Brigita Urbanc

List of Publications by Year
in descending order

#	Article	IF	Citations
1	In silico study of amyloid Â-protein folding and oligomerization. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 17345-17350.	3.3	327
2	Elucidation of Amyloid Î²-Protein Oligomerization Mechanisms: Discrete Molecular Dynamics Study. Journal of the American Chemical Society, 2010, 132, 4266-4280.	6.6	231
3	Plaque-induced neurite abnormalities: Implications for disruption of neural networks in Alzheimer's disease. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 5274-5279.	3.3	216
4	Neurotoxic effects of thioflavin S-positive amyloid deposits in transgenic mice and Alzheimer's disease. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 13990-13995.	3.3	213
5	Elucidating Amyloid Î²-Protein Folding and Assembly:â€‰ A Multidisciplinary Approach. Accounts of Chemical Research, 2006, 39, 635-645.	7.6	203
6	Molecular Dynamics Simulation of Amyloid Î² Dimer Formation. Biophysical Journal, 2004, 87, 2310-2321.	0.2	194
7	C-terminal peptides coassemble into AÎ²42 oligomers and protect neurons against AÎ²42-induced neurotoxicity. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 14175-14180.	3.3	159
8	Folding events in the 21-30 region of amyloid Â-protein (AÂ) studied in silico. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 6015-6020.	3.3	122
9	Solvent and mutation effects on the nucleation of amyloid Â-protein folding. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 18258-18263.	3.3	113
10	Aggregation and disaggregation of senile plaques in Alzheimer disease. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 7612-7616.	3.3	110
11	Role of Electrostatic Interactions in Amyloid Î²-Protein (AÎ²) Oligomer Formation: A Discrete Molecular Dynamics Study. Biophysical Journal, 2007, 92, 4064-4077.	0.2	108
12	Dimer Formation Enhances Structural Differences between Amyloid Î²-Protein (1â€“40) and (1â€“42): An Explicit-Solvent Molecular Dynamics Study. PLoS ONE, 2012, 7, e34345.	1.1	101
13	Description of microcolumnar ensembles in association cortex and their disruption in Alzheimer and Lewy body dementias. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 5039-5043.	3.3	96
14	AÎ²42 oligomers, but not fibrils, simultaneously bind to and cause damage to ganglioside-containing lipid membranes. Biochemical Journal, 2011, 439, 67-77.	1.7	93
15	Plaque-Induced Abnormalities in Neurite Geometry in Transgenic Models of Alzheimer Disease: Implications for Neural System Disruption. Journal of Neuropathology and Experimental Neurology, 2001, 60, 753-758.	0.9	88
16	Effects of the Arctic (E²²â†'G) Mutation on Amyloid Î²-Protein Folding: Discrete Molecular Dynamics Study. Journal of the American Chemical Society, 2008, 130, 17413-17422.	6.6	73
17	Ab initio Discrete Molecular Dynamics Approach to Protein Folding and Aggregation. Methods in Enzymology, 2006, 412, 314-338.	0.4	65
18	pH-Independence of Trialanine and the Effects of Termini Blocking in Short Peptides: A Combined Vibrational, NMR, UVCD, and Molecular Dynamics Study. Journal of Physical Chemistry B, 2013, 117, 3689-3706.	1.2	64

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19	Thermodynamic model of ferroelectric liquid crystals and its microscopic basis. Ferroelectrics, 1988, 84, 3-14.	0.3	57
20	Mechanistic Investigation of the Inhibition of AÎ²42 Assembly and Neurotoxicity by AÎ²42 C-Terminal Fragments. Biochemistry, 2010, 49, 6358-6364.	1.2	52
21	Microscopic model of the spontaneous polarization in ferroelectric liquid crystals. Liquid Crystals, 1989, 5, 1075-1082.	0.9	50
22	Biophysical Characterization of AÎ²42 C-Terminal Fragments: Inhibitors of AÎ²42 Neurotoxicity. Biochemistry, 2010, 49, 1259-1267.	1.2	49
23	Discrete Molecular Dynamics Study of Oligomer Formation by N-Terminally Truncated Amyloid Î²-Protein. Journal of Molecular Biology, 2013, 425, 2260-2275.	2.0	47
24	Structural Basis for AÎ²1â€“42 Toxicity Inhibition by AÎ² C-Terminal Fragments: Discrete Molecular Dynamics Study. Journal of Molecular Biology, 2011, 410, 316-328.	2.0	46
25	Insights into Aβ Aggregation: A Molecular Dynamics Perspective. Current Topics in Medicinal Chemistry, 2013, 12, 2596-2610.	1.0	44
26	Stabilization of native amyloid Î²-protein oligomers by Copper and Hydrogen peroxide Induced Cross-linking of Unmodified Proteins (CHICUP). Biochimica Et Biophysica Acta - Proteins and Proteomics, 2016, 1864, 249-259.	1.1	40
27	Age-related reduction in microcolumnar structure in area 46 of the rhesus monkey correlates with behavioral decline. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 15846-15851.	3.3	38
28	Computer Simulations of Alzheimers Amyloid β-Protein Folding and Assembly. Current Alzheimer Research, 2006, 3, 493-504.	0.7	36
29	Water-Centered Interpretation of Intrinsic pPII Propensities of Amino Acid Residues: <i>In Vitro</i>-Driven Molecular Dynamics Study. Journal of Physical Chemistry B, 2015, 119, 13237-13251.	1.2	33
30	Sandpile model on the Sierpinski gasket fractal. Physical Review E, 1996, 54, 272-277.	0.8	32
31	Minimal Model of Self-Assembly: Emergence of Diversity and Complexity. Journal of Physical Chemistry B, 2014, 118, 3761-3770.	1.2	29
32	Dynamics of Metastable Î²-Hairpin Structures in the Folding Nucleus of Amyloid Î²-Protein. Journal of Physical Chemistry B, 2012, 116, 6311-6325.	1.2	28
33	A statistically based density map method for identification and quantification of regional differences in microcolumnarity in the monkey brain. Journal of Neuroscience Methods, 2005, 141, 321-332.	1.3	27
34	Fully Atomistic AÎ²40 and AÎ²42 Oligomers in Water: Observation of Porelike Conformations. Journal of Chemical Theory and Computation, 2017, 13, 4567-4583.	2.3	24
35	Nonlinear effects in the dielectric response of ferroelectric liquid crystals. Ferroelectrics, 1991, 113, 219-230.	0.3	23
36	Age-related reduction in microcolumnar structure correlates with cognitive decline in ventral but not dorsal area 46 of the rhesus monkey. Neuroscience, 2009, 158, 1509-1520.	1.1	23

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37	Do Molecular Dynamics Force Fields Capture Conformational Dynamics of Alanine in Water?. Journal of Chemical Theory and Computation, 2020, 16, 510-527.	2.3	22
38	Dynamic feedback in an aggregation-disaggregation model. Physical Review E, 1999, 60, 2120-2126.	0.8	20
39	Microscopic origin of spontaneous polarization in ferroelectric S_Câ^— liquid crystals. Liquid Crystals, 1995, 18, 483-488.	0.9	19
40	Elucidation of insulin assembly at acidic and neutral pH: Characterization of low molecular weight oligomers. Proteins: Structure, Function and Bioinformatics, 2017, 85, 2096-2110.	1.5	18
41	Folding of pig gastric mucin non-glycosylated domains: a discrete molecular dynamics study. Journal of Biological Physics, 2012, 38, 681-703.	0.7	17
42	Automated identification of neurons and their locations. Journal of Microscopy, 2008, 230, 339-352.	0.8	16
43	Theoretical investigation of the behavior of ferroelectric liquid crystals in a magnetic or in a high-frequency electric field. Physical Review E, 1993, 48, 455-464.	0.8	15
44	Phase-excitation spectrum of ferroelectric liquid crystals in an external static electric field. Physical Review E, 1995, 52, 3892-3903.	0.8	15
45	Neuron recognition by parallel Potts segmentation. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3847-3852.	3.3	15
46	Insights into Formation and Structure of AÎ² Oligomers Cross-Linked via Tyrosines. Journal of Physical Chemistry B, 2017, 121, 5523-5535.	1.2	15
47	Insulin Inhibits AÎ²42 Aggregation and Prevents AÎ²42-Induced Membrane Disruption. Biochemistry, 2019, 58, 4519-4529.	1.2	15
48	Glycine in Water Favors the Polyproline II State. Biomolecules, 2020, 10, 1121.	1.8	15
49	Behavior of ferroelectric liquid crystals in external fields. Physical Review E, 1995, 51, 1569-1572.	0.8	14
50	Short peptides as predictors for the structure ofÂpolyarginine sequences in disordered proteins. Biophysical Journal, 2021, 120, 662-676.	0.2	14
51	Statistical physics and Alzheimerâ€™s disease. Physica A: Statistical Mechanics and Its Applications, 1998, 249, 460-471.	1.2	13
52	Assembly of Stefin B into Polymorphic Oligomers Probed by Discrete Molecular Dynamics. Journal of Chemical Theory and Computation, 2015, 11, 2355-2366.	2.3	13
53	Dielectric response of ferroelectricâ^—_Cliquid crystals in a bias electric field. Liquid Crystals, 1993, 15, 103-111.	0.9	12
54	Temporal correlations in a one-dimensional sandpile model. Physical Review E, 1996, 54, 6109-6113.	0.8	10

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55	Amino acid substitutions [K16A] and [K28A] distinctly affect amyloid Î²-protein oligomerization. Journal of Biological Physics, 2016, 42, 453-476.	0.7	10
56	Elucidating the Role of Hydroxylated Phenylalanine in the Formation and Structure of Cross-Linked AÎ² Oligomers. Journal of Physical Chemistry B, 2019, 123, 1068-1084.	1.2	10
57	Generating a model of the three-dimensional spatial distribution of neurons using density maps. NeuroImage, 2008, 40, 1105-1115.	2.1	9
58	Assembly of Amyloid Î²-Protein Variants Containing Familial Alzheimerâ€™s Disease-Linked Amino Acid Substitutions. , 2014, , 429-442.		9
59	Europium as an inhibitor of Amyloidâ€Î²(1â€42) induced membrane permeation. FEBS Letters, 2015, 589, 3228-3236.	1.3	9
60	Cross-Linked Amyloid Î²-Protein Oligomers: A Missing Link in Alzheimerâ€™s Disease Pathology?. Journal of Physical Chemistry B, 2021, 125, 1307-1316.	1.2	9
61	Do molecular dynamics force fields accurately model Ramachandran distributions of amino acid residues in water?. Physical Chemistry Chemical Physics, 2022, 24, 3259-3279.	1.3	9
62	Flexible Nâ€Termini of Amyloid Î²â€Protein Oligomers: A Link between Structure and Activity?. Israel Journal of Chemistry, 2017, 57, 651-664.	1.0	8
63	CTCF-Induced Circular DNA Complexes Observed by Atomic Force Microscopy. Journal of Molecular Biology, 2018, 430, 759-776.	2.0	8
64	The microscopic model of polar and quadrupolar ordering in ferroelectric smectic C[*]liquid crystals. Ferroelectrics, 1991, 113, 151-162.	0.3	6
65	Order parameter and segregated phases in a sandpile model with two particle sizes. Physical Review E, 1997, 56, 1571-1579.	0.8	5
66	Intrinsic Conformational Dynamics of Alanine in Water/Ethanol Mixtures: An Experiment-Driven Molecular Dynamics Study. Journal of Physical Chemistry B, 2020, 124, 11600-11616.	1.2	5
67	A Computational Model for the Loss of Neuronal Organization in Microcolumns. Biophysical Journal, 2014, 106, 2233-2242.	0.2	4
68	Perplexity of Amyloid <i>Î²</i>-Protein Oligomer Formation: Relevance to Alzheimerâ€™s Disease. World Scientific Lecture and Course Notes in Chemistry, 2017, , 1-50.	0.2	4
69	Soluble State of Villin Headpiece Protein as a Tool in the Assessment of MD Force Fields. Journal of Physical Chemistry B, 2021, 125, 6897-6911.	1.2	4
70	The influence of finite dimensions on the static ordering of the S*Cphase in an electric field. Liquid Crystals, 1993, 14, 999-1005.	0.9	3
71	The Role of Di-Tyrosine Bonding in Amyloid Beta-Protein Assembly. Biophysical Journal, 2013, 104, 391a.	0.2	2
72	Towards Inhibition of Amyloid Î²-protein Oligomerization. , 2006, , 515-516.		1

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73	A Computational Study of Amyloid Î²-Protein Assembly in Crowded Environments. Biophysical Journal, 2015, 108, 525a.	0.2	1
74	PLAQUE-INDUCED NEURITE ABNORMALITIES. Journal of Neuropathology and Experimental Neurology, 1999, 58, 557.	0.9	0
75	Possible Isostructural Transitions in the Ferroelectric Liquid Crystals in High External Electric Fields. Molecular Crystals and Liquid Crystals, 2005, 438, 41/[1605]-46/[1610].	0.4	0
76	Molecular Dynamics Simulations of a Single 11-Residue Beta-Sheet Adhesive and its Assembly. Biophysical Journal, 2009, 96, 75a-76a.	0.2	0
77	Computational Study of Assembly and Toxicity Inhibition of Amyloid Beta-Protein and Its Arctic Mutant. Biophysical Journal, 2009, 96, 219a.	0.2	0
78	Minimalistic Approach to Protein Assembly Modelling/Application to the Sickle Cell Hemoglobin Polymerization. Biophysical Journal, 2011, 100, 389a.	0.2	0
79	Is the Amino Acid Dipeptide a Suitable Model for Investigating Structural Preferences in the Unfolded State?. Biophysical Journal, 2012, 102, 253a.	0.2	0
80	Discrete Molecular Dynamics Study of Oligomer Formation by N-Terminally Truncated Amyloid B-Protein. Biophysical Journal, 2013, 104, 389a.	0.2	0
81	Elucidating the Role of Oligomers in Insulin Aggregation using Biophysical Methods. Biophysical Journal, 2015, 108, 387a.	0.2	0
82	DMD4B-HYDRA: Toward a Novel Discrete Molecular Dynamics Protein Model. Biophysical Journal, 2015, 108, 157a.	0.2	0
83	In Vitro Study of the Effect of Insulin on Amyloid Î²-Protein Assembly and Toxicity. Biophysical Journal, 2019, 116, 458a.	0.2	0
84	Self-Assembly of GAG in Ethanol/Water Mixtures Examined by Molecular Dynamics. Biophysical Journal, 2019, 116, 61a.	0.2	0