

Cecile Fradin

List of Publications by Year in descending order

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76
papers

2,898
citations

236925

25
h-index

175258

52
g-index

83
all docs

83
docs citations

83
times ranked

3670
citing authors

#	ARTICLE	IF	CITATIONS
1	Anomalous Diffusion of Proteins Due to Molecular Crowding. <i>Biophysical Journal</i> , 2005, 89, 2960-2971.	0.5	666
2	Membrane Binding by tBid Initiates an Ordered Series of Events Culminating in Membrane Permeabilization by Bax. <i>Cell</i> , 2008, 135, 1074-1084.	28.9	511
3	Reduction in the surface energy of liquid interfaces at short length scales. <i>Nature</i> , 2000, 403, 871-874.	27.8	231
4	High Mobility of Bicoid Captured by Fluorescence Correlation Spectroscopy: Implication for the Rapid Establishment of Its Gradient. <i>Biophysical Journal</i> , 2010, 99, L33-L35.	0.5	96
5	The time to measure positional information: maternal Hunchback is required for the synchrony of the Bicoid transcriptional response at the onset of zygotic transcription. <i>Development (Cambridge)</i> , 2010, 137, 2795-2804.	2.5	82
6	tBid Undergoes Multiple Conformational Changes at the Membrane Required for Bax Activation. <i>Journal of Biological Chemistry</i> , 2013, 288, 22111-22127.	3.4	79
7	Self-Directed Growth of AlGaAs Core-Shell Nanowires for Visible Light Applications. <i>Nano Letters</i> , 2007, 7, 2584-2589.	9.1	71
8	A Molecular Thermometer Based on Fluorescent Protein Blinking. <i>Journal of the American Chemical Society</i> , 2007, 129, 10302-10303.	13.7	64
9	Fluorescence correlation spectroscopy with sub-diffraction-limited resolution using near-field optical probes. <i>Applied Physics Letters</i> , 2008, 93, 163904.	3.3	59
10	Fluorescence Correlation Spectroscopy Close to a Fluctuating Membrane. <i>Biophysical Journal</i> , 2003, 84, 2005-2020.	0.5	55
11	Distinct lipid effects on tBid and Bim activation of membrane permeabilization by pro-apoptotic Bax. <i>Biochemical Journal</i> , 2015, 467, 495-505.	3.7	54
12	Characterizing anomalous diffusion in crowded polymer solutions and gels over five decades in time with variable-lengthscale fluorescence correlation spectroscopy. <i>Soft Matter</i> , 2016, 12, 4190-4203.	2.7	53
13	Precision of Readout at the hunchback Gene: Analyzing Short Transcription Time Traces in Living Fly Embryos. <i>PLoS Computational Biology</i> , 2016, 12, e1005256.	3.2	48
14	Layer-by-layer and step-flow growth mechanisms in GaAsP/GaP nanowire heterostructures. <i>Journal of Materials Research</i> , 2006, 21, 2801-2809.	2.6	47
15	Electroconvection in nematic liquid crystals: comparison between experimental results and the hydrodynamic model. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1997, 235, 508-514.	2.1	44
16	Microscopic measurement of the linear compressibilities of two-dimensional fatty acid mesophases. <i>European Physical Journal B</i> , 1998, 1, 57-69.	1.5	41
17	Adhesion and membrane tension of single vesicles and living cells using a micropipette-based technique. <i>European Physical Journal E</i> , 2009, 30, 117-21.	1.6	38
18	A Comparison of Methods to Measure the Magnetic Moment of Magnetotactic Bacteria through Analysis of Their Trajectories in External Magnetic Fields. <i>PLoS ONE</i> , 2013, 8, e82064.	2.5	38

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19	Membrane charge and lipid packing determine polymyxin-induced membrane damage. <i>Communications Biology</i> , 2019, 2, 67.	4.4	37
20	3 minutes to precisely measure morphogen concentration. <i>PLoS Genetics</i> , 2018, 14, e1007676.	3.5	35
21	Multiple partners can kiss-and-run: Bax transfers between multiple membranes and permeabilizes those primed by tBid. <i>Cell Death and Disease</i> , 2014, 5, e1277-e1277.	6.3	34
22	Precision in a rush: Trade-offs between reproducibility and steepness of the hunchback expression pattern. <i>PLoS Computational Biology</i> , 2018, 14, e1006513.	3.2	32
23	Allosteric Regulation of BH3 Proteins in Bcl-xL Complexes Enables Switch-like Activation of Bax. <i>Molecular Cell</i> , 2020, 77, 901-912.e9.	9.7	32
24	X-ray Study of the Fluctuations and the Interfacial Structure of a Phospholipid Monolayer at an Alkane-Water Interface. <i>Langmuir</i> , 1998, 14, 7327-7330.	3.5	31
25	Lipid Diffusion in Supported Lipid Bilayers: A Comparison between Line-Scanning Fluorescence Correlation Spectroscopy and Single-Particle Tracking. <i>Membranes</i> , 2015, 5, 702-721.	3.0	28
26	Circumvention of Fluorophore Photobleaching in Fluorescence Fluctuation Experiments: a Beam Scanning Approach. <i>ChemPhysChem</i> , 2007, 8, 834-848.	2.1	26
27	On the importance of protein diffusion in biological systems: The example of the Bicoid morphogen gradient. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2017, 1865, 1676-1686.	2.3	26
28	Multiple Quantum Well AlGaAs Nanowires. <i>Nano Letters</i> , 2008, 8, 495-499.	9.1	25
29	Interaction of the full-length Bax protein with biomimetic mitochondrial liposomes: A small-angle neutron scattering and fluorescence study. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2012, 1818, 384-401.	2.6	24
30	Magnetite magnetosome biomineralization in <i>Magnetospirillum magneticum</i> strain AMB-1: A time course study. <i>Chemical Geology</i> , 2019, 530, 119348.	3.3	22
31	Excipient selection for thermally stable enveloped and non-enveloped viral vaccine platforms in dry powders. <i>International Journal of Pharmaceutics</i> , 2019, 561, 66-73.	5.2	22
32	Investigating liquid surfaces down to the nanometer scale using grazing incidence X-ray scattering. <i>Physica B: Condensed Matter</i> , 1998, 248, 310-315.	2.7	20
33	Spatial Distribution and Mobility of the Ran GTPase in Live Interphase Cells. <i>Biophysical Journal</i> , 2009, 97, 2164-2178.	0.5	20
34	The Proapoptotic Protein tBid Forms Both Superficially Bound and Membrane-Inserted Oligomers. <i>Biophysical Journal</i> , 2014, 106, 2085-2095.	0.5	20
35	Squeezing and Detachment of Living Cells. <i>Biophysical Journal</i> , 2010, 99, 3555-3562.	0.5	18
36	Simultaneous pH and Temperature Measurements Using Pyranine as a Molecular Probe. <i>Journal of Fluorescence</i> , 2011, 21, 299-312.	2.5	15

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37	Effect of Cholesterol on the Structure of a Five-Component Mitochondria-Like Phospholipid Membrane. <i>Membranes</i> , 2015, 5, 664-684.	3.0	15
38	Anomalous Diffusion in Inverted Variable-Lengthscale Fluorescence Correlation Spectroscopy. <i>Biophysical Journal</i> , 2019, 116, 791-806.	0.5	14
39	Dissociation of nuclear import cargo complexes by the protein Ran: a fluorescence correlation spectroscopy study. <i>Comptes Rendus - Biologies</i> , 2005, 328, 1073-1082.	0.2	11
40	Wavelength Doubling Cascade to MÃ¶bius Defect Turbulence in a 3D Anisotropic Liquid. <i>Physical Review Letters</i> , 1998, 81, 2902-2905.	7.8	10
41	Structure and fluctuations of liquid surfaces and interfaces. <i>Applied Surface Science</i> , 2001, 182, 223-230.	6.1	9
42	Fluorescence correlation spectroscopy with a doughnut-shaped excitation profile as a characterization tool in STED microscopy. <i>Optics Express</i> , 2014, 22, 31154.	3.4	9
43	Self-organisation and convection of confined magnetotactic bacteria. <i>Scientific Reports</i> , 2020, 10, 13578.	3.3	9
44	Inducing Microscale Structural Order in Phage Nanofilament Hydrogels with Globular Proteins. <i>ACS Biomaterials Science and Engineering</i> , 2022, 8, 340-347.	5.2	9
45	Capicua is a fast-acting transcriptional brake. <i>Current Biology</i> , 2021, 31, 3639-3647.e5.	3.9	8
46	Optimizing the Acquisition and Analysis of Confocal Images for Quantitative Single-Particle Detection. <i>ChemPhysChem</i> , 2013, 14, 2476-2490.	2.1	6
47	Growing Magnetotactic Bacteria of the Genus <i>Magnetospirillum</i> : Strains MSR-1, AMB-1 and MS-1. <i>Journal of Visualized Experiments</i> , 2018, , .	0.3	6
48	Near-field optical probes provide subdiffraction-limited excitation areas for fluorescence correlation spectroscopy on membranes. <i>Pure and Applied Chemistry</i> , 2009, 81, 1645-1653.	1.9	5
49	Live Imaging of mRNA Transcription in Drosophila Embryos. <i>Methods in Molecular Biology</i> , 2018, 1863, 165-182.	0.9	5
50	Punching Holes in Membranes: How Oligomeric Pore-Forming Proteins and Lipids Cooperate to Form Aqueous Channels in Membranes. , 2009, , 223-262.		4
51	LiveFly: A Toolbox for the Analysis of Transcription Dynamics in Live Drosophila Embryos. <i>Methods in Molecular Biology</i> , 2018, 1863, 183-195.	0.9	4
52	Misalignment between the magnetic dipole moment and the cell axis in the magnetotactic bacterium <i>Magnetospirillum magneticum</i> AMB-1. <i>Physical Biology</i> , 2019, 16, 066008.	1.8	4
53	Direct Measurement of the Affinity between tBid and Bax in a Mitochondria-Like Membrane. <i>International Journal of Molecular Sciences</i> , 2021, 22, 8240.	4.1	4
54	Shaping LED Beams with Radially Distributed Waveguide-Encoded Lattices. <i>Advanced Optical Materials</i> , 2019, 7, 1801487.	7.3	3

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55	Localized photodamage of the human erythrocyte membrane causes an invagination as a precursor of photohaemolysis. <i>Journal of Microscopy</i> , 2007, 226, 6-17.	1.8	2
56	Coincidence Measurements in Dual-Color Confocal Microscopy: A Combined Single-Particle and Fluorescence Correlation Approach. <i>Biophysical Reviews and Letters</i> , 2014, 09, 249-271.	0.8	2
57	Using FCS to accurately measure protein concentration in the presence of noise and photobleaching. <i>Biophysical Journal</i> , 2021, 120, 4230-4241.	0.5	2
58	A Novel Route to Defect Turbulence in Nematics. <i>Molecular Crystals and Liquid Crystals</i> , 1999, 328, 513-521.	0.3	1
59	Characterization of the conformational changes of a tripartite molecular beacon. , 2004, 5323, 184.		1
60	(Invited) Investigation into the Photophysics and Diffusion Properties of Water Soluble Quantum Dots Using Fluorescence Correlation Spectroscopy. <i>ECS Transactions</i> , 2010, 28, 243-255.	0.5	1
61	In vivo mobility of proteins involved in nuclear transport studied by fluorescence correlation spectroscopy. , 2003, , .		0
62	Fluorescence Correlation Spectroscopy with Sub-Diffraction-Limited Resolution Using Near-field Optical Probes. <i>Biophysical Journal</i> , 2009, 96, 26a.	0.5	0
63	The Toxic Effects of Quantum Dots on Embryogenesis in <i>Caenorhabditis elegans</i> . <i>Biophysical Journal</i> , 2009, 96, 48a.	0.5	0
64	The Bcd Morphogenetic Concentration Gradient is Formed by Diffusion. <i>Biophysical Journal</i> , 2009, 96, 378a.	0.5	0
65	Combined pH and Temperature Measurements Using Pyranine as a Probe. <i>Biophysical Journal</i> , 2009, 96, 401a-402a.	0.5	0
66	Bax Pore Formation: From Activation to Oligomerization. <i>Biophysical Journal</i> , 2010, 98, 464a.	0.5	0
67	Detection of Mobile Single Fluorescent Particles by Confocal Microscopy: A Comparison with Fluorescence Correlation Techniques. <i>Biophysical Journal</i> , 2011, 100, 476a.	0.5	0
68	A Supported Bilayer Model to Study the Effect of Membrane Composition on Bcl-2 Family Proteins. <i>Biophysical Journal</i> , 2012, 102, 647a.	0.5	0
69	tBid Conformational Changes at the Membrane for the Regulation of Apoptosis. <i>Biophysical Journal</i> , 2012, 102, 625a.	0.5	0
70	Quantification of Protein Distribution on Liposomes using Confocal Microscopy: A Single Mobile Fluorescent Particle Detection Method. <i>Biophysical Journal</i> , 2012, 102, 51a-52a.	0.5	0
71	Characterizing Bax and Bid Binding to Liposomes and Planar Membranes with Single Molecule Resolution. <i>Biophysical Journal</i> , 2012, 102, 628a.	0.5	0
72	Binding and Oligomerization of Bcl-2 Family Proteins on Supported Lipid Bilayers with Single Molecule Resolution. <i>Biophysical Journal</i> , 2013, 104, 222a.	0.5	0

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73	Single-Molecule Fluorescence Microscopy and Tracking of Lipids in Mitochondrial-Like Supported Lipid Bilayers. <i>Biophysical Journal</i> , 2015, 108, 162a.	0.5	0
74	Zooming in on Anomalous Diffusion with Variable-Lengthscale Fluorescence Correlation Spectroscopy. <i>Biophysical Journal</i> , 2017, 112, 476a.	0.5	0
75	Measuring the Effective Temperature of Single Magnetotactic Bacteria as a Tool to Study Non-Thermal Biological Noise. <i>Biophysical Journal</i> , 2018, 114, 328a-329a.	0.5	0
76	Anomalous Diffusion as Seen through the Lens of Inverted Variable Length Scale FCS. <i>Biophysical Journal</i> , 2018, 114, 528a.	0.5	0