Dennis J Clouthier

List of Publications by Year
in descending order

75	1,234	448610 19	511568 30
papers	citations	h-index	g-index

75	75	75	558
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Which triatomic monohalosilylenes, monohalogermylenes, and monohalostannylenes (HMX) fluoresce or phosphoresce and why? An ab initio investigation. Journal of Chemical Physics, 2022, 156, 064304.	1.2	4
2	Barely fluorescent molecules I: Twin-discharge jet laser-induced fluorescence spectroscopy of HSnCl and DSnCl. Journal of Chemical Physics, 2022, 156, 184307.	1.2	1
3	Barely fluorescent molecules. II. Twin-discharge jet laser-induced fluorescence spectroscopy of HSnBr and DSnBr. Journal of Chemical Physics, 2022, 156, 184308.	1.2	0
4	Spectroscopic identification and characterization of the aluminum methylene (AlCH2) free radical. Journal of Chemical Physics, 2022, 157, .	1.2	1
5	Ab initio spectroscopy of the aluminum methylene (AlCH2) free radical. Journal of Chemical Physics, 2020, 153, 014301.	1.2	4
6	The electronic spectrum of the jet-cooled stibino (SbH2) free radical. Journal of Chemical Physics, 2020, 152, 044307.	1.2	0
7	Identification of the Jahnâ€“Teller active trichlorosiloxy (SiCl3O) free radical in the gas phase. Journal of Chemical Physics, 2020, 152, 194303.	1.2	1
8	The high-resolution LIF spectrum of the SiCCl free radical: Probing the silicon-carbon triple bond. Journal of Molecular Spectroscopy, 2019, 359, 22-30.	0.4	0
9	Detection and characterization of the tin dihydride (SnH2 and SnD2) molecule in the gas phase. Journal of Chemical Physics, 2018, 148, 024302.	1.2	8
10	Laser-induced fluorescence detection of the elusive SiCF free radical. Journal of Chemical Physics, 2018, 149, 024301.	1.2	1
11	A stimulated emission study of the ground state bending levels of BH2 through the barrier to linearity and ab initio calculations of near-spectroscopic accuracy. Journal of Chemical Physics, 2017, 147, 124303.	1.2	4
12	An experimental and theoretical study of the Aì ƒ2Aâ€³îâ€“Xì ƒ2Aâ€² band system of the jet-cooled HBBr/DBBr free radical. Journal of Chemical Physics, 2016, 144, 234309.	1.2	2
13	Hyperfine rather than spin splittings dominate the fine structure of the Bâ€˜4Î£â^'â€“Xâ€‰4Î£â^' bands of AlC. Journal of Chemical Physics, 2016, 144, 034305.	1.2	6
14	Optical-optical double resonance, laser induced fluorescence, and revision of the signs of the spin-spin constants of the boron carbide (BC) free radical. Journal of Chemical Physics, 2015, 143, 224308.	1.2	5
15	Applied quantum chemistry: Spectroscopic detection and characterization of the F2BS and Cl2BS free radicals in the gas phase. Journal of Chemical Physics, 2015, 142, 124301.	1.2	1
16	An experimental and theoretical study of the electronic spectrum of the HBCl free radical. Journal of Chemical Physics, 2015, 142, 014305.	1.2	7
17	BH2 revisited: New, extensive measurements of laser-induced fluorescence transitions and ab initio calculations of near-spectroscopic accuracy. Journal of Chemical Physics, 2015, 142, 174302.	1.2	12
18	An experimental and ab initio study of the electronic spectrum of the jet-cooled F2BO free radical. Journal of Chemical Physics, 2014, 140, 164302.	1.2	7

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19	In search of the X2BO and X2BS (X = H, F) free radicals:Ab initiostudies of their spectroscopic signatures. Journal of Chemical Physics, 2014, 141, 244309.	1.2	3
20	Toward an improved understanding of the AsH2 free radical: Laser spectroscopy, ab initio calculations, and normal coordinate analysis. Journal of Chemical Physics, 2012, 137, 224307.	1.2	4
21	Pulsed discharge jet electronic spectroscopy of the aluminum dicarbide (AlC2) free radical. Journal of Chemical Physics, 2011, 135, 124302.	1.2	13
22	The complex spectrum of a â€œsimpleâ€•free radical: The Aì ƒ-Xì ƒ band system of the jet-cooled boron difluoride free radical. Journal of Chemical Physics, 2011, 135, 094305.	1.2	6
23	Electronic spectroscopy of the previously unknown arsenic carbide (AsC) free radical. Journal of Chemical Physics, 2011, 135, 054309.	1.2	12
24	Giant Rennerâ€“Teller vibronic coupling in the BF2 radical: An ab initio study of the Xì ƒâ€‰A21 and Aì ƒâ€‰Î2 electronic states. Journal of Chemical Physics, 2010, 133, 064304.	1.2	10
25	The electronic spectrum of the fluoroborane free radical. II. Analysis of laser-induced fluorescence and single vibronic level emission spectra. Journal of Chemical Physics, 2009, 130, 164310.	1.2	12
26	The electronic spectrum of the fluoroborane free radical. I. Theoretical calculation of the vibronic energy levels of the ground and first excited electronic states. Journal of Chemical Physics, 2009, 130, 164309.	1.2	13
27	RT3: A Windows program for the Rennerâ€“Teller analysis of states of triatomic molecules. Computer Physics Communications, 2008, 178, 676-684.	3.0	10
28	Laser spectroscopy and dynamics of the jet-cooled AsH2 free radical. Journal of Chemical Physics, 2007, 126, 154312.	1.2	13
29	Single vibronic level emission spectroscopic studies of the ground state energy levels and molecular structures of jet-cooled HGeBr, DGeBr, HGeI, and DGeI. Journal of Chemical Physics, 2006, 125, 114301.	1.2	9
30	The ground state energy levels and molecular structure of jet-cooled HGeCl and DGeCl from single vibronic level emission spectroscopy. Journal of Chemical Physics, 2006, 124, 124320.	1.2	7
31	A laser spectroscopic study of the Xì ƒÎg2,Aì ƒÎu2, and Bì ƒÎ£u+2 states of BS2: Rennerâ€“Teller, spin-orbit, and K-resonance effects. Journal of Chemical Physics, 2005, 122, 194314.	1.2	6
32	A Family of New Boron-Containing Free Radicals. Journal of the American Chemical Society, 2005, 127, 10814-10815.	6.6	10
33	A stimulated emission pumping study of the first excited singlet state of germylidene (H[sub) Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.2	35
34	The electronic spectroscopy and molecular structure of the HPCl free radical: A potential IIIâ€“V semiconductor growth intermediate. Journal of Chemical Physics, 2003, 119, 2037-2046.	1.2	8
35	Discovery of the optically forbidden S1â€“S0 transition of silylidene (H2C=Si). Journal of Chemical Physics, 2003, 118, 1642-1648.	1.2	22
36	A study of the molecular structure and Rennerâ€“Teller effect in the Ãƒâ€Š2Îuâ€“Xì ƒâ€Š2Îg electronic spectrum of jet-cooled boron disulfide, BS2. Journal of Chemical Physics, 2003, 119, 2047-2056.	1.2	11

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37	Structural and spectroscopic trends in the ground states of the monohalosilylenes: Emission spectroscopy of jet-cooled HSiI and DSiI. Journal of Chemical Physics, 2003, 118, 2612.	1.2	11
38	The Renner-Teller effect and Sears resonances in the ground state of the GeCH and GeCD free radicals. Journal of Chemical Physics, 2003, 119, 10115-10124.	1.2	15
39	The ground state of germylidene (H2C=Ge). Journal of Chemical Physics, 2002, 116, 1417-1423.	1.2	30
40	Spectroscopic detection of the SiCCl free radical. Journal of Chemical Physics, 2002, 117, 6446-6449.	1.2	9
41	Ab initio predictions of the spectroscopic parameters of the silicon halomethylidyne (Si=Câ€“X;â€‰X=F,Cl,Br) free radicals. Journal of Chemical Physics, 2002, 117, 6439-6445.	1.2	8
42	HPO does not follow Walshâ€™s rules! Improved molecular structures from the spectroscopy of jet-cooled HPO and DPO. Journal of Chemical Physics, 2002, 117, 10604-10612.	1.2	26
43	AsyrotWin: A 32-bit Windows version of Asyrot, A program for the analysis of high resolution singlet-singlet band spectra of asymmetric tops. Computer Physics Communications, 2001, 135, 293-311.	3.0	74
44	Emission spectroscopy, harmonic vibrational frequencies, and improved ground state structures of jet-cooled monochloro- and monobromosilylene (HSiCl and HSiBr). Journal of Chemical Physics, 2001, 115, 5485-5491.	1.2	19
45	Orbital angular momentum (Rennerâ€“Teller) effects in the [sup 2]Î[sub i] ground state of silicon methylidyne (SiCH). Journal of Chemical Physics, 2001, 114, 725.	1.2	26
46	Single vibronic level emission spectroscopy of jet-cooled HSiF and DSiF. Journal of Chemical Physics, 2001, 114, 10728-10732.	1.2	19
47	Hyperfine structure and the Stark effect in the electronic spectrum of the SiCH radical with implications for microwave spectroscopy and radioastronomy. Journal of Chemical Physics, 2001, 115, 817-823.	1.2	14
48	The ground state of silylidene (H2C=Si), the silicon analog of vinylidene, from stimulated emission pumping and wavelength-resolved fluorescence spectroscopy. Journal of Chemical Physics, 2001, 114, 9012-9019.	1.2	13
49	Determination of the electric dipole moment and excited state Fermi contact parameter of the GeCH radical. Journal of Chemical Physics, 2001, 115, 5047-5052.	1.2	5
50	Laser optogalvanic and jet spectroscopy of germylene (GeH2): New spectroscopic data for an important semiconductor growth intermediate. Journal of Chemical Physics, 2000, 113, 9567-9576.	1.2	24
51	The electronic spectrum of silicon methylidyne (SiCH), a molecule with a siliconâ€“carbon triple bond in the excited state. Journal of Chemical Physics, 2000, 112, 3662-3670.	1.2	37
52	Experimental proof of the case (ab) coupling hypothesis in the first excited triplet state of selenoformaldehyde (H2C=Se). Journal of Chemical Physics, 2000, 112, 2285-2291.	1.2	7
53	The electronic spectrum of germanium methylidyne (GeCH), the prototypical organogermanium compound. Journal of Chemical Physics, 2000, 112, 8417-8425.	1.2	15
54	The electronic spectrum, molecular structure, and oscillatory fluorescence decay of jet-cooled germylidene (H2C=74Ge), the simplest unsaturated germylene. Journal of Chemical Physics, 1999, 111, 950-958.	1.2	50

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55	Spectroscopic Characterization of Silicon and Germanium Methylidyne:Â Fundamental Astrophysical and Organometallic Building Blocks. Journal of the American Chemical Society, 1999, 121, 6068-6069.	6.6	23
56	A Predicted Spectrum of HCS, an Intermediate in the Production of the Sulfur Compounds Observed in the Collision of Comet Shoemaker-Levy 9 with Jupiter. Journal of the American Chemical Society, 1998, 120, 9386-9387.	6.6	4
57	Spectroscopic detection and characterization of iodogermylene (HGeI). Journal of Chemical Physics, 1998, 109, 9300-9305.	1.2	7
58	The electronic spectrum of monoiodosilylene (HSiI) revisited. Journal of Chemical Physics, 1998, 109, 7827-7834.	1.2	12
59	The electronic spectra of jet-cooled HGeCl and HGeBr. Journal of Chemical Physics, 1998, 108, 416-427.	1.2	22
60	The spectroscopy of hexafluorothioacetone, a blue gas. Journal of Chemical Physics, 1997, 106, 7479-7490.	1.2	13
61	Jet spectroscopy, structure, anomalous fluorescence, and molecular quantum beats of silylidene (H2C=Si), the simplest unsaturated silylene. Journal of Chemical Physics, 1997, 107, 8829-8839.	1.2	49
62	Pulsed discharge jet spectroscopy of DSiF and the equilibrium molecular structure of monofluorosilylene. Journal of Chemical Physics, 1997, 106, 4367-4375.	1.2	31
63	Reinvestigation of the HSiCl electronic spectrum: Experimental reevaluation of the geometry, rotational constants, and vibrational frequencies. Journal of Chemical Physics, 1997, 106, 9461-9473.	1.2	70
64	Laser Spectroscopic Detection of the Simplest Unsaturated Silylene and Germylene. Journal of the American Chemical Society, 1997, 119, 8361-8362.	6.6	69
65	Determination of the molecular constants of interacting bright and dark states: Analysis of the highâ€resolution infrared spectrum of the Sâ€“O stretching fundamental of thionylimide, HNSO. Journal of Chemical Physics, 1996, 104, 8852-8856.	1.2	9
66	Resolution of anomalies in the geometry and vibrational frequencies of monobromosilylene (HSiBr) by pulsed discharge jet spectroscopy. Journal of Chemical Physics, 1996, 105, 10189-10200.	1.2	69
67	The structure, spectroscopy, and excited state predissociation dynamics of GeH2. Journal of Chemical Physics, 1995, 103, 2839-2849.	1.2	51
68	Chemical reaction jet spectroscopy, molecular structure, and the bending potential of the Ã̃ƒâ€‰1Aâ€³ state of monofluorosilylene (HSiF). Journal of Chemical Physics, 1995, 103, 883-891.	1.2	25
69	Spectroscopic detection and characterization of the FS2 free radical. Journal of Chemical Physics, 1994, 100, 6113-6121.	1.2	4
70	Subâ€Doppler spectroscopy of thioformaldehyde: Excited state perturbations and evidence for rotationâ€induced vibrational mixing in the ground state. Journal of Chemical Physics, 1994, 101, 7300-7310.	1.2	21
71	Pyrolysis jet spectroscopy and ab initio studies of the S1 and T1 states of germanium difluoride. Journal of Chemical Physics, 1994, 101, 891-898.	1.2	19
72	The electronic spectrum of chlorofluorocarbene. Journal of Chemical Physics, 1993, 99, 1447-1456.	1.2	26

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73	A spectroscopic view of internal conversion in a small polyatomic molecule: Subâ€Doppler intracavity dye laser spectroscopy of thioformaldehyde. Journal of Chemical Physics, 1992, 97, 1630-1637.	1.2	5
74	The microwave spectrum, spinâ€rotation coupling constants, and structure of thiocarbonyl fluoride, SCF2, observed with a cavity microwave Fourier transform spectrometer. Journal of Chemical Physics, 1992, 97, 3931-3939.	1.2	18
75	Thioformaldehyde single rotational level photophysics: Longer than radiative lifetimes and reduced fluorescence yields in the isolated molecule. Journal of Chemical Physics, 1990, 93, 6371-6386.	1.2	17