

Henri Bachau

List of Publications by Year in descending order

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140
papers

3,353
citations

172207

29
h-index

174990

52
g-index

141
all docs

141
docs citations

141
times ranked

1188
citing authors

#	ARTICLE	IF	CITATIONS
1	Publisher Correction: Angle-dependent interferences in electron emission accompanying stimulated Compton scattering from molecules. Communications Physics, 2022, 5, .	2.0	30
2	Asymmetric electron angular distributions in H_2 induced by intense ultrashort soft-x-ray laser pulses. Physical Review A, 2022, 105, .	1.0	1
3	Compton scattering of keV photons at helium atom near the $He^{++}(1s)$ threshold for small momentum transfer. European Physical Journal D, 2021, 75, 1.	0.6	0
4	Angle-dependent interferences in electron emission accompanying stimulated Compton scattering from molecules. Communications Physics, 2021, 4, .	2.0	3
5	Radial and Angular Electron Ejection Patterns of Two-Electron Quantum Dots in THz Fields. Atoms, 2020, 8, 38.	0.7	1
6	Nondipole effects in helium ionization by intense soft x-ray laser pulses. European Physical Journal D, 2019, 73, 1.	0.6	4
7	Direct and Sequential Two-Photon Double Ionization of Two-Electron Quantum Dots. Journal of Physical Chemistry A, 2018, 122, 1574-1583.	1.1	8
8	Wannier Representation of Intraband High-Order Harmonic Generation. Physical Review Letters, 2018, 121, 143902.	2.9	13
9	Control of H_2 Dissociative Ionization in the Nonlinear Regime Using Vacuum Ultraviolet Free-Electron Laser Pulses. Physical Review Letters, 2018, 121, 103002.	2.9	13
10	Stimulated Raman scattering of an ultrashort XUV radiation pulse by a hydrogen atom. Physical Review A, 2017, 95, .	1.0	7
11	Stimulated Raman transitions from the metastable $2i$ state of hydrogen. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 174003.	0.6	4
12	Stimulated Raman scattering in hydrogen by ultrashort laser pulse in the keV regime. Europhysics Letters, 2016, 114, 23001.	0.7	5
13	Theory of photoionization of two-electron quantum dots in the resonance region in THz and mid-IR fields. Physical Review A, 2016, 94, .	1.0	6
14	Stimulated Compton scattering of soft X-ray radiation by hydrogen. Journal of Modern Optics, 2016, 63, 402-410.	0.6	5
15	Energy- and angle-resolved ionization of H_2 interacting with xuv subfemtosecond laser pulses. Physical Review A, 2015, 92, .	1.0	1
16	Above-Threshold Ionization of Quasiperiodic Structures by Low-Frequency Laser Fields. Physical Review Letters, 2015, 115, 163602.	2.9	11
17	Molecular Resolvent Operator for H_2^+ molecule. Journal of Physics: Conference Series, 2015, 635, 112107.	0.3	0
18	Laser-induced breakup of helium H_2^+ intermediate doubly excited states. Physical Review A, 2014, 89, .	1.0	2

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19	Molecular resolvent-operator method: Electronic and nuclear dynamics in strong-field ionization. Physical Review A, 2014, 89, .	1.0	16
20	Stimulated Compton Scattering in Two-Color Ionization of Hydrogen with keV Electromagnetic Fields. Physical Review Letters, 2014, 112, 073001.	2.9	28
21	Two-photon double ionization of metastable S_3 . Physical Review A, 2014, 89, .	1.0	8
22	Two-color ionization of hydrogen close to threshold with keV photons. Physical Review A, 2014, 90, .	1.0	8
23	Study of the $\{m \text{ He}^{2+}_2\}$ dynamics induced by a strong IR field by means of the resolvent technique. Journal of Physics B: Atomic, Molecular and Optical Physics, 2014, 47, 124028.	0.6	2
24	Wave packet dynamics in molecular excited electronic states. Journal of Physics: Conference Series, 2014, 488, 012017.	0.3	2
25	Correlated electron and nuclear dynamics in strong field photoionization of H^{+2} . Journal of Physics: Conference Series, 2014, 488, 032017.	0.3	0
26	Above-threshold ionization of hydrogen and hydrogen-like ions by X-ray pulses. Open Physics, 2013, 11, .	0.8	7
27	Correlated Electron and Nuclear Dynamics in Strong Field Photoionization of H^{+2} . Physical Review Letters, 2013, 110, 113001.	2.9	69
28	A novel estimate of the two-photon double-ionization cross section of helium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 175601.	0.6	11
29	Non-linear processes related to laser-atom interaction in XUV domain. , 2012, , .		0
30	Extraction of the absolute value of the photoelectron spectrum probability density by means of the resolvent technique. Physical Review A, 2012, 85, .	1.0	22
31	Exploring above-threshold ionization of hydrogen in an intense x-ray laser field through nonperturbative calculations. Physical Review A, 2012, 85, .	1.0	23
32	Clocking Ultrafast Wave Packet Dynamics in Molecules through UV-Induced Symmetry Breaking. Physical Review Letters, 2012, 108, 063009.	2.9	34
33	Two-photon ionization of ground state hydrogen from the photoelectric threshold up to 40 keV. Journal of Physics: Conference Series, 2012, 388, 022054.	0.3	0
34	Closure approximation in the theory of two-photon double ionization of atoms. Journal of Physics: Conference Series, 2012, 388, 032004.	0.3	0
35	Quenching H_2 autoionization interferences with ultrashort xuv laser pulses. Journal of Physics: Conference Series, 2012, 388, 022062.	0.3	0
36	Above-threshold ionization of one-active electron atomic systems in the x-ray regime: a non-perturbative treatment. Journal of Physics: Conference Series, 2012, 388, 032041.	0.3	0

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37	Nuclear interference processes in the dissociation of H ₂ ⁺ in short vuv laser fields. Physical Review A, 2012, 86, .	1.0	4
38	Two-photon ionization of hydrogen and hydrogenlike ions: Retardation effects on differential and total generalized cross sections. Physical Review A, 2012, 86, .	1.0	15
39	Reproducibility of Observables and Coherent Control in Molecular Photoionization: From Continuous Wave to Ultrashort Pulsed Radiation. Journal of Physical Chemistry A, 2012, 116, 2704-2712. Two-photon double ionization of He($\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" \rangle$) Tj ETQq0 0 0 rgBT /Overlock 10	1.1	24

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55	Dynamics of the direct double ionization of helium by two XUV photons. Journal of Physics: Conference Series, 2008, 141, 012013.	0.3	3
56	Excitation and ionization of molecular hydrogen by ultrashort vuv laser pulses. Physical Review A, 2007, 75, .	1.0	44
57	Coulomb explosion of H ₂ +wave packet in ultrashort XUV laser fields. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 463-474.	0.6	11
58	Ab initio time-dependent method to study the hydrogen molecule exposed to intense ultrashort laser pulses. Journal of Electron Spectroscopy and Related Phenomena, 2007, 161, 182-187.	0.8	23
59	Quantum calculations of correlated electron-ion collisions in a strong laser field. Physics of Plasmas, 2006, 13, 103108.	0.7	15
60	Two-photon ionization spectra of calcium above the 4s ^{1/2} threshold. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 2693-2708.	0.6	4
61	Dynamics of two-photon double-ionization of helium at the attosecond scale. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, S427-S435.	0.6	19
62	Enhancement and Control of H ₂ Dissociative Ionization by Femtosecond VUV Laser Pulses. Physical Review Letters, 2006, 96, 143001.	2.9	54
63	Step-ladder Rabi oscillations in molecules exposed to intense ultrashort vuv pulses. Physical Review A, 2006, 74, .	1.0	38
64	Electron heating in the conduction band of insulators irradiated by ultrashort laser pulses. Physical Review B, 2006, 74, .	1.1	19
65	Time-dependent theoretical description of molecular autoionization produced by femtosecond xuv laser pulses. Physical Review A, 2006, 73, .	1.0	93
66	Resonant effects in the Coulomb explosion of H ₂ by ultrashort laser pulses. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, L99-L105.	0.6	20
67	Creation of high energy electronic excitations in inorganicinsulators by intense femtosecond laser pulses. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 240-243.	0.8	12
68	Electronic correlation effects in a model of endohedral Mg (Mg@C ₆₀). Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, 1119-1131.	0.6	22
69	Above-threshold ionization near the 3p ⁴ d ¹ autoionizing state in magnesium. Physical Review A, 2005, 71, .	1.0	3
70	Two-photon ionization of H ₂ +by short laser pulses. Physical Review A, 2005, 71, .	1.0	29
71	Heating of conduction band electrons by intense femtosecond laser pulses. Europhysics Letters, 2004, 67, 301-306.	0.7	23
72	One-, two- and three-photon ionization of calcium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 3521-3534.	0.6	8

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73	One- and two-photon double ionization of beryllium with ultrashort ultraviolet laser fields. Physical Review A, 2004, 69, .	1.0	42
74	Dissociation and ionization dynamics of H ₂ ⁺ with short laser pulses: The L ₂ approach. Physical Review A, 2004, 69, .	1.0	30
75	Probing electron-electron correlation with attosecond pulses. European Physical Journal D, 2003, 26, 7-13.	0.6	80
76	Three-photon above-threshold ionization of magnesium. Physical Review A, 2003, 68, .	1.0	10
77	The helium atom and helium-like ions' interaction with XFEL radiation. Journal of Modern Optics, 2003, 50, 353-364.	0.6	2
78	The ionization of one-electron diatomic molecules in strong and short laser fields. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 817-824.	0.6	25
79	Correlation effects in two-photon single and double ionization of helium. Physical Review A, 2003, 68, .	1.0	148
80	Two-photon above-threshold ionization of magnesium. Physical Review A, 2002, 65, .	1.0	11
81	Multiphoton ionization of one-electron diatomic molecules: the discretization approach for the two-centre problem. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, 509-521.	0.6	11
82	Coulomb-Volkov approach of atom ionization by intense and ultrashort laser pulses. Physical Review A, 2001, 63, .	1.0	52
83	Applications of B-splines in atomic and molecular physics. Reports on Progress in Physics, 2001, 64, 1815-1943.	8.1	608
84	Ionization of H by a strong ultrashort laser pulse. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, 857-867.	0.6	20
85	Resonant and non-resonant ionization of helium by XUV ultrashort and intense laser pulses. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 2101-2116.	0.6	24
86	Transfer and excitation in high-energy He ⁺ -He collisions: V. Electronic continuum influence on ejected electron distributions and TE cross sections. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 2041-2055.	0.6	6
87	The hydrogen atom in an external DC electric field: the discretization approach. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 1169-1179.	0.6	3
88	Two-color photoionization of helium above the N=2 ionization threshold. Physical Review A, 1999, 60, 1371-1376.	1.0	10
89	Multiple phase control in Mg through the continuum. Physical Review A, 1999, 60, 4781-4787.	1.0	27
90	Two-electron effects in the multiphoton ionization of magnesium with 400-nm 150-fs pulses. Physical Review A, 1999, 60, 3916-3923.	1.0	15

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91	Generation of extreme ultraviolet tunable frequencies from mixed fields. Journal of the Optical Society of America B: Optical Physics, 1999, 16, 1880.	0.9	8
92	Asymmetry parameters in two-photon detachment of below 1 eV. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, L801-L806.	0.6	8
93	Laser-assisted dielectronic recombination in ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, 3263-3280.	0.6	1
94	On the calculation of doubly excited states. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 4163-4174.	0.6	7
95	Electron angular distribution in above-threshold two-photon detachment of. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 2417-2424.	0.6	20
96	Fluorescence yields for Rydberg series in ions belonging to the He isoelectronic sequence. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 203-214.	0.6	8
97	Effects of coherent coupling of autoionizing states on multiphoton ionization. Physical Review A, 1996, 53, 2587-2597.	1.0	58
98	Investigation of a two-autoionizing-level system coupled by a strong laser field. Journal of Modern Optics, 1996, 43, 953-962.	0.6	3
99	Investigation of the properties of (3, 3, 3) triply excited states of multicharged ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 1996, 29, 4365-4379.	0.6	17
100	Electric-field effects on the photodetachment of below the threshold. Journal of Physics B: Atomic, Molecular and Optical Physics, 1996, 29, 1451-1466.	0.6	8
101	Radiation amplification through autoionizing resonances formed by laser assisted dielectronic recombination in He. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1995, 33, 211-217.	1.0	1
102	Properties of high-lying doubly excited states of Ne ⁸⁺ populated during Ne ¹⁰⁺ + He collisions. Nuclear Instruments & Methods in Physics Research B, 1995, 98, 78-80.	0.6	5
103	Two-photon detachment with excitation of H-. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 2863-2873.	0.6	21
104	Properties of Ne ⁸⁺ (4, 4) and Ne ⁸⁺ (3, n) states populated during ion-atom collisions. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 795-806.	0.6	24
105	Theory of two-photon spectroscopy of autoionizing states in helium and beryllium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 2367-2384.	0.6	19
106	Observation of Autoionization Suppression through Coherent Population Trapping. Physical Review Letters, 1995, 74, 2431-2434.	2.9	70
107	Investigation by high resolution electron spectroscopy of the helium-like 3lnl' Rydberg series in double capture processes at low collision velocity; auto transfer to Rydberg states and electron stabilization. Journal of Physics B: Atomic, Molecular and Optical Physics, 1994, 27, 4243-4261.	0.6	31
108	Two-photon ionization and simultaneous excitation of beryllium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1994, 27, 4909-4914.	0.6	10

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109	Three-photon ionization cross section calculations of Be. Journal of Physics B: Atomic, Molecular and Optical Physics, 1993, 26, 75-83.	0.6	17
110	Auto transfer to Rydberg states and indirect stabilization following double capture. Journal of Physics B: Atomic, Molecular and Optical Physics, 1993, 26, 4181-4199.	0.6	40
111	Discretization techniques applied to the study of multiphoton excitation of resonances in helium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1993, 26, 4449-4463.	0.6	34
112	Theoretical lifetime and decay mode of multiply excited ions produced during ion-atom collisions. AIP Conference Proceedings, 1993, . .	0.3	0
113	Transfer and excitation in ion-atom collisions at high impact velocities: a unified continuum distorted wave treatment of resonant and non-resonant modes in a four-body approach. II. Application to the collision $S^{15+}(1s)+H(1s)$. Journal of Physics B: Atomic, Molecular and Optical Physics, 1992, 25, 839-852.	0.6	30
114	Stabilization of autoionizing states during ion-atom collisions. Journal of Physics B: Atomic, Molecular and Optical Physics, 1992, 25, L109-L115.	0.6	61
115	On the possibility of radiation amplification through multiphoton pumping of autoionizing states. Optics Communications, 1991, 83, 331-336.	1.0	5
116	Resonance parameters and properties of helium-like doubly excited states: $2 \leq Z \leq 10$. Atomic Data and Nuclear Data Tables, 1991, 48, 167-212.	0.9	61
117	Excitation of doubly excited states of helium by ion impact in the Born approximation. Journal of Physics B: Atomic, Molecular and Optical Physics, 1991, 24, 2015-2028.	0.6	19
118	Electron correlation properties of doubly excited states. Berylliumlike vs heliumlike systems. Journal of Chemical Physics, 1991, 94, 5011-5020.	1.2	14
119	Discretization techniques applied to the study of two-photon ionization in systems with two active electrons. Physical Review A, 1991, 44, 4516-4520.	1.0	11
120	Theory of the photoelectron spectrum in double ionization through two-photon absorption from $He(2s^2)$. Physical Review A, 1991, 44, R9-R12.	1.0	54
121	Theory of intense-field ionization and above-threshold ionization of helium through multiple resonances. Physical Review Letters, 1991, 66, 3241-3244.	2.9	17
122	Resonance parameters and properties of beryllium-like doubly excited states: $4 \leq Z \leq 10$. Atomic Data and Nuclear Data Tables, 1990, 44, 305-348.	0.9	57
123	Comment on 'Calculations of energies of intrashell doubly excited states of beryllium-like ions'. Journal of Physics B: Atomic, Molecular and Optical Physics, 1990, 23, L83-L85.	0.6	6
124	Method for the calculation of multiphoton and above-threshold ionization with discretized bases in two-electron atoms. Physical Review A, 1990, 42, 5801-5804.	1.0	23
125	Feshbach-model potential approach for the study of resonant and bound states of Be-like ions. Physical Review A, 1990, 41, 3534-3544.	1.0	47
126	Theoretical partial widths of the $1P^{\circ}(3s3p)$ resonant state of the He atom. Physical Review A, 1990, 41, 6544-6547.	1.0	6

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127	Coupled continuum perturbative Feshbach approach to calculate total and partial widths: $1,3\text{Se}(3nl)$ resonant states of $\text{He}, \text{C}^{4+}, \text{N}^{5+}$, and O^{6+} . <i>Physical Review A</i> , 1989, 40, 4245-4255.	1.0	24
128	Role of angular correlations and total angular momentum on partial autoionisation widths of $\text{O}^{6+}(3,3)$ and $(4,4)$ states. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1989, 22, 2865-2874.	0.6	7
129	Double electron capture in collisions of the helium-like ions N^{5+} , O^{6+} and Ne^{8+} with helium atoms. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1989, 22, L121-L127.	0.6	33
130	Theory of single and double ionization of helium through two-photon excitation of the $1\text{S}0e(1)$ doubly excited resonance. <i>Zeitschrift für Physik D-Atoms Molecules and Clusters</i> , 1989, 11, 37-44.	1.0	13
131	Introduction of short-range interactions in continuum distorted-wave theory of electron capture for ion-atom collisions. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1988, 21, 1403-1410.	0.6	14
132	Correlations in the doubly excited states of $\text{O}^{6+}(3l, n'l')$ with $n=3, 4$. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1988, 21, 3547-3558.	0.6	13
133	Comparison of the conventional and pseudopotential Feshbach methods: $\text{N}^{5+}(3l)$. <i>Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 507 To</i> 2261-2272.	0.6	19
134	Angular momenta determination of $\text{N}^{5+}(3L3L')$ capture states in N^{7+} -He collisions. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1987, 20, L695-L703.	1.6	48
135	Autoionization of Diatomic Quasi-Molecules. <i>Europhysics Letters</i> , 1987, 3, 559-564.	0.7	4
136	Investigation of angular momenta and correlation patterns in doubly excited states populated by low velocity double charge exchange. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1987, 262, 84-88.	0.7	11
137	Autoionization from stark-mixed states. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1987, 23, 284-286.	0.6	4
138	Theory of laser-induced transitions between autoionizing states of He. <i>Physical Review A</i> , 1986, 34, 4785-4792.	1.0	55
139	Position and widths of autoionising states in the helium isoelectronic sequence above the $N=2$ continuum. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1984, 17, 1771-1784.	1.6	81
140	Proton-hydrogen-atom scattering in a nearly resonant laser field. <i>Physical Review A</i> , 1984, 30, 2752-2755.	1.0	3