

# Double photoionization of helium using many-body perturbation theory

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Double ionization of He(1s2) and He(1s2s3S) by a single high-energy photon. Physical Review A, 1994, 49, 3597-3609.	1.0	60
2	Scaling laws in double photoionization. Physical Review A, 1994, 49, 5120-5123.	1.0	60
3	Inelastic atomic scattering by high-energy photons and charged particles. Physical Review A, 1994, 50, 349-353.	1.0	25
4	Ionization of two-electron systems by Compton scattering of a photon. Physical Review Letters, 1994, 73, 790-793.	2.9	72
5	Contribution of Compton scattering to the double ionization of helium. Physical Review Letters, 1994, 72, 1620-1623.	2.9	65
6	Photoexcitation and -ionization in helium: Zero-kinetic-energy spectroscopy. Physical Review A, 1994, 50, 3174-3176.	1.0	25
7	Direct double photoionization of atomic sodium. Physical Review A, 1994, 50, 4868-4876.	1.0	19
8	Double photoionization of helium using R-matrix methods. Physical Review A, 1994, 50, R3573-R3576.	1.0	46
9	Interpretation of scattering by charged particles and photons. Nuclear Instruments & Methods in Physics Research B, 1994, 87, 17-25.	0.6	1
10	Single and double ionization of helium by high-energy photon impact. Nuclear Instruments & Methods in Physics Research B, 1994, 87, 167-172.	0.6	5
11	Precision measurements of the absolute photoionization cross sections of He. Journal of Physics B: Atomic, Molecular and Optical Physics, 1994, 27, 887-898.	0.6	153
12	Redetermination of absolute partial photoionization cross sections of He and Ne atoms between 20 and 300 eV photon energy. Journal of Electron Spectroscopy and Related Phenomena, 1995, 71, 205-224.	0.8	118
13	Double electron ionization in Compton scattering of high energy photons by helium atoms. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 199, 209-212.	0.9	18
14	Overview of the theory of highly charged ions. Nuclear Instruments & Methods in Physics Research B, 1995, 98, 104-106.	0.6	0
15	The case for synchrotron radiation studies of two-electron ions, atoms, and molecules at the ALS. Nuclear Instruments & Methods in Physics Research B, 1995, 99, 177-181.	0.6	6
16	Distribution of electrons in double photoionization of helium and heavier atoms in the asymptotic region. Physical Review A, 1995, 52, 3910-3922.	1.0	21
17	Effect of Compton scattering on the double-to-single photoionization ratio in helium. Physical Review A, 1995, 52, 2829-2834.	1.0	20
18	Theory of double photoionization of a two-electron atom: Circumventing the boundary conditions. Physical Review A, 1995, 51, 494-499.	1.0	28

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19	Attenuation of photons at 3–14-keV energies in helium. <i>Physical Review A</i> , 1995, 51, 447-453.	1.0	10
20	Ratio of double to single ionization of helium: The relationship between ionization by photons and by bare charged particles. <i>Physical Review A</i> , 1995, 51, 400-405.	1.0	18
21	Retardation effects and angular coefficients in double photoionization. <i>Physical Review A</i> , 1995, 52, 2915-2924.	1.0	14
22	Two-electron ejection from helium by Compton scattering. <i>Physical Review A</i> , 1995, 51, 3044-3052.	1.0	37
23	Absolute cross sections for double photoionization of helium at energies from 0 to 80 eV above threshold. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1995, 28, L571-L577.	0.6	67
24	Double electron ionization in Compton scattering of high energy photons by helium atoms. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1995, 28, 1723-1734.	0.6	32
25	Calculation of the double-photoionization cross section of helium. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1995, 28, 5001-5012.	0.6	23
26	The ratio of cross sections for double to single ionization of helium by high energy photons and charged particles. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1995, 28, 913-940.	0.6	164
27	Ratio of Cross Sections for Double to Single Ionization of He by 85–400 eV Photons. <i>Physical Review Letters</i> , 1996, 76, 2654-2657.	2.9	109
28	Total photon attenuation cross sections of helium at energies below 10 keV. An assessment of the accuracy of measured and calculated cross sections. <i>Radiation Physics and Chemistry</i> , 1996, 47, 927-934.	1.4	5
29	Atoms as many-body systems. <i>Physics Reports</i> , 1996, 264, 7-26.	10.3	13
30	Radiative double electron capture in fast heavy ion-atom collisions. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1996, 221, 328-334.	0.9	10
31	Compton-scattering contribution to the double ionization of He in the $A^2$ approximation. <i>Physical Review A</i> , 1996, 53, R3709-R3712.	1.0	13
32	Double Ionization of He by Fast Protons at Large Energy Transfer. <i>Physical Review Letters</i> , 1996, 76, 4324-4327.	2.9	11
33	Quantum-classical hybrid approach to helium double photoionization. <i>Physical Review A</i> , 1996, 53, R640-R643.	1.0	10
34	Compton double-to-single ionization ratio of helium at 57 keV. <i>Physical Review A</i> , 1996, 53, R3720-R3722.	1.0	20
35	Photoionization and Compton Double Ionization of Helium from Threshold to 20 keV. <i>Physical Review Letters</i> , 1996, 76, 1220-1223.	2.9	99
36	Consistency test of double ionization of helium by photons and charged particles. <i>Physical Review A</i> , 1996, 54, 613-616.	1.0	12

#	ARTICLE	IF	CITATIONS
37	Excitation - ionization by photoabsorption at low and intermediate energies. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, L523-L529.	0.6	14
38	Double multiphoton ionization of a model atom. Physical Review A, 1997, 55, 1307-1313.	1.0	25
39	Radiative double-electron capture in collisions of fast heavy ions with solid carbon targets. Physical Review A, 1997, 55, 1952-1961.	1.0	28
40	Single and Double Photoionization from Dipole Response Function. Physical Review Letters, 1997, 78, 3662-3664.	2.9	21
41	Sum rules and the oscillator strength distribution in helium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 881-892.	0.6	16
42	Two-Electron Photoejection of He and $\text{H}^+$ . Physical Review Letters, 1997, 78, 4902-4905.	2.9	64
43	Two-electron processes in fast collisions with charged particles. Nuclear Instruments & Methods in Physics Research B, 1997, 124, 271-280.	0.6	7
44	Experimental studies of inelastic X-ray and $\hat{\Gamma}^3$ -ray scattering. Radiation Physics and Chemistry, 1997, 50, 31-62.	1.4	33
45	Semiclassical S-matrix theory for atomic fragmentation. Physics Reports, 1998, 297, 271-344.	10.3	61
46	Double photoionization of helium from threshold to high energies. Physical Review A, 1998, 57, R1489-R1492.	1.0	45
47	Multiple Photoionization. , 1998, , 123-152.		0
48	Double photoionization of helium at intermediate photon energies. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, 427-448.	0.6	11
49	Photo-double-ionization of He: Fully differential and absolute electronic and ionic momentum distributions. Physical Review A, 1998, 57, 1074-1090.	1.0	130
50	Double photoionization of helium. Physical Review A, 1998, 57, 1906-1911.	1.0	164
51	Photoionization with excitation and double photoionization of the helium isoelectronic sequence. Physical Review A, 1998, 58, 4501-4511.	1.0	115
52	Photoionization Cross Sections of He and H <sub>2</sub> . Astrophysical Journal, 1998, 496, 1044-1050.	1.6	219
53	Measurement of the ratio of differential cross sections for double and single ionization of He by ( $4\hat{\epsilon}^{10}$ )-MeV protons. Physical Review A, 1998, 57, 292-296.	1.0	10
54	Time-dependent close-coupling calculations of correlated photoionization processes in helium. Physical Review A, 1998, 57, 318-324.	1.0	104

#	ARTICLE	IF	CITATIONS
55	Compton Double Ionization of Helium in the Region of the Cross-Section Maximum. Physical Review Letters, 1999, 83, 53-56.	2.9	22
56	Single-photon ionization of helium from 4.5 to 12 keV by Compton scattering and the photoelectric effect. Physical Review A, 1999, 59, 4075-4078.	1.0	7
57	Asymptotic ratios of single, double, and triple photoionization for lithium at high energies. Physical Review A, 1999, 59, 4825-4828.	1.0	17
58	Search for evidence of double K shell ionization in Mg by single X-ray photon inelastically scattered in the near threshold regime. Nuclear Instruments & Methods in Physics Research B, 1999, 149, 25-30.	0.6	0
59	Cold Target Recoil Ion Momentum Spectroscopy: a $\hbar$ -momentum microscope™ to view atomic collision dynamics. Physics Reports, 2000, 330, 95-192.	10.3	1,259
60	Exact double-continuum solution of a correlated atomic model. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 1283-1297.	0.6	2
61	On different mechanisms of the two-electron atomic photoionization. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, L247-L252.	0.6	44
62	Atomic dynamics in single and multi-photon double ionization: An experimental comparison. Optics Express, 2001, 8, 368.	1.7	15
63	Multichannel theory of two-photon single and double ionization of helium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, 545-564.	0.6	121
64	Valence double photoionization of beryllium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, L719-L725.	0.6	34
65	Correlation effects in the energy spectrum of fast outgoing electrons from double photoionization of helium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, 1-13.	0.6	20
66	Nuclear charge dependence of the two-electron high-frequency photoionization cross section. Physical Review A, 2001, 63, .	1.0	11
67	Half-collision model for multiple ionization by photon impact. Physical Review A, 2001, 64, .	1.0	38
68	Double Photoionization and Transfer Ionization of He: Shakeoff Theory Revisited. Physical Review Letters, 2002, 89, 163202.	2.9	32
69	Mechanisms of Photo Double Ionization of Helium by 530 eV Photons. Physical Review Letters, 2002, 89, 033004.	2.9	111
71	Perturbative calculation of the triply differential cross section for photo-double-ionization of He. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, L543-L552.	0.6	19
72	Multiple Ionization in Strong Laser Fields. Advances in Atomic, Molecular and Optical Physics, 2002, , 1-34.	2.3	115
73	Electron excitation during inner-shell ionization. Physical Review A, 2002, 65, .	1.0	3

#	ARTICLE	IF	CITATIONS
74	DoubleK-shell photoionization of neon. <i>Physical Review A</i> , 2003, 67, .	1.0	68
75	Characterization of high-energy photoionization in terms of the singularities of the atomic potential. I. Photoionization of the ground state of a two-electron atom. <i>Physical Review A</i> , 2003, 67, .	1.0	39
76	High-frequency two-electron photoionization cross section of triplet states. <i>Physical Review A</i> , 2003, 67, .	1.0	4
77	On the role of shake-off in single-photon double ionization. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2003, 36, L189-L195.	0.6	33
78	Perturbative analysis of the triply differential cross section and circular dichroism in photo-double-ionization of He. <i>Physical Review A</i> , 2004, 69, .	1.0	14
79	Test of the Pluvillage wave function for the helium ground state. <i>Physical Review A</i> , 2004, 70, .	1.0	19
80	Inner-shell photoionization in weak and strong radiation fields. <i>Radiation Physics and Chemistry</i> , 2004, 70, 655-660.	1.4	2
81	Higher-order processes in X-ray photoionization and decay. <i>Radiation Physics and Chemistry</i> , 2004, 70, 149-172.	1.4	19
82	Double ionization by one and many photons. <i>Radiation Physics and Chemistry</i> , 2004, 70, 191-206.	1.4	28
83	Multiple fragmentation of atoms in femtosecond laser pulses. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2005, 38, S753-S772.	0.6	116
84	Photoionization with excitation and double photoionization of the Li+ground 1S1 state and metastable 2S1,3 states. <i>Physical Review A</i> , 2005, 72, .	1.0	15
85	Doubly differential cross sections for single and multiple ionization of Ne by electron impact. <i>Physical Review A</i> , 2005, 71, .	1.0	11
86	Signatures of direct double ionization under xuv radiation. <i>Physical Review A</i> , 2005, 72, .	1.0	40
87	DoubleK-shell photoionization of silver. <i>Physical Review A</i> , 2006, 73, .	1.0	31
88	Importance of the interference effect in atomic excitation and ionization accompanying inner-shell vacancy creation. <i>Radiation Physics and Chemistry</i> , 2006, 75, 1538-1541.	1.4	0
89	Helium atom in the monochromatic electromagnetic field. <i>European Physical Journal D</i> , 2006, 38, 249-255.	0.6	4
90	Higher-order processes in X-ray photoionization of atoms. <i>Radiation Physics and Chemistry</i> , 2006, 75, 2174-2181.	1.4	8
91	Double K-photoionization of heavy atoms. <i>Radiation Physics and Chemistry</i> , 2006, 75, 1529-1533.	1.4	0

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92	Angular distributions in double ionization of helium under XUV sub-femtosecond radiation. New Journal of Physics, 2008, 10, 025012.	1.2	25
93	Intrashell Electron-Interaction-Mediated Photoformation of Hollow Atoms near Threshold. Physical Review Letters, 2008, 101, 043001.	2.9	21
94	Physical Mechanisms and Scaling Laws of $K$ -Shell Double Photoionization. Physical Review Letters, 2009, 102, 073006.	2.9	68
95	About universal scalings in double K-shell photoionization. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 231003.	0.6	7
96	Instability of dynamic localization in the intense terahertz-driven semiconductor Wannier-Stark ladder due to the dynamic Fano resonance. Physical Review B, 2010, 82, .	1.1	9
97	Double $K$ -shell photoionization and hypersatellite x-ray transitions of $^{12}\text{C}^{1/2}$ and $Z^{1/2}$ . Physical Review A, 2010, 82, .	1.0	21
98	Single Photon Double Ionization of the Helium Dimer. Physical Review Letters, 2010, 104, 153401.	2.9	35
99	Single-photon double K-shell ionization of low-Z atoms. Journal of Physics: Conference Series, 2010, 212, 012006.	0.3	1
100	Carbon K-shell photoionization of CO: Molecular frame angular distributions of normal and conjugate shakeup satellites. Journal of Electron Spectroscopy and Related Phenomena, 2011, 183, 48-52.	0.8	11
101	Experimental study of linear magnetic dichroism in photoionization satellite transitions of atomic rubidium. Physical Review A, 2011, 84, .	1.0	2
102	Relativistic contributions to single and double core electron ionization energies of noble gases. Journal of Chemical Physics, 2011, 135, 054310.	1.2	19
103	Attosecond cascades and time delays in one-electron photoionization. Physical Review A, 2012, 86, .	1.0	25
104	Double core-hole correlation satellite spectra of N <sub>2</sub> and CO molecules. Chemical Physics Letters, 2012, 521, 45-51.	1.2	28
105	Photoinduced K-shell hollow atoms. Journal of Electron Spectroscopy and Related Phenomena, 2013, 188, 62-70.	0.8	6
106	Double Core-Hole Creation by Sequential Attosecond Photoionization. Physical Review Letters, 2013, 111, 043001.	2.9	55
107	An $R$ -matrix with pseudo-state approach to the single photon double ionization and excitation of the He-like $\text{Li}^{Z+}$ ion. Journal of Physics B: Atomic, Molecular and Optical Physics, 2013, 46, 075204.	0.6	10
108	Nuclear-recoil differential cross sections for the two-photon double ionization of helium. Physical Review A, 2013, 87, .	1.0	9
109	Double photoionization of C <sup>2+</sup> . European Physical Journal D, 2014, 68, 1.	0.6	1

#	ARTICLE	IF	CITATIONS
110	Momentum transfers in correlation-assisted tunneling. <i>Physical Review A</i> , 2014, 89, .	1.0	8
111	Double Photoionization in Ring Molecules: Search of the Cooper Pair Formation. <i>Physical Review Letters</i> , 2014, 112, 143005.	2.9	19
112	The second Born approximation for the double ionization of N <sub>2</sub> by electron impact. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 135203.	0.6	1
113	A practical theoretical formalism for atomic multielectron processes: direct multiple ionization by a single Auger decay or by impact of a single electron or photon. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2018, 51, 075202.	0.6	17
114	The impact of electron-electron correlation in ultrafast attosecond single ionization dynamics. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020, 53, 144005.	0.6	6
115	Angular dependence of strong field sequential double ionization for neon and acetylene simulated with time-dependent configuration interaction using CIS and CISD-IP. <i>Journal of Chemical Physics</i> , 2020, 152, 064106.	1.2	12
116	Laser-based double photoemission spectroscopy at surfaces. <i>Progress in Surface Science</i> , 2020, 95, 100572.	3.8	11
117	Theory of double ionization of a neighboring molecule by interatomic Coulombic decay. <i>Physical Review A</i> , 2021, 103, .	1.0	4
118	Photon-Atom Interactions: Intermediate Energies. , 2006, , 915-928.		2
119	Photoionization of He - a Field Theoretic Approach. <i>Acta Physica Polonica A</i> , 2001, 100, 505-516.	0.2	0
120	From Atoms to Molecules. <i>Springer Series on Atomic, Optical, and Plasma Physics</i> , 2003, , 245-260.	0.1	1
121	Fundamental Aspects of Atomic Photoionization with High-Brightness Light Sources. , 1996, , 81-104.		0
122	Spectral signature of back reaction in correlated electron dynamics in intense electromagnetic fields. <i>Physical Review Research</i> , 2020, 2, .	1.3	7
123	Mechanisms of Photo Double Ionization of Helium by 530 eV Photons. , 2005, , 121-129.		0
124	Gauge dependence in MBPT amplitudes. <i>Acta Physica Hungarica A Heavy Ion Physics</i> , 1995, 1, 121-131.	0.4	0
125	Perspectives on UV and x-ray photoelectron spectroscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022, 40, 043002.	0.9	0
126	Energy variation of double $K$ -shell photoionization of Ne. <i>Physical Review A</i> , 2023, 107, .	1.0	0