Vytautas Smirnovas

List of Publications by Year
in descending order

70 papers	2,153 citations	201385 27 h-index	243296 44 g-index
74 all docs	74 docs citations	74 times ranked	2502 citing authors

#	Article	IF	Citations
1	Structural organization of brain-derived mammalian prions examined by hydrogen-deuterium exchange. Nature Structural and Molecular Biology, 2011, 18, 504-506.	3.6	206
2	Insulin forms amyloid in a strain-dependent manner: An FT-IR spectroscopic study. Protein Science, 2004, 13, 1927-1932.	3.1	125
3	Ethanol-Perturbed Amyloidogenic Self-Assembly of Insulin:â€‰ Looking for Origins of Amyloid Strains. Biochemistry, 2005, 44, 8948-8958.	1.2	111
4	Solvation-assisted Pressure Tuning of Insulin Fibrillation: From Novel Aggregation Pathways to Biotechnological Applications. Journal of Molecular Biology, 2006, 356, 497-509.	2.0	106
5	Interplay between Hydrogen Bonding and Macromolecular Architecture Leading to Unusual Phase Behavior in Thermosensitive Microgels. Angewandte Chemie - International Edition, 2008, 47, 338-341.	7.2	90
6	Cytotoxicity of Insulin within its Self-assembly and Amyloidogenic Pathways. Journal of Molecular Biology, 2007, 370, 372-384.	2.0	82
7	Distinct Structures of Scrapie Prion Protein (PrPSc)-seeded Versus Spontaneous Recombinant Prion Protein Fibrils Revealed by Hydrogen/Deuterium Exchange. Journal of Biological Chemistry, 2009, 284, 24233-24241.	1.6	78
8	Discovery and Characterization of Novel Selective Inhibitors of Carbonic Anhydrase IX. Journal of Medicinal Chemistry, 2014, 57, 9435-9446.	2.9	72
9	New Insights into the Self-Assembly of Insulin Amyloid Fibrils:Â An Hâ˘'D Exchange FT-IR Studyâ€. Biochemistry, 2006, 45, 8143-8151.	1.2	63
10	Copolymer Microgels from Mono- and Disubstituted Acrylamides: Phase Behavior and Hydrogen Bonds. Macromolecules, 2008, 41, 6830-6836.	2.2	63
11	Effect of Pressure on Islet Amyloid Polypeptide Aggregation: Revealing the Polymorphic Nature of the Fibrillation Process. Biochemistry, 2008, 47, 6352-6360.	1.2	53
12	pH-Driven Polymorphism of Insulin Amyloid-Like Fibrils. PLoS ONE, 2015, 10, e0136602.	1.1	53
13	Conformational Stability of Mammalian Prion Protein Amyloid Fibrils Is Dictated by a Packing Polymorphism within the Core Region. Journal of Biological Chemistry, 2014, 289, 2643-2650.	1.6	46
14	A conformational Î±-helix to Î²-sheet transition accompanies racemic self-assembly of polylysine: an FT-IR spectroscopic study. Biophysical Chemistry, 2005, 115, 49-54.	1.5	44
15	Finkeâ€"Watzky Two-Step Nucleationâ€"Autocatalysis Model of S100A9 Amyloid Formation: Protein Misfolding as â€œNucleationâ€•Event. ACS Chemical Neuroscience, 2017, 8, 2152-2158.	1.7	40
16	Thermodynamic Properties Underlying the Î±-Helix-to-Î²-Sheet Transition, Aggregation, and Amyloidogenesis of Polylysine as Probed by Calorimetry, Densimetry, and Ultrasound Velocimetry. Journal of Physical Chemistry B, 2005, 109, 19043-19045.	1.2	36
17	Protein Amyloidogenesis in the Context of Volume Fluctuations: A Case Study on Insulin. ChemPhysChem, 2006, 7, 1046-1049.	1.0	36
18	Template-controlled conformational patterns of insulin fibrillar self-assembly reflect history of solvation of the amyloid nuclei. Physical Chemistry Chemical Physics, 2005, 7, 1349.	1.3	35

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19	Extracellular tau induces microglial phagocytosis of living neurons in cell cultures. Journal of Neurochemistry, 2020, 154, 316-329.	2.1	35
20	Effects of Lipid Confinement on Insulin Stability and Amyloid Formation. Langmuir, 2007, 23, 7118-7126.	1.6	34
21	Revealing Different Aggregation Pathways of Amyloidogenic Proteins by Ultrasound Velocimetry. Biophysical Journal, 2008, 94, 3241-3246.	0.2	34
22	Flavone Derivatives as Inhibitors of Insulin Amyloid-Like Fibril Formation. PLoS ONE, 2015, 10, e0121231.	1.1	33
23	Artificial strain of human prions created in vitro. Nature Communications, 2018, 9, 2166.	5.8	33
24	The Environment Is a Key Factor in Determining the Anti-Amyloid Efficacy of EGCG. Biomolecules, 2019, 9, 855.	1.8	32
25	The effects of various membrane physicalâ€“chemical properties on the aggregation kinetics of insulin. Chemistry and Physics of Lipids, 2007, 149, 28-39.	1.5	29
26	Looking for a generic inhibitor of amyloid-like fibril formation among flavone derivatives. PeerJ, 2015, 3, e1271.	0.9	29
27	Picomolar inhibitors of carbonic anhydrase: Importance of inhibition and binding assays. Analytical Biochemistry, 2017, 522, 61-72.	1.1	27
28	Effect of Ionic Strength on Thioflavin-T Affinity to Amyloid Fibrils and Its Fluorescence Intensity. International Journal of Molecular Sciences, 2020, 21, 8916.	1.8	26
29	Elongation of Mouse Prion Protein Amyloid-Like Fibrils: Effect of Temperature and Denaturant Concentration. PLoS ONE, 2014, 9, e94469.	1.1	23
30	Formation of distinct prion protein amyloid fibrils under identical experimental conditions. Scientific Reports, 2020, 10, 4572.	1.6	23
31	Self-inhibition of insulin amyloid-like aggregation. Physical Chemistry Chemical Physics, 2018, 20, 27638-27645.	1.3	22
32	Identifying Insulin Fibril Conformational Differences by Thioflavin-T Binding Characteristics. Biomacromolecules, 2020, 21, 4989-4997.	2.6	20
33	Templating S100A9 amyloids on Aî² fibrillar surfaces revealed by charge detection mass spectrometry, microscopy, kinetic and microfluidic analyses. Chemical Science, 2020, 11, 7031-7039.	3.7	20
34	Concentration-dependent polymorphism of insulin amyloid fibrils. PeerJ, 2019, 7, e8208.	0.9	20
35	MIRRAGGE â€“ Minimum Information Required for Reproducible AGGregation Experiments. Frontiers in Molecular Neuroscience, 2020, 13, 582488.	1.4	19
36	Synthesis of new SAM-forming ferrocene derivatives and their interfacial properties on gold. Tetrahedron Letters, 2001, 42, 7691-7694.	0.7	18

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37	Gallic acid oxidation products alter the formation pathway of insulin amyloid fibrils. Scientific Reports, 2020, 10, 14466.	1.6	18
38	Natural Compound from Olive Oil Inhibits S100A9 Amyloid Formation and Cytotoxicity: Implications for Preventing Alzheimerâ€™s Disease. ACS Chemical Neuroscience, 2021, 12, 1905-1918.	1.7	18
39	Amyloid-Like Fibril Elongation Follows Michaelis-Menten Kinetics. PLoS ONE, 2013, 8, e68684.	1.1	17
40	Polymorphism of amyloid-like fibrils can be defined by the concentration of seeds. PeerJ, 2015, 3, e1207.	0.9	17
41	Additional Thioflavin-T Binding Mode in Insulin Fibril Inner Core Region. Journal of Physical Chemistry B, 2019, 123, 8727-8732.	1.2	17
42	Temperature-Dependent Structural Variability of Prion Protein Amyloid Fibrils. International Journal of Molecular Sciences, 2021, 22, 5075.	1.8	17
43	Polymorphism of Alpha-Synuclein Amyloid Fibrils Depends on Ionic Strength and Protein Concentration. International Journal of Molecular Sciences, 2021, 22, 12382.	1.8	17
44	Distinct Neurotoxic Effects of Extracellular Tau Species in Primary Neuronal-Glial Cultures. Molecular Neurobiology, 2021, 58, 658-667.	1.9	16
45	Polyoxometalates as Effective Nano-inhibitors of Amyloid Aggregation of Pro-inflammatory S100A9 Protein Involved in Neurodegenerative Diseases. ACS Applied Materials & Interfaces, 2021, 13, 26721-26734.	4.0	15
46	Amyloidophilic Molecule Interactions on the Surface of Insulin Fibrils: Cooperative Binding and Fluorescence Quenching. Scientific Reports, 2019, 9, 20303.	1.6	14
47	Pro-Inflammatory S100A9 Protein Aggregation Promoted by NCAM1 Peptide Constructs. ACS Chemical Biology, 2019, 14, 1410-1417.	1.6	13
48	S100A9 Alters the Pathway of Alpha-Synuclein Amyloid Aggregation. International Journal of Molecular Sciences, 2021, 22, 7972.	1.8	13
49	Methylene blue inhibits nucleation and elongation of SOD1 amyloid fibrils. PeerJ, 2020, 8, e9719.	0.9	13
50	Chaperones mainly suppress primary nucleation during formation of functional amyloid required for bacterial biofilm formation. Chemical Science, 2022, 13, 536-553.	3.7	10
51	Lysozyme Amyloid Fibril Structural Variability Dependence on Initial Protein Folding State. International Journal of Molecular Sciences, 2022, 23, 5421.	1.8	10
52	Emergence of visible light optical properties of L-phenylalanine aggregates. PeerJ, 2019, 7, e6518.	0.9	9
53	Exploring the potential of deep-blue autofluorescence for monitoring amyloid fibril formation and dissociation. PeerJ, 2019, 7, e7554.	0.9	9
54	Title is missing!. Journal of Analytical Chemistry, 2003, 58, 1038-1042.	0.4	8

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55	Lysozyme Fibrils Alter the Mechanism of Insulin Amyloid Aggregation. International Journal of Molecular Sciences, 2021, 22, 1775.	1.8	7
56	Interplay between epigallocatechin-3-gallate and ionic strength during amyloid aggregation. PeerJ, 2021, 9, e12381.	0.9	7
57	Exploring the occurrence of thioflavin-T-positive insulin amyloid aggregation intermediates. PeerJ, 2021, 9, e10918.	0.9	6
58	Bioinformatics methods for identification of amyloidogenic peptides show robustness to misannotated training data. Scientific Reports, 2021, 11, 8934.	1.6	5
59	Using lysozyme amyloid fibrils as a means of scavenging aggregationâ€inhibiting compounds. Biotechnology Journal, 2021, 16, e2100138.	1.8	5
60	Autoxidation Enhances Anti-Amyloid Potential of Flavone Derivatives. Antioxidants, 2021, 10, 1428.	2.2	5
61	Mapping human calreticulin regions important for structural stability. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2021, 1869, 140710.	1.1	5
62	Aggregation Conditionâ€"Structure Relationship of Mouse Prion Protein Fibrils. International Journal of Molecular Sciences, 2021, 22, 9635.	1.8	4
63	Self-Replication of Prion Protein Fragment 89-230 Amyloid Fibrils Accelerated by Prion Protein Fragment 107-143 Aggregates. International Journal of Molecular Sciences, 2020, 21, 7410.	1.8	3
64	Human Polymerase Î´-Interacting Protein 2 (PolDIP2) Inhibits the Formation of Human Tau Oligomers and Fibrils. International Journal of Molecular Sciences, 2021, 22, 5768.	1.8	3
65	Islet amyloid polypeptide and high hydrostatic pressure: towards an understanding of the fibrillization process. Journal of Physics: Conference Series, 2008, 121, 112002.	0.3	2
66	Effects of Pulsed Electric Fields on Yeast with Prions and the Structure of Amyloid Fibrils. Applied Sciences (Switzerland), 2021, 11, 2684.	1.3	2
67	Superoxide dismutase-1 alters the rate of prion protein aggregation and resulting fibril conformation. Archives of Biochemistry and Biophysics, 2022, 715, 109096.	1.4	2
68	Interactions between S100A9 and Alpha-Synuclein: Insight from NMR Spectroscopy. International Journal of Molecular Sciences, 2022, 23, 6781.	1.8	2
69	Co-Aggregation of S100A9 with DOPA and Cyclen-Based Compounds Manifested in Amyloid Fibril Thickening without Altering Rates of Self-Assembly. International Journal of Molecular Sciences, 2021, 22, 8556.	1.8	1
70	Polymorphism of Prion Protein Amyloid-Like Fibrils. Biophysical Journal, 2018, 114, 429a.	0.2	0