

Daniel Rodriguez

List of Publications by Year in descending order

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88
papers

1,917
citations

257450

24
h-index

265206

42
g-index

91
all docs

91
docs citations

91
times ranked

895
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct mass measurements above uranium bridge the gap to the island of stability. Nature, 2010, 463, 785-788.	27.8	176
2	Direct Mapping of Nuclear Shell Effects in the Heaviest Elements. Science, 2012, 337, 1207-1210.	12.6	121
3	Mass measurements in the vicinity of the r -process and the p -process	2.9	119
4	Towards direct mass measurements of nobelium at SHIPTRAP. European Physical Journal D, 2007, 45, 39-45.	1.3	94
5	MATS and LaSpec: High-precision experiments using ion traps and lasers at FAIR. European Physical Journal: Special Topics, 2010, 183, 1-123.	2.6	76
6	The ion-catcher device for SHIPTRAP. Nuclear Instruments & Methods in Physics Research B, 2006, 244, 489-500.	1.4	70
7	The SHIPTRAP project: A capture and storage facility at GSI for heavy radionuclides from SHIP. , 2000, 127, 491-496.		61
8	Mass Measurement on the p -Process Waiting Point ^{72}Kr . Physical Review Letters, 2004, 93, 161104.	7.8	60
9	The ion-trap facility SHIPTRAP. European Physical Journal A, 2005, 25, 49-50.	2.5	60
10	Performance of a micro-channel plates position sensitive detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 551, 375-386.	1.6	58
11	Mass measurements of neutron-deficient radionuclides near the end-point of the rp -process with SHIPTRAP. European Physical Journal A, 2007, 34, 341-348.	2.5	57
12	Measurement of the ρ - λ correlation coefficient $\langle \lambda \rangle$ in the λ decay of trapped ^{6}He ions. Journal of Physics G: Nuclear and Particle Physics, 2011, 38, 055101.	3.6	55
13	HITRAP: A Facility for Experiments with Trapped Highly Charged Ions. Hyperfine Interactions, 2001, 132, 453-457.	0.5	53
14	Paul Trapping of Radioactive ^{6}He Ions and Direct Observation of Their λ Decay. Physical Review Letters, 2008, 101, 212504.	7.8	51
15	Penning trap mass measurements on nobelium isotopes. Physical Review C, 2010, 81, .	2.9	47
16	Mass Measurements of Very Neutron-Deficient Mo and Tc Isotopes and Their Impact on r -Process Nucleosynthesis. Physical Review Letters, 2011, 106, 122501.	7.8	46
17	First Measurement of Pure Electron Shakeoff in the λ Decay of Trapped ^{6}He Ions. Physical Review Letters, 2012, 108, 243201.	7.8	45
18	The LPCTrap facility: A novel transparent Paul trap for high-precision experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 565, 876-889.	1.6	43

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19	First Penning Trap Mass Measurements beyond the Proton Drip Line. Physical Review Letters, 2008, 100, 012501.	7.8	41
20	On-line commissioning of SHIPTRAP. International Journal of Mass Spectrometry, 2006, 251, 146-151.	1.5	38
21	Accurate mass measurements on neutron-deficient krypton isotopes. Nuclear Physics A, 2006, 769, 1-15.	1.5	37
22	Direct mass measurements around $A=146$ at SHIPTRAP. European Physical Journal: Special Topics, 2007, 150, 329-335.	2.6	36
23	Signature of a strong coupling with the continuum in $^{11}\text{Be} + ^{120}\text{Sn}$ scattering at the Coulomb barrier. European Physical Journal A, 2009, 42, 461.	2.5	34
24	A broad-band FT-ICR Penning trap system for KATRIN. International Journal of Mass Spectrometry, 2009, 288, 1-5.	1.5	30
25	Recent results from the Penning trap mass spectrometer ISOLTRAP. Nuclear Physics A, 2004, 746, 305-310.	1.5	27
26	A quantum sensor for high-performance mass spectrometry. Applied Physics B: Lasers and Optics, 2012, 107, 1031-1042.	2.2	24
27	Masses along the rp-process path and large scale surveys on Cu, Ni and Ga with ISOLTRAP. Nuclear Physics A, 2004, 746, 487-492.	1.5	20
28	Electron shakeoff following the decay of trapped ^{35}Ar . $^{35}\text{Ar} \rightarrow ^{35}\text{Cl} + e^- + \bar{\nu}_e$	2.5	19
29	ISOLTRAP pins down masses of exotic nuclides. Journal of Physics G: Nuclear and Particle Physics, 2005, 31, S1775-S1778.	3.6	18
30	Position-sensitive ion detection in precision Penning trap mass spectrometry. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 606, 475-483.	1.6	18
31	Mass measurement on the rp-process waiting point ^{72}Kr . European Physical Journal A, 2005, 25, 41-43.	2.5	15
32	A Single-Ion Reservoir as a High-Sensitive Sensor of Electric Signals. Scientific Reports, 2017, 7, 8336.	3.3	13
33	Measurement of the ^7Li half-life. Physical Review C, 2010, 82, .	2.9	12
34	The TRAPSENSOR facility: an open-ring 7 tesla Penning trap for laser-based precision experiments. New Journal of Physics, 2019, 21, 023023.	2.9	12
35	Dynamics of an unbalanced two-ion crystal in a Penning trap for application in optical mass spectrometry. Physical Review A, 2019, 100, .	2.5	12
36	Mass measurements in the endpoint region of the rp-process at SHIPTRAP. Hyperfine Interactions, 2006, 173, 133-142.	0.5	11

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37	Status of the LPCTrap facility at GANIL. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 4537-4541.	1.4	11
38	High-precision mass measurements of 203-207Rn and 213Ra with SHIPTRAP. European Physical Journal A, 2013, 49, 1.	2.5	11
39	An optimized geometry for a micro Penning-trap mass spectrometer based on interconnected ions. International Journal of Mass Spectrometry, 2016, 410, 22-30.	1.5	10
40	Dipolar and quadrupolar detection using an FT-ICR MS setup at the MPIK Heidelberg. Hyperfine Interactions, 2011, 199, 347-355.	0.5	9
41	Temperature measurement of 6He^{+} ions confined in a transparent Paul trap. Hyperfine Interactions, 2011, 199, 21-27.	0.5	8
42	Status of the project TRAPSENSOR: Performance of the laser-desorption ion source. Nuclear Instruments & Methods in Physics Research B, 2013, 317, 522-527.	1.4	8
43	Recent developments for high-precision mass measurements of the heaviest elements at SHIPTRAP. Nuclear Instruments & Methods in Physics Research B, 2013, 317, 501-505.	1.4	8
44	Extending the applicability of an open-ring trap to perform experiments with a single laser-cooled ion. Review of Scientific Instruments, 2015, 86, 103104.	1.3	8
45	SHIPTRAP's capture and storage facility for heavy radionuclides at GSI. Nuclear Physics A, 2002, 701, 579-582.	1.5	7
46	A Quantum Sensor for Neutrino Mass Measurements. Advances in High Energy Physics, 2012, 2012, 1-24.	1.1	7
47	HITRAP: A Facility for Experiments with Trapped Highly Charged Ions. , 2001, , 457-461.		7
48	SHIPTRAP is Trapping: A Capture and Storage Device on Its Way towards a RIB-Facility. Hyperfine Interactions, 2003, 146/147, 245-251.	0.5	6
49	One- and two-pulse quadrupolar excitation schemes of the ion motion in a Penning trap investigated with FT-ICR detection. Applied Physics B: Lasers and Optics, 2012, 107, 1019-1029.	2.2	6
50	Status of the project TRAPSENSOR. Hyperfine Interactions, 2014, 227, 223-237.	0.5	6
51	Recent Upgrades of the SHIPTRAP Setup: On the Finish Line Towards Direct Mass Spectroscopy of Superheavy Elements. Acta Physica Polonica B, 2017, 48, 423.	0.8	6
52	Geant4 Monte Carlo simulations for the LPCTrap setup. European Physical Journal A, 2009, 42, 397.	2.5	5
53	Production of negative osmium ions by laser desorption and ionization. Review of Scientific Instruments, 2010, 81, 013301.	1.3	5
54	A quartz amplifier for high-sensitivity Fourier-transform ion-cyclotron-resonance measurements with trapped ions. Review of Scientific Instruments, 2019, 90, 063202.	1.3	5

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55	Motional quantum metrology in a Penning trap. <i>Europhysics Letters</i> , 2021, 134, 38001.	2.0	5
56	Precise measurement of the angular correlation parameter $\alpha_{\hat{I}^2\hat{I}^{1/2}}$ in the \hat{I}^2 decay of ^{35}Ar with LPCTrap. <i>EPJ Web of Conferences</i> , 2014, 66, 08002.	0.3	5
57	The LPCTrap experiment: measurement of the $\hat{I}^2\hat{I}^{1/2}$ angular correlation in ^6He using a transparent Paul trap. <i>Hyperfine Interactions</i> , 2006, 172, 29-33.	0.5	4
58	The LPCTrap facility for in-trap decay experiments. <i>Hyperfine Interactions</i> , 2007, 174, 15-20.	0.5	4
59	Penning trap mass measurements of transfermium elements with SHIPTRAP. <i>Hyperfine Interactions</i> , 2010, 196, 225-231.	0.5	4
60	The LPCTrap experiment: measurement of the $\hat{I}^2\hat{I}^{1/2}$ angular correlation in $^6\text{He}^+$ decay using a transparent Paul trap. <i>Hyperfine Interactions</i> , 2011, 199, 29-38.	0.5	4
61	Motional studies of one and two laser-cooled trapped ions for electric-field sensing applications. <i>Journal of Modern Optics</i> , 2018, 65, 613-621.	1.3	4
62	The open LPC Paul trap for precision measurements in beta decay. <i>European Physical Journal A</i> , 2019, 55, 1.	2.5	4
63	Quartz resonators for penning traps toward mass spectrometry on the heaviest ions. <i>Review of Scientific Instruments</i> , 2020, 91, 093202.	1.3	4
64	Formation of two-ion crystals by injection from a Paul-trap source into a high-magnetic-field Penning trap. <i>Physical Review A</i> , 2022, 105, .	2.5	4
65	Towards high-precision mass measurements on ^{74}Rb for a test of the CVC hypothesis and the unitarity of the CKM matrix. <i>Nuclear Physics A</i> , 2004, 746, 635-638.	1.5	3
66	Broad-Band FT-ICR MS for the Penning-Trap Mass Spectrometer MATS. , 2010, , .		3
67	A preparation Penning trap for the TRAPSENSOR project with prospects for MATS at FAIR. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2016, 376, 288-291.	1.4	3
68	A double Paul trap system for the electronic coupling of ions. <i>European Physical Journal: Special Topics</i> , 2018, 227, 445-456.	2.6	3
69	The LPCTrap for the measurement of the $\hat{I}^2\hat{I}^{1/2}$ correlation in ^6He . <i>European Physical Journal A</i> , 2005, 25, 705-707.	2.5	2
70	ISOLTRAP Mass Measurements for Weak-Interaction Studies. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	2
71	Production and investigations of negative osmium ions for fundamental applications: REOSTRAP. <i>Hyperfine Interactions</i> , 2010, 196, 253-260.	0.5	2
72	The advanced trapping facility MATS at FAIR. <i>International Journal of Mass Spectrometry</i> , 2013, 349-350, 255-263.	1.5	2

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73	An online FT-ICR Penning-trap mass spectrometer for the DPS2-F section of the KATRIN experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 757, 54-61.	1.6	2
74	Non-equilibrium coupling of a quartz resonator to ions for Penning-trap fast resonant detection. Quantum Science and Technology, 2021, 6, 044002.	5.8	2
75	SHIPTRAP: A capture and storage facility on its way towards an RIB-facility. AIP Conference Proceedings, 2002, , .	0.4	1
76	Precise mass measurements of exotic nucleiâ€”the SHIPTRAP Penning trap mass spectrometer. AIP Conference Proceedings, 2007, , .	0.4	1
77	The LPCTrap facility: A transparent Paul Trap for the search of exotic couplings in the beta decay of radioactive ${}^6\text{He}^+$ ions. Journal of Physics: Conference Series, 2007, 58, 431-434.	0.4	1
78	Beta Neutrino Correlation Measurement with Trapped Radioactive Ions. AIP Conference Proceedings, 2010, , .	0.4	1
79	High-precision method of measuring short-lived nuclides by means of developed systems of ion traps for high-charge ions (MATS project). Atomic Energy, 2012, 112, 139-146.	0.4	1
80	Status of the SHIPTRAP Project: A Capture and Storage Facility for Heavy Radionuclides from SHIP. , 2001, , 463-468.		1
81	Mass Measurements at SHIPTRAP. AIP Conference Proceedings, 2007, , .	0.4	0
82	Mass measurements of exotic nuclides at SHIPTRAP. AIP Conference Proceedings, 2007, , .	0.4	0
83	Search for tensor couplings in the weak interaction. European Physical Journal: Special Topics, 2007, 150, 385-388.	2.6	0
84	A quantum sensor for applications in neutrino mass spectrometry. , 2012, , .		0
85	Extending Penning trap mass measurements with SHIPTRAP to the heaviest elements. , 2013, , .		0
86	Production and investigations of negative osmium ions for fundamental applications: REOSTRAP. , 2010, , 253-260.		0
87	Temperature measurement of ${}^6\text{He}^+$ ions confined in a transparent Paul trap. , 2011, , 21-27.		0
88	Dipolar and quadrupolar detection using an FT-ICR MS setup at the MPIK Heidelberg. , 2011, , 347-355.		0