Wojciech Dzwolak

List of Publications by Year
in descending order

82 papers	2,694 citations	201674 27 h-index	189892 50 g-index
87 all docs	87 docs citations	87 times ranked	2844 citing authors

#	Article	IF	Citations
1	Virtual Quasi-2D Intermediates as Building Blocks for Plausible Structural Models of Amyloid Fibrils from Proteins with Complex Topologies: A Case Study of Insulin. Langmuir, 2022, 38, 7024-7034.	3.5	5
2	Exploring the polymorphism, conformational dynamics and function of amyloidogenic peptides and proteins by temperature and pressure modulation. Biophysical Chemistry, 2021, 268, 106506.	2.8	14
3	The Hunt for Ancient Prions: Archaeal Prion-Like Domains Form Amyloid-Based Epigenetic Elements. Molecular Biology and Evolution, 2021, 38, 2088-2103.	8.9	15
4	A tale of two tails: Self-assembling properties of A- and B-chain parts of insulin's highly amyloidogenic H-fragment. International Journal of Biological Macromolecules, 2021, 186, 510-518.	7.5	7
5	Neurotoxicity of oligomers of phosphorylated Tau protein carrying tauopathy-associated mutation is inhibited by prion protein. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2021, 1867, 166209.	3.8	8
6	Selective and stoichiometric incorporation of ATP by self-assembling amyloid fibrils. Journal of Materials Chemistry B, 2021, 9, 8626-8630.	5.8	9
7	Multiscale Modeling of Amyloid Fibrils Formed by Aggregating Peptides Derived from the Amyloidogenic Fragment of the A-Chain of Insulin. International Journal of Molecular Sciences, 2021, 22, 12325.	4.1	4
8	pH-Responsive mixed-thiol-modified surface of roughened GaN: A wettability and SERS study. Applied Surface Science, 2020, 502, 144108.	6.1	6
9	Extremely Amyloidogenic Single-Chain Analogues of Insulinâ€™s H-Fragment: Structural Adaptability of an Amyloid Stretch. Langmuir, 2020, 36, 12150-12159.	3.5	12
10	Reduction of a disulfide-constrained oligo-glutamate peptide triggers self-assembly of Î²2-type amyloid fibrils with the chiroptical properties determined by supramolecular chirality. International Journal of Biological Macromolecules, 2020, 162, 866-872.	7.5	0
11	Rapid self-association of highly amyloidogenic H-fragments of insulin: Experiment and molecular dynamics simulations. International Journal of Biological Macromolecules, 2020, 150, 894-903.	7.5	5
12	SERS and DFT Study of Noble-Metal-Anchored Cys-Trp/Trp-Cys Dipeptides: Influence of Main-Chain Direction and Terminal Modifications. Journal of Physical Chemistry C, 2020, 124, 7097-7116.	3.1	16
13	Docking interactions determine early cleavage events in insulin proteolysis by pepsin: Experiment and simulation. International Journal of Biological Macromolecules, 2020, 149, 1151-1160.	7.5	12
14	Revisiting the conformational state of albumin conjugated to gold nanoclusters: A self-assembly pathway to giant superstructures unraveled. PLoS ONE, 2019, 14, e0218975.	2.5	11
15	Reversible Freeze-Induced Î²-Sheet-to-Disorder Transition in Aggregated Homopolypeptide System. Journal of Physical Chemistry B, 2019, 123, 9080-9086.	2.6	8
16	Beyond amino acid sequence: disulfide bonds and the origins of the extreme amyloidogenic properties of insulin's Hâ€fragment. FEBS Journal, 2019, 286, 3194-3205.	4.7	11
17	Î²2-Type Amyloidlike Fibrils of Poly-l-glutamic Acid Convert into Long, Highly Ordered Helices upon Dissolution in Dimethyl Sulfoxide. Journal of Physical Chemistry B, 2018, 122, 11895-11905.	2.6	7
18	Amyloidogenic cross-seeding of Tau protein: Transient emergence of structural variants of fibrils. PLoS ONE, 2018, 13, e0201182.	2.5	30

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19	Conducting microhelices from self-assembly of protein fibrils. Soft Matter, 2017, 13, 4412-4417.	2.7	16
20	Amyloidogenesis of Tau protein. Protein Science, 2017, 26, 2126-2150.	7.6	102
21	Effects of terminal capping on the fibrillation of short (L-Glu)n peptides. Colloids and Surfaces B: Biointerfaces, 2017, 159, 861-868.	5.0	3
22	Mellitate: A multivalent anion with extreme charge density causes rapid aggregation and misfolding of wild type lysozyme at neutral pH. PLoS ONE, 2017, 12, e0187328.	2.5	4
23	Thioflavinâ€…T: Electronic Circular Dichroism and Circularly Polarized Luminescence Induced by Amyloid Fibrils. ChemPhysChem, 2016, 17, 2931-2937.	2.1	33
24	Molecules of Congo red caught hopping between insulin fibrils: a chiroptical probe of the dyeâ€"amyloid binding dynamics. RSC Advances, 2016, 6, 97331-97337.	3.6	3
25	The emergence of superstructural order in insulin amyloid fibrils upon multiple rounds of self-seeding. Scientific Reports, 2016, 6, 32022.	3.3	16
26	Beware of Cocktails: Chain-Length Bidispersity Triggers Explosive Self-Assembly of Poly-<scp>l</scp>-Glutamic Acid Î²₂-Fibrils. Biomacromolecules, 2016, 17, 1376-1382.	5.4	14
27	Dimethyl Sulfoxide Induced Destabilization and Disassembly of Various Structural Variants of Insulin Fibrils Monitored by Vibrational Circular Dichroism. Biochemistry, 2015, 54, 7193-7202.	2.5	23
28	Size-dependent density of zirconia nanoparticles. Beilstein Journal of Nanotechnology, 2015, 6, 27-35.	2.8	49
29	Amyloidogenic Properties of Short Î±-<scp>l</scp>-Glutamic Acid Oligomers. Langmuir, 2015, 31, 10500-10507.	3.5	21
30	On the Function and Fate of Chloride Ions in Amyloidogenic Self-Assembly of Insulin in an Acidic Environment: Salt-Induced Condensation of Fibrils. Langmuir, 2015, 31, 2180-2186.	3.5	11
31	Highly Amyloidogenic Two-chain Peptide Fragments Are Released upon Partial Digestion of Insulin with Pepsin. Journal of Biological Chemistry, 2015, 290, 5947-5958.	3.4	29
32	DMSO Induced Breaking up of Insulin Fibrils Monitored by Vibrational Circular Dichroism. Biophysical Journal, 2015, 108, 387a.	0.5	0
33	On the Heat Stability of Amyloid-Based Biological Activity: Insights from Thermal Degradation of Insulin Fibrils. PLoS ONE, 2014, 9, e86320.	2.5	23
34	Covalent Defects Restrict Supramolecular Self-Assembly of Homopolypeptides: Case Study of Î²2-Fibrils of Poly-L-Glutamic Acid. PLoS ONE, 2014, 9, e105660.	2.5	8
35	Master and Slave Relationship Between Two Types of Self-Propagating Insulin Amyloid Fibrils. Journal of Physical Chemistry B, 2014, 118, 13582-13589.	2.6	16
36	Chirality and Chiroptical Properties of Amyloid Fibrils. Chirality, 2014, 26, 580-587.	2.6	30

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37	Electronic Circular Dichroism Spectroscopy in Structural Analysis of Biomolecular Systems. Challenges and Advances in Computational Chemistry and Physics, 2014, , 161-177.	0.6	1
38	Supramolecular photochirogenesis with functional amyloid superstructures. Chemical Communications, 2013, 49, 8916.	4.1	10
39	Chirality inversions in self-assembly of fibrillar superstructures: a computational study. Soft Matter, 2013, 9, 8005.	2.7	13
40	Conformational Memory Effect Reverses Chirality of Vortex-Induced Insulin Amyloid Superstructures. Langmuir, 2013, 29, 365-370.	3.5	18
41	Amino acid sequence determinants in selfâ€assembly of insulin chiral amyloid superstructures: Role of Câ€terminus of Bâ€chain in association of fibrils. FEBS Letters, 2013, 587, 625-630.	2.8	26
42	Vortex-Induced Amyloid Superstructures of Insulin and Its Component A and B Chains. Langmuir, 2013, 29, 5271-5278.	3.5	19
43	Cross-Seeding of Fibrils from Two Types of Insulin Induces New Amyloid Strains. Biochemistry, 2012, 51, 9460-9469.	2.5	54
44	On the DMSO-Dissolved State of Insulin: A Vibrational Spectroscopic Study of Structural Disorder. Journal of Physical Chemistry B, 2012, 116, 11863-11871.	2.6	24
45	An FT-IR Study on Packing Defects in Mixed Î²-Aggregates of Poly(<scp>l</scp>-glutamic acid) and Poly(<scp>d</scp>-glutamic acid): A High-Pressure Rescue from a Kinetic Trap. Journal of Physical Chemistry B, 2012, 116, 5172-5178.	2.6	23
46	Thioflavin T forms a non-fluorescent complex with Î±-helical poly-l-glutamic acid. Chemical Communications, 2011, 47, 10686.	4.1	24
47	Spiral Superstructures of Amyloid-Like Fibrils of Polyglutamic Acid: An Infrared Absorption and Vibrational Circular Dichroism Study. Journal of Physical Chemistry B, 2011, 115, 11010-11016.	2.6	54
48	Chiral superstructures of insulin amyloid fibrils. Chirality, 2011, 23, 638-646.	2.6	24
49	Vortexâ€induced chiral bifurcation in aggregating insulin. Chirality, 2010, 22, E154-60.	2.6	17
50	Bifurcated Hydrogen Bonds Stabilize Fibrils of Poly(<scp>l</scp>-glutamic) Acid. Journal of Physical Chemistry B, 2010, 114, 8278-8283.	2.6	41
51	Insulin Amyloid Superstructures as Templates for Surface Enhanced Raman Scattering. Langmuir, 2010, 26, 18303-18307.	3.5	13
52	Vortex-Induced Formation of Insulin Amyloid Superstructures Probed by Time-Lapse Atomic Force Microscopy and Circular Dichroism Spectroscopy. Journal of Molecular Biology, 2010, 395, 643-655.	4.2	88
53	Noncooperative Dimethyl Sulfoxide-Induced Dissection of Insulin Fibrils: Toward Soluble Building Blocks of Amyloid. Biochemistry, 2009, 48, 4846-4851.	2.5	29
54	Tyrosine side chains as an electrochemical probe of stacked Î²-sheet protein conformations. Bioelectrochemistry, 2008, 72, 34-40.	4.6	22

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55	Chiral Bifurcation in Aggregating Insulin: An Induced Circular Dichroism Study. Journal of Molecular Biology, 2008, 379, 9-16.	4.2	84
56	De novo Refolding and Aggregation of Insulin in a Nonaqueous Environment: An Inside out Protein Remake. Journal of Physical Chemistry B, 2008, 112, 8744-8747.	2.6	5
57	Conformational Indeterminism in Protein Misfolding:â€‰ Chiral Amplification on Amyloidogenic Pathway of Insulin. Journal of the American Chemical Society, 2007, 129, 7517-7522.	13.7	97
58	Insulin Amyloid Fibrils Form an Inclusion Complex with Molecular Iodine:Â A Misfolded Protein as a Nanoscale Scaffoldâ€. Biochemistry, 2007, 46, 1568-1572.	2.5	18
59	New Insights into the Self-Assembly of Insulin Amyloid Fibrils:Â An Hâ˘'D Exchange FT-IR Studyâ€. Biochemistry, 2006, 45, 8143-8151.	2.5	63
60	Tuning amyloidogenic conformations through cosolvents and hydrostatic pressure: When the soft matter becomes even softer. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2006, 1764, 470-480.	2.3	19
61	Protein Amyloidogenesis in the Context of Volume Fluctuations: A Case Study on Insulin. ChemPhysChem, 2006, 7, 1046-1049.	2.1	36
62	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.	2.8	44
63	Zipper-like properties of [poly(l-lysine)+ poly(l-glutamic acid)]Î²-pleated molecular self-assembly. Chemical Communications, 2005, , 5557.	4.1	10
64	Template-controlled conformational patterns of insulin fibrillar self-assembly reflect history of solvation of the amyloid nuclei. Physical Chemistry Chemical Physics, 2005, 7, 1349.	2.8	35
65	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.	2.6	36
66	Chiral bias of amyloid fibrils revealed by the twisted conformation of Thioflavin T: An induced circular dichroism/DFT study. FEBS Letters, 2005, 579, 6601-6603.	2.8	83
67	Amyloidogenic Self-Assembly of Insulin Aggregates Probed by High Resolution Atomic Force Microscopy. Biophysical Journal, 2005, 88, 1344-1353.	0.5	261
68	Ethanol-Perturbed Amyloidogenic Self-Assembly of Insulin:â€‰ Looking for Origins of Amyloid Strains. Biochemistry, 2005, 44, 8948-8958.	2.5	111
69	Pressure tuning of insulin aggregation pathways. High Pressure Research, 2004, 24, 511-516.	1.2	3
70	Insulin forms amyloid in a strain-dependent manner: An FT-IR spectroscopic study. Protein Science, 2004, 13, 1927-1932.	7.6	125
71	Chain-length dependence of ?-helix to ?-sheet transition in polylysine: Model of protein aggregation studied by temperature-tuned FTIR spectroscopy. Biopolymers, 2004, 73, 463-469.	2.4	67
72	Hydration and structureâ€"the two sides of the insulin aggregation process. Physical Chemistry Chemical Physics, 2004, 6, 1938-1943.	2.8	44

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73	The Diastereomeric Assembly of Polylysine Is the Low-Volume Pathway for Preferential Formation of Î²-Sheet Aggregates. Journal of the American Chemical Society, 2004, 126, 3762-3768.	13.7	72
74	High Pressure Promotes Circularly Shaped Insulin Amyloid. Journal of Molecular Biology, 2004, 338, 203-206.	4.2	78
75	Aggregation of Bovine Insulin Probed by DSC/PPC Calorimetry and FTIR Spectroscopy. Biochemistry, 2003, 42, 11347-11355.	2.5	168
76	Insulin and Polylysine as Model Polypeptides for FTIR Studies of the Pressure-effect on Protein Aggregation. , 2003, , 79-82.		1
77	Fourier transform infrared spectroscopy in high-pressure studies on proteins. BBA - Proteins and Proteomics, 2002, 1595, 131-144.	2.1	104
78	FTIR study on heat-induced and pressure-assisted cold-induced changes in structure of bovine ?-lactalbumin: Stabilizing role of calcium ion. Biopolymers, 2001, 62, 29-39.	2.4	14
79	Comparative Two-Dimensional Fourier Transform Infrared Correlation Spectroscopic Study on the Spontaneous, Pressure-, and Temperature-Enhanced H/D Exchange in Î²-Lactalbumin. Applied Spectroscopy, 2000, 54, 963-967.	2.2	22
80	Biopolymer. Recent Advances in High-Pressure Infrared Spectroscopic Studies on Proteins.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2000, 10, 95-100.	0.0	0
81	Immunoenzymatic sensitisation of membrane ion-selective electrodes. Sensors and Actuators B: Chemical, 1998, 47, 246-250.	7.8	12
82	Enzymatic digestion of luminescent albumin-stabilized gold nanoclusters under anaerobic conditions: clues to the quenching mechanism. Journal of Materials Chemistry C, 0, , .	5.5	1