Barratt Park

List of Publications by Year
in descending order

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Version: 2024-02-01

32 papers	715 citations	623699 14 h-index	526264 27 g-index
32 all docs	32 docs citations	32 times ranked	646 citing authors

#	Article	IF	Citations
1	Perspective: The first ten years of broadband chirped pulse Fourier transform microwave spectroscopy. Journal of Chemical Physics, 2016, 144, 200901.	3.0	109
2	Design and evaluation of a pulsed-jet chirped-pulse millimeter-wave spectrometer for the 70â€“102 GHz region. Journal of Chemical Physics, 2011, 135, 024202.	3.0	70
3	Chirped-pulse millimeter-wave spectroscopy for dynamics and kinetics studies of pyrolysis reactions. Physical Chemistry Chemical Physics, 2014, 16, 15739-15751.	2.8	54
4	A chirped-pulse Fourier-transform microwave/pulsed uniform flow spectrometer. II. Performance and applications for reaction dynamics. Journal of Chemical Physics, 2014, 141, 214203.	3.0	54
5	A chirped-pulse Fourier-transform microwave/pulsed uniform flow spectrometer. I. The low-temperature flow system. Journal of Chemical Physics, 2014, 141, 154202.	3.0	46
6	Intermediate state dependence of the photoelectron circular dichroism of fenchone observed via femtosecond resonance-enhanced multi-photon ionization. Journal of Chemical Physics, 2017, 147, 013926.	3.0	44
7	A new approach toward transition state spectroscopy. Faraday Discussions, 2013, 163, 33.	3.2	39
8	Fundamental mechanisms for molecular energy conversion and chemical reactions at surfaces. Reports on Progress in Physics, 2019, 82, 096401.	20.1	34
9	The kinetics of elementary thermal reactions in heterogeneous catalysis. Nature Reviews Chemistry, 2019, 3, 723-732.	30.2	31
10	Chirped-Pulse Millimeter-Wave Spectroscopy of Rydberg-Rydberg Transitions. Physical Review Letters, 2011, 107, 143001.	7.8	22
11	High-resolution resonance-enhanced multiphoton photoelectron circular dichroism. Physical Chemistry Chemical Physics, 2020, 22, 7404-7411.	2.8	22
12	Millimeter-wave optical double resonance schemes for rapid assignment of perturbed spectra, with applications to the Cl*f* 1B2 state of SO2. Journal of Chemical Physics, 2015, 142, 144201.	3.0	18
13	Vibrational Relaxation of Highly Vibrationally Excited CO Scattered from Au(111): Evidence for CO^{â€“} Formation. Journal of Physical Chemistry Letters, 2017, 8, 4887-4892.	4.6	16
14	Observation of b2 symmetry vibrational levels of the SO2â€ˆCl*f*â€ˆ1B2 state: Vibrational level staggering, Coriolis interactions, and rotation-vibration constants. Journal of Chemical Physics, 2016, 144, 144311.	3.0	14
15	The rotation-vibration structure of the SO2 Cl*f* 1B2 state explained by a new internal coordinate force field. Journal of Chemical Physics, 2016, 144, 144312.	3.0	14
16	An axis-specific rotational rainbow in the direct scatter of formaldehyde from Au(111) and its influence on trapping probability. Physical Chemistry Chemical Physics, 2017, 19, 19904-19915.	2.8	12
17	Detecting chirality in mixtures using nanosecond photoelectron circular dichroism. Physical Chemistry Chemical Physics, 2022, 24, 2758-2761.	2.8	12
18	Photodissociation transition states characterized by chirped pulse millimeter wave spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 146-151.	7.1	11

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19	A 1 + 1â€² resonance-enhanced multiphoton ionization scheme for rotationally state-selective detection of formaldehyde via the Ãƒ ¹A₂ â†•XÌƒ ¹A₁ transition. Physical Chemistry Chemical Physics, 2016, 18, 22355-22363.	2.8	10
20	The origin of unequal bond lengths in the CÌƒ1B2 state of SO2: Signatures of high-lying potential energy surface crossings in the low-lying vibrational structure. Journal of Chemical Physics, 2016, 144, 144313.	3.0	10
21	Electron transfer mediates vibrational relaxation of CO in collisions with Ag(111). Physical Chemistry Chemical Physics, 2019, 21, 1650-1655.	2.8	10
22	Laser-Induced Fluorescence Study of the S₁ State of Doubly-Substituted ¹³C Acetylene and Harmonic Force Field Determination. Journal of Physical Chemistry A, 2013, 117, 13696-13703.	2.5	9
23	Full dimensional Franck-Condon factors for the acetylene AÌƒ 1Auâ€”XÌƒ Î£g+1 transition. I. Method for calculating polyatomic linearâ€”bent vibrational intensity factors and evaluation of calculated intensities for the gerade vibrational modes in acetylene. Journal of Chemical Physics, 2014, 141, 134304.	3.0	9
24	The Î½6 fundamental frequency of the AÌƒ state of formaldehyde and Coriolis perturbations in the 3Î½4 level. Journal of Chemical Physics, 2016, 144, 194308.	3.0	9
25	Full dimensional Franck-Condon factors for the acetylene AÌƒ 1Auâ€”XÌƒ Î£g+1 transition. II. Vibrational overlap factors for levels involving excitation in ungerade modes. Journal of Chemical Physics, 2014, 141, 134305.	3.0	8
26	Edge effects in chirped-pulse Fourier transform microwave spectra. Journal of Molecular Spectroscopy, 2015, 312, 54-57.	1.2	7
27	Trapping-desorption and direct-scattering of formaldehyde at Au(111). Physical Chemistry Chemical Physics, 2017, 19, 19896-19903.	2.8	7
28	Communication: Observation of local-bender eigenstates in acetylene. Journal of Chemical Physics, 2015, 143, 071101.	3.0	3
29	Simplified Cartesian Basis Model for Intrapolyad Emission Intensities in the Bent-to-Linear Electronic Transition of Acetylene. Journal of Physical Chemistry A, 2015, 119, 857-865.	2.5	3
30	Quantum-state resolved lifetime of triplet (<mml:math) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 322 Td (xmlns:mml="http://www.w3.org/1	1.2	3
31	A free electron laser-based 1+1â€² Resonance-Enhanced Multiphoton Ionization scheme for rotationally resolved detection of OH radicals with correct relative intensities. Journal of Molecular Spectroscopy, 2021, 380, 111509.	1.2	3
32	Binary and Ternary Complexes Containing Î±-Cyclodextrin and Bromonaphthalene Derivatives:Â A Note of Caution in Interpreting UV Absorption Spectral Data. Journal of Physical Chemistry B, 2006, 110, 22510-22516.	2.6	2