

Marcio Rocha

List of Publications by Year in descending order

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59
papers

1,039
citations

393982

19
h-index

476904

29
g-index

60
all docs

60
docs citations

60
times ranked

876
citing authors

#	ARTICLE	IF	CITATIONS
1	Towards absolute calibration of optical tweezers. <i>Physical Review E</i> , 2007, 75, 021914.	0.8	91
2	Extracting physical chemistry from mechanics: a new approach to investigate DNA interactions with drugs and proteins in single molecule experiments. <i>Integrative Biology (United Kingdom)</i> , 2015, 7, 967-986.	0.6	53
3	Transition on the entropic elasticity of DNA induced by intercalating molecules. <i>Journal of Chemical Physics</i> , 2007, 127, 105108.	1.2	52
4	DNA–doxorubicin interaction: New insights and peculiarities. <i>Biopolymers</i> , 2017, 107, e22998.	1.2	49
5	Characterizing the interaction between DNA and GelRed fluorescent stain. <i>European Biophysics Journal</i> , 2015, 44, 1-7.	1.2	41
6	Quantitative Assessment of the Interplay Between DNA Elasticity and Cooperative Binding of Ligands. <i>Physical Review Letters</i> , 2012, 109, 248103.	2.9	40
7	Optical tweezers for undergraduates: Theoretical analysis and experiments. <i>American Journal of Physics</i> , 2009, 77, 704-712.	0.3	39
8	DNA interaction with Actinomycin D: mechanical measurements reveal the details of the binding data. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 11070.	1.3	36
9	Characterization of objective transmittance for optical tweezers. <i>Applied Optics</i> , 2006, 45, 4263.	2.1	35
10	Absolute calibration of optical tweezers. <i>Applied Physics Letters</i> , 2006, 88, 131110.	1.5	33
11	DNA–cisplatin interaction studied with single molecule stretching experiments. <i>Integrative Biology (United Kingdom)</i> , 2012, 4, 568-574.	0.6	32
12	DNA-psoralen interaction: A single molecule experiment. <i>Journal of Chemical Physics</i> , 2004, 121, 9679-9683.	1.2	31
13	DNA Interaction with Hoechst 33258: Stretching Experiments Decouple the Different Binding Modes. <i>Journal of Physical Chemistry B</i> , 2013, 117, 7292-7296.	1.2	29
14	Force-dependent persistence length of DNA–intercalator complexes measured in single molecule stretching experiments. <i>Soft Matter</i> , 2015, 11, 4306-4314.	1.2	25
15	On the Effects of Intercalators in DNA Condensation: A Force Spectroscopy and Gel Electrophoresis Study. <i>Journal of Physical Chemistry B</i> , 2014, 118, 4832-4839.	1.2	22
16	Controlling Cooperativity in β -Cyclodextrin–DNA Binding Reactions. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3549-3554.	2.1	22
17	Modeling the entropic structural transition of DNA complexes formed with intercalating drugs. <i>Physical Biology</i> , 2009, 6, 036013.	0.8	21
18	DNA-psoralen: Single-molecule experiments and first principles calculations. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	21

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19	Force spectroscopy unravels the role of ionic strength on DNA-cisplatin interaction: Modulating the binding parameters. <i>Physical Review E</i> , 2017, 96, 032408.	0.8	21
20	How light absorption modifies the radiative force on a microparticle in optical tweezers. <i>Applied Optics</i> , 2018, 57, 7216.	0.9	19
21	DNA Interaction with Diaminobenzidine Studied with Optical Tweezers and Dynamic Light Scattering. <i>Journal of Physical Chemistry B</i> , 2013, 117, 14345-14350.	1.2	18
22	DNA interaction with DAPI fluorescent dye: Force spectroscopy decouples two different binding modes. <i>Biopolymers</i> , 2017, 107, e23015.	1.2	18
23	Topological Insulator Particles As Optically Induced Oscillators: Toward Dynamical Force Measurements and Optical Rheology. <i>ACS Photonics</i> , 2018, 5, 741-745.	3.2	18
24	DNA-cisplatin binding mechanism peculiarities studied with single molecule stretching experiments. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	15
25	Videomicroscopy calibration of optical tweezers by position autocorrelation function analysis. <i>Applied Physics B: Lasers and Optics</i> , 2012, 107, 375-378.	1.1	15
26	Carboplatin as an alternative to Cisplatin in chemotherapies: New insights at single molecule level. <i>Biophysical Chemistry</i> , 2018, 241, 8-14.	1.5	15
27	Revisiting the neighbor exclusion model and its applications. <i>Biopolymers</i> , 2010, 93, 1-7.	1.2	14
28	Unraveling the physical chemistry and the mixed binding modes of complex DNA ligands by single molecule stretching experiments. <i>RSC Advances</i> , 2016, 6, 105631-105637.	1.7	13
29	Biophysical characterization of the DNA interaction with the biogenic polyamine putrescine: A single molecule study. <i>International Journal of Biological Macromolecules</i> , 2018, 112, 175-178.	3.6	13
30	Force and Scale Dependence of the Elasticity of Self-Assembled DNA Bottle Brushes. <i>Macromolecules</i> , 2018, 51, 204-212.	2.2	12
31	A cooperative transition from the semi-flexible to the flexible regime of polymer elasticity: Mitoxantrone-induced DNA condensation. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2018, 1862, 1107-1114.	1.1	11
32	Hydroxychloroquine Exhibits a Strong Complex Interaction with DNA: Unraveling the Mechanism of Action. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9528-9534.	2.1	11
33	Effects of caffeine on the structure and conformation of DNA: A force spectroscopy study. <i>International Journal of Biological Macromolecules</i> , 2019, 130, 1018-1024.	3.6	10
34	Bessel beam optical tweezers for manipulating superparamagnetic beads. <i>Applied Optics</i> , 2021, 60, 3422.	0.9	10
35	Atomic Force Microscopy of spermidine-induced DNA condensates on silicon surfaces. <i>Materials Science and Engineering C</i> , 2012, 32, 36-39.	3.8	9
36	Depletion interactions and modulation of DNA intercalators binding: Opposite behavior of the neutral polymer poly(ethylene glycol). <i>Biopolymers</i> , 2016, 105, 227-233.	1.2	9

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37	New antineoplastic agent based on a dibenzoylmethane derivative: Cytotoxic effect and direct interaction with DNA. Biophysical Chemistry, 2018, 239, 1-6.	1.5	9
38	Model for DNA Interactions with Proteins and Other Large Ligands: Extracting Physical Chemistry from Pure Mechanical Measurements. Journal of Physical Chemistry B, 2020, 124, 1020-1024.	1.2	9
39	New tools to study biophysical properties of single molecules and single cells. Anais Da Academia Brasileira De Ciencias, 2007, 79, 17-28.	0.3	8
40	Doxorubicin hinders DNA condensation promoted by the protein bovine serum albumin (BSA). Biopolymers, 2017, 107, e23071.	1.2	8
41	\hat{I}^2 -Cyclodextrin polymer binding to DNA: Modulating the physicochemical parameters. Physical Review E, 2017, 95, 052416.	0.8	8
42	Optical Trapping and Manipulation of Superparamagnetic Beads Using Annular-Shaped Beams. Methods and Protocols, 2018, 1, 44.	0.9	8
43	Germanium microparticles as optically induced oscillators in optical tweezers. Physical Review Research, 2019, 1, .	1.3	8
44	Silicon microparticles as handles for optical tweezers experiments. Optics Letters, 2020, 45, 1055.	1.7	8
45	Unfolding DNA condensates produced by DNA-like charged depletants: A force spectroscopy study. Journal of Chemical Physics, 2017, 146, 054901.	1.2	7
46	Dodecyltrimethylammonium bromide surfactant effects on DNA: Unraveling the competition between electrostatic and hydrophobic interactions. Physical Review E, 2020, 102, 032401.	0.8	7
47	Pixantrone anticancer drug as a DNA ligand: Depicting the mechanism of action at single molecule level. European Physical Journal E, 2019, 42, 130.	0.7	6
48	On the use of Europium (Eu) for designing new metal-based anticancer drugs. Biochemical and Biophysical Research Communications, 2020, 531, 372-376.	1.0	6
49	Caffeine modulates the intercalation of drugs on DNA: A study at the single molecule level. Biophysical Chemistry, 2021, 277, 106653.	1.5	6
50	Transplatin ineffectiveness against cancer from a molecular perspective: A single-molecule force-spectroscopy study. Physical Review E, 2020, 101, 062412.	0.8	4
51	Normal and Tumoral Melanocytes Exhibit q-Gaussian Random Search Patterns. PLoS ONE, 2014, 9, e104253.	1.1	4
52	New Insights into the Mechanism of Action of the Drug Chloroquine: Direct Interaction with DNA and Cytotoxicity. Journal of Physical Chemistry B, 2022, 126, 3512-3521.	1.2	4
53	Oxaliplatin effects on the DNA molecule studied by force spectroscopy. Biomedical Physics and Engineering Express, 2019, 5, 055009.	0.6	2
54	Caffeine Enhances the Toxicity of Platinum-Based Drugs at the Molecular Level Even Outside of the Intracellular Environment: A Single-Molecule Force Spectroscopy Study. Journal of Physical Chemistry B, 2022, , .	1.2	2

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55	In situ laser power measurement at the focus of microscope objectives used in optical tweezers. American Journal of Physics, 2005, 73, 201-205.	0.3	1
56	Variation of entropic elasticity of DNA-Psoralen complex under UV light. , 2005, , .		0
57	Obtaining Quantitative Parameters of DNA-Ligand Cooperative Binding from Persistence Length Measurements. Biophysical Journal, 2013, 104, 178a.	0.2	0
58	Allyl Dibenzoylmethane Derivative: Antimelanoma Activity and Study of Its Molecular Mechanism of Interaction with DNA. Journal of the Brazilian Chemical Society, 0, , .	0.6	0
59	Optical Tweezers: Test of Absolute Calibration. , 2006, , .		0