

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	Caffeine Enhances the Toxicity of Platinum-Based Drugs at the Molecular Level Even Outside of the Intracellular Environment: A Single-Molecule Force Spectroscopy Study. <i>Journal of Physical Chemistry B</i> , 2022, , .	1.2	2
2	New Insights into the Mechanism of Action of the Drug Chloroquine: Direct Interaction with DNA and Cytotoxicity. <i>Journal of Physical Chemistry B</i> , 2022, 126, 3512-3521.	1.2	4
3	Bessel beam optical tweezers for manipulating superparamagnetic beads. <i>Applied Optics</i> , 2021, 60, 3422.	0.9	10
4	Caffeine modulates the intercalation of drugs on DNA: A study at the single molecule level. <i>Biophysical Chemistry</i> , 2021, 277, 106653.	1.5	6
5	On the use of Europium (Eu) for designing new metal-based anticancer drugs. <i>Biochemical and Biophysical Research Communications</i> , 2020, 531, 372-376.	1.0	6
6	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
7	Dodecyltrimethylammonium bromide surfactant effects on DNA: Unraveling the competition between electrostatic and hydrophobic interactions. <i>Physical Review E</i> , 2020, 102, 032401.	0.8	7
8	Transplatin ineffectiveness against cancer from a molecular perspective: A single-molecule force-spectroscopy study. <i>Physical Review E</i> , 2020, 101, 062412.	0.8	4
9	Model for DNA Interactions with Proteins and Other Large Ligands: Extracting Physical Chemistry from Pure Mechanical Measurements. <i>Journal of Physical Chemistry B</i> , 2020, 124, 1020-1024.	1.2	9
10	Silicon microparticles as handles for optical tweezers experiments. <i>Optics Letters</i> , 2020, 45, 1055.	1.7	8
11	Oxaliplatin effects on the DNA molecule studied by force spectroscopy. <i>Biomedical Physics and Engineering Express</i> , 2019, 5, 055009.	0.6	2
12	Pixantrone anticancer drug as a DNA ligand: Depicting the mechanism of action at single molecule level. <i>European Physical Journal E</i> , 2019, 42, 130.	0.7	6
13	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
14	Germanium microparticles as optically induced oscillators in optical tweezers. <i>Physical Review Research</i> , 2019, 1, .	1.3	8
15	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
16	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
17	Force and Scale Dependence of the Elasticity of Self-Assembled DNA Bottle Brushes. <i>Macromolecules</i> , 2018, 51, 204-212.	2.2	12
18	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

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19	New antineoplastic agent based on a dibenzoylmethane derivative: Cytotoxic effect and direct interaction with DNA. <i>Biophysical Chemistry</i> , 2018, 239, 1-6.	1.5	9
20	Optical Trapping and Manipulation of Superparamagnetic Beads Using Annular-Shaped Beams. <i>Methods and Protocols</i> , 2018, 1, 44.	0.9	8
21	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
22	How light absorption modifies the radiative force on a microparticle in optical tweezers. <i>Applied Optics</i> , 2018, 57, 7216.	0.9	19
23	DNA interaction with DAPI fluorescent dye: Force spectroscopy decouples two different binding modes. <i>Biopolymers</i> , 2017, 107, e23015.	1.2	18
24	Unfolding DNA condensates produced by DNA-like charged depletants: A force spectroscopy study. <i>Journal of Chemical Physics</i> , 2017, 146, 054901.	1.2	7
25	Doxorubicin hinders DNA condensation promoted by the protein bovine serum albumin (BSA). <i>Biopolymers</i> , 2017, 107, e23071.	1.2	8
26	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
27	β -Cyclodextrin polymer binding to DNA: Modulating the physicochemical parameters. <i>Physical Review E</i> , 2017, 95, 052416.	0.8	8
28	DNA-doxorubicin interaction: New insights and peculiarities. <i>Biopolymers</i> , 2017, 107, e22998.	1.2	49
29	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
30	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
31	Characterizing the interaction between DNA and GelRed fluorescent stain. <i>European Biophysics Journal</i> , 2015, 44, 1-7.	1.2	41
32	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
33	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
34	Controlling Cooperativity in β -Cyclodextrin-DNA Binding Reactions. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3549-3554.	2.1	22
35	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
36	Normal and Tumoral Melanocytes Exhibit q-Gaussian Random Search Patterns. <i>PLoS ONE</i> , 2014, 9, e104253.	1.1	4

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37	Obtaining Quantitative Parameters of DNA-Ligand Cooperative Binding from Persistence Length Measurements. <i>Biophysical Journal</i> , 2013, 104, 178a.	0.2	0
38	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
39	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
40	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
41	DNA-cisplatin binding mechanism peculiarities studied with single molecule stretching experiments. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	15
42	Quantitative Assessment of the Interplay Between DNA Elasticity and Cooperative Binding of Ligands. <i>Physical Review Letters</i> , 2012, 109, 248103.	2.9	40
43	DNA-cisplatin interaction studied with single molecule stretching experiments. <i>Integrative Biology (United Kingdom)</i> , 2012, 4, 568-574.	0.6	32
44	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
45	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
46	Revisiting the neighbor exclusion model and its applications. <i>Biopolymers</i> , 2010, 93, 1-7.	1.2	14
47	Modeling the entropic structural transition of DNA complexes formed with intercalating drugs. <i>Physical Biology</i> , 2009, 6, 036013.	0.8	21
48	Optical tweezers for undergraduates: Theoretical analysis and experiments. <i>American Journal of Physics</i> , 2009, 77, 704-712.	0.3	39
49	DNA-psoralen: Single-molecule experiments and first principles calculations. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	21
50	Transition on the entropic elasticity of DNA induced by intercalating molecules. <i>Journal of Chemical Physics</i> , 2007, 127, 105108.	1.2	52
51	Towards absolute calibration of optical tweezers. <i>Physical Review E</i> , 2007, 75, 021914.	0.8	91
52	New tools to study biophysical properties of single molecules and single cells. <i>Anais Da Academia Brasileira De Ciencias</i> , 2007, 79, 17-28.	0.3	8
53	Characterization of objective transmittance for optical tweezers. <i>Applied Optics</i> , 2006, 45, 4263.	2.1	35
54	Absolute calibration of optical tweezers. <i>Applied Physics Letters</i> , 2006, 88, 131110.	1.5	33

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55	Optical Tweezers: Test of Absolute Calibration. , 2006, , .		0
56	Variation of entropic elasticity of DNA-Psoralen complex under UV light. , 2005, , .		0
57	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
58	DNA-psoralen interaction: A single molecule experiment. Journal of Chemical Physics, 2004, 121, 9679-9683.	1.2	31
59	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