Yifat Miller

List of Publications by Year
in descending order

83 papers	3,155 citations	172457 29 h-index	161849 54 g-index
85 all docs	85 docs citations	85 times ranked	3627 citing authors

#	ARTICLE	IF	CITATIONS
1	Amyloid Oligomers: A Joint Experimental/Computational Perspective on Alzheimerâ€™s Disease, Parkinsonâ€™s Disease, Type II Diabetes, and Amyotrophic Lateral Sclerosis. Chemical Reviews, 2021, 121, 2545-2647.	47.7	406
2	Zinc ions promote Alzheimer AÎ² aggregation via population shift of polymorphic states. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9490-9495.	7.1	283
3	Polymorphism in Alzheimer AÎ² Amyloid Organization Reflects Conformational Selection in a Rugged Energy Landscape. Chemical Reviews, 2010, 110, 4820-4838.	47.7	265
4	Molecular-Level Examination of Cu²⁺ Binding Structure for Amyloid Fibrils of 40-Residue Alzheimerâ€™s Î² by Solid-State NMR Spectroscopy. Journal of the American Chemical Society, 2011, 133, 3390-3400.	13.7	182
5	Synergistic Interactions between Repeats in Tau Protein and AÎ² Amyloids May Be Responsible for Accelerated Aggregation via Polymorphic States. Biochemistry, 2011, 50, 5172-5181.	2.5	95
6	Metal binding sites in amyloid oligomers: Complexes and mechanisms. Coordination Chemistry Reviews, 2012, 256, 2245-2252.	18.8	95
7	Polymorphism of Alzheimer's AÎ²17-42 (p3) Oligomers: The Importance of the Turn Location and Its Conformation. Biophysical Journal, 2009, 97, 1168-1177.	0.5	91
8	Hollow core of Alzheimerâ€™s A <i>Î²</i> ₄₂ amyloid observed by cryoEM is relevant at physiological pH. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 14128-14133.	7.1	81
9	Amylinâ€“AÎ² oligomers at atomic resolution using molecular dynamics simulations: a link between Type 2 diabetes and Alzheimer's disease. Physical Chemistry Chemical Physics, 2016, 18, 2330-2338.	2.8	74
10	Ionization of N₂O₄ in Contact with Water: Mechanism, Time Scales and Atmospheric Implications. Journal of the American Chemical Society, 2009, 131, 12180-12185.	13.7	72
11	Dynamics of Vibrational Overtone Excitations of H2SO4, H2SO4âˆ’H2O:Â Hydrogenâˆ’Hopping and Photodissociation Processes. Journal of the American Chemical Society, 2006, 128, 9594-9595.	13.7	70
12	How Acidic Is Carbonic Acid?. Journal of Physical Chemistry B, 2016, 120, 2440-2451.	2.6	63
13	The Unique Alzheimerâ€™s Î²-Amyloid Triangular Fibril Has a Cavity along the Fibril Axis under Physiological Conditions. Journal of the American Chemical Society, 2011, 133, 2742-2748.	13.7	62
14	Carotenoid derivatives inhibit nuclear factor kappa B activity in bone and cancer cells by targeting key thiol groups. Free Radical Biology and Medicine, 2014, 75, 105-120.	2.9	56
15	Emergence of native peptide sequences in prebiotic replication networks. Nature Communications, 2017, 8, 434.	12.8	51
16	Insight into the Coordination and the Binding Sites of Cu²⁺ by the Histidyl-6-Tag using Experimental and Computational Tools. Inorganic Chemistry, 2014, 53, 6675-6683.	4.0	49
17	Non-Amyloid-Î² Component of Human Î±-Synuclein Oligomers Induces Formation of New AÎ² Oligomers: Insight into the Mechanisms That Link Parkinsonâ€™s and Alzheimerâ€™s Diseases. ACS Chemical Neuroscience, 2016, 7, 46-55.	3.5	49
18	A minimal length rigid helical peptide motif allows rational design of modular surfactants. Nature Communications, 2017, 8, 14018.	12.8	49

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19	Structure of Large Nitrateâˆ’Water Clusters at Ambient Temperatures: Simulations with Effective Fragment Potentials and Force Fields with Implications for Atmospheric Chemistry. Journal of Physical Chemistry A, 2009, 113, 12805-12814.	2.5	47
20	Orientations of Residues along the Î²-Arch of Self-Assembled Amylin Fibril-Like Structures Lead to Polymorphism. Biomacromolecules, 2015, 16, 156-165.	5.4	46
21	Interactions between AÎ² and Mutated Tau Lead to Polymorphism and Induce Aggregation of AÎ²-Mutated Tau Oligomeric Complexes. PLoS ONE, 2013, 8, e73303.	2.5	46
22	The Strong Influence of Structure Polymorphism on the Conductivity of Peptide Fibrils. Angewandte Chemie - International Edition, 2016, 55, 9988-9992.	13.8	44
23	Cation Diffusion Facilitators Transport Initiation and Regulation Is Mediated by Cation Induced Conformational Changes of the Cytoplasmic Domain. PLoS ONE, 2014, 9, e92141.	2.5	41
24	Molecular mechanisms of membrane-associated amyloid aggregation: Computational perspective and challenges. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 1889-1905.	2.6	40
25	Complexes of HNO3 and NO3âˆ’ with NO2 and N2O4, and their potential role in atmospheric HONO formation. Physical Chemistry Chemical Physics, 2008, 10, 6019.	2.8	39
26	Polymorphism in Self-Assembly of Peptide-Based Î²-Hairpin Contributes to Network Morphology and Hydrogel Mechanical Rigidity. Journal of Physical Chemistry B, 2015, 119, 482-490.	2.6	37
27	African Viper Poly-His Tag Peptide Fragment Efficiently Binds Metal Ions and Is Folded into an Î±-Helical Structure. Inorganic Chemistry, 2015, 54, 7692-7702.	4.0	35
28	Mechanistic perspective and functional activity of insulin in amylin aggregation. Chemical Science, 2018, 9, 4244-4252.	7.4	35
29	A Proposed Atomic Structure of the Self-Assembly of the Non-Amyloid-Î² Component of Human Î±-Synuclein As Derived by Computational Tools. Journal of Physical Chemistry B, 2015, 119, 10005-10015.	2.6	32
30	Effects of mutations in de novo designed synthetic amphiphilic Î²-sheet peptides on self-assembly of fibrils. Chemical Communications, 2013, 49, 6561.	4.1	29
31	Dynamics of proton recombination with NO3âˆ’ anion in water clusters. Physical Chemistry Chemical Physics, 2008, 10, 1091.	2.8	26
32	The unusual metal ion binding ability of histidyl tags and their mutated derivatives. Dalton Transactions, 2016, 45, 5629-5639.	3.3	26
33	The unusual binding mechanism of Cu(<scp>ii</scp>) ions to the poly-histidyl domain of a peptide found in the venom of an African viper. Dalton Transactions, 2014, 43, 16680-16689.	3.3	25
34	Ultrafast phase transitions in metastable water near liquid interfaces. Faraday Discussions, 2009, 141, 67-79.	3.2	24
35	The influence of the Î”K280 mutation and N- or C-terminal extensions on the structure, dynamics, and fibril morphology of the tau R2 repeat. Physical Chemistry Chemical Physics, 2014, 16, 7710.	2.8	24
36	Molecular Mechanisms of the Bindings between Non-Amyloid Î² Component Oligomers and Amylin Oligomers. Journal of Physical Chemistry B, 2016, 120, 10649-10659.	2.6	24

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37	Reaction Mechanism for Direct Proton Transfer from Carbonic Acid to a Strong Base in Aqueous Solution I: Acid and Base Coordinate and Charge Dynamics. Journal of Physical Chemistry B, 2016, 120, 2271-2280.	2.6	24
38	Bacterial Magnetosome Biomineralization - A Novel Platform to Study Molecular Mechanisms of Human CDF-Related Type-II Diabetes. PLoS ONE, 2014, 9, e97154.	2.5	22
39	Effect of Zn²⁺ ions on the assembly of amylin oligomers: insight into the molecular mechanisms. Physical Chemistry Chemical Physics, 2016, 18, 21590-21599.	2.8	22
40	Neuropeptides: Roles and Activities as Metal Chelators in Neurodegenerative Diseases. Journal of Physical Chemistry B, 2021, 125, 2796-2811.	2.6	22
41	Proton Transfer in Wild-Type GFP and S205V Mutant Is Reduced by Conformational Changes of Residues in the Proton Wire. Journal of Physical Chemistry B, 2013, 117, 11921-11931.	2.6	21
42	Challenges in studying the structures of metal-amyloid oligomers related to type 2 diabetes, Parkinson's disease, and Alzheimer's disease. Coordination Chemistry Reviews, 2016, 327-328, 20-26.	18.8	21
43	Conformational transitions of glycine induced by vibrational excitation of the Oâ€"H stretch. Physical Chemistry Chemical Physics, 2011, 13, 8715-8722.	2.8	19
44	Insight into the structure and the mechanism of the slow proton transfer in the GFP double mutant T203V/S205A. Physical Chemistry Chemical Physics, 2014, 16, 11211-11223.	2.8	19
45	Spontaneous Structural Transition in Phospholipid-Inspired Aromatic Phosphopeptide Nanostructures. ACS Nano, 2015, 9, 4085-4095.	14.6	19
46	Study of Molecular Mechanisms of Î±-Synuclein Assembly: Insight into a Cross-Î² Structure in the N-Termini of New Î±-Synuclein Fibrils. ACS Omega, 2017, 2, 3363-3370.	3.5	18
47	Molecular insights into the primary nucleation of polymorphic amyloid Î² dimers in <scp>DOPC</scp> lipid bilayer membrane. Protein Science, 2022, 31, .	7.6	17
48	Insight into a New Binding Site of Zinc Ions in Fibrillar Amylin. ACS Chemical Neuroscience, 2017, 8, 2078-2087.	3.5	16
49	Critical Size for Intracluster Proton Transfer from Water to an Anion. Angewandte Chemie - International Edition, 2008, 47, 6272-6274.	13.8	14
50	The removal of disulfide bonds in amylin oligomers leads to the conformational change of the â€˜nativeâ€™ amylin oligomers. Physical Chemistry Chemical Physics, 2016, 18, 12438-12442.	2.8	14
51	Inhibitory Activity of Insulin on AÎ² Aggregation Is Restricted Due to Binding Selectivity and Specificity to Polymorphic AÎ² States. ACS Chemical Neuroscience, 2020, 11, 445-452.	3.5	14
52	Distinct Primary Nucleation of Polymorphic AÎ² Dimers Yields to Distinguished Fibrillation Pathways. ACS Chemical Neuroscience, 2019, 10, 4407-4413.	3.5	13
53	Reaction Mechanism for Direct Proton Transfer from Carbonic Acid to a Strong Base in Aqueous Solution II: Solvent Coordinate-Dependent Reaction Path. Journal of Physical Chemistry B, 2016, 120, 2281-2290.	2.6	12
54	Fibrils of Î±-Synuclein Abolish the Affinity of Cu²⁺-Binding Site to His50 and Induce Hopping of Cu²⁺ Ions in the Termini. Inorganic Chemistry, 2019, 58, 10920-10927.	4.0	12

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55	Advancements and future directions in research of the roles of insulin in amyloid diseases. Biophysical Chemistry, 2022, 281, 106720.	2.8	11
56	Insights into the Interactions that Trigger the Primary Nucleation of Polymorphic Î±-Synuclein Dimers. ACS Chemical Neuroscience, 2022, 13, 370-378.	3.5	10
57	The Strong Influence of Structure Polymorphism on the Conductivity of Peptide Fibrils. Angewandte Chemie, 2016, 128, 10142-10146.	2.0	9
58	Two Distinct Polymorphic Folding States of Self-Assembly of the Non-amyloid-Î² Component Differ in the Arrangement of the Residues. ACS Chemical Neuroscience, 2017, 8, 2613-2617.	3.5	7
59	Insights into the Mechanistic Perspective Effect of Insulin on the Nonamyloidogenic Component (NAC) and Î±-Synuclein Aggregation. ACS Chemical Neuroscience, 2021, 12, 3266-3276.	3.5	7
60	Reaction of OH and NO at Low Temperatures in the Presence of Water: the Role of Clusters. Zeitschrift Fur Physikalische Chemie, 2011, 225, 1129-1144.	2.8	6
61	Insight into Atomic Resolution of the Crossâ€Seeding between Tau/Mutated Tau and Amyloidâ€Î² in Neurodegenerative Diseases. Israel Journal of Chemistry, 2015, 55, 628-636.	2.3	6
62	Inhibition of Osteoclast Differentiation by Carotenoid Derivatives through Inhibition of the NF-ÎºB Pathway. Antioxidants, 2020, 9, 1167.	5.1	6
63	Zinc Binding Sites Conserved in Short Neuropeptides Containing a Diphenylalanine Motif. Inorganic Chemistry, 2020, 59, 925-929.	4.0	6
64	Structural Insights into the Polymorphism of Selfâ€Assembled Amylin Oligomers. Israel Journal of Chemistry, 2016, 56, 590-598.	2.3	5
65	Assessments of the Effect of Neurokinin B on Toxic AÎ² Aggregates in Alzheimerâ€™s Disease with the Molecular Mechanismsâ€™ Action. ACS Chemical Neuroscience, 2020, 11, 3418-3429.	3.5	5
66	Controlling the properties and self-assembly of helical nanofibrils by engineering zinc-binding Î²-hairpin peptides. Journal of Materials Chemistry B, 2020, 8, 7352-7355.	5.8	5
67	Prodrug-Based Targeting Approach for Inflammatory Bowel Diseases Therapy: Mechanistic Study of Phospholipid-Linker-Cyclosporine PLA2-Mediated Activation. International Journal of Molecular Sciences, 2022, 23, 2673.	4.1	5
68	PLA2-Triggered Activation of Cyclosporine-Phospholipid Prodrug as a Drug Targeting Approach in Inflammatory Bowel Disease Therapy. Pharmaceutics, 2022, 14, 675.	4.5	5
69	Critical surface density of zwitterionic polymer chains affect antifouling properties. Applied Surface Science, 2022, 596, 153652.	6.1	5
70	Molecular Modeling: Advancements and Applications. Journal of Chemistry, 2013, 2013, 1-2.	1.9	4
71	Configuration change from cis to trans of isothiocyanato groups in nickel(II) species: Experimental verification and theoretical interpretation of reaction consequence and study on their bio-activity. Polyhedron, 2015, 93, 55-65.	2.2	4
72	Insulin fibrillation control by specific zinc binding sites. Inorganic Chemistry Frontiers, 2021, 8, 5251-5259.	6.0	4

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73	Mechanism of Side Chain-Controlled Proton Conductivity in Bioinspired Peptidic Nanostructures. Journal of Physical Chemistry B, 2021, 125, 12741-12752.	2.6	3
74	Termini capping of metal-poly-His peptide complexes induces the formation of Î±-helix. RSC Advances, 2015, 5, 104551-104555.	3.6	2
75	Co-Aggregation of Alpha-Synuclein with Amylin(HIAPP) Leads to an Increased Risk in Type ii Diabetes Patients for Developing Parkinson's Disease. Biophysical Journal, 2015, 108, 524a.	0.5	2
76	Unique Inversion Events of Residues around the Backbone in the Turn Domain of Î²-Arches in Amylin Fibrils. ACS Chemical Neuroscience, 2019, 10, 1209-1213.	3.5	2
77	Mutagenic induction of an ultra-fast water-chain proton wire. Physical Chemistry Chemical Physics, 2016, 18, 23089-23095.	2.8	1
78	Molecular Mechanisms and Aspects on the Role of Neuropeptide Y as a Zn2+ and Cu2+ Chelator. Inorganic Chemistry, 2021, 60, 484-493.	4.0	1
79	A zinc-dependent switching mechanism from an open to a new closed-state conformation of insulin-degrading enzyme. Inorganic Chemistry Frontiers, 0, , .	6.0	1
80	Molecular Insights into the Effect of Metals on Amyloid Aggregation. Methods in Molecular Biology, 2022, 2340, 121-137.	0.9	1
81	Preface of the "Symposium on metal binding sites in amyloids". , 2014, , .		0
82	Preface to Special Topic: Amyloid Aggregation: Characterization, Function and Molecular Mechanisms. AIP Advances, 2015, 5, 092301.	1.3	0
83	Tribute to Ruth Nussinov. Journal of Physical Chemistry B, 2021, 125, 6733-6734.	2.6	0