

# Elizabeth Rhoades

## List of Publications by Year in descending order

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58  
papers

3,611  
citations

147726

31  
h-index

138417

58  
g-index

64  
all docs

64  
docs citations

64  
times ranked

4569  
citing authors

#	ARTICLE	IF	CITATIONS
1	Watching proteins fold one molecule at a time. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3197-3202.	3.3	343
2	Effects of Curvature and Composition on $\alpha$ -Synuclein Binding to Lipid Vesicles. Biophysical Journal, 2010, 99, 2279-2288.	0.2	306
3	Quantification of $\alpha$ -Synuclein Binding to Lipid Vesicles Using Fluorescence Correlation Spectroscopy. Biophysical Journal, 2006, 90, 4692-4700.	0.2	235
4	$\alpha$ -Synuclein Binds Large Unilamellar Vesicles as an Extended Helix. Biochemistry, 2009, 48, 2304-2306.	1.2	199
5	Two-State Folding Observed in Individual Protein Molecules. Journal of the American Chemical Society, 2004, 126, 14686-14687.	6.6	169
6	N-terminal acetylation is critical for forming $\alpha$ -helical oligomer of $\alpha$ -synuclein. Protein Science, 2012, 21, 601-605.	3.1	128
7	Islet amyloid polypeptide demonstrates a persistent capacity to disrupt membrane integrity. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9460-9465.	3.3	127
8	Identification of an Aggregation-Prone Structure of Tau. Journal of the American Chemical Society, 2012, 134, 16607-16613.	6.6	127
9	Allostery in a Disordered Protein: Oxidative Modifications to $\alpha$ -Synuclein Act Distally To Regulate Membrane Binding. Journal of the American Chemical Society, 2011, 133, 7152-7158.	6.6	124
10	The Conformational Ensembles of $\alpha$ -Synuclein and Tau: Combining Single-Molecule FRET and Simulations. Biophysical Journal, 2012, 103, 1940-1949.	0.2	119
11	The Role of the Lipid Bilayer in Tau Aggregation. Biophysical Journal, 2010, 98, 2722-2730.	0.2	108
12	Single Molecule Characterization of $\alpha$ -Synuclein in Aggregation-Prone States. Biophysical Journal, 2010, 99, 3048-3055.	0.2	104
13	Fluorescence Correlation Spectroscopy Reveals Highly Efficient Cytosolic Delivery of Certain Penta-Arg Proteins and Stapled Peptides. Journal of the American Chemical Society, 2015, 137, 2536-2541.	6.6	99
14	IDPs in macromolecular complexes: the roles of multivalent interactions in diverse assemblies. Current Opinion in Structural Biology, 2018, 49, 36-43.	2.6	98
15	Cross-Scale Integrin Regulation Organizes ECM and Tissue Topology. Developmental Cell, 2015, 34, 33-44.	3.1	73
16	Tau mutants bind tubulin heterodimers with enhanced affinity. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6311-6316.	3.3	67
17	A functional role for intrinsic disorder in the tau-tubulin complex. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14336-14341.	3.3	66
18	Two Na <sup>+</sup> Sites Control Conformational Change in a Neurotransmitter Transporter Homolog. Journal of Biological Chemistry, 2016, 291, 1456-1471.	1.6	65

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19	Foldamer-mediated manipulation of a pre-amyloid toxin. <i>Nature Communications</i> , 2016, 7, 11412.	5.8	56
20	Islet Amyloid-Induced Cell Death and Bilayer Integrity Loss Share a Molecular Origin Targetable with Oligopyridylamide-Based $\beta$ -Helical Mimetics. <i>Chemistry and Biology</i> , 2015, 22, 369-378.	6.2	55
21	Conformation and Dynamics of the Troponin I C-Terminal Domain: Combining Single-Molecule and Computational Approaches for a Disordered Protein Region. <i>Journal of the American Chemical Society</i> , 2015, 137, 11962-11969.	6.6	54
22	Targeting the ensemble of heterogeneous tau oligomers in cells: A novel small molecule screening platform for tauopathies. <i>Alzheimer's and Dementia</i> , 2019, 15, 1489-1502.	0.4	53
23	Tau Binds to Multiple Tubulin Dimers with Helical Structure. <i>Journal of the American Chemical Society</i> , 2015, 137, 9218-9221.	6.6	51
24	Conformational switching within dynamic oligomers underpins toxic gain-of-function by diabetes-associated amyloid. <i>Nature Communications</i> , 2018, 9, 1312.	5.8	50
25	Single-Molecule Fluorescence Spectroscopy Using Phospholipid Bilayer Nanodiscs. <i>Methods in Enzymology</i> , 2010, 472, 89-117.	0.4	49
26	Single-Molecule FRET of Intrinsically Disordered Proteins. <i>Annual Review of Physical Chemistry</i> , 2020, 71, 391-414.	4.8	48
27	Fluorescence characterization of denatured proteins. <i>Current Opinion in Structural Biology</i> , 2008, 18, 516-524.	2.6	44
28	Membrane remodeling and mechanics: Experiments and simulations of $\beta$ -Synuclein. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2016, 1858, 1594-1609.	1.4	43
29	Conformational changes in Arp2/3 complex induced by ATP, WASp-VCA, and actin filaments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E8642-E8651.	3.3	43
30	Identification of N-linked glycans as specific mediators of neuronal uptake of acetylated $\beta$ -Synuclein. <i>PLoS Biology</i> , 2019, 17, e3000318.	2.6	42
31	A Membrane-Bound Antiparallel Dimer of Rat Islet Amyloid Polypeptide. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 10859-10862.	7.2	37
32	Independent tubulin binding and polymerization by the proline-rich region of Tau is regulated by Tau's N-terminal domain. <i>Journal of Biological Chemistry</i> , 2019, 294, 19381-19394.	1.6	33
33	Cyclized NDGA modifies dynamic $\beta$ -synuclein monomers preventing aggregation and toxicity. <i>Scientific Reports</i> , 2019, 9, 2937.	1.6	31
34	Polyphosphate Initiates Tau Aggregation through Intra- and Intermolecular Scaffolding. <i>Biophysical Journal</i> , 2019, 117, 717-728.	0.2	30
35	Heterogeneous Tau-Tubulin Complexes Accelerate Microtubule Polymerization. <i>Biophysical Journal</i> , 2017, 112, 2567-2574.	0.2	29
36	$\beta$ -Synuclein <sup>TM</sup> s Uniquely Long Amphipathic Helix Enhances its Membrane Binding and Remodeling Capacity. <i>Journal of Membrane Biology</i> , 2017, 250, 183-193.	1.0	27

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37	Using a FRET Library with Multiple Probe Pairs To Drive Monte Carlo Simulations of $\hat{1}\pm$ -Synuclein. <i>Biophysical Journal</i> , 2018, 114, 53-64.	0.2	26
38	Physico-chemical requirements and kinetics of membrane fusion of flavivirus-like particles. <i>Journal of General Virology</i> , 2015, 96, 1702-1711.	1.3	26
39	Chemoenzymatic Semisynthesis of Phosphorylated $\hat{1}\pm$ -Synuclein Enables Identification of a Bidirectional Effect on Fibril Formation. <i>ACS Chemical Biology</i> , 2020, 15, 640-645.	1.6	25
40	Order to Disorder Transitions in the Cardiac Troponin Complex. <i>Journal of Molecular Biology</i> , 2016, 428, 2965-2977.	2.0	22
41	Potent inhibitors of toxic alpha-synuclein identified via cellular time-resolved FRET biosensors. <i>Npj Parkinson's Disease</i> , 2021, 7, 52.	2.5	22
42	Unique arginine array improves cytosolic localization of hydrocarbon-stapled peptides. <i>Bioorganic and Medicinal Chemistry</i> , 2018, 26, 1197-1202.	1.4	18
43	Effects of Glutamate Arginylation on $\hat{1}\pm$ -Synuclein: Studying an Unusual Post-Translational Modification through Semisynthesis. <i>Journal of the American Chemical Society</i> , 2020, 142, 21786-21798.	6.6	16
44	Investigation of Intramolecular Dynamics and Conformations of $\hat{1}\pm$ -, $\hat{1}^2$ - and $\hat{1}^3$ -Synuclein. <i>PLoS ONE</i> , 2014, 9, e86983.	1.1	14
45	Targeting the Intrinsically Disordered Proteome Using Small-Molecule Ligands. <i>Methods in Enzymology</i> , 2018, 611, 703-734.	0.4	14
46	Insights into tau function and dysfunction through single-molecule fluorescence. <i>Methods in Cell Biology</i> , 2017, 141, 27-44.	0.5	12
47	Tau Avoids the GTP Cap at Growing Microtubule Plus-Ends. <i>iScience</i> , 2020, 23, 101782.	1.9	12
48	Structure-Based Small Molecule Modulation of a Pre-Amyloid State: Pharmacological Enhancement of IAPP Membrane-Binding and Toxicity. <i>Biochemistry</i> , 2015, 54, 3555-3564.	1.2	11
49	Quantification of protein delivery in live cells using fluorescence correlation spectroscopy. <i>Methods in Enzymology</i> , 2020, 641, 477-505.	0.4	11
50	Folding upon phosphorylation: translational regulation by a disorder-to-order transition. <i>Trends in Biochemical Sciences</i> , 2015, 40, 243-244.	3.7	10
51	Chemoenzymatic Semi-synthesis Enables Efficient Production of Isotopically Labeled $\hat{1}\pm$ -Synuclein with Site-specific Tyrosine Phosphorylation. <i>ChemBioChem</i> , 2021, 22, 1440-1447.	1.3	10
52	Structural Characterization of Tau in Fuzzy Tau:Tubulin Complexes. <i>Structure</i> , 2020, 28, 378-384.e4.	1.6	8
53	$\hat{1}\pm$ -Synuclein arginylation in the human brain. <i>Translational Neurodegeneration</i> , 2022, 11, 20.	3.6	8
54	Cysteine-Based Mimic of Arginylation Reproduces Neuroprotective Effects of the Authentic Post-Translational Modification on $\hat{1}\pm$ -Synuclein. <i>Journal of the American Chemical Society</i> , 2022, 144, 7911-7918.	6.6	4

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55	Measuring Interactions Between Tau and Aggregation Inducers with Single-Molecule Förster Resonance Energy Transfer. <i>Methods in Molecular Biology</i> , 2020, 2141, 755-775.	0.4	2
56	Preface. <i>Methods in Enzymology</i> , 2018, 611, xix-xx.	0.4	1
57	Proteins: Disorder, Folding, and Crowding. <i>Biophysical Journal</i> , 2019, 117, 3-4.	0.2	1
58	Determining a Functional Mechanism for a Dysfunctional Protein. <i>FASEB Journal</i> , 2015, 29, 226.2.	0.2	0