FranÃ§oise Brochard-Wyart

List of Publications by Year
in descending order

135 papers	9,817 citations	50170 46 h-index	53109 85 g-index
135 all docs	135 docs citations	135 times ranked	8120 citing authors

#	Article	IF	Citations
1	Capillarity and Wetting Phenomena. , 2004, , .		2,061
2	Dynamics of dewetting. Physical Review Letters, 1991, 66, 715-718.	2.9	496
3	Cascades of Transient Pores in Giant Vesicles: Line Tension and Transport. Biophysical Journal, 2003, 84, 1734-1749.	0.2	349
4	Dynamics of transient pores in stretched vesicles. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 10591-10596.	3.3	336
5	Spreading of nonvolatile liquids in a continuum picture. Langmuir, 1991, 7, 335-338.	1.6	325
6	Dynamics of partial wetting. Advances in Colloid and Interface Science, 1992, 39, 1-11.	7.0	292
7	Motions of droplets on hydrophobic model surfaces induced by thermal gradients. Langmuir, 1993, 9, 2220-2224.	1.6	242
8	The Life and Death of "Bare" Viscous Bubbles. Science, 1998, 279, 1704-1707.	6.0	231
9	Soft Matter Models of Developing Tissues and Tumors. Science, 2012, 338, 910-917.	6.0	230
10	Aspiration of Biological Viscoelastic Drops. Physical Review Letters, 2010, 104, 218101.	2.9	215
11	Wetting and Slippage of Polymer Melts on Semi-ideal Surfaces. Langmuir, 1994, 10, 1566-1572.	1.6	197
12	Viscous Bursting of Suspended Films. Physical Review Letters, 1995, 75, 3886-3889.	2.9	182
13	Transient pores in stretched vesicles: role of leak-out. Physica A: Statistical Mechanics and Its Applications, 2000, 278, 32-51.	1.2	182
14	Bursting of sensitive polymersomes induced by curling. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 7294-7298.	3.3	175
15	Dewetting and slippage of microscopic polymer films. Macromolecules, 1994, 27, 468-471.	2.2	161
16	Dewetting of Supported Viscoelastic Polymer Films:â€‰ Birth of Rims. Macromolecules, 1997, 30, 1211-1213.	2.2	142
17	Spreading dynamics and wetting transition of cellular aggregates. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 7315-7320.	3.3	142
18	Deformations of One Tethered Chain in Strong Flows. Europhysics Letters, 1993, 23, 105-111.	0.7	136

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19	Polymer Chains Under Strong Flows: Stems and Flowers. Europhysics Letters, 1995, 30, 387-392.	0.7	122
20	Hydrodynamic narrowing of tubes extruded from cells. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 7660-7663.	3.3	117
21	Slippage of Polymer Melts on Grafted Surfaces. Macromolecules, 1996, 29, 377-382.	2.2	114
22	Slippage of an entangled polymer melt on a grafted surface. Physica A: Statistical Mechanics and Its Applications, 1994, 204, 17-39.	1.2	112
23	Spreading of Liquids on Highly Curved Surfaces. Science, 1990, 249, 1256-1260.	6.0	106
24	Colloid & Polymer Science. Colloid and Polymer Science, 1993, 271, 621-628.	1.0	103
25	Giant Vesicles under Flows:Â Extrusion and Retraction of Tubes. Langmuir, 2003, 19, 575-584.	1.6	101
26	Dynamics of liquid rim instabilities. Langmuir, 1992, 8, 2324-2329.	1.6	99
27	Dewetting at Soft Interfaces. Physical Review Letters, 1998, 80, 3296-3299.	2.9	93
28	Inkjet formation of unilamellar lipid vesicles for cell-like encapsulation. Lab on A Chip, 2009, 9, 2003.	3.1	90
29	Line Thermodynamics: Adsorption at a Membrane Edge. Physical Review Letters, 2003, 90, 128304.	2.9	83
30	Semiflexible Polymers Confined in Soft Tubes. Langmuir, 2005, 21, 4144-4148.	1.6	81
31	Vesicles surfing on a lipid bilayer: Self-induced haptotactic motion. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12382-12387.	3.3	81
32	Unwinding of Polymer Chains under Forces or Flows. Europhysics Letters, 1994, 26, 511-516.	0.7	72
33	Adhesion induced by mobile binders: Dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 7854-7859.	3.3	72
34	How cells flow in the spreading of cellular aggregates. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8055-8060.	3.3	72
35	Wetting transitions of cellular aggregates induced by substrate rigidity. Soft Matter, 2012, 8, 4578.	1.2	67
36	Exponential Growth of Fingering Instabilities of Spreading Films Under Horizontal Thermal Gradients. Europhysics Letters, 1992, 19, 97-102.	0.7	64

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37	Tether Extrusion from Red Blood Cells: Integral Proteins Unbinding from Cytoskeleton. Biophysical Journal, 2007, 93, 1369-1379.	0.2	63
38	Mechanosensitive shivering of model tissues under controlled aspiration. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13387-13392.	3.3	63
39	Spreading of â€œheavyâ€•droplets. Journal of Colloid and Interface Science, 1991, 142, 518-527.	5.0	60
40	Unwinding of Globular Polymers under Strong Flows. Macromolecules, 1996, 29, 4937-4943.	2.2	55
41	Enforced Detachment of Red Blood Cells Adhering to Surfaces: Statics and Dynamics. Biophysical Journal, 2004, 87, 2855-2869.	0.2	55
42	Flow injection of branched polymers inside nanopores. Europhysics Letters, 2005, 72, 83-88.	0.7	55
43	Triplon Modes of Puddles. Physical Review Letters, 2005, 94, 166102.	2.9	54
44	Marangoni transport in lipid nanotubes. Europhysics Letters, 2005, 70, 271-277.	0.7	53
45	Dewetting Nucleation Centers at Soft Interfaces. Langmuir, 2001, 17, 6553-6559.	1.6	51
46	Transient pores in vesicles. Polymer International, 2003, 52, 486-493.	1.6	50
47	Adhesion Induced by Mobile Stickers:Â A List of Scenarios. Langmuir, 2003, 19, 7112-7119.	1.6	50
48	Mechanics of Biomimetic Liposomes Encapsulating an Actin Shell. Biophysical Journal, 2015, 109, 2471-2479.	0.2	50
49	Formation and material properties of giant liquid crystal polymersomes. Soft Matter, 2009, 5, 1870.	1.2	48
50	Injection Threshold for a Statistically Branched Polymer inside a Nanopore. Macromolecules, 1996, 29, 8379-8382.	2.2	47
51	Curling instability induced by swelling. Soft Matter, 2011, 7, 1506.	1.2	43
52	Normal modes of stretched polymer chains. Macromolecules, 1995, 28, 985-990.	2.2	40
53	Bursting of a Liquid Film on a Liquid Substrate. Europhysics Letters, 1994, 28, 421-426.	0.7	39
54	Spontaneous migration of cellular aggregates from giant keratocytes to running spheroids. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12926-12931.	3.3	39

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55	Dewetting of a water film between a solid and a rubber. Journal of Physics Condensed Matter, 1994, 6, A9-A12.	0.7	37
56	Hydrodynamic extrusion of tubes from giant vesicles. Europhysics Letters, 2003, 64, 837-843.	0.7	37
57	Wetting of fibers : theory and experiments. Revue De Physique AppliquÃ©e, 1988, 23, 1023-1030.	0.4	36
58	Entangled active matter: From cells to ants. European Physical Journal: Special Topics, 2016, 225, 629-649.	1.2	35
59	Shocks in Inertial Dewetting. Physical Review Letters, 1999, 83, 1183-1186.	2.9	34
60	Active diffusion-limited aggregation of cells. Soft Matter, 2012, 8, 784-788.	1.2	34
61	Sessile Droplets at a Solid/Elastomer Interface. Langmuir, 1997, 13, 4910-4914.	1.6	33
62	Suction of hydrosoluble polymers into nanopores. Soft Matter, 2011, 7, 96-103.	1.2	32
63	Scaling theory of molten polymers in small pores. Macromolecules, 1990, 23, 2276-2280.	2.2	30
64	Spreading of viscous droplets on a non viscous liquid. Colloid and Polymer Science, 1996, 274, 70-72.	1.0	30
65	Dynamics of taut DNA chains. Europhysics Letters, 1999, 47, 171-174.	0.7	30
66	Specific wetting probed with biomimetic emulsion droplets. Soft Matter, 2008, 4, 2434.	1.2	29
67	Role of E-Cadherin in Membrane-Cortex Interaction Probed by Nanotube Extrusion. Biophysical Journal, 2009, 96, 2457-2465.	0.2	29
68	Cellular Dewetting: Opening of Macroapertures in Endothelial Cells. Physical Review Letters, 2012, 108, 218105.	2.9	29
69	Dynamics of stars and linear chains dissolved in a polymer melt. Macromolecules, 1994, 27, 803-808.	2.2	26
70	Dewetting of cellular monolayers. European Physical Journal E, 2012, 35, 34.	0.7	25
71	Experimental Study of the Spreading of a Viscous Droplet on a Nonviscous Liquid. Langmuir, 1996, 12, 6708-6711.	1.6	22
72	Nucleation Radius and Growth of a Liquid Meniscus. Journal of Colloid and Interface Science, 1997, 190, 134-141.	5.0	22

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73	Dewetting versus Rayleigh Instability inside Capillaries. Langmuir, 2002, 18, 4795-4798.	1.6	22
74	PHYSICS: How Soft Skin Wrinkles. Science, 2003, 300, 441-441.	6.0	22
75	Detachment and fracture of cellular aggregates. Soft Matter, 2013, 9, 2282.	1.2	22
76	Making van der Waals Films on Fibers. Europhysics Letters, 1989, 10, 335-340.	0.7	21
77	Naive model for stick-slip processes. European Physical Journal E, 2007, 23, 439-444.	0.7	21
78	Transcellular tunnel dynamics: Control of cellular dewetting by actomyosin contractility and Iâ€BAR proteins. Biology of the Cell, 2013, 105, 109-117.	0.7	21
79	Drag on a Tethered Chain Moving in a Polymer Melt. Journal De Physique II, 1995, 5, 491-495.	0.9	21
80	Squeezing and Detachment of Living Cells. Biophysical Journal, 2010, 99, 3555-3562.	0.2	18
81	Spreading of a Drop between a Solid and a Viscous Polymer. Langmuir, 1994, 10, 2440-2443.	1.6	17
82	Fast Dynamics of Floating Triple Lines. Langmuir, 2002, 18, 9350-9356.	1.6	17
83	Dewetting of Low-Viscosity Films at Solid/Liquid Interfaces. Langmuir, 2012, 28, 15844-15852.	1.6	17
84	â€œÄŒerenkovâ€•dewetting at soft interfaces. Europhysics Letters, 2002, 57, 604-610.	0.7	16
85	Festoon instabilities of slightly volatile liquids during spreading. Journal De Physique II, 1992, 2, 1671-1676.	0.9	15
86	Polymer Chains Under Strong Flow: Stems and Flowers. MRS Bulletin, 1997, 22, 48-52.	1.7	15
87	Adhesion between Giant Vesicles and Supported Bilayers Decorated with Chelated E-Cadherin Fragments. Langmuir, 2004, 20, 9763-9768.	1.6	15
88	Reentrant wetting transition in the spreading of cellular aggregates. Soft Matter, 2017, 13, 8474-8482.	1.2	15
89	Spreading of porous vesicles subjected to osmotic shocks: the role of aquaporins. Soft Matter, 2016, 12, 1601-1609.	1.2	14
90	Actin modulates shape and mechanics of tubular membranes. Science Advances, 2020, 6, eaaz3050.	4.7	14

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91	Hindered interdiffusion in asymmetric polymer-polymer junctions. Makromolekulare Chemie Macromolecular Symposia, 1990, 40, 167-177.	0.6	13
92	Nanostickers for cells: a model study using cellâ€“nanoparticle hybrid aggregates. Soft Matter, 2016, 12, 7902-7907.	1.2	13
93	Wetting of stratified solids. Advances in Colloid and Interface Science, 1991, 34, 561-582.	7.0	12
94	Spreading of â€œheavyâ€•droplets. Journal of Colloid and Interface Science, 1992, 149, 580-591.	5.0	12
95	Cascade of Shocks in Inertial Liquid-Liquid Dewetting. Physical Review Letters, 2006, 96, 156101.	2.9	12
96	Nanopore-Based Characterization of Branched Polymers. ACS Macro Letters, 2014, 3, 194-197.	2.3	12
97	Membrane tensiometer for heavy giant vesicles. European Physical Journal E, 2004, 15, 127-132.	0.7	11
98	The viscous catenary revisited: experiments and theory. Journal of Fluid Mechanics, 2008, 609, 87-110.	1.4	11
99	ALCAM shedding at the invasive front of the tumor is a marker of myometrial infiltration and promotes invasion in endometrioid endometrial cancer. Oncotarget, 2018, 9, 16648-16664.	0.8	11
100	Climbing of a high-molecular-weight liquid on a vertical solid surface grafted with long polymer chains. Macromolecules, 1993, 26, 5885-5889.	2.2	10
101	Wetting of antagonist mixtures: the `leak out' transition. International Journal of Engineering Science, 2000, 38, 1033-1047.	2.7	10
102	How to separate polydisperse polyelectrolytes by thermal field flow fractionation techniques. Macromolecules, 1983, 16, 149-150.	2.2	9
103	Dewetting on porous media. Europhysics Letters, 2001, 56, 414-419.	0.7	9
104	Tube extrusion from permeabilized giant vesicles. Europhysics Letters, 2006, 75, 666-672.	0.7	9
105	Polymeric Nanoparticles Limit the Collective Migration of Cellular Aggregates. Langmuir, 2019, 35, 7396-7404.	1.6	9
106	Nanofluidics in cellular tubes under oscillatory extension. Europhysics Letters, 2008, 84, 18004.	0.7	8
107	Flow dynamics of 3D multicellular systems into capillaries. , 2021, , 193-223.		8
108	Adhesion of soft objects on wet substrates. Journal of Physics Condensed Matter, 2000, 12, A239-A244.	0.7	7

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109	Wetting fibers with liposomes. Journal of Colloid and Interface Science, 2005, 285, 61-66.	5.0	7
110	Nanotubes from gelly vesicles. Europhysics Letters, 2008, 82, 48002.	0.7	7
111	Spreading dynamics of cellular aggregates confined to adhesive bands. European Physical Journal E, 2012, 35, 116.	0.7	7
112	Application of statistical mechanics to the wetting of complex liquids. Physica A: Statistical Mechanics and Its Applications, 1999, 274, 19-29.	1.2	6
113	Dewetting. , 2004, , 153-190.		6
114	Pierre-Gilles de Gennes (1932â€“2007). Nature, 2007, 448, 149-149.	13.7	6
115	The viscous catenary: A poor man's approach. Europhysics Letters, 2007, 80, 36001.	0.7	5
116	Soft matter physics: Tools and mechanical models for living cellular aggregates. Japanese Journal of Applied Physics, 2016, 55, 1102A8.	0.8	5
117	Fusion Dynamics of Hybrid Cellâ€“Microparticle Aggregates: A Jelly Pearl Model. Langmuir, 2022, , .	1.6	5
118	Capillary rise of a liquid on a solid grafted with long polymer chains. Journal of Adhesion Science and Technology, 1993, 7, 495-502.	1.4	4
119	Behavior of a nematic liquid near a grafted solid surface. Macromolecular Symposia, 2003, 191, 59-68.	0.4	4
120	Forced Detachment of Immersed Elastic Rubber Beads. Langmuir, 2007, 23, 9704-9712.	1.6	4
121	Bilayer curling and winding in a viscous fluid. Soft Matter, 2012, 8, 8517.	1.2	4
122	How gluttonous cell aggregates clear substrates coated with microparticles. Scientific Reports, 2017, 7, 15729.	1.6	4
123	Inert-living matter, when cells and beads play together. Communications Physics, 2021, 4, .	2.0	4
124	On the deformation of star shaped polystyrenes in flowing solutions. Macromolecular Theory and Simulations, 1999, 8, 147-150.	0.6	3
125	Polymers in Confined Geometries. Series on Directions in Condensed Matter Physics, 2009, , 69-95.	0.1	3
126	Dewetting of a water film between a solid and a viscoelastic liquid. Journal De Physique II, 1994, 4, 1727-1735.	0.9	3

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127	Controlled swelling of polymer brushes. Macromolecular Symposia, 1994, 79, 1-16.	0.4	2
128	Dynamics of triple lines at soft interfaces. Europhysics Letters, 2005, 71, 418-424.	0.7	2
129	Decorating a Liquid Interface Promotes Splashing. Langmuir, 2011, 27, 9955-9960.	1.6	2
130	Nanotubes from asymmetrically decorated vesicles. Soft Matter, 2011, 7, 946-951.	1.2	2
131	Formation of Tethers from Spreading Cellular Aggregates. Langmuir, 2015, 31, 12984-12992.	1.6	2
132	Spreading of Cell Aggregates on Zwitterion-Modified Chitosan Films. Langmuir, 2019, 35, 1902-1908.	1.6	2
133	A Tour of My Soft Matter Garden: From Shining Globules and Soap Bubbles to Cell Aggregates. Annual Review of Condensed Matter Physics, 2019, 10, 1-23.	5.2	1
134	In Memory of Pierre-Gilles de Gennes. Journal of Physical Chemistry B, 2009, 113, 3591-3592.	1.2	0
135	Polymer Chains under Strong Flows: Stems and Flowers. Turkish Journal of Physics, 1996, 20, 42-52.	0.5	0