J-F Allemand

List of Publications by Year
in descending order

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65 papers	5,760 citations	126907 33 h-index	123424 61 g-index
75 all docs	75 docs citations	75 times ranked	4425 citing authors

#	Article	IF	Citations
1	The Elasticity of a Single Supercoiled DNA Molecule. Science, 1996, 271, 1835-1837.	12.6	1,161
2	Estimating the Persistence Length of a Worm-Like Chain Molecule from Force-Extension Measurements. Biophysical Journal, 1999, 76, 409-413.	0.5	616
3	Behavior of Supercoiled DNA. Biophysical Journal, 1998, 74, 2016-2028.	0.5	466
4	Twisting and stretching single DNA molecules. Progress in Biophysics and Molecular Biology, 2000, 74, 115-140.	2.9	317
5	Stretching of macromolecules and proteins. Reports on Progress in Physics, 2003, 66, 1-45.	20.1	230
6	Diaroyl(methanato)boron Difluoride Compounds as Medium-Sensitive Two-Photon Fluorescent Probes. Chemistry - A European Journal, 2004, 10, 1445-1455.	3.3	191
7	Measurement of the Torque on a Single Stretched and Twisted DNA Using Magnetic Tweezers. Physical Review Letters, 2009, 102, 078301.	7.8	171
8	KOPS: DNA motifs that control E. coli chromosome segregation by orienting the FtsK translocase. EMBO Journal, 2005, 24, 3770-3780.	7.8	169
9	Structural plasticity of single chromatin fibers revealed by torsional manipulation. Nature Structural and Molecular Biology, 2006, 13, 444-450.	8.2	156
10	Single-Molecule Micromanipulation Techniques. Annual Review of Materials Research, 2007, 37, 33-67.	9.3	153
11	An Efficient Fluorescent Probe for Ratiometric pH Measurements in Aqueous Solutions. Angewandte Chemie - International Edition, 2004, 43, 4785-4788.	13.8	137
12	Fast, DNA-sequence independent translocation by FtsK in a single-molecule experiment. EMBO Journal, 2004, 23, 2430-2439.	7.8	135
13	Supercoiling and denaturation in Gal repressor/heat unstable nucleoid protein (HU)-mediated DNA looping. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 11373-11377.	7.1	105
14	Stress-Induced Structural Transitions in DNA and Proteins. Annual Review of Biophysics and Biomolecular Structure, 2000, 29, 523-543.	18.3	99
15	Stretching DNA and RNA to probe their interactions with proteins. Current Opinion in Structural Biology, 2003, 13, 266-274.	5.7	92
16	Structure and mechanics of single biomolecules: experiment and simulation. Journal of Physics Condensed Matter, 2002, 14, R383-R414.	1.8	88
17	Oriented loading of FtsK on KOPS. Nature Structural and Molecular Biology, 2006, 13, 1026-1028.	8.2	88
18	A Caged Retinoic Acid for Oneâ€•and Twoâ€Photon Excitation in Zebrafish Embryos. Angewandte Chemie - International Edition, 2008, 47, 3744-3746.	13.8	83

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19	The Manipulation of Single Biomolecules. Physics Today, 2001, 54, 46-51.	0.3	81
20	Mechanism of strand displacement synthesis by DNA replicative polymerases. Nucleic Acids Research, 2012, 40, 6174-6186.	14.5	68
21	Twisting DNA: single molecule studies. Contemporary Physics, 2004, 45, 383-403.	1.8	66
22	Analysis of DNA supercoil induction by FtsK indicates translocation without groove-tracking. Nature Structural and Molecular Biology, 2005, 12, 436-440.	8.2	62
23	Loops in DNA: An overview of experimental and theoretical approaches. European Physical Journal E, 2006, 19, 293-302.	1.6	58
24	Phase coexistence in a single DNA molecule. Physica A: Statistical Mechanics and Its Applications, 1999, 263, 392-404.	2.6	56
25	DNA mechanics as a tool to probe helicase and translocase activity. Nucleic Acids Research, 2006, 34, 4232-4244.	14.5	56
26	Photophysics of a Series of Efficient Fluorescent pH Probes for Dual-Emission-Wavelength Measurements in Aqueous Solutions. Chemistry - A European Journal, 2006, 12, 1097-1113.	3.3	51
27	Soft magnetic tweezers: A proof of principle. Review of Scientific Instruments, 2011, 82, 034302.	1.3	51
28	Polymerase Exchange During Okazaki Fragment Synthesis Observed in Living Cells. Science, 2012, 335, 328-331.	12.6	51
29	Single-molecule mechanical identification and sequencing. Nature Methods, 2012, 9, 367-372.	19.0	51
30	Twisting and Untwisting a Single DNA Molecule Covered by RecA Protein. Biophysical Journal, 2004, 87, 2552-2563.	0.5	40
31	Single-Molecule Studies Using Magnetic Traps. Cold Spring Harbor Protocols, 2012, 2012, pdb.top067488.	0.3	39
32	Bacterial translocation motors investigated by single molecule techniques. FEMS Microbiology Reviews, 2009, 33, 593-610.	8.6	34
33	Separating speed and ability to displace roadblocks during DNA translocation by FtsK. EMBO Journal, 2010, 29, 1423-1433.	7.8	34
34	Magnetic Tweezers for the Study of DNA Tracking Motors. Methods in Enzymology, 2010, 475, 297-320.	1.0	34
35	PICH and TOP3A cooperate to induce positive DNA supercoiling. Nature Structural and Molecular Biology, 2019, 26, 267-274.	8.2	29
36	Statistical determination of the step size of molecular motors. Journal of Physics Condensed Matter, 2005, 17, S3811-S3820.	1.8	28

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37	Single DNA/protein studies with magnetic traps. Current Opinion in Structural Biology, 2009, 19, 615-622.	5.7	27
38	Some nonlinear challenges in biology. Nonlinearity, 2008, 21, T131-T147.	1.4	26
39	Magnetic Trap Construction: Figure 1.. Cold Spring Harbor Protocols, 2012, 2012, pdb.prot067496.	0.3	26
40	Asymmetric DNA requirements in Xer recombination activation by FtsK. Nucleic Acids Research, 2009, 37, 2371-2380.	14.5	24
41	Single-Molecule DNA Nanomanipulation: Detection of Promoter-Unwinding Events by RNA Polymerase. Methods in Enzymology, 2003, 370, 577-598.	1.0	23
42	Transverse fluctuations of single DNA molecules attached at both extremities to a surface. Physical Review E, 2003, 67, 051910.	2.1	23
43	Single molecule studies of helicases with magnetic tweezers. Methods, 2016, 105, 3-15.	3.8	23
44	Reactant Concentrations from Fluorescence Correlation Spectroscopy with Tailored Fluorescent Probes. An Example of Local Calibration-Free pH Measurement. Journal of the American Chemical Society, 2005, 127, 15491-15505.	13.7	22
45	Molecular motors for DNA translocation in prokaryotes. Current Opinion in Biotechnology, 2012, 23, 503-509.	6.6	22
46	Single-molecule Visualization of Binding Modes of Helicase to DNA on PEGylated Surfaces. Chemistry Letters, 2009, 38, 308-309.	1.3	20
47	Energy Propagation Through a Protometabolism Leading to the Local Emergence of Singular Stationary Concentration Profiles. Chemistry - A European Journal, 2012, 18, 14375-14383.	3.3	17
48	Fourier Analysis To Measure Diffusion Coefficients and Resolve Mixtures on a Continuous Electrophoresis Chip. Analytical Chemistry, 2007, 79, 8222-8231.	6.5	16
49	Folding and persistence times of intramolecular G-quadruplexes transiently embedded in a DNA duplex. Nucleic Acids Research, 2021, 49, 5189-5201.	14.5	16
50	Single-Molecule Manipulation Measurements of DNA Transport Proteins. ChemPhysChem, 2005, 6, 813-818.	2.1	15
51	Are the SSB-Interacting Proteins RecO, RecG, PriA and the DnaB-Interacting Protein Rep Bound to Progressing Replication Forks in Escherichia coli?. PLoS ONE, 2015, 10, e0134892.	2.5	15
52	Visualizing the dynamics of exported bacterial proteins with the chemogenetic fluorescent reporter FAST. Scientific Reports, 2020, 10, 15791.	3.3	15
53	Tracking enzymatic steps of DNA topoisomerases using single-molecule micromanipulation. Comptes Rendus Physique, 2002, 3, 595-618.	0.9	14
54	Parallel, linear, and subnanometric 3D tracking of microparticles with Stereo Darkfield Interferometry. Science Advances, 2021, 7, .	10.3	14

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55	Stochastic Resonance to Control Diffusive Motion in Chemistry. Journal of Physical Chemistry B, 2005, 109, 1318-1328.	2.6	12
56	A mechanistic study of helicases with magnetic traps. Protein Science, 2017, 26, 1314-1336.	7.6	12
57	Single-molecule kinetic locking allows fluorescence-free quantification of protein/nucleic-acid binding. Communications Biology, 2021, 4, 1083.	4.4	7
58	Novel approaches to study helicases using magnetic tweezers. Methods in Enzymology, 2022, , 359-403.	1.0	5
59	The manipulation of single biomolecules. Interdisciplinary Science Reviews, 2007, 32, 149-161.	1.4	2
60	Parallelized DNA tethered bead measurements to scrutinize DNA mechanical structure. Methods, 2019, 169, 46-56.	3.8	2
61	Studies of DNA-Protein Interactions at the Single Molecule Level with Magnetic Tweezers. , 2007, , 123-140.		2
62	Detection of genetic variation and base modifications at base-pair resolution on both DNA and RNA. Communications Biology, 2021, 4, 128.	4.4	1
63	Controlled assembly of covalent and supramolecular chemical modules: from engineering of complex structures to high-performance chromatography. Russian Chemical Bulletin, 2004, 53, 1379-1384.	1.5	0
64	Molecular motors. , 2014, , 71-90.		0
65	Nanoforce and Imaging. , 2009, , 375-475.		0