

Klaus Jungmann

List of Publications by Year in descending order

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130
papers

6,977
citations

117571

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times ranked

6054
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterization of a Continuous Muon Source for the Non-Destructive and Depth-Selective Elemental Composition Analysis by Muon Induced X- and Gamma-rays. Applied Sciences (Switzerland), 2022, 12, 2541.	1.3	9
2	A supersonic laser ablation beam source with narrow velocity spreads. Review of Scientific Instruments, 2021, 92, 033202.	0.6	7
3	Deceleration and Trapping of SrF Molecules. Physical Review Letters, 2021, 127, 173201.	2.9	12
4	High accuracy theoretical investigations of CaF, SrF, and BaF and implications for laser-cooling. Journal of Chemical Physics, 2019, 151, 034302.	1.2	51
5	Electro-optic sensor for static fields. Applied Physics B: Lasers and Optics, 2019, 125, 1.	1.1	2
6	Lifetime measurements of the $A^{21}1/2$ and $A^{21}3/2$ states in BaF. Physical Review A, 2019, 100, .	1.0	10
7	Lifetime of the $5d^2 \ ^5D_2$ level of Ba^+ . Physical Review A, 2019, 100, .	1.0	4
8	Measuring the electric dipole moment of the electron in BaF. European Physical Journal D, 2018, 72, 1.	0.6	82
9	Nuclear structure with radioactive muonic atoms. EPJ Web of Conferences, 2018, 193, 04014.	0.1	4
10	Precision Tests of Discrete Symmetries at Low Energies. , 2017, , .		0
11	Compilation of Spectroscopic Data of Radium (Ra I and Ra II). Journal of Physical and Chemical Reference Data, 2016, 45, .	1.9	17
12	Matter-antimatter asymmetry aspects at low energy. Annalen Der Physik, 2016, 528, 108-114.	0.9	8
13	A gas cell for stopping, storing and polarizing radioactive particles. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 822, 77-81.	0.7	2
14	Determination of transition frequencies in a single $5d^2 \ ^5D_2$ level of Ba^+ . Physical Review A, 2015, 91, .	1.0	11
15	Fundamental symmetries and interactions selected topics. Physica Scripta, 2015, T166, 014033.	1.2	1
16	The Measurement of the Anomalous Magnetic Moment of the Muon at Fermilab. Journal of Physical and Chemical Reference Data, 2015, 44, .	1.9	17
17	Lifetime measurement of the $5d^2 \ ^5D_2$ state in Ba^+ . Hyperfine Interactions, 2015, 233, 113-119.	0.2	2
18	Matter and antimatter scrutinized. Nature, 2015, 524, 168-169.	13.7	3

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19	<p>Atomic frequency measurement of the $^{225}\text{Ra}^+$ ion. Physical Review A, 2014, 90, .</p> <p>Physical Review A, 2014, 90, .</p>	1.0	7
20	Traveling-wave deceleration of SrF molecules. Journal of Molecular Spectroscopy, 2014, 300, 22-25.	0.4	32
21	Experimental tests of fundamental symmetries. Hyperfine Interactions, 2014, 228, 21-29.	0.2	3
22	Symmetries and fundamental interactions – selected topics. Hyperfine Interactions, 2014, 227, 5-16.	0.2	6
23	Ra ⁺ ion trapping: toward an atomic parity violation measurement and an optical clock. Applied Physics B: Lasers and Optics, 2014, 114, 173-182.	1.1	27
24	A new approach to test Lorentz invariance in the weak interaction. Annalen Der Physik, 2013, 525, 653-658.	0.9	19
25	Towards a precise measurement of atomic parity violation in a single Ra ⁺ ion. Hyperfine Interactions, 2013, 214, 157-162.	0.2	24
26	Searching for electric dipole moments. Annalen Der Physik, 2013, 525, 550-564.	0.9	36
27	First test of Lorentz invariance in the weak decay of polarized nuclei. Physical Review D, 2013, 88, .	1.6	17
28	Precise Determination of the Unperturbed ^{8}B Neutrino Spectrum. Physical Review Letters, 2012, 108, 162502.	2.9	17
29	Trapped radioactive isotopes for fundamental symmetry investigations. Hyperfine Interactions, 2012, 211, 39-43.	0.2	7
30	Atomic parity violation in a single trapped radium ion This paper was presented at the International Conference on Precision Physics of Simple Atomic Systems, held at $\text{Å}\%{\text{cole}}$ de Physique, les Houches, France, 30 May – 4 June, 2010.. Canadian Journal of Physics, 2011, 89, 65-68.	0.4	17
31	Atomic parity violation in a single trapped radium ion. Hyperfine Interactions, 2011, 199, 9-19.	0.2	9
32	Hyperfine structure of the level in trapped short-lived $^{211}\text{Ra}^+$ ions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 3130-3133.	0.9	16
33	<p>Atomic parity violation in a single trapped radium ion. Physical Review Letters, 2011, 106, 111801.</p> <p>Physical Review Letters, 2011, 106, 111801.</p>	1.0	17
34	Potential of electric quadrupole transitions in radium isotopes for single-ion optical frequency standards. Physical Review A, 2011, 83, .	1.0	17
35	Precision spectroscopy of trapped radioactive radium ions This paper was presented at the International Conference on Precision Physics of Simple Atomic Systems, held at $\text{Å}\%{\text{cole}}$ de Physique, les Houches, France, 30 May – 4 June, 2010.. Canadian Journal of Physics, 2011, 89, 69-72.	0.4	4
36	<p>Laser spectroscopy of trapped short-lived Ra⁺ ions. Physical Review A, 2010, 82, .</p> <p>Physical Review A, 2010, 82, .</p>	1.0	34

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37	\hat{I}^2 -decay and the electric dipole moment: searches for time-reversal violation in radioactive nuclei and atoms. Nuclear Physics A, 2010, 844, 143c-149c.	0.6	9
38	\hat{I}^2 -Decay and the electric dipole moment: Searches for time-reversal violation in radioactive nuclei and atoms. Pramana - Journal of Physics, 2010, 75, 163-170.	0.9	5
39	Thermalization of different alkali and alkali-earth elements at the \hat{I}^2 facility. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 622, 11-16.	0.7	9
40	The \hat{I}^2 decay of ^{21}Na . Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 045103.	1.4	10
41	Matrix analysis of the \hat{I}^2 decays of ^{21}Na and ^{12}C . Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 622, 11-16.	1.1	59
42	Improved limit on the muon electric dipole moment. Physical Review D, 2009, 80, .	1.6	215
43	Magneto-optical trapping of barium. Physical Review A, 2009, 79, .	1.0	60
44	Light shifts and electric dipole matrix elements in ^{137}Ba and ^{135}Ba . Physical Review A, 2009, 79, .	1.0	25
45	Physics at a future Neutrino Factory and super-beam facility. Reports on Progress in Physics, 2009, 72, 106201.	8.1	174
46	Production of short lived radioactive beams of radium. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 606, 305-309.	0.7	25
47	Precise branching ratios to unbound ^{12}C states from ^{12}N and ^{12}B \hat{I}^2 -decays. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 678, 459-464.	1.5	41
48	Isotope shifts of $6s5d3D$ - $6s6p1P1$ transitions in neutral barium. European Physical Journal D, 2009, 53, 1-8.	0.6	15
49	Development of a thermal ionizer as ion catcher. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 4478-4482.	0.6	15
50	Production and trapping of radioactive atoms at the \hat{I}^2 facility. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 4532-4536.	0.6	21
51	Atomic parity nonconservation in ^{225}Ra . Physical Review A, 2008, 78, .	1.0	88
52	STUDIES OF ^{12}C USING \hat{I}^2 -DECAYS. International Journal of Modern Physics E, 2008, 17, 2182-2187.	0.4	1
53	Laser-frequency locking using light-pressure-induced spectroscopy in a calcium beam. Physical Review A, 2008, 77, .	1.0	2
54	Search for Lorentz and ^{21}Na Violation Effects in Muon Spin Precession. Physical Review Letters, 2008, 100, 091602.	2.9	57

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55	Investigations of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">\langle \text{mml:mrow}\langle \text{mml:msup}\langle \text{mml:mi}\rangle \text{Ra}\langle \text{mml:mi}\rangle \langle \text{mml:mo}\rangle +\langle \text{mml:mo}\rangle \langle \text{mml:msup}\langle \text{mml:mrow}\langle \text{mml:math}\rangle \text{prop}$ to test possibilities for new optical-frequency standards. Physical Review A, 2007, 76, .	0.7	21
56	Production of radioactive nuclides in inverse reaction kinematics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 572, 580-584.	0.7	8
57	Statistical equations and methods applied to the precision muon experiment at BNL. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 579, 1096-1116.	0.7	9
58	Towards the european strategy for particle physics: The briefing book. European Physical Journal C, 2007, 51, 421-500.	1.4	7
59	Status of the TRÎ¼P project. Hyperfine Interactions, 2007, 174, 97-102.	0.2	1,800
60	Final report of the E821 muon anomalous magnetic moment measurement at BNL. Physical Review D, 2006, 73, .	1.6	41
61	Dual magnetic separator for. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 560, 169-181.	0.7	7
62	Muonium - Physics of a most Fundamental Atom. Nuclear Physics, Section B, Proceedings Supplements, 2006, 155, 355-357.	0.5	16
63	Fundamental Symmetries and Interactions. Nuclear Physics A, 2005, 751, 87-106.	0.6	5
64	Fundamental symmetries and interactions --Some aspects. European Physical Journal A, 2005, 25, 677-683.	1.0	0
65	Fundamental symmetries and interactions "Some aspects. , 2005, , 677-683.		
66	New Method of Measuring Electric Dipole Moments in Storage Rings. Physical Review Letters, 2004, 93, 052001.	2.9	628
67	Measurement of the Negative Muon Anomalous Magnetic Moment to 0.7Âppm. Physical Review Letters, 2004, 92, 161802.	2.9	9
68	Impact and Application: Quest for a Nuclear Georeactor. Nuclear Physics News, 2004, 14, 20-25.	0.1	8
69	TRÎ¼P "a radioactive isotope trapping facility under construction at KVI. Nuclear Instruments & Methods in Physics Research B, 2003, 204, 532-535.	0.6	25
70	Status and perspectives of atomic physics research at GSI: The new GSI accelerator project. Nuclear Instruments & Methods in Physics Research B, 2003, 205, 156-161.	0.6	4
71	TRÎ¼P " A radioactive isotope trapping facility at KVI. Nuclear Physics A, 2003, 721, C1107-C1110.	0.6	6
72	First observation and mobility measurements of negative ions in superfluid. Physica B: Condensed Matter, 2003, 329-333, 352-353.	1.3	

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73	Measurement of the muon anomalous magnetic moment to 0.7 ppm. Nuclear Physics, Section B, Proceedings Supplements, 2003, 117, 373-384.	0.5	1
74	News from the muon ($g-2$) experiment at BNL. Nuclear Physics, Section B, Proceedings Supplements, 2003, 116, 215-219.	0.5	5
75	Recent progress in neutrino factory and muon collider research within the Muon Collaboration. Physical Review Special Topics: Accelerators and Beams, 2003, 6, .	1.8	123
76	A Precise Measurement of the Muon Magnetic Anomaly. Physica Scripta, 2003, T104, 44.	1.2	0
77	TRIPTrapped Radioactive Atomsicrolaboratories for Fundamental Physics. Physica Scripta, 2003, T104, 178.	1.2	14
78	Publisher's Note: Measurement of the Positive Muon Anomalous Magnetic Moment to 0.7 \hat{A} ppm [Phys. Rev. Lett.89, 101804 (2002)]. Physical Review Letters, 2002, 89, .	2.9	145
79	Recent results and current status of the muon $g \hat{A} - 2$ experiment at BNL. Canadian Journal of Physics, 2002, 80, 1355-1364.	0.4	2
80	Recent results from the BNL $g \hat{A} - 2$ experiment. Nuclear Physics, Section B, Proceedings Supplements, 2002, 111, 200-205.	0.5	0
81	The superconducting inflector for the BNL $g-2$ experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 491, 23-40.	0.7	37
82	Muon $g \hat{A} - 2$ experiment at Brookhaven National Laboratory. Nuclear Physics, Section B, Proceedings Supplements, 2002, 105, 156-159.	0.5	0
83	Measurement of the Positive Muon Anomalous Magnetic Moment to 0.7 \hat{A} ppm. Physical Review Letters, 2002, 89, 101804.	2.9	378
84	The Validity of the ICD-10 Classification of Recurrent Affective Disorders: Do Endogenous and Psychogenic Depressions Form a Homogeneous Diagnostic Group?. Psychopathology, 2001, 34, 36-42.	1.1	6
85	The Brookhaven muon storage ring magnet. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 457, 151-174.	0.7	52
86	Radial magnetic field measurements with a Hall probe device in the muon ($g-2$) storage ring magnet at BNL. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 473, 260-268.	0.7	9
87	Precise Measurement of the Positive Muon Anomalous Magnetic Moment. Physical Review Letters, 2001, 86, 2227-2231.	2.9	489
88	Muon Physics Possibilities at a Muon-Neutrino Factory. Hyperfine Interactions, 2001, 138, 463-473.	0.2	7
89	MUON $g-2$ EXPERIMENT AT BROOKHAVEN NATIONAL LABORATORY. International Journal of Modern Physics A, 2001, 16, 287-291.	0.5	2
90	A Sensitive Search for a Muon Electric Dipole Moment. International Journal of Modern Physics A, 2001, 16, 690-693.	0.5	7

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91	Test of CPT and Lorentz Invariance from Muonium Spectroscopy. Physical Review Letters, 2001, 87, 111804.	2.9	109
92	Production of pulsed ultra slow muons and first μ SR experiments on thin metallic and magnetic films. Physica B: Condensed Matter, 2000, 289-290, 662-665.	1.3	3
93	Muonium spectroscopy. , 2000, 127, 189-196.		6
94	Pulsed laser spectroscopy in muonium and deuterium. , 2000, 127, 197-200.		4
95	Improved measurement of the positive muon anomalous magnetic moment. Physical Review D, 2000, 62, .	1.6	70
96	Production of pulsed ultraslow muons and first μ SR experiments on thin metallic and magnetic films. Applied Magnetic Resonance, 2000, 19, 471-477.	0.6	0
97	Pressure dependence of the Mg transition in superfluid He. European Physical Journal D, 2000, 12, 117-122.	0.6	3
98	MOTIVATION TO SEEK PSYCHOTHERAPY IN PATIENTS WITH RECURRENT DEPRESSIVE DISORDER. Psychotherapy Research, 2000, 10, 159-168.	1.1	5
99	A chirp-compensated, injection-seeded alexandrite laser. Applied Physics B: Lasers and Optics, 2000, 71, 11-17.	1.1	38
100	Measurement of the $1s \rightarrow 2s$ Energy Interval in Muonium. Physical Review Letters, 2000, 84, 1136-1139.	2.9	107
101	Resonant three-photon ionization of hydrogenic atoms by a non-monochromatic laser field. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 1615-1637.	0.6	13
102	New Bounds from a Search for Muonium to Antimuonium Conversion. Physical Review Letters, 1999, 82, 49-52.	2.9	202
103	High Precision Measurements of the Ground State Hyperfine Structure Interval of Muonium and of the Muon Magnetic Moment. Physical Review Letters, 1999, 82, 711-714.	2.9	239
104	Status of the g-2 experiment at BNL. Nuclear Physics, Section B, Proceedings Supplements, 1999, 76, 253-260.	0.5	4
105	New Measurement of the Anomalous Magnetic Moment of the Positive Muon. Physical Review Letters, 1999, 82, 1632-1635.	2.9	87
106	Status of the BNL muon (g-2) experiment. IEEE Transactions on Instrumentation and Measurement, 1999, 48, 182-185.	2.4	0
107	Title is missing!. , 1998, 114, 115-121.		1
108	Muonium formation by collisions of muons with solid rare-gas and solid nitrogen layers. Physical Review A, 1998, 58, 3739-3756.	1.0	11

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109	The muonium atom as a probe of physics beyond the standard model. , 1997, , 43-56.		7
110	Test results of the g-2 superconducting solenoid magnet system. IEEE Transactions on Applied Superconductivity, 1997, 7, 626-629.	1.1	5
111	Measurement and compensation of frequency chirping in pulsed dye laser amplifiers. Applied Physics B: Lasers and Optics, 1996, 63, 467-472.	1.1	21
112	Light-shift calculation in the nS -states of hydrogenic systems. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1996, 38, 141-152.	1.0	17
113	A high precision magnetometer based on pulsed NMR. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 374, 118-126.	0.7	64
114	Improved Upper Limit on Muonium to Antimuonium Conversion. Physical Review Letters, 1996, 77, 1950-1953.	2.9	25
115	Measurement and compensation of frequency chirping in pulsed dye laser amplifiers. Applied Physics B: Lasers and Optics, 1996, 63, 467-472.	1.1	5
116	Präzisionsmessungen am Myoniumatom. Physik Journal, 1995, 51, 1167-1172.	0.1	7
117	Spectroscopy of the $1S$ - $2S$ energy splitting in muonium. IEEE Transactions on Instrumentation and Measurement, 1995, 44, 505-509.	2.4	5
118	Observation of resonance line narrowing for old muonium. Physical Review A, 1995, 52, 1948-1953.	1.0	23
119	A measurement of the $1S \leftrightarrow 2S$ transition frequency in muonium. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 187, 247-254.	0.9	50
120	Development of a very low energy μ^+ beam at PSI. Hyperfine Interactions, 1994, 87, 1075-1081.	0.2	3
121	Thermal muonium in vacuo from silica aerogels. Journal of Non-Crystalline Solids, 1992, 145, 244-249.	1.5	10
122	Laser spectroscopy of muonic atoms. Zeitschrift für Physik C-Particles and Fields, 1992, 56, S59-S69.	1.5	13
123	Rare decays: Experiments. Zeitschrift für Physik C-Particles and Fields, 1992, 56, S135-S142.	1.5	0
124	Two-photon laser spectroscopy of the muonium $1S \rightarrow 2S$ transition. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1991, 21, 241-243.	1.0	17
125	Desorption stimulated by laser-induced surface-plasmon excitation. Physical Review Letters, 1988, 60, 1649-1652.	2.9	151
126	Precision optical-frequency-difference measurements. Physical Review A, 1988, 37, 1802-1805.	1.0	57

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127	Collective oscillations of stored ions. Physical Review A, 1987, 36, 3451-3454.	1.0	47
128	Comment on the ultimate single-ion laser-frequency standard. Physical Review A, 1986, 33, 2124-2126.	1.0	32
129	Multi-mode cw dye laser. Optics Communications, 1983, 46, 231-236.	1.0	4
130	Influence of elastic and inelastic collisions on density shift and broadening. Physics Letters, Section A: General, Atomic and Solid State Physics, 1981, 81, 223-227.	0.9	8