	3
64	Peptide length dependence of a simplified model for the folding of regular two-stranded coiled-coils. <i>Macromolecular Theory and Simulations</i> , 2000, 9, 534-542.	0.6	3
65	Evaluation of a mean field potential for protein folding with different interaction centers. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2006, 371, 449-462.	1.2	3
66	On the use of the gaussian chain as a monte carlo simulation model for the equilibrium properties of polymer solutions. <i>Macromolecular Theory and Simulations</i> , 1997, 6, 271-286.	0.6	2
67	Thermodynamic aspects in a simplified model for the folding of two-stranded coiled-coils. <i>Journal of Chemical Physics</i> , 2000, 113, 11343-11354.	1.2	2
68	Intermediates in the folding equilibrium of repeat proteins from the TPR family. <i>European Biophysics Journal</i> , 2014, 43, 433-443.	1.2	2
69	Design of a structure-based model for protein folding from flexible conformations. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 6544-6552.	1.3	2
70	Influence of the Helical Backbone in the Behavior of a Simple Model for Dimeric Coiled-Coil Proteins. <i>Macromolecular Theory and Simulations</i> , 2003, 12, 669-678.	0.6	1