Brigita Urbanc

List of Publications by Year
in descending order

84 papers	3,661 citations	159525 30 h-index	133188 59 g-index
91 all docs	91 docs citations	91 times ranked	3266 citing authors

#	Article	IF	Citations
1	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
2	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
3	Short peptides as predictors for the structure ofÂpolyarginine sequences in disordered proteins. Biophysical Journal, 2021, 120, 662-676.	0.2	14
4	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
5	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
6	Glycine in Water Favors the Polyproline II State. Biomolecules, 2020, 10, 1121.	1.8	15
7	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
8	Insulin Inhibits AÎ²42 Aggregation and Prevents AÎ²42-Induced Membrane Disruption. Biochemistry, 2019, 58, 4519-4529.	1.2	15
9	In Vitro Study of the Effect of Insulin on Amyloid Î²-Protein Assembly and Toxicity. Biophysical Journal, 2019, 116, 458a.	0.2	0
10	Self-Assembly of GAG in Ethanol/Water Mixtures Examined by Molecular Dynamics. Biophysical Journal, 2019, 116, 61a.	0.2	0
11	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
12	CTCF-Induced Circular DNA Complexes Observed by Atomic Force Microscopy. Journal of Molecular Biology, 2018, 430, 759-776.	2.0	8
13	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
14	Insights into Formation and Structure of AÎ² Oligomers Cross-Linked via Tyrosines. Journal of Physical Chemistry B, 2017, 121, 5523-5535.	1.2	15
15	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
16	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
17	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
18	Amino acid substitutions [K16A] and [K28A] distinctly affect amyloid Î²-protein oligomerization. Journal of Biological Physics, 2016, 42, 453-476.	0.7	10

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19	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
20	Elucidating the Role of Oligomers in Insulin Aggregation using Biophysical Methods. Biophysical Journal, 2015, 108, 387a.	0.2	0
21	DMD4B-HYDRA: Toward a Novel Discrete Molecular Dynamics Protein Model. Biophysical Journal, 2015, 108, 157a.	0.2	0
22	A Computational Study of Amyloid Î²-Protein Assembly in Crowded Environments. Biophysical Journal, 2015, 108, 525a.	0.2	1
23	Europium as an inhibitor of Amyloidâ€Î²(1â€42) induced membrane permeation. FEBS Letters, 2015, 589, 3228-3236.	1.3	9
24	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
25	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
26	Assembly of Amyloid Î²-Protein Variants Containing Familial Alzheimerâ€™s Disease-Linked Amino Acid Substitutions. , 2014, , 429-442.		9
27	Minimal Model of Self-Assembly: Emergence of Diversity and Complexity. Journal of Physical Chemistry B, 2014, 118, 3761-3770.	1.2	29
28	A Computational Model for the Loss of Neuronal Organization in Microcolumns. Biophysical Journal, 2014, 106, 2233-2242.	0.2	4
29	Discrete Molecular Dynamics Study of Oligomer Formation by N-Terminally Truncated Amyloid B-Protein. Biophysical Journal, 2013, 104, 389a.	0.2	0
30	The Role of Di-Tyrosine Bonding in Amyloid Beta-Protein Assembly. Biophysical Journal, 2013, 104, 391a.	0.2	2
31	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
32	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
33	Insights into Aβ Aggregation: A Molecular Dynamics Perspective. Current Topics in Medicinal Chemistry, 2013, 12, 2596-2610.	1.0	44
34	Folding of pig gastric mucin non-glycosylated domains: a discrete molecular dynamics study. Journal of Biological Physics, 2012, 38, 681-703.	0.7	17
35	Is the Amino Acid Dipeptide a Suitable Model for Investigating Structural Preferences in the Unfolded State?. Biophysical Journal, 2012, 102, 253a.	0.2	0
36	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

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37	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
38	Minimalistic Approach to Protein Assembly Modelling/Application to the Sickle Cell Hemoglobin Polymerization. Biophysical Journal, 2011, 100, 389a.	0.2	0
39	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
40	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
41	Elucidation of Amyloid Î²-Protein Oligomerization Mechanisms: Discrete Molecular Dynamics Study. Journal of the American Chemical Society, 2010, 132, 4266-4280.	6.6	231
42	Mechanistic Investigation of the Inhibition of AÎ²42 Assembly and Neurotoxicity by AÎ²42 C-Terminal Fragments. Biochemistry, 2010, 49, 6358-6364.	1.2	52
43	Biophysical Characterization of AÎ²42 C-Terminal Fragments: Inhibitors of AÎ²42 Neurotoxicity. Biochemistry, 2010, 49, 1259-1267.	1.2	49
44	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
45	Molecular Dynamics Simulations of a Single 11-Residue Beta-Sheet Adhesive and its Assembly. Biophysical Journal, 2009, 96, 75a-76a.	0.2	0
46	Computational Study of Assembly and Toxicity Inhibition of Amyloid Beta-Protein and Its Arctic Mutant. Biophysical Journal, 2009, 96, 219a.	0.2	0
47	Automated identification of neurons and their locations. Journal of Microscopy, 2008, 230, 339-352.	0.8	16
48	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
49	Generating a model of the three-dimensional spatial distribution of neurons using density maps. NeuroImage, 2008, 40, 1105-1115.	2.1	9
50	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
51	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
52	Elucidating Amyloid Î²-Protein Folding and Assembly:â€‰ A Multidisciplinary Approach. Accounts of Chemical Research, 2006, 39, 635-645.	7.6	203
53	Ab initio Discrete Molecular Dynamics Approach to Protein Folding and Aggregation. Methods in Enzymology, 2006, 412, 314-338.	0.4	65
54	Towards Inhibition of Amyloid Î²-protein Oligomerization. , 2006, , 515-516.		1

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55	Computer Simulations of Alzheimers Amyloid β-Protein Folding and Assembly. Current Alzheimer Research, 2006, 3, 493-504.	0.7	36
56	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
57	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
58	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
59	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
60	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
61	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
62	Molecular Dynamics Simulation of Amyloid Î² Dimer Formation. Biophysical Journal, 2004, 87, 2310-2321.	0.2	194
63	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
64	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
65	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
66	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
67	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
68	Dynamic feedback in an aggregation-disaggregation model. Physical Review E, 1999, 60, 2120-2126.	0.8	20
69	PLAQUE-INDUCED NEURITE ABNORMALITIES. Journal of Neuropathology and Experimental Neurology, 1999, 58, 557.	0.9	0
70	Statistical physics and Alzheimerâ€™s disease. Physica A: Statistical Mechanics and Its Applications, 1998, 249, 460-471.	1.2	13
71	Order parameter and segregated phases in a sandpile model with two particle sizes. Physical Review E, 1997, 56, 1571-1579.	0.8	5
72	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

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73	Sandpile model on the Sierpinski gasket fractal. Physical Review E, 1996, 54, 272-277.	0.8	32
74	Temporal correlations in a one-dimensional sandpile model. Physical Review E, 1996, 54, 6109-6113.	0.8	10
75	Behavior of ferroelectric liquid crystals in external fields. Physical Review E, 1995, 51, 1569-1572.	0.8	14
76	Phase-excitation spectrum of ferroelectric liquid crystals in an external static electric field. Physical Review E, 1995, 52, 3892-3903.	0.8	15
77	Microscopic origin of spontaneous polarization in ferroelectric S_Câˆ— liquid crystals. Liquid Crystals, 1995, 18, 483-488.	0.9	19
78	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
79	Dielectric response of ferroelectricâˆ—_Cliquid crystals in a bias electric field. Liquid Crystals, 1993, 15, 103-111.	0.9	12
80	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
81	Nonlinear effects in the dielectric response of ferroelectric liquid crystals. Ferroelectrics, 1991, 113, 219-230.	0.3	23
82	The microscopic model of polar and quadrupolar ordering in ferroelectric smectic C[*]liquid crystals. Ferroelectrics, 1991, 113, 151-162.	0.3	6
83	Microscopic model of the spontaneous polarization in ferroelectric liquid crystals. Liquid Crystals, 1989, 5, 1075-1082.	0.9	50
84	Thermodynamic model of ferroelectric liquid crystals and its microscopic basis. Ferroelectrics, 1988, 84, 3-14.	0.3	57