

David Bensimon

List of Publications by Year in descending order

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70
papers

5,128
citations

117625

34
h-index

95266

68
g-index

77
all docs

77
docs citations

77
times ranked

4220
citing authors

#	ARTICLE	IF	CITATIONS
1	Fgf8 dynamics and critical slowing down may account for the temperature independence of somitogenesis. <i>Communications Biology</i> , 2022, 5, 113.	4.4	5
2	Critical slowing down may account for the robustness of development. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	1
3	Detection of genetic variation and base modifications at base-pair resolution on both DNA and RNA. <i>Communications Biology</i> , 2021, 4, 128.	4.4	1
4	A Model of Somitogenesis. <i>Journal of Statistical Physics</i> , 2019, 175, 729-742.	1.2	4
5	Optical control of protein activity and gene expression by photoactivation of caged cyclofen. <i>Methods in Enzymology</i> , 2019, 624, 1-23.	1.0	3
6	Control of Protein Activity and Gene Expression by Cyclofenâ€OH Uncaging. <i>ChemBioChem</i> , 2018, 19, 1232-1238.	2.6	12
7	Asymmetric adhesion of rod-shaped bacteria controls microcolony morphogenesis. <i>Nature Communications</i> , 2018, 9, 1120.	12.8	69
8	A mechanistic study of helicases with magnetic traps. <i>Protein Science</i> , 2017, 26, 1314-1336.	7.6	12
9	Optical Control of Tumor Induction in the Zebrafish. <i>Scientific Reports</i> , 2017, 7, 9195.	3.3	22
10	Single molecule studies of helicases with magnetic tweezers. <i>Methods</i> , 2016, 105, 3-15.	3.8	23
11	Control of brain patterning by Engrailed paracrine transfer: a new function of the Pbx interaction domain. <i>Development (Cambridge)</i> , 2015, 142, 1840-1849.	2.5	15
12	How to control proteins with light in living systems. <i>Nature Chemical Biology</i> , 2014, 10, 533-541.	8.0	216
13	Optical control and study of biological processes at the single-cell level in a live organism. <i>Reports on Progress in Physics</i> , 2013, 76, 072601.	20.1	14
14	A Blue-Absorbing Photolabile Protecting Group for <i>in Vivo</i> Chromatically Orthogonal Photoactivation. <i>ACS Chemical Biology</i> , 2013, 8, 1528-1536.	3.4	96
15	Cellâ€cell contacts confine public goods diffusion inside <i>Pseudomonas aeruginosa</i> clonal microcolonies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 12577-12582.	7.1	122
16	Mechanism of strand displacement synthesis by DNA replicative polymerases. <i>Nucleic Acids Research</i> , 2012, 40, 6174-6186.	14.5	68
17	Detection and Quantification through a Lipid Membrane Using the Molecularly Controlled Semiconductor Resistor. <i>Langmuir</i> , 2012, 28, 1020-1028.	3.5	12
18	Spatiotemporal manipulation of retinoic acid activity in zebrafish hindbrain development via photo-isomerization. <i>Development (Cambridge)</i> , 2012, 139, 3355-3362.	2.5	12

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19	Monogalactopyranosides of fluorescein and fluorescein methyl ester: synthesis, enzymatic hydrolysis by biotinylated β -galactosidase, and determination of translational diffusion coefficient. Carbohydrate Research, 2012, 358, 40-46.	2.3	10
20	Single-Molecule Studies Using Magnetic Traps. Cold Spring Harbor Protocols, 2012, 2012, pdb.top067488.	0.3	39
21	Allosteric inhibition of individual enzyme molecules trapped in lipid vesicles. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1437-E1443.	7.1	70
22	Monitoring microbial population dynamics at low densities. Review of Scientific Instruments, 2012, 83, 074301.	1.3	8
23	Single-molecule mechanical identification and sequencing. Nature Methods, 2012, 9, 367-372.	19.0	51
24	Magnetic Trap Construction: Figure 1.. Cold Spring Harbor Protocols, 2012, 2012, pdb.prot067496.	0.3	26
25	ATP-Independent Cooperative Binding of Yeast Isw1a to Bare and Nucleosomal DNA. PLoS ONE, 2012, 7, e31845.	2.5	8
26	Nucleosome remodeling machines and other molecular motors observed at the single-molecule level. FEBS Journal, 2011, 278, 3596-3607.	4.7	12
27	Photocontrol of Protein Activity in Cultured Cells and Zebrafish with One- and Two-Photon Illumination. ChemBioChem, 2010, 11, 653-663.	2.6	72
28	Photoactivation of the CreER ^{T2} Recombinase for Conditional Site-Specific Recombination with High Spatiotemporal Resolution. Zebrafish, 2010, 7, 199-204.	1.1	61
29	Single Cell Physiology. Springer Series in Chemical Physics, 2010, , 305-316.	0.2	2
30	Active and passive mechanisms of helicases. Nucleic Acids Research, 2010, 38, 5518-5526.	14.5	129
31	Magnetic Tweezers for the Study of DNA Tracking Motors. Methods in Enzymology, 2010, 475, 297-320.	1.0	34
32	Photo-Control of Protein Activity in a Single Cell of a Live Organism. Biophysical Journal, 2010, 98, 612a.	0.5	0
33	Measurement of the Torque on a Single Stretched and Twisted DNA Using Magnetic Tweezers. Physical Review Letters, 2009, 102, 078301.	7.8	171
34	Single DNA/protein studies with magnetic traps. Current Opinion in Structural Biology, 2009, 19, 615-622.	5.7	27
35	Single-molecule Visualization of Binding Modes of Helicase to DNA on PEGylated Surfaces. Chemistry Letters, 2009, 38, 308-309.	1.3	20
36	A Caged Retinoic Acid for One- and Two-Photon Excitation in Zebrafish Embryos. Angewandte Chemie - International Edition, 2008, 47, 3744-3746.	13.8	83

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37	Some nonlinear challenges in biology. <i>Nonlinearity</i> , 2008, 21, T131-T147.	1.4	26
38	The antiparallel loops in gal DNA. <i>Nucleic Acids Research</i> , 2008, 36, 4204-4210.	14.5	19
39	Real-time observation of bacteriophage T4 gp41 helicase reveals an unwinding mechanism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 19790-19795.	7.1	139
40	The manipulation of single biomolecules. <i>Interdisciplinary Science Reviews</i> , 2007, 32, 149-161.	1.4	2
41	Direct Observation of DNA Distortion by the RSC Complex. <i>Molecular Cell</i> , 2006, 21, 417-425.	9.7	146
42	DNA mechanics as a tool to probe helicase and translocase activity. <i>Nucleic Acids Research</i> , 2006, 34, 4232-4244.	14.5	56
43	Wringing Out DNA. <i>Physical Review Letters</i> , 2006, 96, 178102.	7.8	144
44	Single-Molecule Manipulation Measurements of DNA Transport Proteins. <i>ChemPhysChem</i> , 2005, 6, 813-818.	2.1	15
45	Single-molecule assay reveals strand switching and enhanced processivity of UvrD. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 6439-6444.	7.1	177
46	Stretching DNA and RNA to probe their interactions with proteins. <i>Current Opinion in Structural Biology</i> , 2003, 13, 266-274.	5.7	92
47	Supercoiling and denaturation in Gal repressor/heat unstable nucleoid protein (HU)-mediated DNA looping. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 11373-11377.	7.1	105
48	Structure and mechanics of single biomolecules: experiment and simulation. <i>Journal of Physics Condensed Matter</i> , 2002, 14, R383-R414.	1.8	88
49	Tracking enzymatic steps of DNA topoisomerases using single-molecule micromanipulation. <i>Comptes Rendus Physique</i> , 2002, 3, 595-618.	0.9	14
50	The Manipulation of Single Biomolecules. <i>Physics Today</i> , 2001, 54, 46-51.	0.3	81
51	Twisting and stretching single DNA molecules. , 2001, , 115-140.		1
52	Study of DNA Motors by Single Molecule Micromanipulation. <i>Single Molecules</i> , 2000, 1, 145-151.	0.9	7
53	Single-molecule analysis of DNA uncoiling by a type II topoisomerase. <i>Nature</i> , 2000, 404, 901-904.	27.8	325
54	Twisting and stretching single DNA molecules. <i>Progress in Biophysics and Molecular Biology</i> , 2000, 74, 115-140.	2.9	317

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55	Preferential relaxation of positively supercoiled DNA by E. coli topoisomerase IV in single-molecule and ensemble measurements. <i>Genes and Development</i> , 2000, 14, 2881-2892.	5.9	175
56	Fast combinatorial cartography by FISH on combed genomic DNA. , 1999, 106, 93-94.		1
57	Le jokari moléculaire. <i>Biofutur</i> , 1999, 1999, 26-27.	0.0	1
58	Force: a new structural control parameter?. <i>Structure</i> , 1996, 4, 885-889.	3.3	33
59	Fluctuating vesicles of nonspherical topology. <i>Physical Review Letters</i> , 1994, 72, 168-171.	7.8	63
60	The Eckhaus instability for traveling waves. <i>Physica D: Nonlinear Phenomena</i> , 1992, 55, 269-286.	2.8	130
61	Gene regulation under growth conditions. A model for the regulation of initiation of replication in <i>Escherichia coli</i> . <i>Journal of Theoretical Biology</i> , 1991, 151, 359-366.	1.7	6
62	Nonadiabatic effects in convection. <i>Physical Review A</i> , 1988, 38, 5461-5464.	2.5	96
63	Pattern selection in thermal convection: Experimental results in an annulus. <i>Physical Review A</i> , 1988, 37, 200-206.	2.5	11
64	Stability of viscous fingering. <i>Physical Review A</i> , 1986, 33, 1302-1308.	2.5	120
65	Renormalization-group analysis of the global structure of the period-doubling attractor. <i>Physical Review A</i> , 1986, 33, 3622-3624.	2.5	36
66	Tip-splitting solutions to a Stefan problem. <i>Physical Review A</i> , 1986, 33, 4477-4478.	2.5	31
67	Viscous flows in two dimensions. <i>Reviews of Modern Physics</i> , 1986, 58, 977-999.	45.6	674
68	Extended chaos and disappearance of KAM trajectories. <i>Physica D: Nonlinear Phenomena</i> , 1984, 13, 82-89.	2.8	159
69	Strange objects in the complex plane. <i>Journal of Statistical Physics</i> , 1983, 32, 443-454.	1.2	57
70	Solutions to the Schrödinger equation on some fractal lattices. <i>Physical Review B</i> , 1983, 28, 3110-3123.	3.2	223