MiklÃ³s S Z Kellermayer

List of Publications by Year
in descending order

106 papers	2,796 citations	186209 28 h-index	197736 49 g-index
110 all docs	110 docs citations	110 times ranked	3422 citing authors

#	Article	IF	Citations
1	Titin Extensibility In Situ: Entropic Elasticity of Permanently Folded and Permanently Unfolded Molecular Segments. Journal of Cell Biology, 1998, 140, 853-859.	2.3	238
2	Cardiac Computed Tomography Radiomics. Journal of Thoracic Imaging, 2018, 33, 26-34.	0.8	146
3	Molecular Mechanics of Cardiac Titin's PEVK and N2B Spring Elements. Journal of Biological Chemistry, 2002, 277, 11549-11558.	1.6	141
4	Calcium-dependent inhibition of in vitro thin-filament motility by native titin. FEBS Letters, 1996, 380, 281-286.	1.3	117
5	Stepwise dynamics of epitaxially growing single amyloid fibrils. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 141-144.	3.3	102
6	Interaction Forces between F-Actin and Titin PEVK Domain Measured with Optical Tweezers. Biophysical Journal, 2007, 93, 2102-2109.	0.2	93
7	Mechanical Fatigue in Repetitively Stretched Single Molecules of Titin. Biophysical Journal, 2001, 80, 852-863.	0.2	87
8	Different Molecular Mechanics Displayed by Titin's Constitutively and Differentially Expressed Tandem Ig Segments. Journal of Structural Biology, 2002, 137, 248-258.	1.3	83
9	Reversible Mechanical Unzipping of Amyloid Î²-Fibrils. Journal of Biological Chemistry, 2005, 280, 8464-8470.	1.6	80
10	Green-Light Activatable, Water-Soluble Red-Shifted Coumarin Photocages. Organic Letters, 2019, 21, 9410-9414.	2.4	73
11	Complete Unfolding of the Titin Molecule under External Force. Journal of Structural Biology, 1998, 122, 197-205.	1.3	72
12	Differential actin binding along the PEVK domain of skeletal muscle titin. Journal of Cell Science, 2004, 117, 5781-5789.	1.2	71
13	Mechanics and structure of titin oligomers explored with atomic force microscopy. Biochimica Et Biophysica Acta - Bioenergetics, 2003, 1604, 105-114.	0.5	65
14	A novel actin binding site of myosin required for effective muscle contraction. Nature Structural and Molecular Biology, 2012, 19, 299-306.	3.6	64
15	Microfluidic channels laser-cut in thin double-sided tapes: Cost-effective biocompatible fluidics in minutes from design to final integration with optical biochips. Sensors and Actuators B: Chemical, 2014, 196, 352-356.	4.0	57
16	Spatially and Temporally Synchronized Atomic Force and Total Internal Reflection Fluorescence Microscopy for Imaging and Manipulating Cells and Biomolecules. Biophysical Journal, 2006, 91, 2665-2677.	0.2	55
17	Muscle intermediate filaments form a stress-transmitting and stress- signaling network in muscle. Journal of Cell Science, 2015, 128, 219-24.	1.2	51
18	Alterations in the properties of the cell membrane due to glycosphingolipid accumulation in a model of Gaucher disease. Scientific Reports, 2018, 8, 157.	1.6	45

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19	Elastic Properties of Single Titin Molecules Made Visible through Fluorescent F-Actin Binding. Biochemical and Biophysical Research Communications, 1996, 221, 491-497.	1.0	43
20	Distinct Annular Oligomers Captured along the Assembly and Disassembly Pathways of Transthyretin Amyloid Protofibrils. PLoS ONE, 2012, 7, e44992.	1.1	42
21	Topography, Spike Dynamics, and Nanomechanics of Individual Native SARS-CoV-2 Virions. Nano Letters, 2021, 21, 2675-2680.	4.5	41
22	Mechanical Properties of Titin Isoforms. Advances in Experimental Medicine and Biology, 2000, 481, 283-304.	0.8	41
23	Visualizing and manipulating individual protein molecules. Physiological Measurement, 2005, 26, R119-R153.	1.2	40
24	Mechanical Unfolding of Cardiac Myosin Binding Protein-C by Atomic Force Microscopy. Biophysical Journal, 2011, 101, 1968-1977.	0.2	40
25	The growth determinants and transport properties of tunneling nanotube networks between B lymphocytes. Cellular and Molecular Life Sciences, 2016, 73, 4531-4545.	2.4	39
26	A myosin II nanomachine mimicking the striated muscle. Nature Communications, 2018, 9, 3532.	5.8	37
27	Potassium-dependent oriented growth of amyloid Î²25â€“35 fibrils on mica. Nanotechnology, 2007, 18, 345102.	1.3	34
28	Low-force transitions in single titin molecules reflect a memory of contractile history. Journal of Cell Science, 2014, 127, 858-70.	1.2	33
29	Optical Trapping Nanometry of Hypermethylated CPG-Island DNA. Biophysical Journal, 2017, 112, 512-522.	0.2	31
30	Force generation by titin folding. Protein Science, 2017, 26, 1380-1390.	3.1	28
31	Forced phage uncorking: viral DNA ejection triggered by a mechanically sensitive switch. Nanoscale, 2018, 10, 1898-1904.	2.8	25
32	Stretching and visualizing titin molecules: combining structure, dynamics and mechanics. Journal of Muscle Research and Cell Motility, 2002, 23, 499-511.	0.9	24
33	Theoretical Predictions of the Effects of Force Transmission by Desmin on Intersarcomere Dynamics. Biophysical Journal, 2010, 98, 258-266.	0.2	24
34	Microstructural Distinction of Electrospun Nanofibrous Drug Delivery Systems Formulated with Different Excipients. Molecular Pharmaceutics, 2018, 15, 4214-4225.	2.3	24
35	Different pressureâ€“temperature behavior of the structured and unstructured regions of titin. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 112-118.	1.1	23
36	Optimization of Quality Attributes and Atomic Force Microscopy Imaging of Reconstituted Nanodroplets in Baicalin Loaded Self-Nanoemulsifying Formulations. Pharmaceutics, 2018, 10, 275.	2.0	23

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37	Structure and assemblyâ€“disassembly properties of wildâ€type transthyretin amyloid protofibrils observed with atomic force microscopy. Journal of Molecular Recognition, 2011, 24, 467-476.	1.1	22
38	Mechanical Manipulation of Single Titin Molecules with Laser Tweezers. Advances in Experimental Medicine and Biology, 2000, 481, 111-128.	0.8	22
39	Effects of Estrogen on Beta-Amyloid-Induced Cholinergic Cell Death in the Nucleus Basalis Magnocellularis. Neuroendocrinology, 2011, 93, 90-105.	1.2	20
40	Titin Domains Progressively Unfolded by Force Are Homogenously Distributed along the Molecule. Biophysical Journal, 2015, 109, 340-345.	0.2	20
41	Oriented epitaxial growth of amyloid fibrils of the N27C mutant Î²25â€“35 peptide. European Biophysics Journal, 2008, 37, 1133-1137.	1.2	19
42	Exclusion-Zone Dynamics Explored with Microfluidics and Optical Tweezers. Entropy, 2014, 16, 4322-4337.	1.1	17
43	Single-particle virology. Biophysical Reviews, 2020, 12, 1141-1154.	1.5	16
44	MAINTENANCE OF IONS, PROTEINS AND WATER IN LENS FIBER CELLS BEFORE AND AFTER TREATMENT WITH NON-IONIC DETERGENTS. Cell Biology International, 1996, 20, 127-137.	1.4	15
45	Visualization of human Bloom's syndrome helicase molecules bound to homologous recombination intermediates. FASEB Journal, 2013, 27, 4954-4964.	0.2	15
46	Lateral gradients significantly enhance static magnetic fieldâ€induced inhibition of pain responses in miceâ€”a double blind experimental study. Bioelectromagnetics, 2013, 34, 385-396.	0.9	15
47	Dispersion and stabilization of cochleate nanoparticles. European Journal of Pharmaceutics and Biopharmaceutics, 2017, 117, 270-275.	2.0	15
48	Nanotubes connecting B lymphocytes: High impact of differentiation-dependent lipid composition on their growth and mechanics. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2017, 1862, 991-1000.	1.2	15
49	Aggregation of PEGylated liposomes driven by hydrophobic forces. Colloids and Surfaces B: Biointerfaces, 2016, 147, 467-474.	2.5	14
50	A brief overview of global biotechnology. Biotechnology and Biotechnological Equipment, 2021, 35, S5-S14.	0.5	14
51	Rescue of in vitro actin motility halted at high ionic strength by reduction of ATP to submicromolar levels. Biochimica Et Biophysica Acta - Bioenergetics, 1996, 1277, 107-114.	0.5	13
52	Temperature-Dependent Nanomechanics and Topography of Bacteriophage T7. Journal of Virology, 2018, 92, .	1.5	13
53	Contribution of hydrophobic interactions to protein mechanical stability. Computational and Structural Biotechnology Journal, 2022, 20, 1946-1956.	1.9	13
54	Periodically Arranged Interactions within the Myosin Filament Backbone Revealed by Mechanical Unzipping. Journal of Molecular Biology, 2008, 377, 307-310.	2.0	12

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55	Conformational Dynamics of Titin PEVK Explored with FRET Spectroscopy. Biophysical Journal, 2012, 103, 1480-1489.	0.2	12
56	Study on the dissolution improvement of albendazole using reconstitutable dry nanosuspension formulation. European Journal of Pharmaceutical Sciences, 2018, 123, 70-78.	1.9	12
57	Structure and elasticity of desmin protofibrils explored with scanning force microscopy. Journal of Molecular Recognition, 2011, 24, 1095-1104.	1.1	11
58	Nano-thrombelastography of fibrin during blood plasma clotting. Journal of Structural Biology, 2014, 186, 462-471.	1.3	11
59	Extreme Resilience in Cochleate Nanoparticles. Langmuir, 2015, 31, 839-845.	1.6	11
60	Molecular Tattoo: Subcellular Confinement of Drug Effects. Chemistry and Biology, 2015, 22, 548-558.	6.2	11
61	Preparation and 68Ga-radiolabeling of porous zirconia nanoparticle platform for PET/CT-imaging guided drug delivery. Journal of Pharmaceutical and Biomedical Analysis, 2017, 137, 146-150.	1.4	11
62	Stepwise reversible nanomechanical buckling in a viral capsid. Nanoscale, 2017, 9, 1136-1143.	2.8	11
63	The discovery of actin: â€œto see what everyone else has seen, and to think what nobody has thoughtâ€•. Journal of Muscle Research and Cell Motility, 2020, 41, 3-9.	0.9	11
64	Delayed dissociation of in vitro moving actin filaments from heavy meromyosin induced by low concentrations of Triton X-100. Biophysical Chemistry, 1997, 67, 199-210.	1.5	10
65	Effect of the betaâ€sheetâ€breaker peptide LPFFD on oriented network of amyloid Î²25â€35 fibrils. Journal of Molecular Recognition, 2011, 24, 453-460.	1.1	10
66	Kinetic Characterization of the Function of Myosin Loop 4 in the Actinâ˜Myosin Interaction. Biochemistry, 2008, 47, 283-291.	1.2	9
67	Cross-Species Mechanical Fingerprinting of Cardiac Myosin Binding Protein-C. Biophysical Journal, 2013, 104, 2465-2475.	0.2	8
68	Label-free Multiscale Transport Imaging of the Living Cell. Biophysical Journal, 2018, 115, 874-880.	0.2	8
69	Citrullinated Fibrinogen Renders Clots Mechanically Less Stable, but Lysis-Resistant. Circulation Research, 2021, 129, 342-344.	2.0	8
70	Individual Globular Domains and Domain Unfolding Visualized in Overstretched Titin Molecules with Atomic Force Microscopy. PLoS ONE, 2014, 9, e85847.	1.1	8
71	Structural and nanomechanical comparison of epitaxially and solution-grown amyloid Î²25â€“35 fibrils. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2015, 1854, 327-332.	1.1	7
72	Force spectroscopy reveals the presence of structurally modified dimers in transthyretin amyloid annular oligomers. Journal of Molecular Recognition, 2017, 30, e2587.	1.1	7

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73	Plasmin-driven fibrinolysis in a quasi-two-dimensional nanoscale fibrin matrix. Journal of Structural Biology, 2018, 203, 273-280.	1.3	7
74	Direct Visualization of Surface-Adsorbed Single Fluorescently Labeled Titin Molecules. Single Molecules, 2001, 2, 79-83.	1.6	6
75	Dynamic Strength of Titin's Z-Disk End. Journal of Biomedicine and Biotechnology, 2010, 2010, 1-8.	3.0	6
76	Combined Atomic Force Microscopy and Fluorescence Microscopy. Methods in Molecular Biology, 2011, 736, 439-456.	0.4	6
77	Large Stokes-shift bioorthogonal probes for STED, 2P-STED and multi-color STED nanoscopy. Methods and Applications in Fluorescence, 2021, 9, 015006.	1.1	6
78	Muscle Thixotropy: More than Just Cross-Bridges? Response to Comment by Campbell and Lakie. Biophysical Journal, 2008, 94, 329-330.	0.2	5
79	Millisecond Time-Scale Protein Dynamics Exists Prior to the Activation of the Bulk Solvent Matrix. Journal of Physical Chemistry B, 2011, 115, 5707-5715.	1.2	5
80	Topology of interaction between titin and myosin thick filaments. Journal of Structural Biology, 2018, 203, 46-53.	1.3	5
81	Development, structure and mechanics of a synthetic E. coli outer membrane model. Nanoscale Advances, 2021, 3, 755-766.	2.2	5
82	Recovery of functional enzyme from amyloid fibrils. FEBS Letters, 2010, 584, 1139-1142.	1.3	4
83	Epitaxial assembly dynamics of mutant amyloid Î²25â€“35_N27C fibrils explored with time-resolved scanning force microscopy. Biophysical Chemistry, 2013, 184, 54-61.	1.5	4
84	Stretching desmin filaments with receding meniscus reveals large axial tensile strength. Journal of Structural Biology, 2014, 186, 472-480.	1.3	4
85	Photosynthetic reaction centre/carbon nanotube bundle composites. Physica Status Solidi (B): Basic Research, 2014, 251, 2366-2371.	0.7	4
86	Nanosurgical Manipulation of Titin and Its M-Complex. Nanomaterials, 2022, 12, 178.	1.9	4
87	Persisting in vitro motility of actin filaments at nanomolar ATP concentrations after ATP pretreatment. Biochimica Et Biophysica Acta - Bioenergetics, 1995, 1229, 89-95.	0.5	3
88	Nuclear magnetic resonance relaxation parameters of muscle in malignant hyperthermia-susceptible swine. Academic Radiology, 1996, 3, 26-30.	1.3	3
89	Crystal-storing histiocytosis associated with only one of two consecutive, but genetically unrelated B-cell lymphomas. Pathology Research and Practice, 2009, 205, 273-278.	1.0	3
90	Single-Molecule Mechanics in Ligand Concentration Gradient. Micromachines, 2020, 11, 212.	1.4	2

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91	Increased Expression of N2BA Titin Corresponds to More Compliant Myofibrils in Athleteâ€™s Heart. International Journal of Molecular Sciences, 2021, 22, 11110.	1.8	2
92	A Novel Actin Binding Site of Myosin is Responsible for Effective Muscle Contraction. Biophysical Journal, 2011, 100, 130a-131a.	0.2	1
93	The Motif of Myosin Binding Protein-C is Mechanically Weak and Extensible. Biophysical Journal, 2011, 100, 453a-454a.	0.2	1
94	Nanomechanics of Desmin Filaments Explored with Optical Tweezers. Biophysical Journal, 2012, 102, 578a.	0.2	1
95	An AT-barrier mechanically controls DNA reannealing under tension. Nucleic Acids Research, 2016, 44, 7954-7962.	6.5	1
96	BRAF Modulates Stretch-Induced Intercellular Gap Formation through Localized Actin Reorganization. International Journal of Molecular Sciences, 2021, 22, 8989.	1.8	1
97	Single-Molecule Studies of Amyloidogenic Proteins. , 2012, , 169-210.		1
98	Semmelweis Caring University Model Program Based on the Development of a Center of Preventive Services: Health for All Employees at a University Occupational Setting. Frontiers in Public Health, 2021, 9, 727668.	1.3	1
99	Effect of Methylation on the Nanomechanics of Double-Stranded DNA. Biophysical Journal, 2015, 108, 352a.	0.2	0
100	Transport Imaging of Living Cells. Biophysical Journal, 2016, 110, 597a.	0.2	0
101	Formation and Mechanical Properties of Calcium-Stabilized Membrane Rolls. Biophysical Journal, 2016, 110, 249a.	0.2	0
102	MO032PODOCIN REGULATES THE SIZE OF THE GLOMERULAR PORE. Nephrology Dialysis Transplantation, 2020, 35, .	0.4	0
103	Imaging and Mechanics of Infectious DNA Ejection by the T7 Bacteriophage. Biophysical Journal, 2020, 118, 490a.	0.2	0
104	The 3M Concept: Biomedical Translational Imaging from Molecules to Mouse to Man. The EuroBiotech Journal, 2021, 5, 155-160.	0.5	0
105	Stretching and visualizing titin molecules: combining structure, dynamics and mechanics. , 2003, , 499-511.		0
106	MO044: Cellular mechanism of the exceptional dominant transmission in NPHS2-associated glomerulopathy. Nephrology Dialysis Transplantation, 2022, 37, .	0.4	0