

# Daniel Kleppner

## List of Publications by Year in descending order

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93  
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53751

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97  
docs citations

97  
times ranked

3398  
citing authors

#	ARTICLE	IF	CITATIONS
1	Inhibited Spontaneous Emission. <i>Physical Review Letters</i> , 1981, 47, 233-236.	2.9	904
2	Bose-Einstein Condensation of Atomic Hydrogen. <i>Physical Review Letters</i> , 1998, 81, 3811-3814.	2.9	619
3	Cavity Quantum Electrodynamics. <i>Physics Today</i> , 1989, 42, 24-30.	0.3	587
4	Stark structure of the Rydberg states of alkali-metal atoms. <i>Physical Review A</i> , 1979, 20, 2251-2275.	1.0	585
5	Inhibited Spontaneous Emission by a Rydberg Atom. <i>Physical Review Letters</i> , 1985, 55, 2137-2140.	2.9	577
6	Bose-Einstein condensation in an external potential. <i>Physical Review A</i> , 1987, 35, 4354-4358.	1.0	357
7	Bose-Einstein condensation in low-dimensional traps. <i>Physical Review A</i> , 1991, 44, 7439-7441.	1.0	322
8	Rydberg Atoms in "Circular" States. <i>Physical Review Letters</i> , 1983, 51, 1430-1433.	2.9	253
9	Theory of the Hydrogen Maser. <i>Physical Review</i> , 1962, 126, 603-615.	2.7	251
10	Dynamical effects at avoided level crossings: A study of the Landau-Zener effect using Rydberg atoms. <i>Physical Review A</i> , 1981, 23, 3107-3117.	1.0	225
11	Magnetic trapping of spin-polarized atomic hydrogen. <i>Physical Review Letters</i> , 1987, 59, 672-675.	2.9	203
12	Evaporative Cooling of Spin-Polarized Atomic Hydrogen. <i>Physical Review Letters</i> , 1988, 61, 935-938.	2.9	199
13	Stark Ionization of High-Lying States of Sodium. <i>Physical Review Letters</i> , 1975, 35, 366-369.	2.9	195
14	Hydrogen in the submillikelvin regime: Sticking probability on superfluid He4. <i>Physical Review Letters</i> , 1991, 67, 603-606.	2.9	181
15	Core polarization and quantum defects in high-angular-momentum states of alkali atoms. <i>Physical Review A</i> , 1976, 14, 1614-1619.	1.0	178
16	Field-Ionization Processes in Excited Atoms. <i>Physical Review Letters</i> , 1978, 41, 103-107.	2.9	175
17	Two-Photon Spectroscopy of Trapped Atomic Hydrogen. <i>Physical Review Letters</i> , 1996, 77, 255-258.	2.9	152
18	Magnetic Moment of the Proton in Bohr Magnetons. <i>Physical Review A</i> , 1972, 5, 83-114.	1.0	118

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19	Structure of Sodium Rydberg States in Weak to Strong Electric Fields. Physical Review Letters, 1976, 36, 788-791.	2.9	107
20	Diamagnetic Rydberg atom: Confrontation of calculated and observed spectra. Physical Review Letters, 1991, 66, 145-148.	2.9	103
21	Cold Collision Frequency Shift of the 1S-2S Transition in Hydrogen. Physical Review Letters, 1998, 81, 3807-3810.	2.9	102
22	Evidence for universal quantum reflection of hydrogen from liquid He4. Physical Review Letters, 1993, 71, 1589-1592.	2.9	100
23	Experimental study of one- and two-photon Rabi oscillations. Physical Review A, 1989, 40, 5103-5115.	1.0	97
24	Evidence of an Approximate Symmetry for Hydrogen in a Uniform Magnetic Field. Physical Review Letters, 1980, 45, 1092-1094.	2.9	94
25	Hyperfine Separation of Ground-State Atomic Hydrogen. Physical Review Letters, 1963, 11, 338-340.	2.9	90
26	Nuclear Polarization of Spin-Polarized Hydrogen. Physical Review Letters, 1981, 47, 1195-1198.	2.9	89
27	Classical, semiclassical, and quantum dynamics in the lithium Stark system. Physical Review A, 1995, 51, 3604-3620.	1.0	89
28	Atomic Beam Resonance Experiments with Stored Beams. Physical Review, 1961, 123, 530-537.	2.7	81
29	Tunneling Rates for Excited States of Sodium in a Static Electric Field. Physical Review Letters, 1976, 37, 486-489.	2.9	81
30	Diamagnetic Structure of Na Rydberg States. Physical Review Letters, 1978, 40, 1083-1086.	2.9	78
31	Closed Orbit Bifurcations in Continuum Stark Spectra. Physical Review Letters, 1995, 74, 1538-1541.	2.9	69
32	Inhibited Absorption of Blackbody Radiation. Physical Review Letters, 1981, 47, 1592-1595.	2.9	64
33	Orderly structure in the positive-energy spectrum of a diamagnetic Rydberg atom. Physical Review Letters, 1989, 63, 1133-1136.	2.9	61
34	Magnetic Moment of the Proton in H2O in Bohr Magnetons. Metrologia, 1977, 13, 179-195.	0.6	60
35	Origin and Structure of the Quasi-Landau Resonances. Physical Review Letters, 1980, 45, 1780-1783.	2.9	58
36	Observation of Three-Body Recombination in Spin-Polarized Hydrogen. Physical Review Letters, 1983, 51, 483-486.	2.9	58

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37	Magnetic Confinement of Spin-Polarized Atomic Hydrogen. <i>Physical Review Letters</i> , 1980, 45, 2117-2120.	2.9	53
38	Photoionization by blackbody radiation. <i>Physical Review A</i> , 1982, 26, 1490-1493.	1.0	53
39	Temperature and Magnetic Field Dependence of Three-Body Recombination in Spin-Polarized Hydrogen. <i>Physical Review Letters</i> , 1984, 52, 1520-1523.	2.9	51
40	Hyperfine Resonance of Gaseous Atomic Hydrogen at 4.2 K. <i>Physical Review Letters</i> , 1979, 42, 1039-1042.	2.9	50
41	Circular states of atomic hydrogen. <i>Physical Review A</i> , 1997, 56, 1443-1452.	1.0	50
42	Radiative lifetimes of selected vibrational levels in the $\text{A}^2\Sigma^+$ state of $\text{Na}_2$ . <i>Journal of Chemical Physics</i> , 1976, 65, 842-843.	1.2	49
43	Magnetic Moment of the Proton in $\text{H}_2\text{O}$ in Bohr Magnetons. <i>Physical Review Letters</i> , 1975, 35, 1619-1622.	2.9	48
44	Absolute Value of the Proton g-Factor. <i>Physical Review Letters</i> , 1966, 17, 405-407.	2.9	45
45	Experimental Study of Energy-Level Statistics in a Regime of Regular Classical Motion. <i>Physical Review Letters</i> , 1989, 62, 893-896.	2.9	45
46	Long-Period Orbits in the Stark Spectrum of Lithium. <i>Physical Review Letters</i> , 1994, 73, 1340-1343.	2.9	45
47	Detection of far-infrared radiation using Rydberg atoms. <i>Applied Physics Letters</i> , 1979, 35, 382-384.	1.5	41
48	Broken Atomic Beam Resonance Experiment. <i>Physical Review Letters</i> , 1958, 1, 232-233.	2.9	40
49	Properties of the Hydrogen Maser. <i>Applied Optics</i> , 1962, 1, 55.	2.1	40
50	Measurements of lifetimes of sodium Rydberg states in a cooled environment. <i>Physical Review A</i> , 1981, 24, 2513-2517.	1.0	40
51	Effect of Nuclear Mass on the Bound-Electron g-Factor. <i>Physical Review Letters</i> , 1972, 28, 1159-1161.	2.9	39
52	Storage Technique for Atomic Hydrogen. <i>Review of Scientific Instruments</i> , 1962, 33, 248-249.	0.6	35
53	Recurrence Spectroscopy of a Time-Dependent System: A Rydberg Atom in an Oscillating Field. <i>Physical Review Letters</i> , 1997, 79, 1650-1653.	2.9	35
54	Stark Shift of the Hydrogen Hyperfine Separation. <i>Physical Review Letters</i> , 1964, 13, 22-23.	2.9	34

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55	Beyond Quantum Mechanics: Insights from the Work of Martin Gutzwiller. Foundations of Physics, 2001, 31, 593-612.	0.6	34
56	Positive-energy structure of the diamagnetic Rydberg spectrum. Physical Review Letters, 1989, 62, 1975-1978.	2.9	32
57	Magnetic Trapping of Silver and Copper, and Anomalous Spin Relaxation in the Ag-He System. Physical Review Letters, 2008, 101, 103002.	2.9	29
58	Temperature dependence of blackbody-radiation-induced transfer among highly excited states of sodium. Physical Review A, 1982, 25, 380-384.	1.0	28
59	Alkali-Alkali Differential Spin-Exchange Scattering. I. Physical Review A, 1970, 2, 1922-1931.	1.0	26
60	Spin-polarized hydrogen maser. Physical Review A, 1986, 34, 1602-1604.	1.0	26
61	Microwave spectroscopy of calcium Rydberg states. Physical Review A, 1990, 42, 440-451.	1.0	25
62	Core-induced chaos in diamagnetic lithium. Physical Review A, 1996, 53, 178-191.	1.0	24
63	Atomic Differential Spin-Exchange Scattering. Physical Review Letters, 1967, 19, 1363-1366.	2.9	20
64	Extracting Classical Trajectories from Atomic Spectra. Physical Review Letters, 1998, 81, 1592-1595.	2.9	20
65	Alkali-Metal Hyperfine Shift in the Van der Waals Molecule KAr. Physical Review Letters, 1974, 33, 397-399.	2.9	19
66	The spin-rotation interaction in the van der Waals molecule KAr. Journal of Chemical Physics, 1976, 64, 1194-1203.	1.2	19
67	Two-photon Doppler-free spectroscopy of trapped atoms. Physical Review A, 1999, 59, 4564-4570.	1.0	19
68	Spin-Rotation Coupling in the Alkali-Rare-Gas Van der Waals Molecule KAr. Physical Review Letters, 1974, 32, 507-509.	2.9	16
69	Experimental study of nonadiabatic core interactions in Rydberg states of calcium. Physical Review A, 1982, 26, 3346-3350.	1.0	14
70	Recurrences associated with a classical orbit in the node of a quantum wave function. Physical Review A, 1995, 52, 3695-3703.	1.0	12
71	Inelastic collision rates of trapped metastable hydrogen. Physical Review A, 2003, 67, .	1.0	12
72	Magnetic relaxation in dysprosium-dysprosium collisions. Physical Review A, 2011, 83, .	1.0	12

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73	Experimental study of small ensembles of atoms in a microwave cavity. Physical Review A, 1990, 41, 6245-6254.	1.0	9
74	The Spectroscopy of Highly Excited Atoms. , 1979, , 713-725.		8
75	Comments on the 1992 Antihydrogen Workshop. Hyperfine Interactions, 1993, 76, 387-391.	0.2	5
76	A Milestone in Time Keeping. Science, 2008, 319, 1768-1769.	6.0	5
77	Zeeman relaxation of cold atomic iron and nickel in collisions with $^3\text{He}$ . Physical Review A, 2010, 81, .	1.0	5
78	Cavity Quantum Electrodynamics. NATO ASI Series Series B: Physics, 1995, , 849-855.	0.2	5
79	Comparisons of approximate bases for hydrogen in a magnetic field. Physical Review A, 1983, 27, 2731-2734.	1.0	4
80	Classically forbidden recurrences in the photoabsorption spectrum of lithium. Physical Review A, 2000, 62, .	1.0	4
81	Diamagnetic structure of lithium: $n \approx 21$ . Spectrochimica Acta Part A: Molecular Spectroscopy, 1989, 45, 57-61.	0.1	3
82	Avoiding Lagrange Multipliers in Introductory Statistical Mechanics. American Journal of Physics, 1968, 36, 843-843.	0.3	2
83	Highly-Excited Atoms. , 1977, , 269-281.		2
84	Magnetic Moment of the Proton in H <sub>2</sub> O in Units of the Bohr Magneton. , 1976, , 492-498.		2
85	Spin-polarized hydrogen: New possibilities for polarized sources and targets. AIP Conference Proceedings, 1982, , .	0.3	1
86	"The Cat and the Moon: Chaos and High Precision:" Daniel Kleppner's acceptance speech for the 1997 Oersted Medal presented by the American Association of Physics Teachers, 7 January 1997. American Journal of Physics, 1997, 65, 816-821.	0.3	1
87	PHYSICS: A More Precise Fine Structure Constant. Science, 2006, 313, 448-449.	6.0	1
88	Towards an Optical Hydrogen Clock. , 2002, , 23-31.		0
89	Laboratory Studies of Rydberg Atoms. Astrophysics and Space Science Library, 1980, , 23-33.	1.0	0
90	Spin-Polarized Hydrogen. , 1981, , 553-568.		0

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91	Turning off the vacuum: inhibited spontaneous emission. , 1982, , .		0
92	An Introduction to Rydberg Atoms. NATO ASI Series Series B: Physics, 1986, , 57-75.	0.2	0
93	Atom-Photon Interaction Modified by a Microwave Cavity. , 1990, , 521-525.		0