Deborah E Leckband

List of Publications by Year
in descending order

63 papers	3,512 citations	201674 27 h-index	144013 57 g-index
67 all docs	67 docs citations	67 times ranked	4389 citing authors

#	Article	IF	Citations
1	Ionic strength dependent forces between end-grafted Poly(sulfobetaine) films and mica. Journal of Colloid and Interface Science, 2022, 606, 298-306.	9.4	4
2	Forces between mica and end-grafted statistical copolymers of sulfobetaine and oligoethylene glycol in aqueous electrolyte solutions. Journal of Colloid and Interface Science, 2022, 608, 1857-1867.	9.4	2
3	Mechanical disruption of E-cadherin complexes with epidermal growth factor receptor actuates growth factorâ€"dependent signaling. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	23
4	Cadherin cis and trans interactions are mutually cooperative. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	24
5	P120 catenin potentiates constitutive E-cadherin dimerization at the plasma membrane and regulates trans binding. Current Biology, 2021, 31, 3017-3027.e7.	3.9	22
6	Stabilization and Kinetics of an Adsorbed Protein Depends on the Poly(<i>N</i>-isopropylacrylamide) Grafting Density. Biomacromolecules, 2021, 22, 4470-4478.	5.4	5
7	Gold nanoparticles disrupt actin organization and pulmonary endothelial barriers. Scientific Reports, 2020, 10, 13320.	3.3	8
8	Protein Adsorption on Grafted Zwitterionic Polymers Depends on Chain Density and Molecular Weight. Advanced Functional Materials, 2020, 30, 2000757.	14.9	26
9	Comparative effects of N-cadherin protein and peptide fragments on mesenchymal stem cell mechanotransduction and paracrine function. Biomaterials, 2020, 239, 119846.	11.4	20
10	Cadherin clusters stabilized by a combination of specific and nonspecific cis-interactions. ELife, 2020, 9, .	6.0	33
11	Cadherin Extracellular Domain Clustering in the Absence of <i>Trans</i>-Interactions. Journal of Physical Chemistry Letters, 2019, 10, 4528-4534.	4.6	23
12	Graphene oxide substrates with N-cadherin stimulates neuronal growth and intracellular transport. Acta Biomaterialia, 2019, 90, 412-423.	8.3	16
13	VE-PTP stabilizes VE-cadherin junctions and the endothelial barrier via a phosphatase-independent mechanism. Journal of Cell Biology, 2019, 218, 1725-1742.	5.2	40
14	N-cadherin signaling via Trio assembles adherens junctions to restrict endothelial permeability. Journal of Cell Biology, 2019, 218, 299-316.	5.2	49
15	Epidermal growth factor receptor and integrins control force-dependent vinculin recruitment to E-Cadherin junctions. Journal of Cell Science, 2018, 131, .	2.0	19
16	Salt bridges gate Î±-catenin activation at intercellular junctions. Molecular Biology of the Cell, 2018, 29, 111-122.	2.1	21
17	Force-dependent allostery of the Î±-catenin actin-binding domain controls adherens junction dynamics and functions. Nature Communications, 2018, 9, 5121.	12.8	86
18	Soluble Zwitterionic Poly(sulfobetaine) Destabilizes Proteins. Biomacromolecules, 2018, 19, 3894-3901.	5.4	21

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19	Substrate stiffness and VE-cadherin mechano-transduction coordinate to regulate endothelial monolayer integrity. Biomaterials, 2017, 140, 45-57.	11.4	71
20	Direct Imaging of Protein Stability and Folding Kinetics in Hydrogels. ACS Applied Materials & Interfaces, 2017, 9, 21606-21617.	8.0	36
21	Kinetic Measurements Reveal Enhanced Protein-Protein Interactions at Intercellular Junctions. Scientific Reports, 2016, 6, 23623.	3.3	14
22	Cadherin Diffusion in Supported Lipid Bilayers Exhibits Calcium-Dependent Dynamic Heterogeneity. Biophysical Journal, 2016, 111, 2658-2665.	0.5	16
23	A Computational Model for Kinetic Studies of Cadherin Binding and Clustering. Biophysical Journal, 2016, 111, 1507-1518.	0.5	22
24	Constructing modular and universal single molecule tension sensor using protein G to study mechano-sensitive receptors. Scientific Reports, 2016, 6, 21584.	3.3	44
25	Dynamic Imaging Reveals Coordinate Effects of Cyclic Stretch and Substrate Stiffness on Endothelial Integrity. Annals of Biomedical Engineering, 2016, 44, 3655-3667.	2.5	16
26	E-Cadherin-mediated force transduction signals regulate global cell mechanics. Journal of Cell Science, 2016, 129, 1843-54.	2.0	66
27	A genetic variant of cortactin linked to acute lung injury impairs lamellipodia dynamics and endothelial wound healing. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2015, 309, L983-L994.	2.9	14
28	Dynamic Visualization of Î±-Catenin Reveals Rapid, Reversible Conformation Switching between Tension States. Current Biology, 2015, 25, 218-224.	3.9	141
29	Î±-catenin phosphorylation promotes intercellular adhesion through a dual-kinase mechanism. Journal of Cell Science, 2015, 128, 1150-65.	2.0	43
30	Local VE-cadherin mechanotransduction triggers long-ranged remodeling of endothelial monolayers. Journal of Cell Science, 2015, 128, 1341-1351.	2.0	103
31	Structural Determinants of the Mechanical Stability of Î±-Catenin. Journal of Biological Chemistry, 2015, 290, 18890-18903.	3.4	31
32	Allosteric Regulation of E-Cadherin Adhesion. Journal of Biological Chemistry, 2015, 290, 21749-21761.	3.4	41
33	Î±-Catenin cytomechanics â€“ role in cadherin-dependent adhesion and mechanotransduction. Journal of Cell Science, 2014, 127, 1779-1791.	2.0	107
34	Abstract 337: VE-Cadherin Mechanotransduction Regulates Lung Endothelial Contractility and Barrier Integrity. Arteriosclerosis, Thrombosis, and Vascular Biology, 2014, 34, .	2.4	0
35	Protein Adsorption Mechanisms Determine the Efficiency of Thermally Controlled Cell Adhesion on Poly(<i>N</i>-isopropyl acrylamide) Brushes. Biomacromolecules, 2013, 14, 92-100.	5.4	48
36	N-cadherin regulates spatially polarized signals through distinct p120ctn and Î²-catenin-dependent signalling pathways. Nature Communications, 2013, 4, 1589.	12.8	52

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37	Formin' cables under stress. Nature Cell Biology, 2013, 15, 345-346.	10.3	3
38	Cadherin Point Mutations Alter Cell Sorting and Modulate GTPase Signaling. Journal of Cell Science, 2012, 125, 3299-309.	2.0	19
39	Vinculin-dependent Cadherin mechanosensing regulates efficient epithelial barrier formation. Biology Open, 2012, 1, 1128-1140.	1.2	102
40	Cadherin-dependent mechanotransduction depends on ligand identity but not affinity. Journal of Cell Science, 2012, 125, 4362-71.	2.0	48
41	Cadherin recognition and adhesion. Current Opinion in Cell Biology, 2012, 24, 620-627.	5.4	67
42	Biophysics of Cadherin Adhesion. Sub-Cellular Biochemistry, 2012, 60, 63-88.	2.4	14
43	Protein Adsorption Modes Determine Reversible Cell Attachment on Poly(<i>Nâ€‹</i>isopropyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10	14.9	76
44	Tissue Organization by Cadherin Adhesion Molecules: Dynamic Molecular and Cellular Mechanisms of Morphogenetic Regulation. Physiological Reviews, 2011, 91, 691-731.	28.8	349
45	Geometry and Adhesion of Extracellular Domains of DC-SIGNR Neck Length Variants Analyzed by Forceâ€“Distance Measurements. Biochemistry, 2011, 50, 6125-6132.	2.5	13
46	Protein Adsorption on Poly(<i>N</i>-isopropylacrylamide) Brushes: Dependence on Grafting Density and Chain Collapse. Langmuir, 2011, 27, 8810-8818.	3.5	134
47	Novel Functions and Binding Mechanisms of Carbohydrate-Binding Proteins Determined by Force Measurements. Current Protein and Peptide Science, 2011, 12, 743-759.	1.4	4
48	Mechanotransduction at cadherin-mediated adhesions. Current Opinion in Cell Biology, 2011, 23, 523-530.	5.4	142
49	Measuring Traction Forces in Long-Term Cell Cultures. Cellular and Molecular Bioengineering, 2010, 3, 40-49.	2.1	19
50	Vinculin potentiates E-cadherin mechanosensing and is recruited to actin-anchored sites within adherens junctions in a myosin IIâ€“dependent manner. Journal of Cell Biology, 2010, 189, 1107-1115.	5.2	569
51	Design Rules for Biomolecular Adhesion: Lessons from Force Measurements. Annual Review of Chemical and Biomolecular Engineering, 2010, 1, 365-389.	6.8	11
52	From Single Molecules to Living Cells: Nanomechanical Measurements of Cell Adhesion. Cellular and Molecular Bioengineering, 2008, 1, 312-326.	2.1	6
53	Two Stage Cadherin Kinetics Require Multiple Extracellular Domains but Not the Cytoplasmic Region. Journal of Biological Chemistry, 2008, 283, 1848-1856.	3.4	52
54	Beyond structure: mechanism and dynamics of intercellular adhesion. Biochemical Society Transactions, 2008, 36, 213-220.	3.4	24

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55	Synthesis and functionalization of polypyrrole-Fe3O4 nanoparticles for applications in biomedicine. Journal of Materials Chemistry, 2007, 17, 3354.	6.7	145
56	Variably Elastic Hydrogel Patterned via Capillary Action in Microchannels. Langmuir, 2007, 23, 1483-1488.	3.5	13
57	Polypyrrole Nanospheres with Magnetic and Cell-Targeting Capabilities. Macromolecular Rapid Communications, 2007, 28, 816-821.	3.9	16
58	Nanomechanics of adhesion proteins. Current Opinion in Structural Biology, 2004, 14, 524-530.	5.7	17
59	MOLECULAR MECHANISMS OF CELL ADHESION: NEW PERSPECTIVES FROM SURFACE FORCE MEASUREMENTS. Journal of Adhesion, 2004, 80, 409-432.	3.0	2
60	Evaluation of a Three-Dimensional Micromixer in a Surface-Based Biosensorâ€. Langmuir, 2003, 19, 1824-1828.	3.5	149
61	The Structure of the C-Cadherin Ectodomain Resolved. Structure, 2002, 10, 739-740.	3.3	9
62	Measurements of Interbilayer Forces and Protein Adsorption on Uncharged Lipid Bilayers Displaying Poly(ethylene glycol) Chainsâ€. Biochemistry, 2000, 39, 3441-3451.	2.5	103
63	A Computational Reactionâˆ'Diffusion Model for the Analysis of Transport-Limited Kinetics. Analytical Chemistry, 1999, 71, 5405-5412.	6.5	97