Marc Joyeux

List of Publications by Year
in descending order

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86 papers	2,015 citations	236833 25 h-index	289141 40 g-index
88 all docs	88 docs citations	88 times ranked	1080 citing authors

#	Article	IF	Citations
1	Impact of Self-Association on the Architectural Properties of Bacterial Nucleoid Proteins. Biophysical Journal, 2021, 120, 370-378.	0.2	7
2	Bacterial Nucleoid: Interplay of DNA Demixing andÂSupercoiling. Biophysical Journal, 2020, 118, 2141-2150.	0.2	12
3	Requirements for DNA-Bridging Proteins to Act as Topological Barriers of the Bacterial Genome. Biophysical Journal, 2020, 119, 1215-1225.	0.2	8
4	Preferential Localization of the Bacterial Nucleoid. Microorganisms, 2019, 7, 204.	1.6	13
5	Role of Salt Valency in the Switch of H-NS Proteins between DNA-Bridging and DNA-Stiffening Modes. Biophysical Journal, 2018, 114, 2317-2325.	0.2	12
6	A segregative phase separation scenario of the formation of the bacterial nucleoid. Soft Matter, 2018, 14, 7368-7381.	1.2	18
7	Coarse-Grained Model of the Demixing of DNA and Non-Binding Globular Macromolecules. Journal of Physical Chemistry B, 2017, 121, 6351-6358.	1.2	9
8	Recovery of mechanical pressure in a gas of underdamped active dumbbells with Brownian noise. Physical Review E, 2017, 95, 052603.	0.8	2
9	In vivo compaction dynamics of bacterial DNA: A fingerprint of DNA/RNA demixing?. Current Opinion in Colloid and Interface Science, 2016, 26, 17-27.	3.4	23
10	Pressure of a gas of underdamped active dumbbells. Physical Review E, 2016, 93, 032605.	0.8	38
11	Compaction of bacterial genomic DNA: clarifying the concepts. Journal of Physics Condensed Matter, 2015, 27, 383001.	0.7	36
12	Free-Energy Landscape and Characteristic Forces for the Initiation of DNA Unzipping. Biophysical Journal, 2015, 108, 1727-1738.	0.2	8
13	Equilibration of complexes of DNA and H-NS proteins on charged surfaces: A coarse-grained model point of view. Journal of Chemical Physics, 2014, 141, 115102.	1.2	10
14	Elastic models of the fast traps of carnivorousDionaeaandAldrovanda. Physical Review E, 2013, 88, 034701.	0.8	5
15	A Model of H-NS Mediated Compaction of Bacterial DNA. Biophysical Journal, 2013, 104, 1615-1622.	0.2	29
16	On the Pseudo-SchrÃ¶dinger Equation Approximation of the Transfer-Integral Operator for 1-Dimensional DNA Models. Journal of Nonlinear Mathematical Physics, 2011, 18, 339.	0.8	0
17	At the conjunction of biology, chemistry and physics: the fast movements ofDionaea, Aldrovanda, UtriculariaandStylidium. Frontiers in Life Science: Frontiers of Interdisciplinary Research in the Life Sciences, 2011, 5, 71-79.	1.1	9
18	Different mechanics of snap-trapping in the two closely related carnivorous plantsDionaea muscipulaandAldrovanda vesiculosa. Physical Review E, 2011, 84, 041928.	0.8	61

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19	Mechanical model of the ultrafast underwater trap ofUtricularia. Physical Review E, 2011, 83, 021911.	0.8	20
20	Thermal and mechanical denaturation properties of a DNA model with three sites per nucleotide. Journal of Chemical Physics, 2011, 135, 085105.	1.2	14
21	Ultra-fast underwater suction traps. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 2909-2914.	1.2	95
22	Mapping between the order of thermal denaturation and the shape of the critical line of mechanical unzipping in one-dimensional DNA models. Chemical Physics Letters, 2010, 484, 315-320.	1.2	5
23	Fractional Bidromy in the Vibrational Spectrum of HOCl. Physical Review Letters, 2010, 104, 113002.	2.9	14
24	Comparison of Kinetic and Dynamical Models of DNAâˆ’Protein Interaction and Facilitated Diffusion. Journal of Physical Chemistry A, 2010, 114, 9662-9672.	1.1	27
25	Comment on â€œBubble Nucleation and Cooperativity in DNA Meltingâ€• Physical Review Letters, 2009, 102, 029601; author reply 29602.	2.9	7
26	Dynamical versus statistical mesoscopic models for DNA denaturation. Journal of Physics Condensed Matter, 2009, 21, 034101.	0.7	18
27	Dynamical model of DNA-protein interaction: Effect of protein charge distribution and mechanical properties. Journal of Chemical Physics, 2009, 131, .	1.2	22
28	Modeling of 2â€Ð DNA display. Electrophoresis, 2009, 30, 3649-3656.	1.3	2
29	Description of nonspecific DNA-protein interaction and facilitated diffusion with a dynamical model. Journal of Chemical Physics, 2009, 130, 015103.	1.2	40
30	Energy Localization in Molecules, Bifurcation Phenomena, and Their Spectroscopic Signatures: The Global View. Chemical Reviews, 2009, 109, 4248-4271.	23.0	72
31	Statistical physics of the melting of inhomogeneous DNA. Physical Review E, 2008, 77, 031903.	0.8	23
32	Slow periodic oscillations in time domain dynamics of NO2. Journal of Chemical Physics, 2007, 126, 074301.	1.2	16
33	1âˆ•ffluctuations of DNA temperature at thermal denaturation. Physical Review E, 2007, 75, 061914.	0.8	17
34	Theoretical investigation of finite size effects at DNA melting. Physical Review E, 2007, 76, 021917.	0.8	16
35	Towards more realistic dynamical models for DNA secondary structure. Chemical Physics Letters, 2006, 419, 434-438.	1.2	20
36	Classical and quantum-mechanical plane switching in CO2. Journal of Chemical Physics, 2006, 124, 074318.	1.2	7

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37	Quantum mechanical and quasiclassical investigations of the time domain nonadiabatic dynamics of NO2 close to the bottom of the XA12â€AB22 conical intersection. Journal of Chemical Physics, 2006, 125, 014304.	1.2	19
38	Scaling laws at the phase transition of systems with divergent order parameter and/or internal length: The example of DNA denaturation. Physical Review E, 2006, 73, 051910.	0.8	14
39	On the application of canonical perturbation theory up to the dissociation threshold. Chemical Physics Letters, 2005, 412, 200-205.	1.2	3
40	Study of vibrational energy localization and redistribution in hydrogen peroxide H2O2 at low energy. Journal of Chemical Physics, 2005, 122, 074303.	1.2	4
41	Dynamical model based on finite stacking enthalpies for homogeneous and inhomogeneous DNA thermal denaturation. Physical Review E, 2005, 72, 051902.	0.8	69
42	Intramolecular Dynamics Along Isomerization and Dissociation Pathways. Advances in Chemical Physics, 2005, , 267-303.	0.3	25
43	Dissociation energies of six NO2 isotopologues by laser induced fluorescence spectroscopy and zero point energy of some triatomic molecules. Journal of Chemical Physics, 2004, 121, 7153-7161.	1.2	26
44	CO2Molecule as a Quantum Realization of the1âˆ¶1âˆ¶2Resonant Swing-Spring with Monodromy. Physical Review Letters, 2004, 93, 024302.	2.9	64
45	Semiclassical dynamics of the van der Waals states in O3(Xâ€Š1A1). Journal of Chemical Physics, 2004, 120, 7426-7437.	1.2	10
46	Global bending quantum number and the absence of monodromy in theHCNâ†”CNHmolecule. Physical Review A, 2004, 69, .	1.0	47
47	Monodromy of the LiNC/NCLi molecule. Chemical Physics Letters, 2003, 382, 439-442.	1.2	32
48	van der Waals states in ozone and their influence on the threshold spectrum of O3(Xâ€Š1A1). I. Bound states. Journal of Chemical Physics, 2003, 119, 6512-6523.	1.2	48
49	Canonical perturbation theory versus Bornâ€“Oppenheimer-type separation of motions: The vibrational dynamics of C3. Journal of Chemical Physics, 2003, 119, 8761-8762.	1.2	6
50	An effective model for the Xâ€‰2A1â€“Aâ€‰2B2 conical intersection in NO2. Journal of Chemical Physics, 2003, 119, 5923-5932.	1.2	22
51	The bound state spectrum of HOBr up to the dissociation limit: Evolution of saddle-node bifurcations. Journal of Chemical Physics, 2003, 118, 9643-9652.	1.2	14
52	Highly Excited Motion in Molecules:â€‰ Saddle-Node Bifurcations and Their Fingerprints in Vibrational Spectra. Journal of Physical Chemistry A, 2002, 106, 5407-5421.	1.1	82
53	Canonical perturbation theory for highly excited dynamics. Canadian Journal of Physics, 2002, 80, 1459-1480.	0.4	43
54	The X2A1â€“A2B2 conical intersection in NO2: determination of the coupling parameter Î» from high-resolution experimental data. Chemical Physics, 2002, 283, 17-28.	0.9	17

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55	A local diabatic representation of non-Bornâ€“Oppenheimer dynamics. Chemical Physics Letters, 2002, 352, 99-105.	1.2	7
56	A new canonical perturbation procedure for studying nonadiabatic dynamics. Chemical Physics Letters, 2001, 337, 319-326.	1.2	7
57	Semiclassical study of the isomerization states of HCP. Journal of Chemical Physics, 2000, 112, 4162-4172.	1.2	52
58	Vibrational dynamics up to the dissociation threshold: A case study of two-dimensional HOCl. Journal of Chemical Physics, 2000, 113, 9610-9621.	1.2	36
59	Investigation of the vibrational dynamics of the HCN/CNH isomers through high order canonical perturbation theory. Journal of Chemical Physics, 2000, 113, 7165-7177.	1.2	22
60	On the application of canonical perturbation theory to floppy molecules. Journal of Chemical Physics, 2000, 112, 31-39.	1.2	30
61	The vibrational spectrum of deuterated phosphaethyne: A quantum mechanical, classical, and semiclassical analysis. Journal of Chemical Physics, 2000, 112, 8855-8865.	1.2	14
62	Vibrational analysis of HOCl up to 98% of the dissociation energy with a Fermi resonance Hamiltonian. Journal of Chemical Physics, 1999, 111, 6807-6820.	1.2	45
63	HCP CPH ISOMERIZATION: Caught in the Act. Annual Review of Physical Chemistry, 1999, 50, 443-484.	4.8	117
64	Gustavsonâ€™s procedure and the dynamics of highly excited vibrational states. Journal of Chemical Physics, 1998, 109, 2111-2122.	1.2	40
65	Analysis of the highly excited vibrational dynamics of HCP using a high-order Fermi resonance Hamiltonian. Journal of Chemical Physics, 1998, 109, 8342-8354.	1.2	23
66	On resonance-type effective vibrational Hamiltonians for CO2 I. Theoretical background. Chemical Physics, 1997, 221, 269-286.	0.9	13
67	On resonance-type effective vibrational Hamiltonians for CO2 II. Results. Chemical Physics, 1997, 221, 287-301.	0.9	13
68	Semiclassical Assignment of the Vibrational Levels of Molecules with Fermi Resonance: Application to CS2. Journal of Molecular Spectroscopy, 1996, 175, 262-266.	0.4	8
69	Classical dynamics of the 1:1, 1:2 and 1:3 resonance Hamiltonians. Chemical Physics, 1996, 203, 281-307.	0.9	30
70	Classical dynamics of a non-integrable Hamiltonian near coupling-induced resonance islands. Journal of Physics A, 1996, 29, 5963-5977.	1.6	5
71	Application of Berry and Tabor's trace formula to the 2D Fermi resonance Hamiltonian. Chemical Physics Letters, 1995, 247, 454-464.	1.2	10
72	Semiclassical behavior at a quantum avoided crossing. Journal of Chemical Physics, 1995, 102, 2816-2824.	1.2	7

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73	Application of Berry and Tabor's trace formula to the 2D Fermi resonance Hamiltonian. Chemical Physics Letters, 1995, 247, 454-464.	1.2	1
74	Semiclassical quantization of the spectroscopist's Hamiltonian for coupled vibrational modes. Chemical Physics, 1994, 185, 263-279.	0.9	20
75	Vibrational chaos: rational tori, separatrices and lyapunov exponents. Chemical Physics, 1993, 174, 157-166.	0.9	4
76	Measurement of very long (107 s) spin conversion times: dimethyl-s-tetrazine in durene. Chemical Physics, 1993, 178, 433-448.	0.9	16
77	Intraâ€“inter polyad mixing and breaking of symmetricâ€“antisymmetric selection rule in the vibrational spectra of CS2 molecule. Journal of Chemical Physics, 1992, 96, 6495-6508.	1.2	48
78	Optical measurements of methyl group tunneling in molecular crystals: Temperature dependence of the nuclear spin conversion rate. Journal of Chemical Physics, 1992, 96, 6335-6343.	1.2	33
79	Numerical studies on the interactions between Fermi polyads: quantum and semiclassical chaos. Chemical Physics, 1992, 161, 11-17.	0.9	4
80	The transition towards vibrational chaos in triatomic molecules. A numerical and analytical approach. Chemical Physics, 1992, 167, 299-314.	0.9	9
81	Vibrational study of 3-methyl 4-nitropyridine N-oxide. Journal of Molecular Structure, 1991, 247, 363-372.	1.8	14
82	Spectroscopy, dynamics, and chaos of the CS2 molecule: Fourier transform and phaseâ€space analysis. Journal of Chemical Physics, 1991, 95, 8744-8752.	1.2	40
83	Calculation of the vibrational force field for 4-nitropyridine N-oxide by the AM1 and MNDO semi-empirical methods. Spectrochimica Acta Part A: Molecular Spectroscopy, 1989, 45, 967-975.	0.1	9
84	Raman study of a 4-nitropyridine N-oxide single crystal. 1-Lattice vibrations. Journal of Raman Spectroscopy, 1988, 19, 133-142.	1.2	14
85	Etude par spectroscopie vibrationnelle du compose 4-nitropyridine N-oxyde. II-vibrations internes. Journal of Raman Spectroscopy, 1988, 19, 441-451.	1.2	13
86	Vibrational study of 4-nitropyridine N-oxide. III-The charge-transfer phenomenon as observed in solution. Journal of Raman Spectroscopy, 1988, 19, 499-502.	1.2	18