Bernard Pons

List of Publications by Year
in descending order

107	2,660	186265	197818
papers	citations	28 h-index	49 g-index

108	108	108	1614
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Probing molecular chirality on a sub-femtosecondÂtimescale. Nature Physics, 2015, 11, 654-658.	16.7	219
2	A table-top ultrashort light source in the extreme ultraviolet for circular dichroism experiments. Nature Photonics, 2015, 9, 93-98.	31.4	217
3	Attosecond-resolved photoionization of chiral molecules. Science, 2017, 358, 1288-1294.	12.6	150
4	Photoexcitation circular dichroism in chiral molecules. Nature Physics, 2018, 14, 484-489.	16.7	145
5	Common translation factor method. Journal of Physics B: Atomic, Molecular and Optical Physics, 1994, 27, 3603-3634.	1.5	114
6	High-order harmonic spectroscopy of the Cooper minimum in argon: Experimental and theoretical study. Physical Review A, 2011, 83, .	2.5	100
7	Universality of photoelectron circular dichroism in the photoionization of chiral molecules. New Journal of Physics, 2016, 18, 102002.	2.9	83
8	Near-Threshold High-Order Harmonic Spectroscopy with Aligned Molecules. Physical Review Letters, 2010, 105, 143904.	7.8	82
9	Relaxation Dynamics in Photoexcited Chiral Molecules Studied by Time-Resolved Photoelectron Circular Dichroism: Toward Chiral Femtochemistry. Journal of Physical Chemistry Letters, 2016, 7, 4514-4519.	4.6	81
10	Classical treatment of ion-H<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>O collisions with a three-center model potential. Physical Review A, 2011, 83, .	2.5	78
11	CROSS SECTIONS FOR ELECTRON CAPTURE FROM ATOMIC HYDROGEN BY FULLY STRIPPED IONS IN THE 0.05â€“1.00 a.u. IMPACT VELOCITY RANGE. Atomic Data and Nuclear Data Tables, 1998, 68, 279-302.	2.4	71
12	Probing ultrafast dynamics of chiral molecules using time-resolved photoelectron circular dichroism. Faraday Discussions, 2016, 194, 325-348.	3.2	65
13	Monocentric Close-Coupling Expansion to Provide Ejected Electron Distributions for Ionization In Atomic Collisions. Physical Review Letters, 2000, 84, 4569-4572.	7.8	49
14	Classical calculation of ionization and electron-capture total cross sections inH++H2Ocollisions. Physical Review A, 2007, 76, .	2.5	43
15	Investigation of laser-irradiated Ar cluster dynamics fromK-shell x-ray emission measurements. Physical Review E, 2005, 71, 066410.	2.1	42
16	Self-consistent Bohmian description of strong field-driven electron dynamics. Physical Review A, 2010, 82, .	2.5	41
17	Quantal and semiclassical calculations of charge transfer cross sections in + H collisions for impact energies of. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, 3527-3545.	1.5	39
18	Controlling Subcycle Optical Chirality in the Photoionization of Chiral Molecules. Physical Review X, 2019, 9, .	8.9	38

#	Article	IF	Citations
19	Spatial molecular interferometry via multidimensional high-harmonic spectroscopy. Nature Photonics, 2020, 14, 188-194.	31.4	38
20	Ionization dynamics in interactions of atoms with ultra-short and intense laser pulses. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, L571-L576.	1.5	37
21	Convergent molecular close-coupling calculations for ion-atom collisions from low to intermediate energies. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, 3199-3214.	1.5	36
22	Electronic wavefunctions probed by all-optical attosecond interferometry. Nature Photonics, 2019, 13, 54-59.	31.4	35
23	Ability of monocentric close-coupling expansions to describe ionization in atomic collisions. Physical Review A, 2000, 63, .	2.5	34
24	Role of the Ionic Potential in High Harmonic Generation. Physical Review Letters, 2012, 108, 203001.	7.8	33
25	Plane-wave and common-translation-factor treatments ofHe2++H collisions at high velocities. Physical Review A, 1992, 46, 5617-5630.	2.5	32
26	Single- and double-electron capture in low-energy Ne10+-He collisions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, 2759-2779.	1.5	32
27	Accuracy of the classical trajectory Monte Carlo method for electron capture inLi3+andNe10++H(1s)collisions. Physical Review A, 2004, 70, .	2.5	32
28	Double capture in C6+-He collisions at low impact energies. Journal of Physics B: Atomic, Molecular and Optical Physics, 1991, 24, L425-L430.	1.5	28
29	Classical and semi-classical treatments of Li3+, Ne10++H(1s) collisions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 4323-4338.	1.5	28
30	Shifts in electron capture to the continuum at low collision energies: Enhanced role of target postcollision interactions. Physical Review A, 2003, 67, .	2.5	26
31	Description of ionization in the molecular approach to atomic collisions. Physical Review A, 1997, 55, 287-302.	2.5	24
32	Total and partial cross sections of electron transfer processes with hydrogen gas targets: Be4++ H2. Physica Scripta, 1996, T62, 33-38.	2.5	23
33	Comparison of hyperspherical versus common-reaction-coordinate close-coupling methods for ion-atom collisions at low energies. Physical Review A, 2004, 69, .	2.5	23
34	One-electron atom in a strong and short laser pulse: Comparison of classical and quantum descriptions. Physical Review A, 2009, 80, .	2.5	23
35	High-harmonic transient grating spectroscopy of NO2 electronic relaxation. Journal of Chemical Physics, 2012, 137, 224303.	3.0	23
36	Modified nanoplasma model for laser-cluster interaction. Physical Review A, 2008, 77, .	2.5	20

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37	New Light Shed on Charge Transfer in Fundamental<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi mathvariant="bold">H</mml:mi><mml:mo mathvariant="bold">+</mml:mo></mml:msup><mml:mo mathvariant="bold">+</mml:mo><mml:msub><mml:mi mathvariant="bold">H</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>Collisions. Physical Review Letters, 2013, 111, 203201.	7.8	20
38	Semiclassical description of high-order-harmonic spectroscopy of the Cooper minimum in krypton. Physical Review A, 2015, 91, .	2.5	20
39	Ab initiocalculation of charge-transfer and excitation cross sections inLi++H(1s)collisions. Physical Review A, 2008, 77, .	2.5	19
40	Electron shakeoff following the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>Î²</mml:mi><mml:mo>+</mml:mo></mml:msup></mml:math>decay of trapped<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>35</mml:mn></mml:msup></mml:math>Ar<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:	2.5	19
41	Molecular treatment of single (dissociative and nondissociative) and double electron capture in He2ÂÂ H2collisions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, L135-L141.	1.5	18
42	Semiclassical treatment of excitation and electron loss inAq++H(1s)collisions using spherical Bessel functions. Physical Review A, 2006, 74, .	2.5	18
43	Molecular calculation of charge transfer cross sections in C4++H collisions. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, L673-L679.	1.5	17
44	Model potential treatment of C4++ H2collisions at low impact energies. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 3107-3122.	1.5	17
45	Picturing the ionization process in ion-atom collisions with time-dependent quantum and classical methods. Physical Review A, 2001, 63, .	2.5	17
46	Screening models for laserâ€“cluster interactions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, 3405-3422.	1.5	17
47	Precision measurements with LPCTrap at GANIL. Hyperfine Interactions, 2015, 236, 1-7.	0.5	16
48	Recommended data for capture cross sections in B5++ H collisions. Plasma Physics and Controlled Fusion, 2006, 48, 1585-1604.	2.1	14
49	Total and partial cross-sections of electron transfer processes with hydrogen gas targets: Be4+, B5++ H(1s), H(2s). Physica Scripta, 1996, T62, 27-32.	2.5	13
50	Classical description of the electron capture to the continuum cusp formation in ion-atom collisions. Physical Review A, 2002, 65, .	2.5	13
51	Charge transfer and ionization involving argon ions and neutral hydrogen. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, L91-L97.	1.5	13
52	Vibronic treatment of vibrational excitation and electron capture inH++H2(HD,D2, â€¦) collisions at low impact energies. Physical Review A, 2007, 75, .	2.5	13
53	Description of ionization in the molecular approach to atomic collisions. II. Physical Review A, 2002, 65, .	2.5	12
54	Electron shakeoff following the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mi>Î²</mml:mi><mml:mo>+</mml:mo></mml:msup></mml:r decay of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Ne</mml:mi><mml:none /><mml:mo>+</mml:mo><mml:mprescripts /><mml:none /><mml:mn>19</mml:mn></mml:mmultiscripts></mml:math> and <mml:math xmlns:mml="http://www.w3	2.5	12

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55	Calculation of total cross sections and effective emission coefficients for B^{5 +}collisions with ground-state and excited hydrogen. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 144007.	1.5	11
56	Ultrafast relaxation investigated by photoelectron circular dichroism: an isomeric comparison of camphor and fenchone. Physical Chemistry Chemical Physics, 2021, 23, 25612-25628.	2.8	11
57	Dynamics of rare gas nanoclusters irradiated by short and intense laser pulses. High Energy Density Physics, 2007, 3, 191-197.	1.5	10
58	Photoelectron elliptical dichroism spectroscopy of resonance-enhanced multiphoton ionization via the 3s, 3p and 3d Rydberg series in fenchone. Physical Chemistry Chemical Physics, 2022, 24, 6415-6427.	2.8	10
59	Quantum chemistry calculation of excited three center systems: Theoretical study of He2++H2 collisions. Journal of Chemical Physics, 2003, 119, 325-337.	3.0	9
60	Two active-electron classical trajectory Monte Carlo methods for ion-He collisions. Physical Review A, 2009, 80, .	2.5	9
61	Atomic-matter-wave diffraction evidenced in low-energy Na<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mo>+</mml:mo></mml:msup></mml:math>+Rb charge-exchange collisions. Physical Review A, 2012, 85, .	2.5	9
62	Excitation cross sections for Li^{3 +}, Ne^{10 +}and Ar^{18 +}+H(1s) collisions of interest in fusion plasma diagnostics. Journal of Physics B: Atomic, Molecular and Optical Physics, 2013, 46, 095701.	1.5	9
63	Electron capture and ionization processes in high-velocity Cn+, Câ€“Ar and Cn+, Câ€“He collisions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 075201.	1.5	9
64	Switching classical trajectory Monte Carlo method to describe two-active-electron collisions. Physical Review A, 2016, 94, .	2.5	9
65	Influence of nuclear exchange on nonadiabatic electron processes in H$^+$++H$_2$2 collisions. Journal of Chemical Physics, 2010, 133, 244307.	3.0	8
66	Common-translation-factor method with an atomic basis. Physical Review A, 1994, 50, 418-422.	2.5	7
67	Molecular treatment ofH++He+(1s)collisions including pseudostates. Physical Review A, 1995, 52, R2505-R2507.	2.5	7
68	Spheroidal close-coupling scheme to describe ionization processes in one-electron diatomic systems. Physical Review A, 2003, 67, .	2.5	7
69	Classical interpretation of probability oscillations in low-energy atomic collisions. Physical Review A, 2011, 83, .	2.5	7
70	Revealing the Influence of Molecular Chirality on Tunnel-Ionization Dynamics. Physical Review X, 2021, 11, .	8.9	7
71	Calculation of total cross sections for ionization and charge transfer in collisions of multicharged ions with water molecules. , 2008, , .		6
72	High-Resolution Probe of Coherence in Low-Energy Charge Exchange Collisions with Oriented Targets. Physical Review Letters, 2013, 111, 133201.	7.8	5

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73	Using GPU parallelization to perform realistic simulations of the LPCTrap experiments. Hyperfine Interactions, 2015, 235, 87-95.	0.5	5
74	Quasifree expansion picture of break-up events: An analysis of ionizing systems. Physical Review A, 2003, 67, .	2.5	4
75	Classical and semiclassical treatments of highly charged ions+H(1s) collisions. Nuclear Instruments & Methods in Physics Research B, 2005, 235, 315-320.	1.4	2
76	Asymptotic transitions around conical intersections in ion-diatom collisions. Physical Review A, 2008, 77, .	2.5	2
77	Electron capture and nuclear exchange in H⁺+ H₂collisions at low impact energies. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 105207.	1.5	2
78	Ion-water collisions at intermediate energies. Journal of Physics: Conference Series, 2012, 388, 102007.	0.4	2
79	Enhanced chiral-sensitivity of Coulomb-focused electrons in strong field ionization. Journal of Physics B: Atomic, Molecular and Optical Physics, 2021, 54, 184002.	1.5	2
80	Capture, excitation and ionization in H+ + He+(1s) collisions. Nuclear Instruments & Methods in Physics Research B, 1995, 98, 297-299.	1.4	1
81	CaractÃ©risation spectrale et temporelle de l'Ã©mission X issue de l'interaction laser-agrÃ©gats. European Physical Journal Special Topics, 2006, 138, 73-81.	0.2	1
82	Electron capture and ionization in collisions of multiply charged ions with H(2s). Journal of Physics: Conference Series, 2007, 58, 203-206.	0.4	1
83	New classical CTMC approaches to A^{q+}+ He processes. Journal of Physics: Conference Series, 2009, 163, 012069.	0.4	1
84	Study of Inelastic Processes in Ion-H2O Collisions Using Classical Trajectory Monte Carlo and Semiclassical Methods. Interdisciplinary Research on Particle Collisions and Quantitative Spectroscopy, 2012, , 231-270.	0.5	1
85	High-order Harmonic Spectroscopy : Experimental and Theoretical study of Cooper Minimum in Argon. Journal of Physics: Conference Series, 2012, 388, 022023.	0.4	1
86	Classical treatment of ionization and electron capture in ion-H2O collisions at intermediate energies. , 2013, , .		1
87	Excitation and fragmentation in high velocity C_nN⁺- He collisions. Journal of Physics: Conference Series, 2017, 875, 102022.	0.4	1
88	Molecular treatment of ion-atom collisions at intermediate energies. AIP Conference Proceedings, 1996, , .	0.4	0
89	Enhanced production of nonequivalent electron configurations 3ln[sup Ê¹]l[sup Ê¹](n[sup Ê¹]â‰¥6) in slow keV Ne[sup 10+]+He collisions: Experiment and theory. , 1999, , .		0
90	Description of ionization in ion-atom collisions from low to intermediate energies. , 1999, , .		0

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91	Novel Model Potential Treatment of Charge Transfer Cross Sections in C4+ and N5+ Collisions with H2. Physica Scripta, 2001, T92, 373-375.	2.5	0
92	Study of molecular orbitals in momentum space. International Journal of Quantum Chemistry, 2002, 86, 46-58.	2.0	0
93	H⁺+ H₂collisions at low impact energies. Journal of Physics: Conference Series, 2009, 194, 102015.	0.4	0
94	Classical three-center model potential calculations for ion-H₂O collisions. Journal of Physics: Conference Series, 2009, 194, 102035.	0.4	0
95	Hydrodynamical description of strong field-driven electron dynamics. Journal of Physics: Conference Series, 2012, 388, 032019.	0.4	0
96	Study of low energy ion-atom collisions using a magneto-optical trap. Journal of Physics: Conference Series, 2012, 388, 082005.	0.4	0
97	Hemiquantal treatment of low energy p+H₂collisions. Journal of Physics: Conference Series, 2012, 388, 102054.	0.4	0
98	Resolving vibration in H++H2 charge transfer collisions. Journal of Physics: Conference Series, 2014, 488, 102009.	0.4	0
99	Electron capture and ionization processes in high velocity C_n⁺, C-Ar and C_n⁺, C-He collisions. Journal of Physics: Conference Series, 2015, 635, 032084.	0.4	0
100	Classical treatment of Li2++Ar and He2++Ar collisions. Journal of Physics: Conference Series, 2015, 635, 022050.	0.4	0
101	Excitation, ionization, neutralization and anionic production in collisions of C+, N+ and C n N+ (n =) Tj ETQq1 1 0.784314 rgBT /Overl Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 195204.	1.5	0
102	Electron Wavefunctions Probed by All-Optical Attosecond Interferometry. , 2019, , .		0
103	Controlling sub-cycle instantaneous optical chirality in the photoionization of chiral molecules. Journal of Physics: Conference Series, 2020, 1412, 072027.	0.4	0
104	Energy deposit by electron excitation in CnN+ projectiles (n=1-3) colliding at in termediate velocity with He atoms : semi-empirical estimates and calculations. Journal of Physics: Conference Series, 2020, 1412, 142026.	0.4	0
105	Femtosecond-resolved Rydberg states dynamics in chiral molecules. , 2021, , .		0
106	Below-Threshold High-Order Harmonics Probed with Aligned Molecules. , 2010, , .		0
107	Investigating Shakeoff Process in Precise Correlation Measurements in Nuclear Î² Decay. Springer Proceedings in Physics, 2020, , 903-909.	0.2	0