

Karunakar Kar

List of Publications by Year in descending order

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43
papers

1,831
citations

279798

23
h-index

276875

41
g-index

44
all docs

44
docs citations

44
times ranked

2230
citing authors

#	ARTICLE	IF	CITATIONS
1	Critical nucleus size for disease-related polyglutamine aggregation is repeat-length dependent. <i>Nature Structural and Molecular Biology</i> , 2011, 18, 328-336.	8.2	187
2	Triple-helical peptides: An approach to collagen conformation, stability, and self-association. <i>Biopolymers</i> , 2008, 89, 345-353.	2.4	165
3	Huntingtin exon 1 fibrils feature an interdigitated β -hairpin-based polyglutamine core. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 1546-1551.	7.1	143
4	Self-association of Collagen Triple Helic Peptides into Higher Order Structures. <i>Journal of Biological Chemistry</i> , 2006, 281, 33283-33290.	3.4	121
5	Aromatic Interactions Promote Self-Association of Collagen Triple-Helical Peptides to Higher-Order Structures. <i>Biochemistry</i> , 2009, 48, 7959-7968.	2.5	102
6	β -Hairpin-Mediated Nucleation of Polyglutamine Amyloid Formation. <i>Journal of Molecular Biology</i> , 2013, 425, 1183-1197.	4.2	91
7	Tyrosine- and tryptophan-coated gold nanoparticles inhibit amyloid aggregation of insulin. <i>Amino Acids</i> , 2015, 47, 2551-2560.	2.7	90
8	Polyglutamine Amyloid Core Boundaries and Flanking Domain Dynamics in Huntingtin Fragment Fibrils Determined by Solid-State Nuclear Magnetic Resonance. <i>Biochemistry</i> , 2014, 53, 6653-6666.	2.5	74
9	Enhancement of thermal stability and inhibition of protein aggregation by osmolytic effect of hydroxyproline. <i>Biopolymers</i> , 2007, 87, 339-351.	2.4	55
10	Intrinsic property of phenylalanine to trigger protein aggregation and hemolysis has a direct relevance to phenylketonuria. <i>Scientific Reports</i> , 2017, 7, 11146.	3.3	53
11	Eugenol prevents amyloid formation of proteins and inhibits amyloid-induced hemolysis. <i>Scientific Reports</i> , 2017, 7, 40744.	3.3	52
12	Rapid β -oligomer formation mediated by the A β C terminus initiates an amyloid assembly pathway. <i>Nature Communications</i> , 2016, 7, 12419.	12.8	51
13	Amyloid cross-seeding raises new dimensions to understanding of amyloidogenesis mechanism. <i>Ageing Research Reviews</i> , 2019, 56, 100937.	10.9	43
14	Capsaicin-Coated Silver Nanoparticles Inhibit Amyloid Fibril Formation of Serum Albumin. <i>Biochemistry</i> , 2016, 55, 3345-3348.	2.5	42
15	Evidence of Rapid Coaggregation of Globular Proteins during Amyloid Formation. <i>Biochemistry</i> , 2014, 53, 8001-8004.	2.5	41
16	Self-Assembly of Artificial Sweetener Aspartame Yields Amyloid-like Cytotoxic Nanostructures. <i>ACS Nano</i> , 2019, 13, 6033-6049.	14.6	37
17	d-Polyglutamine Amyloid Recruits l-Polyglutamine Monomers and Kills Cells. <i>Journal of Molecular Biology</i> , 2014, 426, 816-829.	4.2	36
18	Uniform, Polycrystalline, and Thermostable Piperine-Coated Gold Nanoparticles to Target Insulin Fibril Assembly. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 1136-1145.	5.2	36

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19	Sequence dependence of kinetics and morphology of collagen model peptide self-assembly into higher order structures. <i>Protein Science</i> , 2008, 17, 1086-1095.	7.6	31
20	Levels of supramolecular chirality of polyglutamine aggregates revealed by vibrational circular dichroism. <i>FEBS Letters</i> , 2013, 587, 1638-1643.	2.8	31
21	Assays for studying nucleated aggregation of polyglutamine proteins. <i>Methods</i> , 2011, 53, 246-254.	3.8	29
22	Tyrosine-Generated Nanostructures Initiate Amyloid Cross-Seeding in Proteins Leading to a Lethal Aggregation Trap. <i>Biochemistry</i> , 2018, 57, 5202-5209.	2.5	28
23	Thermodynamics of the interactions of calcium chloride with β -chymotrypsin. <i>Journal of Chemical Thermodynamics</i> , 2002, 34, 319-336.	2.0	24
24	Capsaicin inhibits collagen fibril formation and increases the stability of collagen fibers. <i>European Biophysics Journal</i> , 2015, 44, 69-76.	2.2	24
25	Piperine-Coated Gold Nanoparticles Alleviate Paraquat-Induced Neurotoxicity in <i>Drosophila melanogaster</i> . <i>ACS Chemical Neuroscience</i> , 2020, 11, 3772-3785.	3.5	24
26	An Aggregate Weight-Normalized Thioflavin-T Measurement Scale for Characterizing Polymorphic Amyloids and Assembly Intermediates. <i>Methods in Molecular Biology</i> , 2018, 1777, 121-144.	0.9	23
27	Myricetin inhibits amyloid fibril formation of globular proteins by stabilizing the native structures. <i>Colloids and Surfaces B: Biointerfaces</i> , 2020, 186, 110640.	5.0	22
28	Backbone Engineering within a Latent β -Hairpin Structure to Design Inhibitors of Polyglutamine Amyloid Formation. <i>Journal of Molecular Biology</i> , 2017, 429, 308-323.	4.2	21
29	Type I collagen prevents amyloid aggregation of hen egg white lysozyme. <i>Biochemical and Biophysical Research Communications</i> , 2014, 448, 480-484.	2.1	19
30	$\text{A}\beta^{1-40}$ mediated aggregation of proteins and metabolites unveils the relevance of amyloid cross-seeding in amyloidogenesis. <i>Biochemical and Biophysical Research Communications</i> , 2018, 501, 158-164.	2.1	18
31	In vitro interaction of organophosphate metabolites with bovine serum albumin: A comparative ^1H NMR, fluorescence and molecular docking analysis. <i>Pesticide Biochemistry and Physiology</i> , 2020, 163, 39-50.	3.6	18
32	Thermodynamic properties of aqueous 4-hydroxyproline at different temperatures. <i>Journal of Chemical Thermodynamics</i> , 2010, 42, 597-604.	2.0	16
33	Evidence of Anti-amyloid Characteristics of Plumbagin via Inhibition of Protein Aggregation and Disassembly of Protein Fibrils. <i>Biomacromolecules</i> , 2021, 22, 3692-3703.	5.4	15
34	Osmoprotectant Coated Thermostable Gold Nanoparticles Efficiently Restrict Temperature-Induced Amyloid Aggregation of Insulin. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 1803-1813.	4.6	14
35	Strategically Designed Antifibrotic Gold Nanoparticles to Prevent Collagen Fibril Formation. <i>Langmuir</i> , 2017, 33, 13252-13261.	3.5	13
36	Genesis of Neurotoxic Hybrid Nanofibers from the Coassembly of Aromatic Amino Acids. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 36722-36736.	8.0	13

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37	Amyloid-mimicking toxic nanofibers generated <i>via</i> self-assembly of dopamine. <i>Nanoscale</i> , 2022, 14, 8649-8662.	5.6	9
38	Analyzing organophosphate pesticide-serum albumin binding interaction: a combined STD NMR and molecular docking study. <i>Journal of Biomolecular Structure and Dynamics</i> , 2021, 39, 1865-1878.	3.5	8
39	Biophysical Characterization of SG2NA Variants and their Interaction with DJ-1 and Calmodulin in vitro. <i>Cell Biochemistry and Biophysics</i> , 2018, 76, 451-461.	1.8	6
40	The intrinsic amyloidogenic propensity of cofilin-1 is aggravated by Cys-80 oxidation: A possible link with neurodegenerative diseases. <i>Biochemical and Biophysical Research Communications</i> , 2021, 569, 187-192.	2.1	5
41	Structural and Motional Investigations of Polyglutamine-Containing Amyloid Fibrils by Magic-Angle-Spinning Solid-State NMR. <i>Biophysical Journal</i> , 2013, 104, 181a.	0.5	1
42	Huntingtin N-Terminal Fragment Fibrils have a Rigid Amyloid Core Flanked by Non-Amyloid Domains with Increased Dynamics. <i>Biophysical Journal</i> , 2015, 108, 385a-386a.	0.5	0
43	Protein Aggregation, Related Pathologies, and Aging. , 2020, , 419-441.		0