

# Frédéric Merkt

## List of Publications by Year in descending order

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211  
papers

6,499  
citations

57631

44  
h-index

95083

68  
g-index

221  
all docs

221  
docs citations

221  
times ranked

2458  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rotational line intensities in zero kinetic energy photoelectron spectroscopy (ZEKE-PES). International Reviews in Physical Chemistry, 1993, 12, 205-239.	0.9	197
2	Multistage Zeeman deceleration of hydrogen atoms. Physical Review A, 2007, 75, .	1.0	192
3	Determination of the ionization and dissociation energies of the hydrogen molecule. Journal of Chemical Physics, 2009, 130, 174306.	1.2	168
4	Using High Rydberg States as Electric Field Sensors. Physical Review Letters, 1999, 82, 1831-1834.	2.9	162
5	On the lifetimes of Rydberg states probed by delayed pulsed field ionization. Journal of Chemical Physics, 1994, 101, 3495-3505.	1.2	153
6	MOLECULES IN HIGH RYDBERG STATES. Annual Review of Physical Chemistry, 1997, 48, 675-709.	4.8	120
7	Selective field ionization of high Rydberg states: Application to zero-kinetic-energy photoelectron spectroscopy. Journal of Chemical Physics, 2001, 115, 5461-5469.	1.2	103
8	General symmetry selection rules for the photoionization of polyatomic molecules. Molecular Physics, 1997, 92, 793-804.	0.8	101
9	High Rydberg states of argon: Stark effect and field-ionization properties. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, 1705-1724.	0.6	100
10	Demonstration of Three-Dimensional Electrostatic Trapping of State-Selected Rydberg Atoms. Physical Review Letters, 2008, 100, 043001.	2.9	98
11	Determination of the ionization and dissociation energies of the deuterium molecule (D <sub>2</sub> ). Journal of Chemical Physics, 2010, 132, 154301.	1.2	93
12	Collisional and electric field effects in the delayed pulsed field ionization zero-kinetic-energy photoelectron spectrum of argon. Journal of Chemical Physics, 1994, 100, 2623-2628.	1.2	92
13	Final-state interactions in the zero-kinetic-energy photoelectron spectrum of H <sub>2</sub> . Journal of Chemical Physics, 1992, 96, 4149-4156.	1.2	91
14	Driving Rydberg-Rydberg Transitions from a Coplanar Microwave Waveguide. Physical Review Letters, 2012, 108, 063004.	2.9	90
15	Nonhydrogenic Effects in the Deceleration of Rydberg Atoms in Inhomogeneous Electric Fields. Physical Review Letters, 2004, 92, 033005.	2.9	87
16	A broadly tunable extreme ultraviolet laser source with a 0.008 cm <sup>[sup âˆˆ1]</sup> bandwidth. Review of Scientific Instruments, 2000, 71, 4023.	0.6	85
17	Rydberg-State-Enabled Deceleration and Trapping of Cold Molecules. Physical Review Letters, 2009, 103, 123001.	2.9	85
18	Rotationally resolved zero-kinetic-energy photoelectron spectrum of nitrogen. Physical Review A, 1992, 46, 302-314.	1.0	84

#	ARTICLE	IF	CITATIONS
19	High-resolution millimeter wave spectroscopy and multichannel quantum defect theory of the hyperfine structure in high Rydberg states of molecular hydrogen H <sub>2</sub> . Journal of Chemical Physics, 2004, 121, 11810-11838.	1.2	84
20	Zeeman deceleration of H and D. Physical Review A, 2007, 76, .	1.0	79
21	Experimental Characterization of Singlet Scattering Channels in Long-Range Rydberg Molecules. Physical Review Letters, 2015, 114, 133201.	2.9	78
22	Deflection and deceleration of hydrogen Rydberg molecules in inhomogeneous electric fields. Journal of Chemical Physics, 2004, 121, 1419-1431.	1.2	77
23	Magnetic Trapping of Hydrogen after Multistage Zeeman Deceleration. Physical Review Letters, 2008, 101, 143001.	2.9	76
24	Benchmarking Theory with an Improved Measurement of the Ionization and Dissociation Energies of $H_2^+$ . Physical Review Letters, 2019, 122, 103002.	2.9	71
25	Communication: The ionization and dissociation energies of HD. Journal of Chemical Physics, 2010, 133, 111102.	1.2	70
26	Towards measuring the ionisation and dissociation energies of molecular hydrogen with sub-MHz accuracy. Faraday Discussions, 2011, 150, 51.	1.6	70
27	Determination of the interaction potential of the ground electronic state of Ne <sub>2</sub> by high-resolution vacuum ultraviolet laser spectroscopy. Journal of Chemical Physics, 2003, 118, 8807-8812.	1.2	68
28	Intense narrow-bandwidth extreme ultraviolet laser system tunable up to 20 eV. Review of Scientific Instruments, 2004, 75, 613-622.	0.6	65
29	Stark deceleration and trapping of hydrogen Rydberg atoms. Physical Review A, 2007, 76, .	1.0	63
30	Deceleration of supersonic beams using inhomogeneous electric and magnetic fields. Physical Chemistry Chemical Physics, 2011, 13, 18705.	1.3	63
31	Measurement of the state-specific differential cross section for the H+D <sub>2</sub> <sup>+</sup> HD(v=4, j=3)+D reaction at a collision energy of 2.2 eV. Journal of Chemical Physics, 1995, 103, 5157-5160.	1.2	60
32	Controlling the motion of hydrogen molecules. Chemical Physics Letters, 2003, 374, 667-675.	1.2	60
33	Jahn-Teller Effects in Molecular Cations Studied by Photoelectron Spectroscopy and Group Theory. Angewandte Chemie - International Edition, 2009, 48, 6404-6424.	7.2	57
34	Photoionisation and ZEKE photoelectron spectroscopy of Ar, H <sub>2</sub> and CO <sub>2</sub> using a coherent XUV laser source. Chemical Physics, 1991, 155, 257-265.	0.9	56
35	Rovibronic photoionization dynamics of asymmetric-top molecules. International Journal of Mass Spectrometry, 2005, 245, 14-25.	0.7	54
36	Dissociation Energy of the Hydrogen Molecule at $10^4$ Å Accuracy. Physical Review Letters, 2018, 121, 013001.	2.9	54

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37	Observation of enhanced rate coefficients in the $H_2^{++}+H_2^{\hat{+}}H_3^{++}+H$ reaction at low collision energies. <i>Journal of Chemical Physics</i> , 2016, 145, 244316.	1.2	53
38	New Method to Study Ion-Molecule Reactions at Low Temperatures and Application to the Reaction. <i>ChemPhysChem</i> , 2016, 17, 3596-3608.	1.0	51
39	The first rotationally resolved spectrum of $CH_4^+$ . <i>Journal of Chemical Physics</i> , 1999, 110, 2309-2311.	1.2	50
40	The lowest electronic states of $Ne_2^+$ , $Ar_2^+$ and $Kr_2^+$ : comparison of theory and experiment. <i>Molecular Physics</i> , 2003, 101, 827-838.	0.8	50
41	High-resolution threshold-ionization spectroscopy of $NH_3$ . <i>Journal of Chemical Physics</i> , 2003, 118, 10024-10033.	1.2	50
42	Very high resolution spectroscopy of high Rydberg states of the argon atom. <i>Journal of Chemical Physics</i> , 1998, 108, 10033-10045.	1.2	49
43	Surface-Electrode Rydberg-Stark Decelerator. <i>Physical Review Letters</i> , 2012, 108, 063008.	2.9	49
44	Rotational autoionization dynamics in high Rydberg states of nitrogen. <i>Journal of Chemical Physics</i> , 1995, 103, 4509-4518.	1.2	46
45	PFI-ZEKE photoelectron spectra of the methane cation and the dynamic Jahn-Teller effect. <i>Faraday Discussions</i> , 2000, 115, 205-228.	1.6	46
46	Photoionization dynamics of excited Ne, Ar, Kr and Xe atoms near threshold. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2012, 45, 092001.	0.6	45
47	Zero-kinetic-energy photoelectron spectrum of carbon dioxide. <i>Journal of Chemical Physics</i> , 1993, 99, 8430-8439.	1.2	44
48	Generation of programmable near-Fourier-transform-limited pulses of narrow-band laser radiation from the near infrared to the vacuum ultraviolet. <i>Review of Scientific Instruments</i> , 2005, 76, 103103.	0.6	44
49	Potential energy curves of diatomic molecular ions from high-resolution photoelectron spectroscopy. I. The first six electronic states of $Ar_2^+$ . <i>Journal of Chemical Physics</i> , 2004, 120, 638-646.	1.2	43
50	Jahn-Teller effect in tetrahedral symmetry: Large-amplitude tunneling motion and rovibronic structure of $CH_4^+$ and $CD_4^+$ . <i>Journal of Chemical Physics</i> , 2007, 126, 144305.	1.2	43
51	Collisional and Radiative Processes in Adiabatic Deceleration, Deflection, and Off-Axis Trapping of a Rydberg Atom Beam. <i>Physical Review Letters</i> , 2011, 106, 073003.	2.9	43
52	Precision measurement of the ionization energy of Cs i. <i>Physical Review A</i> , 2016, 93, .	1.0	42
53	Normal-Incidence Electrostatic Rydberg Atom Mirror. <i>Physical Review Letters</i> , 2006, 97, 033002.	2.9	41
54	The first electronic states of $Ar_2^+$ studied by high resolution photoelectron spectroscopy. <i>Journal of Chemical Physics</i> , 1998, 109, 9762-9771.	1.2	40

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55	High-resolution spectroscopy of Rydberg states in an ultracold cesium gas. <i>Physical Review A</i> , 2013, 87, .	1.0	40
56	The first adiabatic ionization potential of Ar <sub>2</sub> . <i>Journal of Chemical Physics</i> , 1997, 107, 10819-10822.	1.2	38
57	Preparation of ions in selected rotational states by delayed pulsed field ionization. <i>Journal of Chemical Physics</i> , 1993, 99, 4213-4214.	1.2	37
58	Role of nuclear spin in photoionization: Hyperfine-resolved photoionization of Xe and multichannel quantum defect theory analysis. <i>Physical Review A</i> , 2005, 71, .	1.0	37
59	Velocity-tunable slow beams of cold O <sub>2</sub> in a single spin-rovibronic state with full angular-momentum orientation by multistage Zeeman deceleration. <i>Molecular Physics</i> , 2012, 110, 1807-1814.	0.8	37
60	Observation of Dipole-Quadrupole Interaction in an Ultracold Gas of Rydberg Atoms. <i>Physical Review Letters</i> , 2014, 113, 193001.	2.9	37
61	Ion density effects in the pulsed field ionization of high Rydberg states. <i>Chemical Physics Letters</i> , 1997, 270, 1-8.	1.2	36
62	The zero-kinetic-energy photoelectron spectrum of nitrogen between 15.5 and 26.5 eV. <i>Journal of Chemical Physics</i> , 1993, 99, 3400-3410.	1.2	35
63	Trapping cold molecular hydrogen. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 19000.	1.3	35
64	Jahn-Teller Effect in the Methane Cation: Rovibronic Structure and the Geometric Phase. <i>Physical Review Letters</i> , 2006, 97, 173003.	2.9	35
65	Assignment of the first five electronic states of Ar <sup>2+</sup> from the rotational fine structure of pulsed-field-ionization zero-kinetic-energy photoelectron spectra. <i>Journal of Chemical Physics</i> , 2002, 117, 4264-4281.	1.2	34
66	Slow and velocity-tunable beams of metastable $\text{He}^2+$ by multistage Zeeman deceleration. <i>Physical Review A</i> , 2014, 89, .	1.0	34
67	Surface-electrode decelerator and deflector for Rydberg atoms and molecules. <i>Physical Review A</i> , 2014, 90, .	1.0	33
68	Manipulating Rydberg atoms close to surfaces at cryogenic temperatures. <i>Physical Review A</i> , 2014, 90, .	1.0	32
69	Towards resolving the hyperfine structure in ions by photoelectron spectroscopy. <i>Molecular Physics</i> , 1998, 95, 1045-1054.	0.8	31
70	Determination of the Interval between the Ground States of Para- and Ortho- $\text{H}_2^+$ . <i>Physical Review Letters</i> , 2019, 123, 163002.	2.9	31
71	Preparation and characterization of long-lived molecular Rydberg states: Application to HD. <i>Journal of Chemical Physics</i> , 1996, 104, 950-961.	1.2	30
72	High-resolution photoelectron spectroscopic study of the first electronic states of Kr <sup>2+</sup> . <i>Journal of Chemical Physics</i> , 2001, 114, 9840-9851.	1.2	30

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73	Slow beams of atomic hydrogen by multistage Zeeman deceleration. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 081005.	0.6	30
74	Imaging electric fields in the vicinity of cryogenic surfaces using Rydberg atoms. Physical Review A, 2015, 92, .	1.0	30
75	High-resolution laser absorption spectroscopy in the extreme ultraviolet. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, 3901-3921.	0.6	29
76	Phase stability in a multistage Zeeman decelerator. Physical Review A, 2010, 82, .	1.0	29
77	Rydberg-state-resolved zero-kinetic-energy photoelectron spectroscopy. Chemical Physics Letters, 2001, 346, 201-208.	1.2	28
78	Millimetre wave spectroscopy of high Rydberg states. International Reviews in Physical Chemistry, 2002, 21, 385-403.	0.9	28
79	Determination of the ionization energy of krypton by Rydberg-state-resolved threshold-ionization spectroscopy. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 893-903.	0.6	28
80	Potential energy curves of diatomic molecular ions from high-resolution photoelectron spectra. II. The first six electronic states of Xe[sub 2][sup +]. Journal of Chemical Physics, 2004, 121, 8279.	1.2	26
81	High-resolution spectroscopy of xenon using a tunable Fourier-transform-limited all-solid-state vacuum-ultraviolet laser system. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, 4145-4154.	0.6	26
82	On the R-dependence of the spin-orbit coupling constant: Potential energy functions of Xe2+ by high-resolution photoelectron spectroscopy and <i>ab initio</i> quantum chemistry. Journal of Chemical Physics, 2008, 128, 234306.	1.2	26
83	The fundamental rotational interval of para-H2+ by MQDT-assisted Rydberg spectroscopy of H2. Journal of Chemical Physics, 2015, 142, 064310.	1.2	26
84	Observation and Calculation of the Quasibound Rovibrational Levels of the Electronic Ground State of $H^+$ . Physical Review Letters, 2016, 116, 093001.	2.9	26
85	Jahn-Teller distortion in CD2H2+ from a rotationally resolved photoelectron spectrum. Chemical Physics Letters, 1999, 312, 139-148.	1.2	25
86	Determination of the binding energies of the <i>np</i> Rydberg states of H2, HD, and D2 from high-resolution spectroscopic data by multichannel quantum-defect theory. Journal of Chemical Physics, 2014, 140, 104303.	1.2	24
87	Observation and Calculation of the Quasibound Rovibrational Levels of the Electronic Ground State of molecular hydrogen with $n$ Rydberg states of accuracy. Physical Review A, 2018, 97, .	1.0	24
88	Multichannel quantum defect theory and high-resolution spectroscopy of the hyperfine structure of high Rydberg states of 83Kr. Physical Review A, 2003, 68, .	1.0	23
89	Dissociation dynamics of ion-pair states of Cl at principal quantum numbers beyond 1500. Physical Review A, 2010, 82, .	1.0	23
90	Trapping deuterium atoms. Physical Review A, 2010, 81, .	1.0	23

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91	Radiative and collisional processes in translationally cold samples of hydrogen Rydberg atoms studied in an electrostatic trap. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 094006.	0.6	23
92	Ion-Molecule Reactions below 1 ÅK: Strong Enhancement of the Reaction Rate of the Ion-Dipole Reaction $F + \text{He} \rightarrow \text{He}^+ + \text{F}^-$ Physical Review Letters, 2020, 125, 263401.	1.3	23
93	Measurement of the hyperfine structure in low-l, high-nRydberg states of ortho H2 by millimeter wave spectroscopy. Journal of Chemical Physics, 2000, 113, 7939-7944.	1.2	22
94	High-resolution VUV photoionization spectroscopy of HD between the X <sup>2</sup> Σ <sup>+</sup> + g v + a <sup>0</sup> and v + a <sup>0</sup> thresholds. Physical Chemistry Chemical Physics, 2003, 5, 2528-2534.	1.3	21
95	The low-lying electronic states of ArXe <sup>+</sup> and their potential energy functions. Journal of Chemical Physics, 2008, 128, 014306.	1.2	21
96	Millimeter-wave spectroscopy and multichannel quantum-defect-theory analysis of high Rydberg states of xenon: The hyperfine structure of $\text{Xe}^{129}$	1.0	21
97	Multistage Zeeman deceleration of metastable neon. Journal of Chemical Physics, 2011, 135, 214202.	1.2	21
98	Precision Spectroscopy in Cold Molecules: The Lowest Rotational Interval of He <sup>2+</sup> and Metastable He <sup>2+</sup> . Physical Review Letters, 2015, 115, 133202.	2.9	21
99	Precision measurement of the ionization energy and quantum defects of $K^{39}$ Physical Review A, 2019, 100, .	1.0	21
100	Rotational state selectivity in N <sub>2</sub> + X <sup>2</sup> Σ <sup>+</sup> g <sup>+</sup> (l <sub>z</sub> = 0) by delayed pulsed field ionization spectroscopy via the a <sup>3</sup> Σ <sup>+</sup> g <sup>+</sup> (l <sub>z</sub> = 0) state. Molecular Physics, 1995, 86, 1283-1297.	0.8	20
101	Experimental determination of the potential energy curves of the l(3/2u) and l(3/2g) states of Kr <sup>+</sup> . Molecular Physics, 2001, 99, 1941-1958.	0.8	20
102	The H <sub>2</sub> <sup>+</sup> + HD reaction at low collision energies: H <sub>3</sub> <sup>+</sup> /H <sub>2</sub> <sup>+</sup> D <sup>+</sup> branching ratio and product-kinetic-energy distributions. Physical Chemistry Chemical Physics, 2021, 23, 2676-2685.	1.3	19
103	Role of Electron Spin Coupling in Molecular Photoionization: The b <sup>1</sup> Σ <sup>+</sup> g <sup>+</sup> → 4a <sup>+</sup> Σ <sup>+</sup> g <sup>+</sup> Photoelectronic Transition of O <sub>2</sub> . Physical Review Letters, 1998, 81, 1385-1388.	2.9	18
104	Millimeter-wave spectroscopy and multichannel quantum-defect-theory analysis of high Rydberg states of krypton: The hyperfine structure of Kr <sup>+</sup> . Physical Review A, 2006, 74, .	1.0	18
105	Jahn-Teller effect in CH <sub>3</sub> D <sup>+</sup> and CD <sub>3</sub> H <sup>+</sup> : Conformational isomerism, tunneling-rotation structure, and the location of conical intersections. Journal of Chemical Physics, 2007, 126, 154304.	1.2	18
106	Photoelectron spectroscopic study of the E <sub>a</sub> <sup>+</sup> - e Jahn-Teller effect in the presence of a tunable spin-orbit interaction. I. Photoionization dynamics of methyl iodide and rotational fine structure of CH <sub>3</sub> I <sup>+</sup> and CD <sub>3</sub> I <sup>+</sup> . Journal of Chemical Physics, 2011, 134, 054308.	1.2	18
107	Deceleration and trapping of a fast supersonic beam of metastable helium atoms with a 44-electrode chip decelerator. Physical Review A, 2013, 88, .	1.0	18
108	Structure and dynamics of H <sub>2</sub> <sup>+</sup> near the dissociation threshold: A combined experimental and computational investigation. Journal of Molecular Spectroscopy, 2016, 330, 147-157.	0.4	18

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109	Pulsed-field-ionization zero-kinetic-energy photoelectron spectroscopy of metastable He2: Ionization potential and rovibrational structure of He2+. Journal of Chemical Physics, 2008, 128, 164310.	1.2	17
110	Hyperfine structure of the ground state of para- $D_2$ . Physical Review A, 2008, 77, .	1.0	17
111	Nuclear-spin effects in the photoionization of krypton. Physical Review A, 2009, 79, .	1.0	17
112	Measuring the dispersive frequency shift of a rectangular microwave cavity induced by an ensemble of Rydberg atoms. Physical Review A, 2017, 95, .	1.0	16
113	SI-traceable frequency dissemination at 1572.06 Å nm in a stabilized fiber network with ring topology. Optics Express, 2021, 29, 24592.	1.7	16
114	Ionization Energy of the Metastable $S_2$ State of $Ca_2$ . Physical Review Letters, 2019, 123, 153001.	2.9	16
115	High-resolution vacuum ultraviolet laser spectroscopy of the $Ca_2$ $0+u \rightarrow 0+g$ transition of Xe2. Canadian Journal of Chemistry, 2004, 82, 750-761.	0.6	15
116	Potential energy curves of diatomic molecular ions from high-resolution photoelectron spectroscopy. III. The low-lying $u$ states of $Kr_2^+$ . Molecular Physics, 2005, 103, 1285-1300.	0.8	15
117	Thermochemical properties of small open-shell systems: experimental and high-level ab initio results for $NH_2$ and $CH_2$ . Molecular Physics, 2006, 104, 1457-1461.	0.8	15
118	A 240–380 GHz millimetre wave source for very high resolution spectroscopy of high Rydberg states. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 831-845.	0.6	15
119	Precision measurement of the ionisation energy of the $3d$ state of $H_2^+$ . Molecular Physics, 2013, 111, 2100-2107.	0.8	15
120	Motional, isotope and quadratic Stark effects in Rydberg $H$ and $D$ . Stark deceleration and electric trapping of $H$ and $D$ . Journal of Physics B: Atomic, Molecular and Optical Physics, 2013, 46, 045303.	0.6	15
121	Improved ionization and dissociation energies of the deuterium molecule. Physical Review A, 2022, 105, .	1.0	15
122	Generation of tunable coherent extreme ultraviolet radiation beyond 19 eV by resonant four-wave mixing in argon. Applied Physics Letters, 1998, 73, 157-159.	1.5	14
123	Pulsed-Field-Ionization Zero-Kinetic-Energy (PFI-ZEKE) Photoelectron Spectroscopic Study of the Renner-Teller Effect in the $f+2I$ State of $OCS^+$ . Journal of Physical Chemistry A, 2004, 108, 9970-9978.	1.1	14
124	Nonadiabatic effects on the positions and lifetimes of the low-lying rovibrational levels of the $GK^+$ and $H^+$ states of $H_2^+$ . Physical Chemistry Chemical Physics, 2018, 20, 26837-26845.	1.3	14
125	Fluorescence-lifetime-limited trapping of Rydberg helium atoms on a chip. Molecular Physics, 2019, 117, 2980-2989.	0.8	14
126	Precision Measurements in Few-Electron Molecules: The Ionization Energy of Metastable $He_2^+$ and the First Rotational Interval of $He_2^+$ . Physical Review Letters, 2020, 124, 213001.	2.9	14





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145	Threshold ionization spectroscopy of H <sub>2</sub> O, HDO and D <sub>2</sub> O and low-lying vibrational levels of HDO and D <sub>2</sub> O. <i>Molecular Physics</i> , 2015, 113, 3918-3924.	0.8	10
146	Long-range Rydberg molecules, Rydberg macrodimers and Rydberg aggregates in an ultracold Cs gas. <i>European Physical Journal: Special Topics</i> , 2016, 225, 2891-2918.	1.2	10
147	Experimental and theoretical study of core-excited series of Mg. <i>Physical Review A</i> , 2019, 100, .	1.0	10
148	Manipulating beams of paramagnetic atoms and molecules using inhomogeneous magnetic fields. <i>Progress in Nuclear Magnetic Resonance Spectroscopy</i> , 2020, 120-121, 118-148.	3.9	10
149	Dissociation energies of the I(3/2g) and I(1/2g) states of Ar <sub>2</sub> . <i>Molecular Physics</i> , 2002, 100, 3781-3784.	0.8	9
150	On the rotational structure of a prominent band in the vacuum-ultraviolet spectrum of molecular nitrogen. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2006, 151, 31-33.	0.8	9
151	The low-lying electronic states of KrXe and their potential energy functions. <i>Molecular Physics</i> , 2008, 106, 1215-1226.	0.8	9
152	Photoelectron spectroscopic study of the E <sub>g</sub> —e <sub>g</sub> Teller effect in the presence of a tunable spin-orbit interaction. II. Rovibronic analysis of the E ground state of CH <sub>3</sub> Cl. <i>Molecular Physics</i> , 2011, 109, 2251-2266.	0.8	9
153	Precision measurement of the rotational energy-level structure of the three-electron molecule He <sub>2</sub> <sup>+</sup> . <i>Journal of Chemical Physics</i> , 2016, 145, 204301.	1.2	9
154	Determination of the Interaction Potential and Rovibrational Structure of the Ground Electronic State of MgAr Using PFI-ZEKE Photoelectron Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2020, 124, 379-385.	1.1	9
155	Complete characterization of the 3p Rydberg complex of a molecular ion: MgAr <sup>+</sup> . II. Global analysis of the A+ 2 <sup>1</sup> and B+ 2 <sup>1</sup> (3p <sup>1</sup> , i <sup>1</sup> ) states. <i>Journal of Chemical Physics</i> , 2020, 153, 074311.	1.2	9
156	High resolution laser spectroscopy beyond 18 eV: the B <sup>2</sup> Σ <sup>+</sup> ← X <sup>1</sup> Σ <sup>+</sup> photoelectronic transition of N <sub>2</sub> . <i>Chemical Physics Letters</i> , 1998, 284, 419-422.	1.2	8
157	Spin-Orbit Coupling and Potential Energy Functions of Ar <sub>2</sub> and Kr <sub>2</sub> by High-Resolution Photoelectron Spectroscopy and <i>ab Initio</i> Quantum Chemistry. <i>Journal of Chemical Theory and Computation</i> , 2012, 8, 3671-3685.	2.3	8
158	High-resolution spectroscopy of the transition of MgAr <sup>+</sup> by isolated-core multiphoton Rydberg dissociation. <i>Molecular Physics</i> , 2020, 118, e1703051.	0.8	8
159	Spectroscopic characterization of a thermodynamically stable doubly charged diatomic molecule: MgAr <sub>2</sub> <sup>2+</sup> . <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 10978-10987.	1.3	8
160	Cold ion chemistry within a Rydberg-electron orbit: test of the spectator role of the Rydberg electron in the He(n) + CO → C(n <sup>2</sup> ) + O + He reaction. <i>New Journal of Physics</i> , 2021, 23, 095011.	1.2	8
161	Multipole-moment effects in ion-molecule reactions at low temperatures: part II — charge-quadrupole-interaction-induced suppression of the He <sup>+</sup> + N <sub>2</sub> reaction at collision energies below 10 K. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 2843-2858.	1.3	8
162	Reactions of H <sub>2</sub> , HD, and D <sub>2</sub> with H <sub>2</sub> <sup>+</sup> , HD <sup>+</sup> , and D <sub>2</sub> <sup>+</sup> : Product-Channel Branching Ratios and Simple Models. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 864-871.	2.1	8



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181	Fundamental vibration frequency and rotational structure of the first excited vibrational level of the molecular helium ion (He <sup>2+</sup> ). Journal of Chemical Physics, 2018, 149, 154302.	1.2	5
182	Communication: Heavy-Rydberg states of HD and the electron affinity of the deuterium atom. Journal of Chemical Physics, 2018, 149, 031102.	1.2	5
183	Energy curve of the $\text{He}^+$ ion. Journal of Chemical Physics, 2018, 149, 031102.	1.2	4
184	A New Perspective on the Binding Power of an Electron. ChemPhysChem, 2009, 10, 2931-2934.	1.0	4
185	AEGIS experiment: Towards antihydrogen beam production for antimatter gravity measurements. European Physical Journal D, 2014, 68, 1.	0.6	4
186	Measuring the gravitational free-fall of antihydrogen. Hyperfine Interactions, 2014, 228, 151-157.	0.2	4
187	Characterization of the $n=3$ Rydberg state of $\text{MgAr}$ using a quantum-control optical scheme. Physical Review A, 2021, 104, 013401.	1.0	4
188	Rovibronic photoionization dynamics of ammonia isotopomers. Molecular Physics, 2007, 105, 1711-1722.	0.8	3
189	Vibrational spectra of chloroform, freon-11 and selected isotopomers in the terahertz region. Journal of Molecular Spectroscopy, 2010, 262, 61-63.	0.4	3
190	PFI-ZEKE photoelectron and high resolution photoionization spectra of ND <sub>3</sub> with MQDT simulations. Molecular Physics, 2010, 108, 1069-1082.	0.8	3
191	The AEGIS experiment at CERN. Hyperfine Interactions, 2012, 209, 43-49.	0.2	3
192	Exotic Chemistry with Ultracold Rydberg Atoms. Chimia, 2016, 70, 263.	0.3	3
193	High-resolution photoelectron spectrum of the origin band of the $\text{X}^1\Sigma^+$ $\text{E} \leftarrow \text{X}^1\Sigma^+$ ionising transition of propyne. Molecular Physics, 2018, 116, 3602-3606.	0.8	3
194	Chirped-pulse millimetre-wave spectrometer for the 140-180 GHz region. Molecular Physics, 2018, 116, 3656-3665.	0.8	3
195	Spectroscopy of Highly Excited States of the Hydrogen Atom. Chimia, 2020, 74, 285.	0.3	3
196	Barrier-discharge source of cold hydrogen atoms in supersonic beams: Stark effect in the $1s \leftarrow 2s$ transition. Journal of Physics B: Atomic, Molecular and Optical Physics, 2022, 55, 155002.	0.6	3
197	Structure and Dynamics of High Rydberg States Studied by High-Resolution Spectroscopy and Multichannel Quantum Defect Theory. , 2009, , 35-61.		2
198	High-resolution laser spectroscopy between 0.9 and 14.3 THz in a supersonic beam: Rydberg-Rydberg transitions of atomic Xe at intermediate n values. Journal of Chemical Physics, 2013, 138, 244202.	1.2	2

#	ARTICLE	IF	CITATIONS
199	The adiabatic ionisation energy of CO <sub>2</sub> . Molecular Physics, 2019, 117, 2956-2960.	0.8	2
200	Line shapes and line positions in PFI-ZEKE photoelectron and MATI spectra of positively charged ions. Molecular Physics, 2021, 119, e1900613.	0.8	2
201	Charge-Transfer-Induced Predissociation in Rydberg States of Molecular Cations: MgAr <sup>+</sup> . Journal of Physical Chemistry A, 2021, 125, 6681-6696.	1.1	2
202	Structure and dynamics of HD <sup>+</sup> in the vicinity of the H <sup>+</sup> + D and D <sup>+</sup> + H dissociation thresholds: Feshbach resonances and the role of <i>g/u</i> -symmetry breaking. Molecular Physics, 2022, 120, .	0.8	2
203	Threshold-ion-pair-production spectroscopy of H <sub>2</sub> <sup>+</sup> S and D <sub>2</sub> <sup>+</sup> S. Molecular Physics, 2022, 120, .	0.8	2
204	Multipole-moment effects in ion-molecule reactions at low temperatures: part III – the He <sup>+</sup> + CH <sub>4</sub> and He <sup>+</sup> + CD <sub>4</sub> reactions at low collision energies and the effect of the charge-octupole interaction. Physical Chemistry Chemical Physics, 2022, 24, 16360-16373.	1.3	2
205	High-resolution spectroscopic study of the C 0 <sup>+</sup> and D 1 Rydberg states of KrXe and of the X 1/2 and A1 3/2 states of KrXe <sup>+</sup> . Journal of Molecular Spectroscopy, 2013, 284-285, 37-53.	0.4	1
206	High-resolution photoelectron-spectroscopic investigation of the H <sub>2</sub> O <sup>+</sup> cation in its electronic state. Molecular Physics, 2016, 114, 3319-3327.	0.8	1
207	New Method to Study Ion-molecule Reactions at Low Temperatures and Application to the Reaction. ChemPhysChem, 2016, 17, 3580-3580.	1.0	0
208	Spin-orbit coupling and rovibrational structure in the iododiacetylene radical cation by PFI-ZEKE photoelectron spectroscopy. Molecular Physics, 2016, 114, 2848-2856.	0.8	0
209	A personal preface to the special issue of Molecular Physics in Honour of Professor Timothy P. Softley, FRS. Molecular Physics, 2019, 117, 2921-2923.	0.8	0
210	Rydberg-Stark deceleration and trapping of helium in magnetic fields. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 195003.	0.6	0
211	Characterization of the electronic ground state of Mg <sub>2</sub> by PFI-ZEKE photoelectron spectroscopy. Journal of Molecular Spectroscopy, 2022, 205, 111503.	0.4	0