John W Bevan

List of Publications by Year
in descending order

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54 papers	824 citations	516710 16 h-index	580821 25 g-index
54 all docs	54 docs citations	54 times ranked	357 citing authors

#	Article	IF	Citations
1	Innovative Surface Wave Plasma Reactor Technique for PFC Abatement. Environmental Science & Technology, 1998, 32, 682-687.	10.0	80
2	Surface Wave Plasma Abatement of CHF3and CF4Containing Semiconductor Process Emissions. Environmental Science & Technology, 1999, 33, 1892-1897.	10.0	63
3	Existence and molecular properties of a gas-phase, hydrogen-bonded complex between hydrogen fluoride and water established from microwave spectroscopy. Journal of the Chemical Society Chemical Communications, 1975, , 341.	2.0	52
4	Differentiation of the ground vibrational and global minimum structures in the Ar:HBr intermolecular complex. Journal of Chemical Physics, 2001, 115, 899-911.	3.0	43
5	Structure and potential energy function of cyclopent-3-enone. Part 1.â€"Microwave spectrum, ring planarity, rs-structure, and dipole moment. Journal of the Chemical Society, Faraday Transactions 2, 1973, 69, 902-915.	1.1	30
6	Diode laser spectroscopy of the hydrogen bond vibration Î½2 OCâ€â€â€HF in a continuous wave supersonic jet. Journal of Chemical Physics, 1989, 91, 3335-3339.	3.0	29
7	cw planar supersonic jet spectroscopy of Î½2 OCî—¸HCl using a computer-controlled tunable diode laser. Chemical Physics Letters, 1989, 161, 6-11.	2.6	27
8	The Badgerâ€"Bauer Rule Revisited: Correlation of Proper Blue Frequency Shifts in the OC Hydrogen Acceptor with Morphed Hydrogen Bond Dissociation Energies in OCâ€"HX (X = F, Cl, Br, I, CN, CCH). Journal of Physical Chemistry A, 2013, 117, 8477-8483.	2.5	26
9	The microwave spectrum, structure, dipole moment, and internal rotation of the methyl isocyanide-borane complex. Journal of the American Chemical Society, 1977, 99, 1442-1445.	13.7	23
10	Investigation of the ground vibrational state structure of H35Cl trimer based on the resolvedK,Jsubstructure of the Î½5vibrational band. Journal of Chemical Physics, 1994, 100, 7101-7108.	3.0	22
11	Detoxification of Trichloroethylene in a Low-Pressure Surface Wave Plasma Reactor. Environmental Science & Technology, 1996, 30, 2427-2431.	10.0	22
12	Rovibrationally resolved, Fourierâ€transform near infrared spectroscopy of the Î½1 and Î½2 vibrations of the HCl dimer in a supersonic jet. Journal of Chemical Physics, 1994, 101, 4593-4598.	3.0	20
13	Rovibrationally resolved, continuous supersonic-jet, Fourier-transform, infrared absorption spectroscopy of weakly bound heterodimers: analysis of Î½1 and Î½2 of OCî—¸HCl. Chemical Physics Letters, 1993, 206, 488-492.	2.6	18
14	Fitting of an ab initio potential of two linear-rigid-rotor dimer and the calculation of rovibrational energy levels by the pseudo-spectral approach. Computer Physics Communications, 2002, 145, 48-63.	7.5	18
15	CMM-RS Potential for Characterization of the Properties of the Halogen-Bonded OCâ€"Cl₂ Complex, and a Comparison with Hydrogen-Bonded OCâ€"HCl. Journal of Physical Chemistry A, 2012, 116, 1213-1223.	2.5	17
16	A cw planar jet computerâ€controlled tunable IR diode laser spectrometer for the investigation of hydrogenâ€bonded complexes. Review of Scientific Instruments, 1991, 62, 21-26.	1.3	16
17	Morphing a vibrationally-complete ground state potential for the hydrogen bond OCâ€"HF. Chemical Physics, 2011, 390, 42-50.	1.9	16
18	A Unified Perspective on the Nature of Bonding in Pairwise Interatomic Interactions. Journal of Physical Chemistry A, 2014, 118, 6287-6298.	2.5	16

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19	Is there any fundamental difference between ionic, covalent, and others types of bond? A canonical perspective on the question. Physical Chemistry Chemical Physics, 2017, 19, 15864-15869.	2.8	15
20	Structure and potential energy function of cyclopent-3-enone. Part 2.â€"Out-of-plane ring modes from far infra-red, Raman and microwave spectra: ring bending potential function. Journal of the Chemical Society, Faraday Transactions 2, 1973, 69, 916-925.	1.1	13
21	A study of the intermolecular Î½51 vibration in OCî—¸H35Cl based on near infrared spectroscopy. Chemical Physics Letters, 1997, 272, 484-488.	2.6	13
22	Canonical Potentials and Spectra within the Bornâ€"Oppenheimer Approximation. Journal of Physical Chemistry A, 2015, 119, 6753-6758.	2.5	13
23	The rovibrationally resolved spectrum of Î½2 OCî—¸HBr. Chemical Physics Letters, 1990, 167, 49-56.	2.6	12
24	Acetone Conversion in a Low-Pressure Oxygen Surface Wave Plasma. Environmental Science & Technology, 1995, 29, 1961-1965.	10.0	12
25	Improved Morphed Potentials for Arâ‹HBr Including Scaling to the Experimentally Determined Dissociation Energy. Journal of Physical Chemistry A, 2005, 109, 8168-8179.	2.5	12
26	A general transformation to canonical form for potentials in pairwise interatomic interactions. Physical Chemistry Chemical Physics, 2015, 17, 14805-14810.	2.8	12
27	Morse, Lennard-Jones, and Kratzer Potentials: A Canonical Perspective with Applications. Journal of Physical Chemistry A, 2016, 120, 8347-8359.	2.5	12
28	A parameterized compound-model chemistry for morphing the intermolecular potential of OCâ€"HCl. Chemical Physics Letters, 2008, 460, 352-358.	2.6	11
29	A ground state morphed intermolecular potential for the hydrogen bonded and van der Waals isomers in OC:HI and a prediction of an anomalous deuterium isotope effect. Journal of Chemical Physics, 2010, 133, 184305.	3.0	11
30	A four-dimensional compound-model morphed potential for the OC:HBr complex. Physical Chemistry Chemical Physics, 2010, 12, 7258.	2.8	11
31	Gas-phase infrared laser spectroscopy of bound hydrogen-bonded systems. Canadian Journal of Chemistry, 1982, 60, 1969-1971.	1.1	10
32	6.2â€Î¼m spectrum and 6-dimensional morphed potentials of OC-H2O. Chemical Physics, 2018, 501, 35-45.	1.9	10
33	Continuousâ€wave supersonic jet diode laser spectroscopy and dynamics of Arâ€"DCl: Rovibrational analysis of Î½1 and Î½1+Î½12 and the effect of Coriolis coupling in the spectrum of Î½1+2Î½202. Journal of Chemical Physics, 1991, 95, 3175-3181.	3.0	9
34	Compound model-morphed potentials contrasting OCâ€"79Br35Cl with the halogen bonded OCâ€"35Cl2 and hydrogen-bonded OCâ€"HX (X=19F, 35Cl, 79Br). Chemical Physics, 2013, 425, 162-169.	1.9	9
35	Tilts, bends, and twists of methylene groups in four-membered rings. Evidence from the microwave spectrum of trimethylene sulphoxide. Journal of the Chemical Society Chemical Communications, 1974, , 659.	2.0	8
36	Identification of the OCâ€"IH isomer based on near-infrared diode laser spectroscopy. Chemical Physics Letters, 1999, 305, 57-62.	2.6	8

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37	A morphed intermolecular bending potential of OCâ€“HCl. Chemical Physics Letters, 2006, 429, 68-76.	2.6	8
38	Canonical Approaches to Applications of the Virial Theorem. Journal of Physical Chemistry A, 2016, 120, 817-823.	2.5	8
39	Comment on â€œUnidirectional radiation of widely tunable THz wave using a prism coupler under noncollinear phase matching conditionâ€•[Appl. Phys. Lett. 71, 753 (1997)]. Applied Physics Letters, 1998, 73, 3610-3611.	3.3	7
40	Morphed intermolecular potential of OC:HCCH complex based on infrared quantum cascade laser spectroscopy. Chemical Physics Letters, 2012, 522, 17-22.	2.6	7
41	A canonical approach to forces in molecules. Chemical Physics, 2016, 474, 52-58.	1.9	7
42	Microwave-Based Structure and Four-Dimensional Morphed Intermolecular Potential for HIâˆ'CO₂. Journal of Physical Chemistry A, 2007, 111, 11976-11985.	2.5	6
43	Predicted properties of the COâ€“HF isomer using a six-dimensional morphed potential. Journal of Molecular Structure, 2012, 1023, 43-48.	3.6	6
44	From H2+ to the multidimensional potential of the intermolecular interaction ArÂ·HBr: A canonical approach. Chemical Physics Letters, 2015, 639, 63-66.	2.6	6
45	A canonical approach to multi-dimensional van der Waals, hydrogen-bonded, and halogen-bonded potentials. Chemical Physics, 2016, 469-470, 60-64.	1.9	6
46	The microwave spectrum of tertiarybutylisocyanide-borane. Journal of Molecular Spectroscopy, 1979, 78, 514-516.	1.2	5
47	Structure and dynamics of N2â€“IH. Journal of Chemical Physics, 2000, 113, 249-257.	3.0	5
48	Canonical Force Distributions in Pairwise Interatomic Interactions from the Perspective of the Hellmannâ€“Feynman Theorem. Journal of Physical Chemistry A, 2016, 120, 3718-3725.	2.5	4
49	A Theoretical Study of the Molecular Structure of Trimethylene Sulfoxide with Emphasis on the Local Symmetry of the Methylene Groups.. Acta Chemica Scandinavica, 1980, 34a, 223-227.	0.7	4
50	A three-dimensional morphed potential of Neâ€“HCl including the ground state deuterated Î£ bending vibration. Chemical Physics Letters, 2007, 444, 9-16.	2.6	2
51	Canonical Approach To Generate Multidimensional Potential Energy Surfaces. Journal of Physical Chemistry A, 2019, 123, 537-543.	2.5	2
52	Laser excitation of the 5d2D52 level of Cs during collision with rare gas atoms. Chemical Physics Letters, 1976, 43, 162-166.	2.6	1
53	Infrared quantum cascade laser spectroscopy of low frequency vibrations of intermolecular complexes. , 2011, , .		1
54	Experimental confirmation of ground state isotopic isomerization from OCâ‹¯HI to OCâ‹¯ID. Chemical Physics Letters, 2015, 619, 174-179.	2.6	0