

T Peter Rakitzis

List of Publications by Year in descending order

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96
papers

3,298
citations

147801

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161849

54
g-index

96
all docs

96
docs citations

96
times ranked

1273
citing authors

#	ARTICLE	IF	CITATIONS
1	Slice imaging: A new approach to ion imaging and velocity mapping. Review of Scientific Instruments, 2001, 72, 3848-3853.	1.3	263
2	Reaction of Cl with vibrationally excited CH ₄ and CHD ₃ : State-to-state differential cross sections and steric effects for the HCl product. Journal of Chemical Physics, 1995, 103, 7313-7335.	3.0	228
3	Directional Dynamics in the Photodissociation of Oriented Molecules. Science, 2004, 303, 1852-1854.	12.6	144
4	Picturing the Transition-State Region and Understanding Vibrational Enhancement for the Cl + CH ₄ † HCl + CH ₃ Reaction. The Journal of Physical Chemistry, 1996, 100, 7938-7947.	2.9	143
5	Photofragment angular momentum distributions in the molecular frame: Determination and interpretation. Journal of Chemical Physics, 1999, 110, 3341-3350.	3.0	139
6	Core extraction for measuring state-to-state differential cross sections of bimolecular reactions. Journal of Chemical Physics, 1995, 103, 7299-7312.	3.0	114
7	Evanescent-wave and ambient chiral sensing by signal-reversing cavity ringdown polarimetry. Nature, 2014, 514, 76-79.	27.8	107
8	Photofragment Helicity Caused by Matter-Wave Interference from Multiple Dissociative States. , 1998, 281, 1346-1349.		104
9	Scattering-angle resolved product rotational alignment for the reaction of Cl with vibrationally excited methane. Journal of Chemical Physics, 1997, 106, 5961-5971.	3.0	100
10	Dynamics for the Cl+C ₂ H ₆ † HCl+C ₂ H ₅ reaction examined through state-specific angular distributions. Journal of Chemical Physics, 1996, 105, 7550-7559.	3.0	84
11	Spin-Polarized Hydrogen Atoms from Molecular Photodissociation. Science, 2003, 300, 1936-1938.	12.6	82
12	Measurements of Cl-atom photofragment angular momentum distributions in the photodissociation of Cl ₂ and ICl. Journal of Chemical Physics, 1999, 110, 3351-3359.	3.0	75
13	Revealing the stereospecific chemistry of the reaction of Cl with aligned CHD ₃ (1/2 1 Å = Å1). Nature Chemistry, 2012, 4, 636-641.	13.6	73
14	Spin-orbit branching ratios for the Cl atom photofragments following the excitation of Cl ₂ from 310 to 470 nm. Journal of Chemical Physics, 1999, 110, 5201-5207.	3.0	72
15	Differential cross section polarization moments: Location of the D-atom transfer in the transition-state region for the reactions Cl+C ₂ D ₆ † DCl(v=0, J=1)+C ₂ D ₅ and Cl+CD ₄ † DCl(v=0, J=1)+OD ₃ . Journal of Chemical Physics, 1997, 107, 9392-9405.		59
16	Oriented chlorine atoms as a probe of the nonadiabatic photodissociation dynamics of molecular chlorine. Journal of Chemical Physics, 2000, 113, 9022-9031.	3.0	57
17	Measurement of Cl and Br photofragment alignment using slice imaging. Journal of Chemical Physics, 2002, 116, 9228-9231.	3.0	55
18	Complete Measurement of S(1D ₂) Photofragment Alignment from Abel-Invertible Ion Images. Physical Review Letters, 2001, 87, 123001.	7.8	53

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19	Photodissociation study of CS ₂ at 193 nm using slice imaging. <i>Journal of Chemical Physics</i> , 2001, 115, 9727-9732.	3.0	44
20	Photofragment alignment from the photodissociation of HCl and HBr. <i>Chemical Physics Letters</i> , 2002, 364, 115-120.	2.6	43
21	Angular Distributions for the Cl + C ₂ H ₆ ⁺ HCl + C ₂ H ₅ Reaction Observed via Multiphoton Ionization of the C ₂ H ₅ Radical. <i>Journal of Physical Chemistry A</i> , 1998, 102, 2270-2273.	2.5	42
22	Preparing Reagents: Time Dependence of HCl(<i>v</i> = 1, <i>j</i>) Alignment Following Pulsed Infrared Excitation. <i>Israel Journal of Chemistry</i> , 1994, 34, 95-102.	2.3	41
23	Direct measurement of photofragment alignment from unnormalized Abel-invertible images. <i>Chemical Physics Letters</i> , 2001, 342, 121-126.	2.6	41
24	State-to-state photodissociation of OCS(<i>v</i> ₂ = 0, 1 JM). I. The angular recoil distribution of CO(<i>X</i> = 1 ⁺ ; <i>v</i> = 0 J). <i>Journal of Chemical Physics</i> , 2002, 117, 4255-4263.	3.0	40
25	Measurement of Br photofragment orientation and alignment from HBr photodissociation: Production of highly spin-polarized hydrogen atoms. <i>Journal of Chemical Physics</i> , 2004, 121, 7222-7227.	3.0	40
26	Photolysis of ICl causes mass-dependent interference in the Cl(2P _{3/2}) photofragment angular momentum distributions. <i>Journal of Chemical Physics</i> , 1998, 108, 8291-8294.	3.0	39
27	Relationship between bipolar moments and molecule-frame polarization parameters in Doppler photofragment spectroscopy. <i>Journal of Chemical Physics</i> , 1999, 111, 8751-8754.	3.0	38
28	Photodissociation of laboratory oriented molecules: Revealing molecular frame properties of nonaxial recoil. <i>Journal of Chemical Physics</i> , 2004, 121, 11645-11652.	3.0	38
29	Slice imaging of H-atom photofragments: effects of the REMPI detection process on the observed velocity distribution. <i>Chemical Physics</i> , 2004, 301, 209-212.	1.9	37
30	Dynamical effects of reagent vibrational excitation in the Cl + C ₂ H ₆ (<i>v</i> ₅ = 1) ⁺ HCl + C ₂ H ₅ reaction. <i>Chemical Physics Letters</i> , 1997, 265, 121-128.	2.6	33
31	Polarized electron-beam acceleration driven by vortex laser pulses. <i>New Journal of Physics</i> , 2019, 21, 073052.	2.9	33
32	Molecular and laboratory frame photofragment angular distributions from oriented and aligned molecules. <i>Chemical Physics Letters</i> , 2003, 372, 187-194.	2.6	32
33	Chiral cavity ring down polarimetry: Chirality and magnetometry measurements using signal reversals. <i>Journal of Chemical Physics</i> , 2015, 143, 104202.	3.0	32
34	Determination of differential-cross-section moments from polarization-dependent product velocity distributions of photoinitiated bimolecular reactions. <i>Journal of Chemical Physics</i> , 1997, 107, 9382-9391.	3.0	31
35	Orientation as a probe of photodissociation dynamics. <i>Faraday Discussions</i> , 1999, 113, 27-36.	3.2	30
36	Cavity-Enhanced Parity-Nonconserving Optical Rotation in Metastable Xe and Hg. <i>Physical Review Letters</i> , 2012, 108, 210801.	7.8	30

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37	Observing the symmetry breaking in the angular distributions of oriented photofragments using velocity mapping. <i>Journal of Chemical Physics</i> , 1999, 111, 10415-10417.	3.0	28
38	Laser detection of spin-polarized hydrogen from HCl and HBr photodissociation: Comparison of H- and halogen-atom polarizations. <i>Journal of Chemical Physics</i> , 2008, 129, 144302.	3.0	28
39	Photofragment angular momentum distributions in the molecular frame. II. Single state dissociation, multiple state interference, and nonaxial recoil in photodissociation of polyatomic molecules. <i>Journal of Chemical Physics</i> , 2010, 132, 224310.	3.0	28
40	State-to-state photodissociation of carbonyl sulfide ($\hat{I}^2=0,1\hat{J}IM$). II. The effect of initial bending on coherence of S(D21) polarization. <i>Journal of Chemical Physics</i> , 2005, 123, 164313.	3.0	27
41	Ultrahigh-Density Spin-Polarized H and D Observed via Magnetization Quantum Beats. <i>Physical Review Letters</i> , 2018, 121, 083001.	7.8	27
42	State-resolved differential cross-section measurement of Cl+C2H6 \hat{I}^2 HCl+C2H5 reaction using single-beam velocity mapping. <i>Chemical Physics Letters</i> , 2000, 324, 337-343.	2.6	25
43	Pulsed-Laser Production and Detection of Spin-Polarized Hydrogen Atoms. <i>ChemPhysChem</i> , 2004, 5, 1489-1494.	2.1	25
44	Fundamentals of cavity-enhanced polarimetry for parity-nonconserving optical rotation measurements: Application to Xe, Hg, and I. <i>Physical Review A</i> , 2014, 89, .	2.5	25
45	Highly Nuclear-Spin-Polarized Deuterium Atoms from the UV Photodissociation of Deuterium Iodide. <i>Physical Review Letters</i> , 2017, 118, 233401.	7.8	25
46	Polarized proton beams from laser-induced plasmas. <i>High Power Laser Science and Engineering</i> , 2019, 7, .	4.6	25
47	Preparation of oriented and aligned H2 and HD by stimulated Raman pumping. <i>Journal of Chemical Physics</i> , 2008, 129, 084312.	3.0	20
48	Temporal characterization of short-pulse third-harmonic generation in an atomic gas by a transmission-grating Michelson interferometer. <i>Optics Letters</i> , 2002, 27, 1561.	3.3	19
49	Highly Spin-Polarized Atoms and Molecules from Rotationally State-Selected Molecules. <i>Physical Review Letters</i> , 2005, 94, 083005.	7.8	19
50	Time-dependent polarization transfer from molecular rotation to nuclear spin. <i>Physical Review A</i> , 2006, 74, .	2.5	19
51	Preparation of highly polarized nuclei: Observation and control of time-dependent polarization transfer from H to Cl . http://www.w3.org/1998/Math/MathML $\langle H \rangle \langle Cl \rangle$	2.5	18
52	Towards the complete experiment: measurement of S(1D2) polarization in correlation with single rotational states of CO(J) from the photodissociation of oriented OCS($v_2 = 1 JM = 111$). <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 8549.	2.8	18
53	Effects of long-range potentials on polarization of chlorine atoms from photodissociation of ICl. <i>Molecular Physics</i> , 2005, 103, 1665-1676.	1.7	17
54	Time-dependent depolarization of aligned HD molecules. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 142-147.	2.8	17

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55	Absolute absorption cross-section measurements of CO ₂ in the ultraviolet from 200 to 206 nm at 295 and 373 K. <i>Chemical Physics Letters</i> , 2004, 400, 30-34.	2.6	16
56	Photofragment alignment in the photodissociation of I ₂ from 450 to 510 nm. <i>Journal of Chemical Physics</i> , 2006, 124, 024315.	3.0	16
57	Optical control of ground-state atomic orbital alignment: Cl(³ P ₂) atoms from HCl($v=2, J=1$) photodissociation. <i>Journal of Chemical Physics</i> , 2007, 127, 144307.	3.0	15
58	Nanosecond control and high-density production of spin-polarized hydrogen atoms. <i>Europhysics Letters</i> , 2008, 81, 68002.	2.0	15
59	Ultrahigh-density spin-polarized hydrogen isotopes from the photodissociation of hydrogen halides: new applications for laser-ion acceleration, magnetometry, and polarized nuclear fusion. <i>Light: Science and Applications</i> , 2021, 10, 35.	16.6	14
60	Molecular frame properties from photodissociation of laboratory-oriented symmetric top and chiral molecules. <i>Physica Scripta</i> , 2006, 73, C83-C88.	2.5	13
61	Photofragment angular momentum distributions in the molecular frame. III. Coherent effects in the photodissociation of polyatomic molecules with circularly polarized light. <i>Journal of Chemical Physics</i> , 2010, 133, 204301.	3.0	11
62	Recoil Inversion in the Photodissociation of Carbonyl Sulfide near 234 Ånm. <i>Physical Review Letters</i> , 2017, 118, 253001.	7.8	11
63	Oriented O(³ P ₂), Ne(³ P ₂), and He(³ S ₁) atoms emerging from a bent magnetic guide. <i>Molecular Physics</i> , 2016, 114, 245-252.	1.7	10
64	Cavity ring-down ellipsometry. <i>Journal of Chemical Physics</i> , 2009, 131, 121101.	3.0	9
65	Sensitivity enhancement for evanescent-wave sensing using cavity-ring-down ellipsometry. <i>Optics Letters</i> , 2013, 38, 1224.	3.3	9
66	Monitoring adsorption and sedimentation using evanescent-wave cavity ringdown ellipsometry. <i>Applied Optics</i> , 2013, 52, 1086.	1.8	9
67	Microsecond-resolved SDR-based cavity ring down ellipsometry. <i>Applied Optics</i> , 2015, 54, 5861.	2.1	9
68	Enhanced nuclear-spin-dependent parity-violation effects using the HgH ₁₉₉ molecule. <i>Physical Review A</i> , 2018, 98, .	2.5	9
69	Polarized proton beams from a laser-plasma accelerator. <i>International Journal of Modern Physics A</i> , 2019, 34, 1942028.	1.5	9
70	Gas-phase optical activity measurements using a compact cavity ringdown polarimeter. <i>Laser Physics</i> , 2020, 30, 075602.	1.2	9
71	Calculation of parity-nonconserving optical rotation in iodine at 1315 nm. <i>Physical Review A</i> , 2013, 87, .	2.5	8
72	Photofragment angular momentum distributions from oriented and aligned polyatomic molecules: beyond the axial recoil limit. <i>Molecular Physics</i> , 2010, 108, 937-944.	1.7	7

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73	Evanescent-Wave Cavity Ring-Down Ellipsometry. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 1324-1327.	4.6	7
74	Optical activity of lysozyme in solution at 532Ånm via signal-reversing cavity ring-down polarimetry. <i>Chemical Physics Letters</i> , 2020, 747, 137345.	2.6	7
75	Parent molecule rotational depolarization of photofragment angular momentum distributions: diatomic and polyatomic molecules. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 8526.	2.8	6
76	Chirality sensing employing parity-time-symmetric and other resonant gain-loss optical systems. <i>Physical Review B</i> , 2022, 105, .	3.2	6
77	Exit-channel recoil resonances by imaging the photodissociation of single quantum-state-selected OCS molecules. <i>Physical Review A</i> , 2018, 98, .	2.5	5
78	Transition states and spin-orbit structure. <i>Science</i> , 2021, 371, 886-887.	12.6	5
79	Depolarization of spin-polarized hydrogen via collisions with chlorine atoms at ultrahigh density. <i>Chemical Physics Impact</i> , 2021, 2, 100022.	3.5	4
80	Laser preparation of spin-polarized atoms from molecular photodissociation. <i>Physica Scripta</i> , 2006, 73, C71-C75.	2.5	3
81	(2+1) laser-induced fluorescence of spin-polarized hydrogen atoms. <i>Journal of Chemical Physics</i> , 2010, 133, 174308.	3.0	3
82	Development of cavity ring-down ellipsometry with spectral and submicrosecond time resolution. <i>Proceedings of SPIE</i> , 2011, , .	0.8	3
83	Alignment of the hydrogen molecule under intense laser fields. <i>Journal of Chemical Physics</i> , 2017, 147, 013948.	3.0	3
84	Spin-Polarized Hydrogen Depolarization Rates at High Hydrogen Halide Pressures: Hyperfine Depolarization via the $\text{H}\cdots\text{H}$ Complex. <i>Journal of Physical Chemistry A</i> , 2019, 123, 8130-8134.	2.5	3
85	Mesoscopic production of hyperpolarized N_2^{15}O and H_2O via optical excitation. <i>Physical Review A</i> , 2015, 92, .	2.5	2
86	Nuclear-spin-polarization dynamics of $\langle \text{H}^2 \rangle$, $\langle \text{D}^2 \rangle$, and HD molecules in magnetic fields. <i>Physical Review A</i> , 2018, 98, .	2.5	2
87	Cavity-based Chiral Polarimetry. , 2018, , 649-678.		2
88	Cavity-based chiral polarimetry: parity nonconserving optical rotation in Cs, Dy, and HgH. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2019, 52, 213501.	1.5	2
89	Photofragment spin-polarization measurements via magnetization quantum beats: dynamics of DI photodissociation. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 14000-14004.	2.8	2
90	Alignment and dissociation of electronically excited molecular hydrogen with intense laser fields. <i>Molecular Physics</i> , 2021, 119, e1778200.	1.7	2

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91	Macroscopic production of highly nuclear-spin-polarized molecules from IR-excitation and photodissociation of molecular beams. <i>Chemical Physics Letters</i> , 2021, 784, 139092.	2.6	2
92	Multi-pass spectroscopic ellipsometry. <i>Thin Solid Films</i> , 2014, 555, 143-147.	1.8	1
93	High steady-state column density of I(2P _{3/2}) atoms from I ₂ photodissociation at 532 nm: Towards parity non-conservation measurements. <i>Scientific Reports</i> , 2016, 6, 33261.	3.3	1
94	A nanosecond-resolved atomic hydrogen magnetometer. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 21521-21531.	2.8	1
95	Macroscopic production of spin-polarised hydrogen atoms from the IR-excitation and photodissociation of molecular beams. <i>Molecular Physics</i> , 2022, 120, .	1.7	1
96	Stark shift and parity nonconservation for near-degenerate states of xenon. <i>Physical Review A</i> , 2014, 89, .	2.5	0