Leonid Breydo

List of Publications by Year
in descending order

82	5,026	147566	91712
papers	citations	31 h-index	69 g-index

94	94	94	7165
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fibril specific, conformation dependent antibodies recognize a generic epitope common to amyloid fibrils and fibrillar oligomers that is absent in prefibrillar oligomers. Molecular Neurodegeneration, 2007, 2, 18.	4.4	655
2	Î±-Synuclein misfolding and Parkinson's disease. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2012, 1822, 261-285.	1.8	526
3	Antiparallel Î²-sheet: a signature structure of the oligomeric amyloid Î²-peptide. Biochemical Journal, 2009, 421, 415-423.	1.7	445
4	Accelerated neurodegeneration through chaperone-mediated oligomerization of tau. Journal of Clinical Investigation, 2013, 123, 4158-4169.	3.9	246
5	In vitro Conversion of Full-length Mammalian Prion Protein Produces Amyloid Form with Physical Properties of PrPSc. Journal of Molecular Biology, 2005, 346, 645-659.	2.0	234
6	Methylene Blue Inhibits Amyloid AÎ² Oligomerization by Promoting Fibrillization. Biochemistry, 2007, 46, 8850-8860.	1.2	200
7	Copper(II) Inhibits in Vitro Conversion of Prion Protein into Amyloid Fibrilsâ€. Biochemistry, 2005, 44, 6776-6787.	1.2	175
8	Beyond the Excluded Volume Effects: Mechanistic Complexity of the Crowded Milieu. Molecules, 2015, 20, 1377-1409.	1.7	157
9	Structural, morphological, and functional diversity of amyloid oligomers. FEBS Letters, 2015, 589, 2640-2648.	1.3	150
10	Fibrillar Oligomers Nucleate the Oligomerization of Monomeric Amyloid Î² but Do Not Seed Fibril Formation. Journal of Biological Chemistry, 2010, 285, 6071-6079.	1.6	143
11	Conformation dependent monoclonal antibodies distinguish different replicating strains or conformers of prefibrillar AÎ² oligomers. Molecular Neurodegeneration, 2010, 5, 57.	4.4	135
12	Polymorphism and Ultrastructural Organization of Prion Protein Amyloid Fibrils: An Insight from High Resolution Atomic Force Microscopy. Journal of Molecular Biology, 2006, 358, 580-596.	2.0	112
13	Intracellular processing of disease-associated Î±-synuclein in the human brain suggests prion-like cell-to-cell spread. Neurobiology of Disease, 2014, 69, 76-92.	2.1	110
14	Role of metal ions in aggregation of intrinsically disordered proteins in neurodegenerative diseases. Metallomics, 2011, 3, 1163.	1.0	108
15	Synthetic prions generated in vitro are similar to a newly identified subpopulation of PrPScfrom sporadic Creutzfeldt-Jakob Disease. Protein Science, 2005, 14, 1222-1232.	3.1	89
16	Chemoenzymatic Synthesis of HIV-1 V3 Glycopeptides Carrying TwoN-Glycans and Effects of Glycosylation on the Peptide Domain. Journal of Organic Chemistry, 2005, 70, 9990-9996.	1.7	82
17	Methionine Oxidation Interferes with Conversion of the Prion Protein into the Fibrillar Proteinase K-Resistant Conformationâ€. Biochemistry, 2005, 44, 15534-15543.	1.2	78
18	The crowd you're in with: Effects of different types of crowding agents on protein aggregation. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 346-357.	1.1	74

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19	Annealing Prion Protein Amyloid Fibrils at High Temperature Results in Extension of a Proteinase K-resistant Core. Journal of Biological Chemistry, 2006, 281, 2373-2379.	1.6	65
20	Structural differences between amyloid beta oligomers. Biochemical and Biophysical Research Communications, 2016, 477, 700-705.	1.0	65
21	Carbonyl-based blue autofluorescence of proteins and amino acids. PLoS ONE, 2017, 12, e0176983.	1.1	62
22	Role of solvent properties of aqueous media in macromolecular crowding effects. Journal of Biomolecular Structure and Dynamics, 2016, 34, 92-103.	2.0	56
23	Site-specific Conformational Studies of Prion Protein (PrP) Amyloid Fibrils Revealed Two Cooperative Folding Domains within Amyloid Structure. Journal of Biological Chemistry, 2007, 282, 9090-9097.	1.6	50
24	Thiol-Independent DNA Alkylation by Leinamycin. Journal of the American Chemical Society, 2001, 123, 2060-2061.	6.6	49
25	Converting the prion protein: What makes the protein infectious. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2007, 1772, 692-703.	1.8	44
26	Intrinsic disorder in proteins involved in amyotrophic lateral sclerosis. Cellular and Molecular Life Sciences, 2017, 74, 1297-1318.	2.4	42
27	The presence of valine at residue 129 in human prion protein accelerates amyloid formation. FEBS Letters, 2005, 579, 2589-2596.	1.3	40
28	Effects of Polymer Hydrophobicity on Protein Structure and Aggregation Kinetics in Crowded Milieu. Biochemistry, 2015, 54, 2957-2966.	1.2	38
29	Vaccination with a non-human random sequence amyloid oligomer mimic results in improved cognitive function and reduced plaque deposition and micro hemorrhage in Tg2576 mice. Molecular Neurodegeneration, 2012, 7, 37.	4.4	34
30	Activation of Leinamycin by Thiols:â€‰ A Theoretical Study. Journal of Organic Chemistry, 2002, 67, 9054-9060.	1.7	33
31	Nonpolar Substitution at the C-Terminus of the Prion Protein, a Mimic of the Glycosylphosphatidylinositol Anchor, Partially Impairs Amyloid Fibril Formationâ€. Biochemistry, 2007, 46, 852-861.	1.2	33
32	Noncovalent DNA Binding Drives DNA Alkylation by Leinamycin: Evidence That the Z,E-5-(Thiazol-4-yl)-penta-2,4-dienone Moiety of the Natural Product Serves as an Atypical DNA Intercalator. Journal of the American Chemical Society, 2011, 133, 17641-17651.	6.6	31
33	Methods for Conversion of Prion Protein into Amyloid Fibrils. Methods in Molecular Biology, 2008, 459, 105-115.	0.4	31
34	Semiautomated cell-free conversion of prion protein: Applications for high-throughput screening of potential antiprion drugs. Analytical Biochemistry, 2005, 339, 165-173.	1.1	29
35	Mechanistic and Structural Analysis of Drosophila melanogaster Arylalkylamine N-Acetyltransferases. Biochemistry, 2014, 53, 7777-7793.	1.2	27
36	Effects of osmolytes on solvent features of water in aqueous solutions. Journal of Biomolecular Structure and Dynamics, 2017, 35, 1055-1068.	2.0	27

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37	Agrochemicals, Î±-Synuclein, and Parkinsonâ€™s Disease. Molecular Neurobiology, 2013, 47, 598-612.	1.9	26
38	Purification, biochemical, and structural characterization of a novel fibrinolytic enzyme from Mucor subtilissimus UCP 1262. Bioprocess and Biosystems Engineering, 2017, 40, 1209-1219.	1.7	26
39	Hemicentin Assembly in the Extracellular Matrix Is Mediated by Distinct Structural Modules*. Journal of Biological Chemistry, 2006, 281, 23606-23610.	1.6	25
40	High throughput characterization of structural differences between closely related proteins in solution. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 583-592.	1.1	25
41	Synthesis and noncovalent DNA-binding properties of thiazole derivatives related to leinamycin. Tetrahedron Letters, 2004, 45, 5711-5716.	0.7	24
42	Dichotomous versus palm-type mechanisms of lateral assembly of amyloid fibrils. Protein Science, 2006, 15, 1334-1341.	3.1	23
43	A hyperbranched dopamine-containing PEG-based polymer for the inhibition of Î±-synuclein fibrillation. Biochemical and Biophysical Research Communications, 2016, 469, 830-835.	1.0	23
44	Targeting the Chameleon: a Focused Look at Î±-Synuclein and Its Roles in Neurodegeneration. Molecular Neurobiology, 2013, 47, 446-459.	1.9	22
45	Thiol-dependent DNA cleavage by 3 H -1,2-benzodithiol-3-one 1,1-dioxide. Bioorganic and Medicinal Chemistry Letters, 2000, 10, 885-889.	1.0	21
46	DNA Alkylation by leinamycin can be triggered by cyanide and phosphines. Bioorganic and Medicinal Chemistry Letters, 2001, 11, 1511-1515.	1.0	19
47	Role of monomer arrangement in the amyloid self-assembly. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2015, 1854, 218-228.	1.1	19
48	Effects of osmolytes on protein-solvent interactions in crowded environment: Analyzing the effect of TMAO on proteins in crowded solutions. Archives of Biochemistry and Biophysics, 2015, 570, 66-74.	1.4	19
49	Î±-Lactalbumin: Of Camels and Cows. Protein and Peptide Letters, 2016, 23, 1072-1080.	0.4	19
50	Human Erythroid 5-Aminolevulinate Synthase Mutations Associated with X-Linked Protoporphyria Disrupt the Conformational Equilibrium and Enhance Product Release. Biochemistry, 2015, 54, 5617-5631.	1.2	18
51	Mechanistic study of the inhibitory activity of Geum urbanum extract against Î±-Synuclein fibrillation. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2016, 1864, 1160-1169.	1.1	18
52	Mechanistic binding insights for 1-deoxy-d-Xylulose-5-Phosphate synthase, the enzyme catalyzing the first reaction of isoprenoid biosynthesis in the malaria-causing protists, Plasmodium falciparum and Plasmodium vivax. Protein Expression and Purification, 2016, 120, 16-27.	0.6	17
53	Effects of Intrinsic and Extrinsic Factors on Aggregation of Physiologically Important Intrinsically Disordered Proteins. International Review of Cell and Molecular Biology, 2017, 329, 145-185.	1.6	17
54	Catalytically active alkaline molten globular enzyme: Effect of pH and temperature on the structural integrity of 5-aminolevulinate synthase. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 2145-2154.	1.1	16

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55	Mechanistic and Structural Analysis of aDrosophila melanogasterEnzyme, ArylalkylamineN-Acetyltransferase Like 7, an Enzyme That Catalyzes the Formation ofN-Acetylarylalkylamides andN-Acetylhistamine. Biochemistry, 2015, 54, 2644-2658.	1.2	16
56	Solvent interaction analysis of intrinsically disordered proteins in aqueous two-phase systems. Molecular BioSystems, 2013, 9, 3068.	2.9	14
57	Repeated repeat problems: Combinatorial effect of C9orf72-derived dipeptide repeat proteins. International Journal of Biological Macromolecules, 2019, 127, 136-145.	3.6	13
58	Disorder in Milk Proteins: ?-Lactalbumin. Part B. A Multifunctional Whey Protein Acting as an Oligomeric Molten Globular â€œOil Containerâ€•in the Anti-Tumorigenic Drugs, Liprotides. Current Protein and Peptide Science, 2016, 17, 612-628.	0.7	13
59	Disorder in Milk Proteins: Î±-Lactalbumin. Part C. Peculiarities of Metal Binding. Current Protein and Peptide Science, 2016, 17, 735-745.	0.7	13
60	Pseudocatalytic Antiaggregation Activity of Antibodies: Immunoglobulins can Influence Î±-Synuclein Aggregation at Substoichiometric Concentrations. Molecular Neurobiology, 2016, 53, 1949-1958.	1.9	12
61	Isoniazid inhibits human erythroid 5-aminolevulinate synthase: Molecular mechanism and tolerance study with four X-linked protoporphyria patients. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2017, 1863, 428-439.	1.8	12
62	When Good Goes Awry: The Aggregation of Protein Therapeutics. Protein and Peptide Letters, 2017, 24, 340-347.	0.4	12
63	Disorder in Milk Proteins: ? -Lactalbumin. Part A. Structural Properties and Conformational Behavior. Current Protein and Peptide Science, 2016, 17, 352-367.	0.7	11
64	Disorder in Milk Proteins: Î±-Lactalbumin. Part A. Structural Properties and Conformational Behavior. Current Protein and Peptide Science, 2016, 17, 352-367.	0.7	11
65	The macrocycle of leinamycin imparts hydrolytic stability to the thiol-sensing 1,2-dithiolan-3-one 1-oxide unit of the natural product. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 3791-3794.	1.0	9
66	Murine erythroid 5-aminolevulinate synthase: Truncation of a disordered N-terminal extension is not detrimental for catalysis. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2016, 1864, 441-452.	1.1	7
67	Two (E,E)- and (Z,E)-thiazol-5-ylpenta-2,4-dienones. Acta Crystallographica Section C: Crystal Structure Communications, 2002, 58, o447-o449.	0.4	6
68	A putative role of the Sup35p C-terminal domain in the cytoskeleton organization during yeast mitosis. Molecular BioSystems, 2014, 10, 925-940.	2.9	5
69	Not all AMLETs are made equal: complexes of cow and camel Î±-lactalbumin with oleic acid show different structure and stability. Journal of Biomolecular Structure and Dynamics, 2018, 36, 4405-4412.	2.0	4
70	Study of ionization of tyrosine residues in proteins by second-derivative UV spectroscopy. Russian Chemical Bulletin, 1997, 46, 1339-1343.	0.4	3
71	Hydrophobicity-dependent effects of polymers on different protein conformations. RSC Advances, 2016, 6, 42971-42983.	1.7	3
72	Molecular Mechanisms of Protein Misfolding. , 2014, , 1-14.		2

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73	Macromolecular crowders and osmolytes modulate the structural and catalytic properties of alkaline molten globular 5-aminolevulinate synthase. RSC Advances, 2016, 6, 114541-114552.	1.7	2
74	The unfolding pathways of the native and molten globule states of 5-aminolevulinate synthase. Biochemical and Biophysical Research Communications, 2016, 480, 321-327.	1.0	2
75	Boron, Biologically Active Compounds. , 2013, , 295-299.		2
76	Strain phenomenon in protein aggregation. Intrinsically Disordered Proteins, 2013, 1, e27130.	1.9	1
77	Arsenic, Biologically Active Compounds. , 2013, , 143-149.		1
78	Conformation-Dependent Antibodies as Tools for Characterization of Amyloid Protein Aggregates. , 2014, , 81-94.		0
79	[P4â€“103]: PROLINE ISOMERIZATION CONTROLS TOXIC AMYLOID FORMATION. Alzheimer's and Dementia, 2017, 13, P1297.	0.4	0
80	Selenium, Biologically Active Compounds. , 2013, , 1919-1924.		0
81	Silicon, Biologically Active Compounds. , 2013, , 1996-1998.		0
82	Phytochemicals as Antiaggregation Agents in Neurodegenerative Diseases. , 2017, , 333-354.		0