G Werth

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/11246282/publications.pdf

Version: 2024-02-01

151	4,712	109321	123424
papers	citations	35 h-index	61 g-index

163	163	163	1466
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-precision measurement of the atomic mass of the electron. Nature, 2014, 506, 467-470.	27.8	258
2	High-Accuracy Measurement of the Magnetic Moment Anomaly of the Electron Bound in Hydrogenlike Carbon. Physical Review Letters, 2000, 85, 5308-5311.	7.8	254
3	ElectronicgFactor of Hydrogenlike OxygenO7+16. Physical Review Letters, 2004, 92, 093002.	7.8	225
4	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>g</mml:mi></mml:math>Factor of Hydrogenlike<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi>Si</mml:mi><mml:none /><mml:mrow><mml:mn>13</mml:mn><mml:mo>+</mml:mo></mml:mrow><mml:mprescripts /><mml:none /><mml:mn>28</mml:mn></mml:mmultiscripts></mml:math>. Physical Review Letters, 2011,	7.8	153
5	Cooling and stabilization by collisions in a mixed ionâ€“atom system. Nature Communications, 2012, 3, 1126.	12.8	111
6	Chapter 7 HITRAP: A Facility at GSI for Highly Charged Ions. Advances in Quantum Chemistry, 2008, 53, 83-98.	0.8	109
7	Penning traps as a versatile tool for precise experiments in fundamental physics. Contemporary Physics, 2010, 51, 149-175.	1.8	109
8	Double Penning trap technique for precise g factor determinations in highly charged ions. European Physical Journal D, 2003, 22, 163-182.	1.3	108
9	Observation of the Continuous Stern-Gerlach Effect on an Electron Bound in an Atomic Ion. Physical Review Letters, 2000, 84, 427-430.	7.8	104
10	High-Resolution Magnetic Hyperfine Resonance in Harmonically Bound Ground-StateHg199Ions. Physical Review Letters, 1973, 30, 1155-1158.	7.8	103
11	Trapped ion density distribution in the presence of He-buffer gas. Applied Physics Berlin, 1981, 25, 249-251.	1.4	102
12	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>g</mml:mi></mml:math>-factor measurement of hydrogenlike<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>28</mml:mn></mml:msup></mml:math>Si<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>27</mml:mn></mml:msup></mml:math>.	2.5	94
13	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>g</mml:mi></mml:math>Factor of Lithiumlike Silicon<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi>Si</mml:mi><mml:none /><mml:mrow><mml:mn>11</mml:mn><mml:mo mathvariant="bold">+</mml:mo></mml:mrow><mml:mprescripts /><mml:none /><mml:mn>28</mml:mn>	7.8	92
14	Optical Detection of Ions Confined in a rf Quadrupole Trap. Metrologia, 1977, 13, 167-170.	1.2	86
15	High-Precision Measurement of the Protonâ€™s Atomic Mass. Physical Review Letters, 2017, 119, 033001.	7.8	85
16	Higher order non-linear resonances in a Paul trap. International Journal of Mass Spectrometry and Ion Processes, 1996, 154, 155-169.	1.8	80
17	Ultrahigh-Resolution Microwave Spectroscopy on TrappedYb+171Ions. Physical Review Letters, 1982, 48, 1601-1603.	7.8	70
18	Precision determination of the ground-state hyperfine splitting inBa+137using the ion-storage technique. Physical Review A, 1982, 25, 1476-1482.	2.5	69

#	Article	IF	Citations
19	A planar Penning trap. European Physical Journal D, 2005, 32, 139-146.	1.3	64
20	Method for measuring the anomalous magnetic moment of free electrons. Zeitschrift FÃ¼r Physik A, 1969, 222, 201-207.	0.9	57
21	Instabilities of ion motion in a linear Paul trap. International Journal of Mass Spectrometry, 2006, 252, 61-68.	1.5	57
22	HITRAP: A Facility for Experiments with Trapped Highly Charged Ions. Hyperfine Interactions, 2001, 132, 453-457.	0.5	53
23	The electron mass fromg-factor measurements on hydrogen-like carbon¹²C⁵⁺. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 144032.	1.5	51
24	Precision determination of the ground-state hyperfine separation inHg+199using the ion-storage technique. Physical Review A, 1978, 17, 1999-2004.	2.5	49
25	Crystalline ion structures in a Paul trap. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, L375-L382.	1.5	49
26	Ion storage technique for very long living states: The decay rate of the 5D 3/2 state of Ba II. Zeitschrift FÃ¼r Physik A, 1979, 293, 103-106.	1.4	48
27	Lifetime and collisional depopulation of the metastable 5D 3/2-state of Yb+. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1988, 8, 235-237.	1.0	48
28	Precise ground-state hyperfine splitting inii173. Physical Review A, 1987, 35, 4147-4150.	2.5	47
29	Precise measurement ofn=2 positronium fine-structure intervals. Physical Review Letters, 1993, 71, 2887-2890.	7.8	47
30	Observation of instabilities in a Paul trap with higher-order anharmonicities. Applied Physics B: Lasers and Optics, 1995, 61, 277-283.	2.2	44
31	Hyperfine-structure measurements of theEu+151,153ground state. Physical Review A, 1993, 48, 3546-3554.	2.5	43
32	Precise determination of the171Yb+ ground state Hyperfine separation. Zeitschrift FÃ¼r Physik A, 1983, 312, 143-147.	1.4	39
33	The combined trap and some possible applications. Physica Scripta, 1992, 46, 587-592.	2.5	38
34	Nonlinear collective oscillations of an ion cloud in a Paul trap. Physical Review A, 1997, 56, 4023-4031.	2.5	38
35	3d. European Physical Journal D, 1999, 7, 461.	1.3	37
36	Lifetime of the 4D 3/2 and 4D 5/2 metastable states in Sr II. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1987, 5, 97-99.	1.0	36

#	Article	IF	Citations
37	Method for Measuring the Cyclotron and Spin Resonance of Free Electrons. Physical Review Letters, 1968, 21, 340-342.	7.8	35
38	Temperature measurement of a single ion in a Penning trap. European Physical Journal D, 2004, 31, 451-457.	1.3	35
39	Ion Traps and Frequency Standards. Metrologia, 1986, 22, 190-194.	1.2	34
40	Highly charged ions, quantum-electrodynamics, and the electron mass. International Journal of Mass Spectrometry, 2006, 251, 152-158.	1.5	34
41	Phase-sensitive measurement of trapped particle motions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, 297-304.	1.5	33
42	Intense source of slow positrons from pulsed electron accelerators. Applied Physics A: Solids and Surfaces, 1984, 33, 59-62.	1.4	31
43	Fractional frequency collective parametric resonances of an ion cloud in a Paul trap. Physical Review A, 1998, 58, R34-R37.	2.5	31
44	Electrons in a cryogenic planar Penning trap and experimental challenges for quantum processing. European Physical Journal D, 2008, 50, 97-102.	1.3	30
45	The $mathsf{g_{scriptscriptstyle J}}$ -factor in the ground state of Ca $^mathsf{+}$. European Physical Journal D, 2003, 25, 113-121.	1.3	29
46	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>g</mml:mi></mml:math> Factor of Lithiumlike Silicon: New Challenge to Bound-State QED. Physical Review Letters, 2019, 123, 173001.	7.8	29
47	A miniature electron-beam ion source for in-trap creation of highly charged ions. Review of Scientific Instruments, 2006, 77, 03A901.	1.3	28
48	High-precision mass spectrometer for light ions. Physical Review A, 2019, 100, .	2.5	28
49	Electron and positron cooling of highly charged ions in a cooler Penning trap. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 532, 224-228.	1.6	27
50	Lifetime measurements of the 3D3/2 and 3D5/2 metastable states in CaII. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1993, 25, 295-298.	1.0	26
51	Precise $sf g_J$ - and $sf g_I$ -factor measurements of Ba + isotopes. European Physical Journal D, 1998, 4, 279-284.	1.3	26
52	Towards electronic g-factor measurements in medium-heavy hydrogen-like and lithium-like ions. Nuclear Instruments & Methods in Physics Research B, 2005, 235, 7-16.	1.4	26
53	Magnetic hyperfine spectrum of isolated (199Hg)+ Ions. Applied Physics Berlin, 1978, 15, 201-208.	1.4	25
54	Precision Spectroscopy on Trapped Radioactive Ions: Ground-State Hyperfine Splittings of 133 Ba + and 131 Ba +. Europhysics Letters, 1987, 4, 1361-1364.	2.0	25

#	Article	IF	Citations
55	Improved lifetime measurements of the 3D3/2 and 3D5/2 metastable states of Ca II. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1994, 29, 159-161.	1.0	25
56	A high precision Penning trap mass spectrometer. Nuclear Instruments & Methods in Physics Research B, 1990, 47, 453-461.	1.4	24
57	Doppler free ?dark resonances? for hyperfine measurements and isotope shifts in Ca+ isotopes in a Paul trap. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1995, 34, 227-232.	1.0	24
58	Ground-state hyperfine-structure measurements of unstableEu+isotopes in a Paul ion trap. Physical Review A, 1997, 56, 265-269.	2.5	24
59	Observing a single hydrogen-like ion in a Penning trap at T = 4 K. , 1998, 115, 185-192.		24
60	Determination of the g-Factor of Single Hydrogen-Like Ions by Mode Coupling in a Penning Trap. Physica Scripta, 2004, T112, 68.	2.5	24
61	Spectroscopy of excited state positronium. Hyperfine Interactions, 1994, 89, 327-341.	0.5	23
62	Precise determination of the ground state hyperfine splitting of135Ba+. Zeitschrift FÃ¼r Physik A, 1983, 311, 41-47.	1.4	22
63	Measurement of the4He-D2 mass difference. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1990, 17, 119-121.	1.0	22
64	Precise lifetime determination of the metastable 3d 2 D 5/2 level in Ca + by "electron shelving". Europhysics Letters, 1996, 33, 595-598.	2.0	22
65	Combined ion and atom trap for low-temperature ionâ€“atom physics. Applied Physics B: Lasers and Optics, 2012, 107, 971-981.	2.2	22
66	Some Observations on Higher-order Non-linear Resonances in a Paul Trap. Rapid Communications in Mass Spectrometry, 1996, 10, 583-590.	1.5	21
67	Hyperfine structure and (user1{g}) factor measurements on Ba+ and Eu+ isotopes. , 2000, 127, 57-64.		21
68	Precision Nuclear Measurements with Ion Traps. Annual Review of Nuclear and Particle Science, 2000, 50, 119-152.	10.2	21
69	Precision ground state Hfs-separation of137Ba. Zeitschrift FÃ¼r Physik A, 1981, 299, 93-94.	1.4	20
70	g-factor experiments on simple systems in Penning traps. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 154021.	1.5	20
71	Experimental and theoretical challenges for the trapped electron quantum computer. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 154010.	1.5	20
72	On the sensitivity of ion traps for spectroscopic applications. Applied Physics Berlin, 1979, 20, 295-298.	1.4	19

#	Article	IF	Citations
73	Trapping of ions from high energy sources into a radiofrequency ion trap. Applied Physics B, Photophysics and Laser Chemistry, 1982, 29, 89-92.	1.5	19
74	Measurement of the gJ factor of a bound electron in hydrogen-like oxygen 16O7+. Canadian Journal of Physics, 2002, 80, 1233-1240.	1.1	19
75	Continuous Sternâ€“Gerlach effect and the magnetic moment of the antiproton. Nuclear Instruments & Methods in Physics Research B, 2004, 214, 207-210.	1.4	19
76	Experimental g factor of hydrogenlike silicon-28. European Physical Journal D, 2012, 66, 1.	1.3	19
77	Vibrational population of H 2 + after electroionization of thermal H2. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1993, 28, 87-88.	1.0	18
78	ExperimentalgJfactor in the metastable 5D3/2level ofBa+. Physical Review A, 1996, 54, 1199-1205.	2.5	18
79	TITAN project status report and a proposal for a new cooling method of highly charged ions. European Physical Journal A, 2005, 25, 53-56.	2.5	18
80	Zur Toxikologie der Triphenylmethanfarbstoffe. Archives of Toxicology, 1968, 23, 82-103.	4.2	17
81	Isotope separation by nonlinear resonances in a Paul trap. Applied Physics B: Lasers and Optics, 1996, 62, 511-513.	2.2	17
82	Instabilities of an electron cloud in a Penning trap. European Physical Journal D, 2003, 22, 183-188.	1.3	17
83	Hyperfine structure andg-factor measurements in ion traps. Physica Scripta, 1995, T59, 206-210.	2.5	16
84	Influence of anharmonicities of a Paul trap potential on the motion of stored ions. Applied Physics B: Lasers and Optics, 1997, 65, 57-62.	2.2	16
85	Lifetime of the metastable 6P 3/2 level of PbII. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1989, 11, 283-286.	1.0	15
86	Experimental lifetime of the metastable 5D 3/2 state in Ba+. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1992, 24, 339-342.	1.0	15
87	Hyperfine-structure measurements in the ground state of radioactiveEu+150ions. Physical Review A, 1995, 52, 4434-4438.	2.5	15
88	Fabrication of a planar micro Penning trap and numerical investigations of versatile ion positioning protocols. New Journal of Physics, 2010, 12, 065019.	2.9	15
89	Collisional de-excitation of the metastableD-states of Ba+ by He, Ne, N2 and H2. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1989, 11, 301-304.	1.0	14
90	The measurement of the electronic g-factor in hydrogen-like ions --A promising tool for determining fundamental and nuclear constants. European Physical Journal A, 2002, 15, 41-44.	2.5	14

#	Article	IF	Citations
91	(6P-5D)-branching ratio in Ba II. Optics Communications, 1981, 36, 359-360.	2.1	13
92	The anomalous magnetic moment of the electron in hydrogenlike ions. European Physical Journal: Special Topics, 2008, 163, 113-126.	2.6	13
93	High-accuracy Penning trap mass measurements with stored and cooled exotic ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 154015.	1.5	13
94	Ong-factor experiments with individual ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 074016.	1.5	13
95	Measurement of the electronicgfactor ofH2+. Physical Review A, 1988, 38, 5484-5488.	2.5	12
96	The magnetic moment anomaly of the electron bound in hydrogen-like oxygen16O7Â. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 655-663.	1.5	12
97	Electro-produced slow positrons. Hyperfine Interactions, 1989, 44, 151-166.	0.5	11
98	Antihydrogen production in a combined trap. Hyperfine Interactions, 1993, 76, 343-345.	0.5	11
99	Experimental ground stateg J-factor of Ba+ in a Penning ion trap. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1993, 25, 205-208.	1.0	11
100	Spatial separation of atomic states in a laser-cooled ion crystal. Physical Review A, 1998, 58, R23-R25.	2.5	11
101	Ground- and excited stateg-factors of Ba+. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1991, 18, 113-115.	1.0	10
102	Adiabatic cooling of ions in the penning trap. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1991, 22, 375-382.	1.0	10
103	Measurement of the ³ He ⁺ /H ₂ ⁺ Mass Ratio. Europhysics Letters, 1991, 15, 491-495.	2.0	10
104	Mass determination of light ions in a Penning trap by time-of-flight detection of ion resonances. Physica Scripta, 1992, 46, 575-580.	2.5	10
105	Hyperfine-structure measurements on trapped Pb ii. Physical Review A, 1992, 46, 327-329.	2.5	10
106	High-precision hyperfine spectroscopy inM1-M1 double-resonance transitions on trappedPb+207. Physical Review A, 1992, 46, 2959-2961.	2.5	10
107	On the possible determination of hyperfine anomalies by trapped ion spectroscopy. Nuclear Instruments & Methods in Physics Research B, 1992, 70, 494-499.	1.4	10
108	Measurement of the gj factor of hydrogenic ions: a sensitive test of bound state QED. Hyperfine Interactions, 1996, 99, 91-95.	0.5	10

#	Article	IF	Citations
109	Precision studies in traps: Measurement of fundamental constants and tests of fundamental theories. Nuclear Instruments & Methods in Physics Research B, 2003, 205, 1-8.	1.4	10
110	Towards ag-factor determination of the electron bound in highly-charged calcium ions. Journal of Physics: Conference Series, 2007, 58, 121-124.	0.4	10
111	Energy dependence of excited positronium formation at a molybdenum surface. Journal of Physics B: Atomic, Molecular and Optical Physics, 1990, 23, 3437-3442.	1.5	9
112	Ion traps and their application in spectroscopy. Hyperfine Interactions, 1996, 99, 3-30.	0.5	9
113	Instabilities of ion confinement in a penning trap. Europhysics Letters, 1997, 37, 459-464.	2.0	9
114	Subharmonic excitation of the eigenmodes of charged particles in a Penning trap. European Physical Journal D, 2004, 28, 39-48.	1.3	9
115	Measurement of the ground state hyperfine splitting in207Pb II. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1988, 9, 265-265.	1.0	8
116	Precision Microwave Spectroscopy on Trapped Ions. Physica Scripta, 1988, T22, 191-194.	2.5	8
117	Spin dependence of low energy charge exchange between H 2 + and Na. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1987, 7, 189-192.	1.0	7
118	Shifts of the 3D - 4P transitions in different isotopes of positive calcium ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, L677-L681.	1.5	7
119	Creation of highly-charged calcium ions for theg-factor determination of the bound electron. Journal of Physics: Conference Series, 2009, 163, 012108.	0.4	7
120	HITRAP: A Facility for Experiments with Trapped Highly Charged Ions. , 2001, , 457-461.		7
121	Precision spectroscopy on trapped atomic ions. Hyperfine Interactions, 1987, 38, 699-709.	0.5	6
122	Evidence from n=2 fine structure transitions for the production of fast excited state positronium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1990, 23, 1915-1921.	1.5	6
123	Hyperfine Structure of the 6P_{1/2}. Journal of Modern Optics, 1992, 39, 411-416.	1.3	6
124	Fundamental particle properties using particle traps. Journal of Physics G: Nuclear and Particle Physics, 1994, 20, 1865-1883.	3.6	6
125	Spatial fluorescence distribution and laser cooling of Ca+in a Paul trap. Physica Scripta, 1995, T59, 396-402.	2.5	5
126	Field stabilization of a superconducting magnet by helium pressure control. Measurement Science and Technology, 1995, 6, 222-226.	2.6	5

#	Article	IF	Citations
127	Observation of a saturation dip in the fluorescence light from electrodynamically trapped Ba+ ions. Optics Communications, 1977, 21, 411-412.	2.1	4
128	Testing atomic structure theories with high accuracy mass measurements on highly charged ions. , 2000, 127, 271-276.		4
129	A new value for the mass of the electron from an experiment on the g factor in 12C5+ and 16O7+. Canadian Journal of Physics, 2002, 80, 1241-1247.	1.1	4
130	Ion trap nuclear resonance on $mathsf{^{151}Eu^ + }$. European Physical Journal D, 2003, 26, 237-244.	1.3	4
131	Optical spectroscopy in ion traps. European Physical Journal D, 2007, 45, 121-124.	1.3	4
132	The g Factor of Hydrogenic Ions: A Test of Bound State QED. , 2001, , 204-220.		4
133	Precision spectroscopy on stored atomic ions. Physica Scripta, 1987, 36, 149-152.	2.5	3
134	Hyperfine structure andg-factor measurements in ion traps. Hyperfine Interactions, 1992, 74, 67-74.	0.5	3
135	Three-dimensional lattice of ion traps. Physical Review A, 2010, 81, .	2.5	3
136	Energy distribution of ions in a Penning trap. International Journal of Mass Spectrometry and Ion Processes, 1992, 121, 65-75.	1.8	2
137	High-resolution microwave spectroscopy on trapped ion clouds. Applied Physics B: Lasers and Optics, 1994, 59, 257-263.	2.2	2
138	The g-factor of the Electron Bound in Hydrogen-like Ions. Physica Scripta, 1999, T80, 437.	2.5	2
139	Non-Neutral Plasmas and Collective Phenomena in Ion Traps. , 0, , 269-295.		2
140	Buffer-gas-cooled ion clouds in a classical Paul trap: superimposed stability diagrams and trapping capacity investigations. Applied Physics B: Lasers and Optics, 2014, 114, 89-98.	2.2	2
141	A Possible New Value for the Electron Mass from g-Factor Measurements on Hydrogen-Like Ions. , 2001, , 209-213.		2
142	Positronium spectroscopy at a LINAC-based slow positron source. Hyperfine Interactions, 1993, 76, 295-303.	0.5	1
143	Collisional relaxation measurements on Pb+ hyperfine levels. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1993, 25, 103-105.	1.0	1
144	A Possible New Value for the Electron Mass from g-Factor Measurements on Hydrogen-Like Ions. Hyperfine Interactions, 2001, 132, 209-212.	0.5	1

#	Article	IF	Citations
145	Precision spectroscopy with individual ions. Indian Journal of Physics, 2010, 84, 939-946.	1.8	1
146	Principles of Ion Traps. Lecture Notes in Physics, 2008, , 1-37.	0.7	1
147	Fractional frequency parametric resonances in a Paul trap. , 1999, , .		0
148	Measurement of the g Factor of the Bound Electron in Hydrogen-like Oxygen 16O7+. , 2003, , 47-52.		0
149	The measurement of the electronic g-factor in hydrogen-like ions â€" A promising tool for determining fundamental and nuclear constants. , 2003, , 29-32.		0
150	Precision spectroscopy on simple and complex atomic ions in traps. Physica Scripta, 1997, T72, 34-40.	2.5	0
151	TITAN project status report and a proposal for a new cooling method of highly charged ions. , 2005, , 53-56.		0