Fernando Moreno-Herrero

List of Publications by Year
in descending order

77 papers	3,616 citations	159585 30 h-index	138484 58 g-index
89 all docs	89 docs citations	89 times ranked	3973 citing authors

#	Article	IF	Citations
1	Absence of dc-Conductivity inÎ»-DNA. Physical Review Letters, 2000, 85, 4992-4995.	7.8	602
2	High flexibility of DNA on short length scales probed by atomic force microscopy. Nature Nanotechnology, 2006, 1, 137-141.	31.5	345
3	Mesoscale conformational changes in the DNA-repair complex Rad50/Mre11/Nbs1 upon binding DNA. Nature, 2005, 437, 440-443.	27.8	243
4	Single-Molecule Measurements of the Persistence Length of Double-Stranded RNA. Biophysical Journal, 2005, 88, 2737-2744.	0.5	241
5	Mechanical Identities of RNA and DNA Double Helices Unveiled at the Single-Molecule Level. Journal of the American Chemical Society, 2013, 135, 122-131.	13.7	139
6	DNA height in scanning force microscopy. Ultramicroscopy, 2003, 96, 167-174.	1.9	130
7	Contactless experiments on individual DNA molecules show no evidence for molecular wire behavior. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 8484-8487.	7.1	128
8	DNA Origami Nanopores for Controlling DNA Translocation. ACS Nano, 2013, 7, 6024-6030.	14.6	118
9	Atomic force microscopy contact, tapping, and jumping modes for imaging biological samples in liquids. Physical Review E, 2004, 69, 031915.	2.1	100
10	Understanding the mechanical response of double-stranded DNA and RNA under constant stretching forces using all-atom molecular dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7049-7054.	7.1	71
11	Specific and non-specific interactions of ParB with DNA: implications for chromosome segregation. Nucleic Acids Research, 2015, 43, 719-731.	14.5	68
12	The structural basis for dynamic DNA binding and bridging interactions which condense the bacterial centromere. ELife, 2017, 6, .	6.0	64
13	Multiplexed ionic current sensing with glass nanopores. Lab on A Chip, 2013, 13, 1859.	6.0	63
14	Biochemical, Ultrastructural, and Reversibility Studies on Huntingtin Filaments Isolated from Mouse and Human Brain. Journal of Neuroscience, 2004, 24, 9361-9371.	3.6	52
15	Purified Smc5/6 Complex Exhibits DNA Substrate Recognition and Compaction. Molecular Cell, 2020, 80, 1039-1054.e6.	9.7	51
16	Characterization by Atomic Force Microscopy of Alzheimer Paired Helical Filaments under Physiological Conditions. Biophysical Journal, 2004, 86, 517-525.	0.5	50
17	AFM volumetric methods for the characterization of proteins and nucleic acids. Methods, 2013, 60, 113-121.	3.8	47
18	DNA Crookedness Regulates DNA Mechanical Properties at Short Length Scales. Physical Review Letters, 2019, 122, 048102.	7.8	44

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19	The role of shear forces in scanning force microscopy: a comparison between the jumping mode and tapping mode. Surface Science, 2000, 453, 152-158.	1.9	42
20	Scanning force microscopy three-dimensional modes applied to the study of the dielectric response of adsorbed DNA molecules. Nanotechnology, 2002, 13, 314-317.	2.6	42
21	High resolution atomic force microscopy of double-stranded RNA. Nanoscale, 2016, 8, 11818-11826.	5.6	42
22	Scanning force microscopy jumping and tapping modes in liquids. Applied Physics Letters, 2002, 81, 2620-2622.	3.3	40
23	A Landauâ€“Squire Nanojet. Nano Letters, 2013, 13, 5141-5146.	9.1	40
24	Topographic characterization and electrostatic response ofM-DNA studied by atomic force microscopy. Nanotechnology, 2003, 14, 128-133.	2.6	39
25	Mediator Factor Med8p Interacts with the Hexokinase 2: Implication in the Glucose Signalling Pathway of Saccharomyces cerevisiae. Journal of Molecular Biology, 2002, 319, 703-714.	4.2	38
26	Structural analysis of hyperperiodic DNA from Caenorhabditis elegans. Nucleic Acids Research, 2006, 34, 3057-3066.	14.5	37
27	Using DNA as a Fiducial Marker To Study SMC Complex Interactions with the Atomic Force Microscope. Biophysical Journal, 2012, 102, 839-848.	0.5	37
28	Recombination Hotspots and Single-Stranded DNA Binding Proteins Couple DNA Translocation to DNA Unwinding by the AddAB Helicase-Nuclease. Molecular Cell, 2011, 42, 806-816.	9.7	36
29	A molecular view of DNA flexibility. Quarterly Reviews of Biophysics, 2021, 54, e8.	5.7	35
30	On the mechanism of recombination hotspot scanning during double-stranded DNA break resection. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E2562-71.	7.1	34
31	Condensation Prevails over B-A Transition in the Structure of DNA at Low Humidity. Biophysical Journal, 2011, 100, 2006-2015.	0.5	33
32	CTP promotes efficient ParB-dependent DNA condensation by facilitating one-dimensional diffusion from parS. ELife, 2021, 10, .	6.0	32
33	Imaging and Mapping Protein-Binding Sites on DNA Regulatory Regions with Atomic Force Microscopy. Biochemical and Biophysical Research Communications, 2001, 280, 151-157.	2.1	31
34	Analysis by atomic force microscopy of Med8 binding to cis -acting regulatory elements of the SUC2 and HXK2 genes of Saccharomyces cerevisiae. FEBS Letters, 1999, 459, 427-432.	2.8	30
35	Force determination in lateral magnetic tweezers combined with TIRF microscopy. Nanoscale, 2018, 10, 4579-4590.	5.6	27
36	Understanding the paradoxical mechanical response of in-phase A-tracts at different force regimes. Nucleic Acids Research, 2020, 48, 5024-5036.	14.5	27

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37	Electrostatic Binding and Hydrophobic Collapse of Peptideâ€“Nucleic Acid Aggregates Quantified Using Force Spectroscopy. ACS Nano, 2013, 7, 5102-5113.	14.6	26
38	Amyloidogenesis of Bacterial Prionoid RepA-WH1 Recapitulates Dimer to Monomer Transitions of RepA in DNA Replication Initiation. Structure, 2015, 23, 183-189.	3.3	26
39	Supramolecular Assembly of Human Pulmonary Surfactant Protein SP-D. Journal of Molecular Biology, 2018, 430, 1495-1509.	4.2	26
40	Bacillus subtilis MutS Modulates RecA-Mediated DNA Strand Exchange Between Divergent DNA Sequences. Frontiers in Microbiology, 2019, 10, 237.	3.5	24
41	Atomic force microscopy shows that vaccinia topoisomerase IB generates filaments on DNA in a cooperative fashion. Nucleic Acids Research, 2005, 33, 5945-5953.	14.5	23
42	Sequence-specific interactions of Rep proteins with ssDNA in the AT-rich region of the plasmid replication origin. Nucleic Acids Research, 2014, 42, 7807-7818.	14.5	23
43	CtIP forms a tetrameric dumbbell-shaped particle which bridges complex DNA end structures for double-strand break repair. ELife, 2019, 8, .	6.0	23
44	ParB dynamics and the critical role of the CTD in DNA condensation unveiled by combined force-fluorescence measurements. ELife, 2019, 8, .	6.0	22
45	Probing DNA Helicase Kinetics with Temperatureâ€Controlled Magnetic Tweezers. Small, 2015, 11, 1273-1284.	10.0	21
46	Mechanical Properties of High-Gâ‹…C Content DNA with A-Type Base-Stacking. Biophysical Journal, 2011, 100, 1996-2005.	0.5	20
47	Force and twist dependence of RepC nicking activity on torsionally-constrained DNA molecules. Nucleic Acids Research, 2016, 44, 8885-8896.	14.5	20
48	Sequence-dependent mechanical properties of double-stranded RNA. Nanoscale, 2019, 11, 21471-21478.	5.6	17
49	Human HELB is a processive motor protein that catalyzes RPA clearance from single-stranded DNA. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2112376119.	7.1	16
50	Characterization by atomic force microscopy and cryoelectron microscopy of tau polymers assembled in Alzheimer's disease1. Journal of Alzheimer's Disease, 2001, 3, 443-451.	2.6	14
51	Jumping mode scanning force microscopy: a suitable technique for imaging DNA in liquids. Applied Surface Science, 2003, 210, 22-26.	6.1	12
52	Double-stranded RNA bending by AU-tract sequences. Nucleic Acids Research, 2020, 48, 12917-12928.	14.5	12
53	Single molecule approaches to monitor the recognition and resection of double-stranded DNA breaks during homologous recombination. DNA Repair, 2014, 20, 119-129.	2.8	11
54	Functional characterization of the different oligomeric forms of human surfactant protein SP-D. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2020, 1868, 140436.	2.3	10

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55	Comment on â€œDirect and Real-Time Visualization of the Disassembly of a Single RecA-DNA-ATPÎ³S Complex Using AFM Imaging in Fluidâ€• Nano Letters, 2006, 6, 3000-3002.	9.1	9
56	Stickâ€“Slip Motion of ssDNA over Graphene. Journal of Physical Chemistry B, 2018, 122, 840-846.	2.6	9
57	The TubRâ€“centromere complex adopts a double-ring segrosome structure in Type III partition systems. Nucleic Acids Research, 2018, 46, 5704-5716.	14.5	9
58	Structure and activity of human surfactant protein D from different natural sources. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2020, 319, L148-L158.	2.9	8
59	Jumping mode atomic force microscopy obtains reproducible images of Alzheimer paired helical filaments in liquids. European Polymer Journal, 2004, 40, 927-932.	5.4	6
60	Chi hotspots trigger a conformational change in the helicase-like domain of AddAB to activate homologous recombination. Nucleic Acids Research, 2016, 44, 2727-2741.	14.5	6
61	Bulk and single-molecule analysis of a bacterial DNA2-like helicaseâ€“nuclease reveals a single-stranded DNA looping motor. Nucleic Acids Research, 2020, 48, 7991-8005.	14.5	5
62	Dynamics of DNA nicking and unwinding by the RepCâ€“PcrA complex. Nucleic Acids Research, 2020, 48, 2013-2025.	14.5	5
63	TubZ filament assembly dynamics requires the flexible C-terminal tail. Scientific Reports, 2017, 7, 43342.	3.3	3
64	Characterizing microfluidic approaches for a fast and efficient reagent exchange in single-molecule studies. Scientific Reports, 2020, 10, 18069.	3.3	3
65	AFM: Basic Concepts. , 0, , 1-34.		3
66	High-Resolution Atomic Force Microscopy Imaging of Nucleic Acids. Methods in Molecular Biology, 2018, 1814, 3-17.	0.9	2
67	Long DNA constructs to study helicases and nucleic acid translocases using optical tweezers. Methods in Enzymology, 2022, , .	1.0	1
68	AFM Tip-Induced Dissociation of RecA-dsDNA Filaments. Nano Letters, 2007, 7, 1112-1112.	9.1	0
69	Atomic Force Microscopy Shows that Chi Sequences and SSB Proteins Prevent DNA Reannealing Behind the Translocating AddAB Helicase-Nuclease. Biophysical Journal, 2010, 98, 65a.	0.5	0
70	Activation of a Helicase Motor Upon Encounter With a Specific Sequence in the DNA Track. Biophysical Journal, 2010, 98, 66a.	0.5	0
71	Recombination Hotspots and SSB Proteins Couple Translocation and Unwinding Activities of the AddAb Helicase-Nuclease. Biophysical Journal, 2011, 100, 239a.	0.5	0
72	Modulation of the Translocation Properties of a Model Helicase by DNA Damage and Sequence Content within the Track. Biophysical Journal, 2012, 102, 611a.	0.5	0

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73	DNA Scanning Mechanism of a Translocating Motor Protein. Biophysical Journal, 2013, 104, 540a-541a.	0.5	0
74	Condensation of DNA Mediated by the Bacterial Centromere Binding Protein Spo0J/ParB. Biophysical Journal, 2014, 106, 429a.	0.5	0
75	Probing the Kinetics of a Model Helicase-Nuclease with a Temperature-Controlled Magnetic Tweezers. Biophysical Journal, 2014, 106, 393a-394a.	0.5	0
76	Recognition and Condensation of the Bacterial Centromere by ParB. Biophysical Journal, 2016, 110, 562a.	0.5	0
77	Characterization of the activity of the different oligomeric forms of pulmonary human surfactant protein SP-D. , 2019, , .		0