TamÃ¡s Szidarovszky

List of Publications by Year
in descending order

51 papers	1,303 citations	361413 20 h-index	345221 36 g-index
53 all docs	53 docs citations	53 times ranked	924 citing authors

#	Article	IF	Citations
1	A quantumâ€chemical perspective on the laserâ€induced alignment and orientation dynamics of the <scp>CH</scp>₃X (X = F, Cl, Br, I) molecules. Journal of Computational Chemistry, 2022, 43, 519-538.	3.3	7
2	On the line shape of the total rovibronic absorption in laserâ€dressed diatomic molecules. International Journal of Quantum Chemistry, 2022, 122, .	2.0	0
3	Achieving high molecular alignment and orientation for CH$$_3$$F through manipulation of rotational states with varying optical and THz laser pulse parameters. Scientific Reports, 2022, 12, 8280.	3.3	3
4	Exact Numerical Methods for Stationary-State-Based Quantum Dynamics of Complex Polyatomic Molecules. , 2021, , 43-78.		1
5	Nonadiabatic phenomena in molecular vibrational polaritons. Journal of Chemical Physics, 2021, 154, 064305.	3.0	11
6	Vibrational spectroscopy of H2He+ and D2He+. Journal of Molecular Spectroscopy, 2021, 377, 111423.	1.2	8
7	Excited-state populations in the multiconfiguration time-dependent Hartreeâ€“Fock method. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 105601.	1.5	5
8	Rotationalâ€“vibrational resonance states. Physical Chemistry Chemical Physics, 2020, 22, 15081-15104.	2.8	10
9	Three-player polaritons: nonadiabatic fingerprints in an entangled atomâ€“moleculeâ€“photon system. New Journal of Physics, 2020, 22, 053001.	2.9	10
10	Robust field-dressed spectra of diatomics in an optical lattice. Physical Chemistry Chemical Physics, 2020, 22, 3715-3723.	2.8	4
11	Spectroscopic signatures of HHe2+ and HHe3+. Physical Chemistry Chemical Physics, 2020, 22, 22885-22888.	2.8	15
12	Light-Dressed Spectroscopy of Molecules. Topics in Applied Physics, 2020, , 77-100.	0.8	0
13	Infrared Signatures of the HHe_n⁺ and DHe_n⁺ (n = 3â€“6) Complexes. Journal of Physical Chemistry Letters, 2019, 10, 5325-5330.	4.6	22
14	Rovibronic spectra of molecules dressed by light fields. Physical Review A, 2019, 100, .	2.5	11
15	Toward Automated Variational Computation of Rovibrational Resonances, Including a Case Study of the H₂ Dimer. Journal of Chemical Theory and Computation, 2019, 15, 4156-4169.	5.3	5
16	Fingerprints of microscopic superfluidity in HHen+ clusters. Molecular Physics, 2019, 117, 1559-1583.	1.7	15
17	LIMAO: Cross-platform software for simulating laser-induced alignment and orientation dynamics of linear-, symmetric- and asymmetric tops. Computer Physics Communications, 2018, 228, 219-228.	7.5	13
18	Rovibrational Resonances in H₂He⁺. Journal of Chemical Theory and Computation, 2018, 14, 1523-1533.	5.3	14

#	Article	IF	Citations
19	Conical Intersections Induced by Quantum Light: Field-Dressed Spectra from the Weak to the Ultrastrong Coupling Regimes. Journal of Physical Chemistry Letters, 2018, 9, 6215-6223.	4.6	59
20	Direct Signatures of Light-Induced Conical Intersections on the Field-Dressed Spectrum of Na₂. Journal of Physical Chemistry Letters, 2018, 9, 2739-2745.	4.6	28
21	Laser-Induced Alignment and Orientation Dynamics Beyond the Rigid-Rotor Approximation. Springer Series in Chemical Physics, 2018, , 17-36.	0.2	0
22	Complex rovibrational dynamics of the ArÂ·NO⁺ complex. Physical Chemistry Chemical Physics, 2017, 19, 8152-8160.	2.8	19
23	Recommended Ideal-Gas Thermochemical Functions for Heavy Water and its Substituent Isotopologues. Journal of Physical and Chemical Reference Data, 2017, 46, .	4.2	17
24	Full-dimensional simulation of the laser-induced alignment dynamics of H₂He⁺. Molecular Physics, 2017, 115, 1916-1926.	1.7	11
25	A general variational approach for computing rovibrational resonances of polyatomic molecules. Application to the weakly bound H2He+ and H2â‹…CO systems. Journal of Chemical Physics, 2017, 147, 094106.	3.0	15
26	Photodissociation dynamics of weakly bound <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>He</mml:mi><mml:msup><mml:mrow><mml:msub><mml:mrow mathvariant="normal">H</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow><mml:mo>+</mml:mo></mml:msup></mml:mro in intense light fields. Physical Review A, 2016, 94, .	2.9	8
27	Definitive Ideal-Gas Thermochemical Functions of the H216O Molecule. Journal of Physical and Chemical Reference Data, 2016, 45, .	4.2	37
28	Fragmentation of long-lived hydrocarbons after strong field ionization. Physical Review A, 2016, 93, .	2.5	21
29	Long-lived Hydrocarbon Dications from Strong Field Interaction. , 2016, , .		0
30	Full-Dimensional Simulation of Alignment Dynamics of H_2He^+ in Laser Fields. , 2016, , .		0
31	"Slow" Molecular Fragmentation after Ultrafast Interaction. Journal of Physics: Conference Series, 2015, 635, 112069.	0.4	0
32	Modelling rotations, vibrations, and rovibrational couplings in astructural molecules â€“ a case study based on the H⁺₅ molecular ion. Molecular Physics, 2015, 113, 1873-1883.	1.7	15
33	Toward accurate thermochemistry of the 24MgH, 25MgH, and 26MgH molecules at elevated temperatures: Corrections due to unbound states. Journal of Chemical Physics, 2015, 142, 014103.	3.0	21
34	Modelling non-adiabatic effects in H3+: Solution of the rovibrational SchrÃ¶dinger equation with motion-dependent masses and mass surfaces. Journal of Chemical Physics, 2014, 141, 154111.	3.0	19
35	Grid-Based Empirical Improvement of Molecular Potential Energy Surfaces. Journal of Physical Chemistry A, 2014, 118, 6256-6265.	2.5	3
36	IUPAC critical evaluation of the rotationalâ€“vibrational spectra of water vapor. Part IV. Energy levels and transition wavenumbers for D216O, D217O, and D218O. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 142, 93-108.	2.3	80

#	Article	IF	Citations
37	Analysis of the Rotationalâ€“Vibrational States of the Molecular Ion H₃⁺. Journal of Chemical Theory and Computation, 2013, 9, 5471-5478.	5.3	51
38	MARVEL analysis of the rotationalâ€“vibrational states of the molecular ions H2D+ and D2H+. Physical Chemistry Chemical Physics, 2013, 15, 10181.	2.8	36
39	Low-lying quasibound rovibrational states of H₂ ¹⁶O^{**}. Molecular Physics, 2013, 111, 2131-2146.	1.7	21
40	The role of axis embedding on rigid rotor decomposition analysis of variational rovibrational wave functions. Journal of Chemical Physics, 2012, 136, 174112.	3.0	30
41	The fourth age of quantum chemistry: molecules in motion. Physical Chemistry Chemical Physics, 2012, 14, 1085-1106.	2.8	196
42	Spectroscopy of H ₃ ⁺ based on a new high-accuracy global potential energy surface. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 5014-5027.	3.4	33
43	Precision Measurements and Computations of Transition Energies in Rotationally Cold Triatomic Hydrogen Ions up to the Midvisible Spectral Range. Physical Review Letters, 2012, 108, 023002.	7.8	88
44	Calibration-quality adiabatic potential energy surfaces for ${m H}_3^+$H3+ and its isotopologues. Journal of Chemical Physics, 2012, 136, 184303.	3.0	72
45	A paradox of grid-based representation techniques: accurate eigenvalues from inaccurate matrix elements. Journal of Mathematical Chemistry, 2012, 50, 636-651.	1.5	12
46	Gas-Phase and Ar-Matrix SQM Scaling Factors for Various DFT Functionals with Basis Sets Including Polarization and Diffuse Functions. Journal of Physical Chemistry A, 2011, 115, 4640-4649.	2.5	47
47	First-principles prediction and partial characterization of the vibrational states of water up to dissociation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 1043-1064.	2.3	72
48	Assigning quantum labels to variationally computed rotational-vibrational eigenstates of polyatomic molecules. Journal of Chemical Physics, 2010, 133, 034113.	3.0	61
49	On the efficiency of treating singularities in triatomic variational vibrational computations. The vibrational states of H+3 up to dissociation. Physical Chemistry Chemical Physics, 2010, 12, 8373.	2.8	33
50	Conformers of gaseous threonine. Molecular Physics, 2009, 107, 761-775.	1.7	43
51	Conformers of gaseous threonine. , 0, .		1