Joseph E Curtis

List of Publications by Year
in descending order

43 papers	1,385 citations	394421 19 h-index	345221 36 g-index
44 all docs	44 docs citations	44 times ranked	1649 citing authors

#	Article	IF	Citations
1	Observation of Small Cluster Formation in Concentrated Monoclonal Antibody Solutions and Its Implications to Solution Viscosity. Biophysical Journal, 2014, 106, 1763-1770.	0.5	146
2	Conformation of the HIV-1 Gag Protein in Solution. Journal of Molecular Biology, 2007, 365, 812-824.	4.2	126
3	SASSIE: A program to study intrinsically disordered biological molecules and macromolecular ensembles using experimental scattering restraints. Computer Physics Communications, 2012, 183, 382-389.	7.5	118
4	HIV-1 Gag Extension: Conformational Changes Require Simultaneous Interaction with Membrane and Nucleic Acid. Journal of Molecular Biology, 2011, 406, 205-214.	4.2	103
5	Structural model of an mRNA in complex with the bacterial chaperone Hfq. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17134-17139.	7.1	70
6	Atomistic modelling of scattering data in the Collaborative Computational Project for Small Angle Scattering (CCP-SAS). Journal of Applied Crystallography, 2016, 49, 1861-1875.	4.5	67
7	Linkage-specific conformational ensembles of non-canonical polyubiquitin chains. Physical Chemistry Chemical Physics, 2016, 18, 5771-5788.	2.8	58
8	Electrostatic Interactions and Binding Orientation of HIV-1 Matrix Studied by Neutron Reflectivity. Biophysical Journal, 2010, 99, 2516-2524.	0.5	49
9	Neutron scattering in the biological sciences: progress and prospects. Acta Crystallographica Section D: Structural Biology, 2018, 74, 1129-1168.	2.3	47
10	Deuterium Labeling Together with Contrast Variation Small-Angle Neutron Scattering Suggests How Skp Captures and Releases Unfolded Outer Membrane Proteins. Methods in Enzymology, 2016, 566, 159-210.	1.0	46
11	Small-Angle Neutron Scattering Study of a Monoclonal Antibody Using Free-Energy Constraints. Journal of Physical Chemistry B, 2013, 117, 14029-14038.	2.6	45
12	Small-Angle Neutron Scattering Study of Protein Crowding in Liquid and Solid Phases: Lysozyme in Aqueous Solution, Frozen Solution, and Carbohydrate Powders. Journal of Physical Chemistry B, 2012, 116, 9653-9667.	2.6	43
13	Investigating Structure and Dynamics of Proteins in Amorphous Phases Using Neutron Scattering. Computational and Structural Biotechnology Journal, 2017, 15, 117-130.	4.1	43
14	Inertial Suppression of Protein Dynamics in a Binary Glycerolâ^'Trehalose Glass. Journal of Physical Chemistry B, 2006, 110, 22953-22956.	2.6	42
15	Rapid and accurate calculation of small-angle scattering profiles using the golden ratio. Journal of Applied Crystallography, 2013, 46, 1171-1177.	4.5	40
16	Pronounced Microheterogeneity in a Sorbitolâ€“Water Mixture Observed through Variable Temperature Neutron Scattering. Journal of Physical Chemistry B, 2012, 116, 4439-4447.	2.6	36
17	Studying Excipient Modulated Physical Stability and Viscosity of Monoclonal Antibody Formulations Using Small-Angle Scattering. Molecular Pharmaceutics, 2019, 16, 4319-4338.	4.6	36
18	Role of Molecular Flexibility and Colloidal Descriptions of Proteins in Crowded Environments from Small-Angle Scattering. Journal of Physical Chemistry B, 2016, 120, 12511-12518.	2.6	30

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19	Neutron Reflectometry Study of the Conformation of HIV Nef Bound toÂLipid Membranes. Biophysical Journal, 2010, 99, 1940-1948.	0.5	22
20	Computational Characterization of Antibodyâ€“Excipient Interactions for Rational Excipient Selection Using the Site Identification by Ligand Competitive Saturation-Biologics Approach. Molecular Pharmaceutics, 2020, 17, 4323-4333.	4.6	20
21	Characterization of the NISTmAb Reference Material using small-angle scattering and molecular simulation. Analytical and Bioanalytical Chemistry, 2018, 410, 2161-2171.	3.7	19
22	Characterization of the NISTmAb Reference Material using small-angle scattering and molecular simulation. Analytical and Bioanalytical Chemistry, 2018, 410, 2141-2159.	3.7	19
23	Protein structure and interactions in the solid state studied by small-angle neutron scattering. Faraday Discussions, 2012, 158, 285.	3.2	17
24	Combined Monte Carlo/torsion-angle molecular dynamics for ensemble modeling of proteins, nucleic acids and carbohydrates. Journal of Molecular Graphics and Modelling, 2017, 73, 179-190.	2.4	14
25	Relaxation dynamics of saturated and unsaturated oriented lipid bilayers. Soft Matter, 2018, 14, 6119-6127.	2.7	13
26	Structural Characterization and Modeling of a Respiratory Syncytial Virus Fusion Glycoprotein Nanoparticle Vaccine in Solution. Molecular Pharmaceutics, 2021, 18, 359-376.	4.6	12
27	Role of Water and Ions on the Dynamical Transition of RNA. Journal of Physical Chemistry Letters, 2013, 4, 3325-3329.	4.6	11
28	Probing the Average Local Structure of Biomolecules Using Small-Angle Scattering and Scaling Laws. Biophysical Journal, 2014, 106, 2474-2482.	0.5	11
29	The GenApp framework integrated with Airavata for managed compute resource submissions. Concurrency Computation Practice and Experience, 2015, 27, 4292-4303.	2.2	11
30	Evaluating the Effects of Hinge Flexibility on the Solution Structure of Antibodies at Concentrated Conditions. Journal of Pharmaceutical Sciences, 2019, 108, 1663-1674.	3.3	10
31	Characterization of Monoclonal Antibodyâ€“Protein Antigen Complexes Using Small-Angle Scattering and Molecular Modeling. Antibodies, 2017, 6, 25.	2.5	9
32	Monte Carlo simulation algorithm for Bâ€ DNA. Journal of Computational Chemistry, 2016, 37, 2553-2563.	3.3	8
33	Phase Behavior of Poloxamer 188 Aqueous Solutions at Subzero Temperatures: A Neutron and X-ray Scattering Study. Journal of Physical Chemistry B, 2021, 125, 1476-1486.	2.6	8
34	BEES: Bayesian Ensemble Estimation from SAS. Biophysical Journal, 2019, 117, 399-407.	0.5	7
35	Effects of Monovalent Salt on Protein-Protein Interactions of Dilute and Concentrated Monoclonal Antibody Formulations. Antibodies, 2022, 11, 24.	2.5	6
36	Solution structure and small angle scattering analysis of TraI (381â€“569). Proteins: Structure, Function and Bioinformatics, 2012, 80, 2250-2261.	2.6	5

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37	SLDMOL: A tool for the structural characterization of thermally disordered membrane proteins. Computer Physics Communications, 2014, 185, 3010-3015.	7.5	4
38	Structures of TraI in solution. Journal of Molecular Modeling, 2014, 20, 2308.	1.8	4
39	Intermediate scattering functions of a rigid body monoclonal antibody protein in solution studied by dissipative particle dynamic simulation. Structural Dynamics, 2021, 8, 024102.	2.3	3
40	GenApp Module Execution and Airavata Integration. , 2014, , .		2
41	A methodology to calculate small-angle scattering profiles of macromolecular solutions from molecular simulations in the grand-canonical ensemble. Journal of Chemical Physics, 2018, 149, 084203.	3.0	2
42	Counting the Water: Characterize the Hydration Level of Aluminum Adjuvants Using Contrast Matching Small-Angle Neutron Scattering. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, , 129285.	4.7	2
43	Styreneâ€“Maleic Acid Copolymer Nanodiscs to Determine the Shape of Membrane Proteins. Journal of Physical Chemistry B, 2022, 126, 1034-1044.	2.6	1