

Jâ€r Danielson

List of Publications by Year in descending order

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62
papers

1,291
citations

394421

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361022

35
g-index

63
all docs

63
docs citations

63
times ranked

707
citing authors

#	ARTICLE	IF	CITATIONS
1	Plasma and trap-based techniques for science with positrons. <i>Reviews of Modern Physics</i> , 2015, 87, 247-306.	45.6	192
2	Plans for the creation and studies of electron-positron plasmas in a stellarator. <i>New Journal of Physics</i> , 2012, 14, 035010.	2.9	82
3	Dipole Enhancement of Positron Binding to Molecules. <i>Physical Review Letters</i> , 2010, 104, 233201.	7.8	77
4	Measurement of Landau Damping and the Evolution to a BGK Equilibrium. <i>Physical Review Letters</i> , 2004, 92, 245003.	7.8	74
5	Dependence of positron-molecule binding energies on molecular properties. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2009, 42, 235203.	1.5	71
6	Torque-Balanced High-Density Steady States of Single-Component Plasmas. <i>Physical Review Letters</i> , 2005, 94, 035001.	7.8	53
7	Plasma manipulation techniques for positron storage in a multicell trap. <i>Physics of Plasmas</i> , 2006, 13, 123502.	1.9	49
8	Comparisons of Positron and Electron Binding to Molecules. <i>Physical Review Letters</i> , 2012, 109, 113201.	7.8	44
9	Radial compression and torque-balanced steady states of single-component plasmas in Penning-Malmberg traps. <i>Physics of Plasmas</i> , 2006, 13, 055706.	1.9	41
10	Interplay between permanent dipole moments and polarizability in positron-molecule binding. <i>Physical Review A</i> , 2012, 85, .	2.5	36
11	Positron binding to alcohol molecules. <i>New Journal of Physics</i> , 2012, 14, 015006.	2.9	35
12	Positron cooling by vibrational and rotational excitation of molecular gases. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2014, 47, 225209.	1.5	35
13	High-Density Fixed Point for Radially Compressed Single-Component Plasmas. <i>Physical Review Letters</i> , 2007, 99, 135005.	7.8	33
14	A new frontier in laboratory physics: magnetized electron-positron plasmas. <i>Journal of Plasma Physics</i> , 2020, 86, .	2.1	31
15	A cryogenically cooled, ultra-high-energy-resolution, trap-based positron beam. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	26
16	Resonant Particle Heating of an Electron Plasma by Oscillating Sheaths. <i>Physical Review Letters</i> , 1998, 81, 353-356.	7.8	24
17	Measuring positron-atom binding energies through laser-assisted photorecombination. <i>New Journal of Physics</i> , 2012, 14, 065004.	2.9	24
18	Evolution of a Vortex in a Strain Flow. <i>Physical Review Letters</i> , 2016, 117, 235001.	7.8	19

#	ARTICLE	IF	CITATIONS
19	Confinement of Positrons Exceeding 1 Ås in a Supported Magnetic Dipole Trap. Physical Review Letters, 2018, 121, 235003.	7.8	19
20	Lossless Positron Injection into a Magnetic Dipole Trap. Physical Review Letters, 2018, 121, 235005.	7.8	19
21	Extraction of small-diameter beams from single-component plasmas. Applied Physics Letters, 2007, 90, 081503.	3.3	18
22	Formation of buffer-gas-trap based positron beams. Physics of Plasmas, 2015, 22, 033501.	1.9	18
23	Vibrational Feshbach Resonances Mediated by Nondipole Positron-Molecule Interactions. Physical Review Letters, 2017, 119, 113402.	7.8	18
24	Role of Vibrational Dynamics in Resonant Positron Annihilation on Molecules. Physical Review Letters, 2013, 110, 223201.	7.8	17
25	Electrostatic beams from tailored plasmas in a Penningâ€™Malmberg trap. Physics of Plasmas, 2010, 17, 123507.	1.9	14
26	Ubiquitous Nature of Multimode Vibrational Resonances in Positron-Molecule Annihilation. Physical Review Letters, 2012, 108, 093201.	7.8	13
27	Mode coupling and multi-quantum vibrational excitations in Feshbach-resonant positron annihilation in molecules. Physical Review A, 2017, 96, .	2.5	13
28	Creation of finely focused particle beams from single-component plasmas. Physics of Plasmas, 2008, 15, .	1.9	12
29	Modeling enhancement and suppression of vibrational Feshbach resonances in positron annihilation on molecules. Physical Review A, 2013, 88, .	2.5	12
30	The nonlinear saturation of beamâ€™driven instabilities: Irregular bursting in the DIIIâ€™ tokamak. Physics of Plasmas, 1994, 1, 4120-4122.	1.9	11
31	Thermally Excited Modes in a Pure Electron Plasma. Physical Review Letters, 2003, 90, 115001.	7.8	9
32	Electron Plasma Orbits from Competing Diocotron Drifts. Physical Review Letters, 2014, 113, 025004.	7.8	9
33	Formation mechanisms and optimization of trap-based positron beams. Physics of Plasmas, 2016, 23, 023505.	1.9	9
34	Energy distribution and adiabatic guiding of a solid-neon-moderated positron beam. Journal of Physics B: Atomic, Molecular and Optical Physics, 0, , .	1.5	9
35	Non-neutral plasma manipulation techniques in development of a high-capacity positron trap. Review of Scientific Instruments, 2021, 92, 123504.	1.3	9
36	Electron plasma dynamics during autoresonant excitation of the diocotron mode. Physics of Plasmas, 2015, 22, .	1.9	8

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37	Toward a compact levitated superconducting dipole for positron-electron plasma confinement. AIP Conference Proceedings, 2018, , .	0.4	8
38	Confinement and manipulation of electron plasmas in a multicell trap. Physics of Plasmas, 2019, 26, .	1.9	8
39	Effect of chlorination on positron binding to hydrocarbons: Experiment and theory. Physical Review A, 2021, 104, .	2.5	8
40	Magnetic field extraction of trap-based electron beams using a high-permeability grid. Physics of Plasmas, 2015, 22, .	1.9	7
41	Energy spectra of tailored particle beams from trapped single-component plasmas. Physics of Plasmas, 2009, 16, 057105.	1.9	6
42	Progress toward positron-electron pair plasma experiments. AIP Conference Proceedings, 2015, , .	0.4	6
43	Enhanced Resonant Positron Annihilation due to Nonfundamental Modes in Molecules. Physical Review Letters, 2020, 125, 173401.	7.8	6
44	Adiabatic behavior of an elliptical vortex in a time-dependent external strain flow. Physical Review Fluids, 2021, 6, .	2.5	6
45	New Plasma Tools for Antimatter Science. AIP Conference Proceedings, 2008, , .	0.4	5
46	Progress towards a practical multicell positron trap. AIP Conference Proceedings, 2013, , .	0.4	5
47	Experimental study of the stability and dynamics of a two-dimensional ideal vortex under external strain. Journal of Fluid Mechanics, 2018, 848, 256-287.	3.4	5
48	Note: Electrostatic beams from a 5 T Penning Malmberg trap. Review of Scientific Instruments, 2011, 82, 016104.	1.3	4
49	Publisher's Note: Interplay between permanent dipole moments and polarizability in positron-molecule binding [Phys. Rev. A, 022709 (2012)]. Physical Review A, 2012, 85, .	2.5	4
50	An electron plasma experiment to study vortex dynamics subject to externally imposed flows. AIP Conference Proceedings, 2018, , .	0.4	4
51	Instability of an electron-plasma shear layer in an externally imposed strain flow. Physics of Plasmas, 2020, 27, 042101.	1.9	4
52	Positron orbit effects during injection and confinement in a magnetic dipole trap. Physics of Plasmas, 2020, 27, .	1.9	4
53	Injection of intense low-energy reactor-based positron beams into a supported magnetic dipole trap. Plasma Research Express, 2020, 2, 015006.	0.9	4
54	Influence of geometry on positron binding to molecules. Journal of Physics B: Atomic, Molecular and Optical Physics, 2021, 54, 225201.	1.5	4

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55	Finite-length, large-amplitude diocotron mode dynamics. AIP Conference Proceedings, 2015, , .	0.4	3
56	Recent progress in tailoring trap-based positron beams. , 2013, , .		2
57	Manipulation of positron orbits in a dipole magnetic field with fluctuating electric fields. AIP Conference Proceedings, 2018, , .	0.4	2
58	Tailored Particle Beams From Single-Component Plasmas. , 2009, , .		1
59	New plasma tools for antimatter science. , 2009, , .		1
60	Inviscid damping of an elliptical vortex subject to an external strain flow. Physics of Plasmas, 2022, 29, .	1.9	1
61	Plasma Compression using Rotating Electric Fields â€” the Strong Drive Regime. AIP Conference Proceedings, 2006, , .	0.4	0
62	Next Generation Trap for Positron Storage. , 2009, , .		0