FrÃ©dÃ©ric Pincet

List of Publications by Year
in descending order

#	Article	IF	Citations
1	The beginning and the end of <scp>SNARE</scp>â€induced membrane fusion. FEBS Open Bio, 2022, 12, 1958-1979.	1.0	8
2	Munc13 binds and recruits SNAP25 to chaperone SNARE complex assembly. FEBS Letters, 2021, 595, 297-309.	1.3	33
3	Vesicle capture by membraneâ€bound Munc13â€1 requires selfâ€assembly into discrete clusters. FEBS Letters, 2021, 595, 2185-2196.	1.3	15
4	Nascent fusion pore opening monitored at single-SNAREpin resolution. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	16
5	Cooperation of Conical and Polyunsaturated Lipids to Regulate Initiation and Processing of Membrane Fusion. Frontiers in Molecular Biosciences, 2021, 8, 763115.	1.6	11
6	Liquidâ€"liquid phase separation of the Golgi matrix protein GM130. FEBS Letters, 2020, 594, 1132-1144.	1.3	44
7	Synaptotagmin-1 membrane binding is driven by the C2B domain and assisted cooperatively by the C2A domain. Scientific Reports, 2020, 10, 18011.	1.6	22
8	CX3CL1 homo-oligomerization drives cell-to-cell adherence. Scientific Reports, 2020, 10, 9069.	1.6	13
9	Freezing and piercing of in vitro asymmetric plasma membrane by Î±-synuclein. Communications Biology, 2020, 3, 148.	2.0	9
10	TANGO1 membrane helices create a lipid diffusion barrier at curved membranes. ELife, 2020, 9, .	2.8	26
11	SNARE machinery is optimized for ultrafast fusion. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2435-2442.	3.3	43
12	Highly Reproducible Physiological Asymmetric Membrane with Freely Diffusing Embedded Proteins in a 3Dâ€Printed Microfluidic Setup. Small, 2019, 15, e1900725.	5.2	29
13	Synaptotagmin oligomers are necessary and can be sufficient to form a Ca²⁺â€sensitive fusion clamp. FEBS Letters, 2019, 593, 154-162.	1.3	42
14	SNAREpin Assembly: Kinetic and Thermodynamic Approaches. Methods in Molecular Biology, 2019, 1860, 71-93.	0.4	0
15	High-Throughput Monitoring of Single Vesicle Fusion Using Freestanding Membranes and Automated Analysis. Langmuir, 2018, 34, 5849-5859.	1.6	26
16	Vesicle Tubulation with Selfâ€Assembling DNA Nanosprings. Angewandte Chemie, 2018, 130, 5428-5432.	1.6	10
17	Vesicle Tubulation with Selfâ€Assembling DNA Nanosprings. Angewandte Chemie - International Edition, 2018, 57, 5330-5334.	7.2	85
18	Rearrangements under confinement lead to increased binding energy of Synaptotagminâ€1 with anionic membranes in Mg 2+ and Ca 2+. FEBS Letters, 2018, 592, 1497-1506.	1.3	13

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19	S-Palmitoylation Sorts Membrane Cargo for Anterograde Transport in the Golgi. Developmental Cell, 2018, 47, 479-493.e7.	3.1	106
20	Low energy cost for optimal speed and control of membrane fusion. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1238-1241.	3.3	70
21	Placing and shaping liposomes with reconfigurable DNA nanocages. Nature Chemistry, 2017, 9, 653-659.	6.6	178
22	Actual fusion efficiency in the lipid mixing assay - Comparison between nanodiscs and liposomes. Scientific Reports, 2017, 7, 43860.	1.6	10
23	Endothelial basement membrane laminin 511 is essential for shear stress response. EMBO Journal, 2017, 36, 183-201.	3.5	75
24	Hypothesis â€" buttressed rings assemble, clamp, and release SNAREpins for synaptic transmission. FEBS Letters, 2017, 591, 3459-3480.	1.3	76
25	BFPTool: a software tool for analysis of Biomembrane Force Probe experiments. BMC Biophysics, 2017, 10, 2.	4.4	7
26	Circular oligomerization is an intrinsic property of synaptotagmin. ELife, 2017, 6, .	2.8	47
27	Axon tension regulates fasciculation/defasciculation through the control of axon shaft zippering. ELife, 2017, 6, .	2.8	34
28	FRAP to Characterize Molecular Diffusion and Interaction in Various Membrane Environments. PLoS ONE, 2016, 11, e0158457.	1.1	78
29	Stability, folding dynamics, and long-range conformational transition of the synaptic t-SNARE complex. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E8031-E8040.	3.3	34
30	Control of plasma membrane lipid homeostasis by the extended synaptotagmins. Nature Cell Biology, 2016, 18, 504-515.	4.6	219
31	Kinetic barriers to SNAREpin assembly in the regulation of membrane docking/priming and fusion. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10536-10541.	3.3	47
32	Snapshot of sequential SNARE assembling states between membranes shows that N-terminal transient assembly initializes fusion. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3533-3538.	3.3	12
33	A Programmable DNA Origami Platform to Organize SNAREs for Membrane Fusion. Journal of the American Chemical Society, 2016, 138, 4439-4447.	6.6	78
34	Axon zippering in neuronal cell culture and its biophysical modeling. BMC Neuroscience, 2015, 16, .	0.8	1
35	Accelerating SNAREâ€Mediated Membrane Fusion by DNAâ€"Lipid Tethers. Angewandte Chemie - International Edition, 2015, 54, 14388-14392.	7.2	41
36	Formation of Giant Unilamellar Proteo-Liposomes by Osmotic Shock. Langmuir, 2015, 31, 7091-7099.	1.6	43

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37	The Energy of COPI for Budding Membranes. PLoS ONE, 2015, 10, e0133757.	1.1	7
38	Re-visiting the trans insertion model for complexin clamping. ELife, 2015, 4, .	2.8	33
39	CX3CL1, a chemokine finely tuned to adhesion: critical roles of the stalk glycosylation and the membrane domain. Biology Open, 2014, 3, 1173-1182.	0.6	28
40	Calcium sensitive ring-like oligomers formed by synaptotagmin. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13966-13971.	3.3	76
41	Interfacial pressure and phospholipid density at emulsion droplet interface using fluorescence microscopy. Colloids and Surfaces B: Biointerfaces, 2014, 117, 545-548.	2.5	2
42	Binding of sperm protein Izumo1 and its egg receptor Juno drives Cd9 accumulation in the intercellular contact area prior to fusion during mammalian fertilization. Development (Cambridge), 2014, 141, 3732-3739.	1.2	66
43	A Half-Zippered SNARE Complex Represents a Functional Intermediate in Membrane Fusion. Journal of the American Chemical Society, 2014, 136, 3456-3464.	6.6	62
44	Arf1/COPI machinery acts directly on lipid droplets and enables their connection to the ER for protein targeting. ELife, 2014, 3, e01607.	2.8	240
45	Common intermediates and kinetics, but different energetics, in the assembly of SNARE proteins. ELife, 2014, 3, e03348.	2.8	80
46	Preparation and characterization of SNARE-containing nanodiscs and direct study of cargo release through fusion pores. Nature Protocols, 2013, 8, 935-948.	5.5	29
47	COPI buds 60-nm lipid droplets from reconstituted waterâ€"phospholipidâ€"triacylglyceride interfaces, suggesting a tension clamp function. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13244-13249.	3.3	146
48	Homotypic and Heterotypic Adhesion Induced by Odorant Receptors and the Î²2-Adrenergic Receptor. PLoS ONE, 2013, 8, e80100.	1.1	10
49	SNARE Proteins: One to Fuse and Three to Keep the Nascent Fusion Pore Open. Science, 2012, 335, 1355-1359.	6.0	226
50	A conformational switch in complexin is required for synaptotagmin to trigger synaptic fusion. Nature Structural and Molecular Biology, 2011, 18, 934-940.	3.6	85
51	Complexin activates and clamps SNAREpins by a common mechanism involving an intermediate energetic state. Nature Structural and Molecular Biology, 2011, 18, 941-946.	3.6	69
52	Complexin cross-links prefusion SNAREs into a zigzag array. Nature Structural and Molecular Biology, 2011, 18, 927-933.	3.6	149
53	CD9 tetraspanin generates fusion competent sites on the egg membrane for mammalian fertilization. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10946-10951.	3.3	95
54	Quantification of phase transitions of lipid mixtures from bilayer to non-bilayer structures: Model, experimental validation and implication on membrane fusion. Chemistry and Physics of Lipids, 2010, 163, 280-285.	1.5	4

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55	Integrins stimulate E-cadherin-mediated intercellular adhesion by regulating Src-kinase activation and actomyosin contractility. Journal of Cell Science, 2010, 123, 712-722.	1.2	130
56	Recent Applications of Fluorescence Recovery after Photobleaching (FRAP) to Membrane Bio-Macromolecules. Sensors, 2010, 10, 5927-5948.	2.1	43
57	The adhesion mediated by the P-selectin Pâ€“selectin glycoprotein ligand-1 (PSGL-1) couple is stronger for shorter PSGL-1 variants. Journal of Leukocyte Biology, 2010, 87, 727-734.	1.5	9
58	Integrins stimulate E-cadherin-mediated intercellular adhesion by regulating Src-kinase activation and actomyosin contractility. Development (Cambridge), 2010, 137, e1-e1.	1.2	1
59	Two-dimensional crystallization of hard sphere particles at a liquidâ€“liquid interface. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 346, 208-212.	2.3	9
60	The Surface Force Apparatus to Reveal the Energetics of Biomolecules Assembly. Application to DNA Bases Pairing and SNARE Fusion Proteins Folding. Cellular and Molecular Bioengineering, 2008, 1, 240-246.	1.0	4
61	A Nanospring Named Erythrocyte. The Biomembrane Force Probe. Cellular and Molecular Bioengineering, 2008, 1, 263-275.	1.0	33
62	Mapping Mouse Gamete Interaction Forces Reveal Several Oocyte Membrane Regions with Different Mechanical and Adhesive Properties. Langmuir, 2008, 24, 1451-1458.	1.6	16
63	Functional Adhesiveness of the CX3CL1 Chemokine Requires Its Aggregation. Journal of Biological Chemistry, 2008, 283, 30225-30234.	1.6	39
64	Analyzing single-bond experiments: Influence of the shape of the energy landscape and universal law between the width, depth, and force spectrum of the bond. Physical Review E, 2008, 77, 026108.	0.8	31
65	Single Bonds and Adhesion in Biological Matter. , 2008, , 631-654.		0
66	Adhesion. , 2008, , 22-31.		0
67	Confinement Free Energy of Surfaces Bearing End-Grafted Polymers in the Mushroom Regime and Local Measurement of the Polymer Density. Langmuir, 2007, 23, 12541-12548.	1.6	16
68	Hydrophobic Forces and Hydrogen Bonds in the Adhesion between Retinoid-Coated Surfaces. Langmuir, 2007, 23, 3225-3229.	1.6	13
69	Membrane Recruitment of Scaffold Proteins Drives Specific Signaling. PLoS ONE, 2007, 2, e977.	1.1	14
70	Energetics and dynamics of SNAREpin folding across lipid bilayers. Nature Structural and Molecular Biology, 2007, 14, 890-896.	3.6	236
71	Prototypical Type I E-cadherin and Type II Cadherin-7 Mediate Very Distinct Adhesiveness through Their Extracellular Domains. Journal of Biological Chemistry, 2006, 281, 2901-2910.	1.6	101
72	Transition from long- to short-lived transient pores in giant vesicles in an aqueous medium. Physical Review E, 2006, 74, 061902.	0.8	26

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73	Giant vesicles formed by gentle hydration and electroformation: A comparison by fluorescence microscopy. Colloids and Surfaces B: Biointerfaces, 2005, 42, 125-130.	2.5	140
74	The Natural LewisX-Bearing Lipids Promote Membrane Adhesion: Influence of Ceramide on Carbohydrate-Carbohydrate Recognition. Angewandte Chemie - International Edition, 2005, 44, 1683-1687.	7.2	43
75	The Natural LewisX-Bearing Lipids Promote Membrane Adhesion: Influence of Ceramide on Carbohydrate-Carbohydrate Recognition. Angewandte Chemie, 2005, 117, 1711-1715.	1.6	6
76	Spontaneous and Reversible Switch from Amphiphilic to Oil-Like Structures. Physical Review Letters, 2005, 95, 218101.	2.9	3
77	Separation Force Measurements Reveal Different Types of Modulation of E-cadherin-based Adhesion by Nectin-1 and -3. Journal of Biological Chemistry, 2005, 280, 4753-4760.	1.6	56
78	Johnson-Kendall-Roberts Theory Applied to Living Cells. Physical Review Letters, 2005, 94, 028102.	2.9	174
79	The Binding Energy of Two Nitrilotriacetate Groups Sharing a Nickel Ion. Journal of the American Chemical Society, 2005, 127, 3879-3884.	6.6	19
80	The Solution to the Streptavidin-Biotin Paradox: The Influence of History on the Strength of Single Molecular Bonds. Biophysical Journal, 2005, 89, 4374-4381.	0.2	109
81	Influence of pH on Stability and Dynamic Properties of Asphaltenes and Other Amphiphilic Molecules at the Oilâ˘'Water Interfaceâ€. Energy & Fuels, 2005, 19, 1337-1341.	2.5	226
82	Enhanced Adhesive Capacities of the Naturally Occurring Ile249â€"Met280 Variant of the Chemokine Receptor CX3CR1. Journal of Biological Chemistry, 2004, 279, 19649-19657.	1.6	80
83	Force measurements in E-cadherinâ€"mediated cell doublets reveal rapid adhesion strengthened by actin cytoskeleton remodeling through Rac and Cdc42. Journal of Cell Biology, 2004, 167, 1183-1194.	2.3	372
84	Specific and non specific interactions involving LeXdeterminant quantified by lipid vesicle micromanipulation. Glycoconjugate Journal, 2004, 21, 165-174.	1.4	33
85	Specific Recognition of Macroscopic Objects by the Cell Surface: Evidence for a Receptor Density Threshold Revealed by Micrometric Particle Binding Characteristics. Biophysical Journal, 2004, 86, 3291-3303.	0.2	14
86	Energy of Hydrogen Bonds Probed by the Adhesion of Functionalized Lipid Layers. Biophysical Journal, 2002, 83, 3675-3681.	0.2	23
87	Ultraweak Sugar-Sugar Interactions for Transient Cell Adhesion. Biophysical Journal, 2001, 80, 1354-1358.	0.2	73
88	From Macroscopic Adhesion Energy to Molecular Bonds: A Test of the Theory. Physical Review Letters, 2001, 87, 178101.	2.9	9
89	Short-range specific forces are able to induce hemifusion. European Biophysics Journal, 2001, 30, 91-97.	1.2	16
90	New Highly Hydrophobic Lewis X Glycolipids: Synthesis and Monolayer Behaviour. European Journal of Organic Chemistry, 2001, 2001, 253-260.	1.2	19

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91	Quantitative Analysis of Holes in Supported Bilayers Providing the Adsorption Energy of Surfactants on Solid Substrate. Langmuir, 1997, 13, 7003-7007.	1.6	55
92	SPECIFIC FORCES BETWEEN DNA BASES. Modern Physics Letters B, 1996, 10, 81-99.	1.0	16
93	Does Glue Contaminate the Surface Forces Apparatus?. Langmuir, 1995, 11, 373-374.	1.6	15
94	Long range H-bond specific interactions between nucleosides. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 4329.	1.7	2
95	Molecular Interactions between Proteins and Synthetic Membrane Polymer Films. Langmuir, 1995, 11, 1229-1235.	1.6	28
96	Long-Range Attraction between Nucleosides with Short-Range Specificity: Direct Measurements. Physical Review Letters, 1994, 73, 2780-2783.	2.9	64
97	Do Trehalose and Dimethyl Sulfoxide Affect Intermembrane Forces?. Cryobiology, 1994, 31, 531-539.	0.3	19
98	Do Denatured Proteins Behave Like Polymers?. Macromolecules, 1994, 27, 3424-3425.	2.2	20