Alexander Bershadsky

List of Publications by Year
in descending order

122 papers	19,275 citations	26567 56 h-index	21474 114 g-index
133 all docs	133 docs citations	133 times ranked	16723 citing authors

#	Article	IF	Citations
1	Environmental sensing through focal adhesions. Nature Reviews Molecular Cell Biology, 2009, 10, 21-33.	16.1	2,205
2	Transmembrane crosstalk between the extracellular matrix and the cytoskeleton. Nature Reviews Molecular Cell Biology, 2001, 2, 793-805.	16.1	2,046
3	Force and focal adhesion assembly: a close relationship studied using elastic micropatterned substrates. Nature Cell Biology, 2001, 3, 466-472.	4.6	1,924
4	Focal Contacts as Mechanosensors. Journal of Cell Biology, 2001, 153, 1175-1186.	2.3	1,331
5	Adhesion-Dependent Cell Mechanosensitivity. Annual Review of Cell and Developmental Biology, 2003, 19, 677-695.	4.0	779
6	Dynamics and segregation of cellâ€“matrix adhesions in cultured fibroblasts. Nature Cell Biology, 2000, 2, 191-196.	4.6	652
7	Assembly and mechanosensory function of focal contacts. Current Opinion in Cell Biology, 2001, 13, 584-592.	2.6	519
8	Fibroblast polarization is a matrix-rigidity-dependent process controlled by focal adhesion mechanosensing. Nature Cell Biology, 2011, 13, 1457-1465.	4.6	473
9	Physical State of the Extracellular Matrix Regulates the Structure and Molecular Composition of Cell-Matrix Adhesions. Molecular Biology of the Cell, 2000, 11, 1047-1060.	0.9	390
10	Exploring the Neighborhood. Cell, 2002, 110, 139-142.	13.5	388
11	YAP/TAZ as mechanosensors and mechanotransducers in regulating organ size and tumor growth. FEBS Letters, 2014, 588, 2663-2670.	1.3	354
12	Adhesion-mediated mechanosensitivity: a time to experiment, and a time to theorize. Current Opinion in Cell Biology, 2006, 18, 472-481.	2.6	350
13	Cellular chirality arising from the self-organization of the actin cytoskeleton. Nature Cell Biology, 2015, 17, 445-457.	4.6	350
14	Involvement of microtubules in the control of adhesion-dependent signal transduction. Current Biology, 1996, 6, 1279-1289.	1.8	334
15	Focal adhesions as mechanosensors: A physical mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 12383-12388.	3.3	262
16	Comparative Dynamics of Retrograde Actin Flow and Focal Adhesions: Formation of Nascent Adhesions Triggers Transition from Fast to Slow Flow. PLoS ONE, 2008, 3, e3234.	1.1	223
17	Microtubule Dynamics: Mechanism, Regulation, and Function. Annual Review of Cell Biology, 1991, 7, 93-116.	26.0	213
18	p120 catenin affects cell motility via modulation of activity of Rho-family GTPases: a link between cell-cell contact formation and regulation of cell locomotion. Journal of Cell Science, 2001, 114, 695-707.	1.2	205

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19	Assembly and mechanosensory function of focal adhesions: experiments and models. European Journal of Cell Biology, 2006, 85, 165-173.	1.6	202
20	Regulation of microtubule dynamics by inhibition of the tubulin deacetylase HDAC6. Journal of Cell Science, 2009, 122, 3531-3541.	1.2	201
21	How do microtubules guide migrating cells?. Nature Reviews Molecular Cell Biology, 2002, 3, 957-964.	16.1	190
22	Caldesmon Inhibits Nonmuscle Cell Contractility and Interferes with the Formation of Focal Adhesions. Molecular Biology of the Cell, 1999, 10, 3097-3112.	0.9	187
23	Swinholide A Is a Microfilament Disrupting Marine Toxin That Stabilizes Actin Dimers and Severs Actin Filaments. Journal of Biological Chemistry, 1995, 270, 3463-3466.	1.6	177
24	Actomyosin-generated tension controls the molecular kinetics of focal adhesions. Journal of Cell Science, 2011, 124, 1425-1432.	1.2	171
25	Mammalian diaphanous-related formin Dia1 controls the organization of E-cadherin-mediated cell-cell junctions. Journal of Cell Science, 2007, 120, 3870-3882.	1.2	170
26	Long-range self-organization of cytoskeletal myosin II filament stacks. Nature Cell Biology, 2017, 19, 133-141.	4.6	170
27	Microtubule-dependent control of cell shape and pseudopodial activity is inhibited by the antibody to kinesin motor domain.. Journal of Cell Biology, 1993, 123, 1811-1820.	2.3	159
28	A mechano-signalling network linking microtubules, myosin IIA filaments and integrin-based adhesions. Nature Materials, 2019, 18, 638-649.	13.3	129
29	Cadherin-mediated regulation of microtubule dynamics. Nature Cell Biology, 2000, 2, 797-804.	4.6	128
30	Cytoskeleton. , 1988, , .		128
31	Lamellipodium extension and cadherin adhesion: two cell responses to cadherin activation relying on distinct signalling pathways. Journal of Cell Science, 2004, 117, 257-270.	1.2	123
32	Integrin-Matrix Clusters Form Podosome-like Adhesions in the Absence of Traction Forces. Cell Reports, 2013, 5, 1456-1468.	2.9	122
33	Molecular Interactions in the Submembrane Plaque of Cell-Cell and Cell-Matrix Adhesions. Cells Tissues Organs, 1995, 154, 46-62.	1.3	118
34	Disruption of the Golgi apparatus by brefeldin A blocks cell polarization and inhibits directed cell migration.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 5686-5689.	3.3	111
35	Processive capping by formin suggests a force-driven mechanism of actin polymerization. Journal of Cell Biology, 2004, 167, 1011-1017.	2.3	108
36	The heel and toe of the cell's foot: A multifaceted approach for understanding the structure and dynamics of focal adhesions. Cytoskeleton, 2009, 66, 1017-1029.	4.4	107

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37	ATP-dependent regulation of cytoplasmic microtubule disassembly.. Proceedings of the National Academy of Sciences of the United States of America, 1981, 78, 3610-3613.	3.3	106
38	Effect of protein kinase inhibitor H-7 on the contractility, integrity, and membrane anchorage of the microfilament system. Cytoskeleton, 1994, 29, 321-338.	4.4	106
39	Destruction of microfilament bundles in mouse embryo fibroblasts treated with inhibitors of energy metabolism. Experimental Cell Research, 1980, 127, 421-429.	1.2	105
40	Live-cell monitoring of tyrosine phosphorylation in focal adhesions following microtubule disruption. Journal of Cell Science, 2003, 116, 975-986.	1.2	105
41	Mechanical stimulation induces formin-dependent assembly of a perinuclear actin rim. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E2595-601.	3.3	105
42	Pseudopodial activity at the active edge of migrating fibroblast is decreased after drug-induced microtubule depolymerization. Cytoskeleton, 1991, 19, 152-158.	4.4	94
43	Magic touch: how does cellâ€"cell adhesion trigger actin assembly?. Trends in Cell Biology, 2004, 14, 589-593.	3.6	94
44	Molecular mapping of tyrosine-phosphorylated proteins in focal adhesions using fluorescence resonance energy transfer. Journal of Cell Science, 2006, 119, 866-875.	1.2	94
45	Mammalian Diaphanous 1 Mediates a Pathway for E-cadherin to Stabilize Epithelial Barriers through Junctional Contractility. Cell Reports, 2017, 18, 2854-2867.	2.9	94
46	Analysis of the local organization and dynamics of cellular actin networks. Journal of Cell Biology, 2013, 202, 1057-1073.	2.3	91
47	Focal contacts of normal and RSV-transformed quail cells. Experimental Cell Research, 1985, 158, 433-444.	1.2	84
48	mDia1 senses both force and torque during F-actin filament polymerization. Nature Communications, 2017, 8, 1650.	5.8	83
49	p120 catenin regulates lamellipodial dynamics and cell adhesion in cooperation with cortactin. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10882-10887.	3.3	80
50	Microtubules tune mechanosensitive cell responses. Nature Materials, 2022, 21, 366-377.	13.3	77
51	Mechanosensing Controlled Directly by Tyrosine Kinases. Nano Letters, 2016, 16, 5951-5961.	4.5	74
52	Myosin IIA and formin dependent mechanosensitivity of filopodia adhesion. Nature Communications, 2019, 10, 3593.	5.8	74
53	Involvement of the Rhoâ€"mDia1 pathway in the regulation of Golgi complex architecture and dynamics. Molecular Biology of the Cell, 2011, 22, 2900-2911.	0.9	73
54	Sustained Induction of ERK, Protein Kinase B, and p70 S6 Kinase Regulates Cell Spreading and Formation of F-actin Microspikes Upon Ligation of Integrins by Galectin-8, a Mammalian Lectin. Journal of Biological Chemistry, 2003, 278, 14533-14543.	1.6	70

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55	Association of intermediate filaments with vinculin-containing adhesion plaques of fibroblasts. Cytoskeleton, 1987, 8, 274-283.	4.4	69
56	Role of Focal Adhesions and Mechanical Stresses in the Formation and Progression of the Lamellum Interface. Biophysical Journal, 2009, 97, 1254-1264.	0.2	69
57	Latrunculin-A increases outflow facility in the monkey. Investigative Ophthalmology and Visual Science, 1999, 40, 931-41.	3.3	69
58	Actin cytoskeleton of spread fibroblasts appears to assemble at the cell edges. Journal of Cell Science, 1986, 82, 235-48.	1.2	61
59	Microtubules in mouse embryo fibro blasts extracted with Triton X-100. Cell Biology International Reports, 1978, 2, 425-432.	0.7	60
60	Ordering of myosin II filaments driven by mechanical forces: experiments and theory. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170114.	1.8	58
61	Caldesmon transgene expression disrupts focal adhesions in HTM cells and increases outflow facility in organ-cultured human and monkey anterior segments. Experimental Eye Research, 2006, 82, 935-944.	1.2	56
62	Caldesmon effects on the actin cytoskeleton and cell adhesion in cultured HTM cells. Experimental Eye Research, 2006, 82, 945-958.	1.2	56
63	It depends on the hinge: a structure-functional analysis of galectin-8, a tandem-repeat type lectin. Glycobiology, 2006, 16, 463-476.	1.3	55
64	The formin inhibitor SMIFH2 inhibits members of the myosin superfamily. Journal of Cell Science, 2021, 134, .	1.2	54
65	Cytoskeletal reorganizations responsible for the phorbol ester-induced formation of cytoplasmic processes: possible involvement of intermediate filaments.. Proceedings of the National Academy of Sciences of the United States of America, 1990, 87, 1884-1888.	3.3	53
66	Allicin inhibits cell polarization, migration and division via its direct effect on microtubules. Cytoskeleton, 2007, 64, 321-337.	4.4	53
67	Cytoskeleton of mouse embryo fibroblasts. Electron microscopy of platinum replicas. European Journal of Cell Biology, 1984, 34, 64-74.	1.6	53
68	Physical Model for Self-Organization of Actin Cytoskeleton and Adhesion Complexes at the Cell Front. Biophysical Journal, 2012, 102, 1746-1756.	0.2	52
69	A novel mechanism of actin filament processive capping by formin. Journal of Cell Biology, 2005, 170, 889-893.	2.3	48
70	The Role of Sphingolipids in the Maintenance of Fibroblast Morphology. Journal of Biological Chemistry, 1997, 272, 1558-1564.	1.6	46
71	Podosome assembly is controlled by the GTPase ARF1 and its nucleotide exchange factor ARNO. Journal of Cell Biology, 2017, 216, 181-197.	2.3	46
72	Actin cytoskeleton self-organization in single epithelial cells and fibroblasts under isotropic confinement. Journal of Cell Science, 2019, 132, .	1.2	43

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73	Autoregulation of actin synthesis responds to monomeric actin levels. Journal of Cellular Biochemistry, 1997, 65, 469-478.	1.2	42
74	Signaling from adherens-type junctions. European Journal of Cell Biology, 2005, 84, 235-244.	1.6	42
75	Visualization of cellular focal contacts using a monoclonal antibody to 80 kD serum protein adsorbed on the substratum. Experimental Cell Research, 1983, 149, 387-396.	1.2	41
76	Structured illumination microscopy reveals focal adhesions are composed of linear subunits. Cytoskeleton, 2015, 72, 235-245.	1.0	41
77	Effects of Mechanical Stimuli on Profilin- and Formin-Mediated Actin Polymerization. Nano Letters, 2018, 18, 5239-5247.	4.5	39
78	Kinectin-mediated endoplasmic reticulum dynamics supports focal adhesion growth in the cellular lamella. Journal of Cell Science, 2010, 123, 3901-3912.	1.2	37
79	Cortactin Releases the Brakes in Actin- Based Motility by Enhancing WASP-VCA Detachment from Arp2/3 Branches. Current Biology, 2011, 21, 2092-2097.	1.8	37
80	Molecular requirements for the effect of neuregulin on cell spreading, motility and colony organization. Oncogene, 2000, 19, 878-888.	2.6	33
81	Mechanobiology. Journal of the Royal Society Interface, 2010, 7, S291-3.	1.5	33
82	Morphogenetic Effects of Neuregulin (Neu Differentiation Factor) in Cultured Epithelial Cells. Molecular Biology of the Cell, 1998, 9, 3195-3209.	0.9	32
83	Microtubule involvement in regulating cell contractility and adhesion-dependent signalling: a possible mechanism for polarization of cell motility. Biochemical Society Symposia, 1999, 65, 147-72.	2.7	32
84	A New Dimension in Retrograde Flow: Centripetal Movement of Engulfed Particles. Biophysical Journal, 2001, 81, 1990-2000.	0.2	30
85	Intermediate filament collapse is an ATP-dependent and actin-dependent process. Journal of Cell Science, 1989, 92 (Pt 4), 621-31.	1.2	28
86	Autoregulation of actin synthesis requires the 3'-UTR of actin mRNA and protects cells from actin overproduction. , 2000, 76, 1-12.		27
87	Spreading of mouse fibroblasts on the substrate with multiple spikes. Experimental Cell Research, 1991, 197, 107-112.	1.2	26
88	Stimulation of actin synthesis in phalloidin-treated cells. FEBS Letters, 1990, 277, 11-14.	1.3	25
89	Crawling cell locomotion revisited. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20275-20276.	3.3	25
90	Formin DAAM1 Organizes Actin Filaments in the Cytoplasmic Nodal Actin Network. PLoS ONE, 2016, 11, e0163915.	1.1	23

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91	Microtubule-dependent effect of phorbol ester on the contractility of cytoskeleton of cultured fibroblasts.. Proceedings of the National Academy of Sciences of the United States of America, 1988, 85, 9538-9541.	3.3	22
92	Signaling function of α-catenin in microtubule regulation. Cell Cycle, 2008, 7, 2377-2383.	1.3	22
93	Reciprocal regulation of actomyosin organization and contractility in nonmuscle cells by tropomyosins and alpha-actinins. Molecular Biology of the Cell, 2019, 30, 2025-2036.	0.9	21
94	Mechanical regulation of formin-dependent actin polymerization. Seminars in Cell and Developmental Biology, 2020, 102, 73-80.	2.3	20
95	The state of actin assembly regulates actin and vinculin expression by a feedback loop. Journal of Cell Science, 1995, 108 (Pt 3), 1183-93.	1.2	20
96	Multinucleation-induced improvement of the spreading of transformed cells on the substratum.. Proceedings of the National Academy of Sciences of the United States of America, 1984, 81, 3098-3102.	3.3	18
97	Novel localization of formin mDia2: importin Î²-mediated delivery to and retention at the cytoplasmic side of the nuclear envelope. Biology Open, 2015, 4, 1569-1575.	0.6	18
98	Post-translational modification of microtubules is a component of synergic alterations of cytoskeleton leading to formation of cytoplasmic processes in fibroblasts.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 6318-6322.	3.3	17
99	Temporal evolution of cell focal adhesions: experimental observations and shear stress profiles. Soft Matter, 2008, 4, 2410.	1.2	17
100	Forces and constraints controlling podosome assembly and disassembly. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180228.	1.8	17
101	Differential cellular responses to adhesive interactions with galectin-8- and fibronectin-coated substrates. Journal of Cell Science, 2021, 134, .	1.2	16
102	Evidence that intermediate filament reorganization is induced by ATP-dependent contraction of the actomyosin cortex in permeabilized fibroblasts. Journal of Cell Science, 1991, 98 (Pt 3), 375-84.	1.2	15
103	Application of piconewton forces to individual filopodia reveals mechanosensory role of L-type Ca2+ channels. Biomaterials, 2022, 284, 121477.	5.7	15
104	Motility of intracellular particles in rat fibroblasts is greatly enhanced by phorbol ester and by over-expression of normal p21N-ras. Cytoskeleton, 1993, 25, 254-266.	4.4	14
105	The Role of the Cytoskeleton in Adhesion-Mediated Signaling and Gene Expression. Advances in Molecular and Cell Biology, 1997, 24, 125-163.	0.1	14
106	Serum dependence of expression of the transformed phenotype: Experiments with subline of mouse L fibroblasts adapted to growth in serum-free medium. International Journal of Cancer, 1976, 18, 83-92.	2.3	13
107	Cellular Contractility Requires Ubiquitin Mediated Proteolysis. PLoS ONE, 2009, 4, e6155.	1.1	11
108	Interplay between the Actin Cytoskeleton, Focal Adhesions and Microtubules. , 0, , 75-99.		10

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109	Force-driven polymerization in cells: actin filaments and focal adhesions. Journal of Physics Condensed Matter, 2005, 17, S3913-S3928.	0.7	8
110	Involvement of Rho GAP GRAF1 in maintenance of epithelial phenotype. Cell Adhesion and Migration, 2017, 11, 367-383.	1.1	8
111	Crosstalk between myosin II and formin functions in the regulation of force generation and actomyosin dynamics in stress fibers. Cells and Development, 2021, 168, 203736.	0.7	8
112	Disruption of microtubules in living cells by tyrphostin AG-1714. Cytoskeleton, 2000, 45, 223-234.	4.4	7
113	Mechanisms of regulation of pseudopodial activity by the microtubule system. Symposia of the Society for Experimental Biology, 1993, 47, 353-73.	0.0	7
114	Registry Kinetics of Myosin Motor Stacks Driven by Mechanical Force-Induced Actin Turnover. Biophysical Journal, 2019, 117, 856-866.	0.2	6
115	Actin Retrograde Flow in Permeabilized Cells: Myosin-II Driven Centripetal Movement of Transverse Arcs. Bio-protocol, 2016, 6, .	0.2	2
116	Systems of Actin Filaments. , 1988, , 13-78.		2
117	Interactions of normal and neoplastic cells with various surfaces. Neoplasma, 1973, 20, 583-5.	0.7	2
118	Cytoskeleton and Internal Organization of the Cell. , 1988, , 167-201.		1
119	Transmembrane crosstalk between the extracellular matrix and the cytoskeleton. , 0, .		1
120	Reorganization of Cytoskeleton. , 1988, , 217-250.		0
121	Molecular Basis for Cell Adhesion and Adhesion-Mediated Signaling. , 0, , 121-138.		0
122	Systems of Microtubules. , 1988, , 79-131.		0