

# Bruce S Ault

## List of Publications by Year in descending order

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106  
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citations

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106  
all docs

106  
docs citations

106  
times ranked

812  
citing authors

#	ARTICLE	IF	CITATIONS
1	Infrared spectra of argon matrix-isolated alkali halide salt/water complexes. <i>Journal of the American Chemical Society</i> , 1978, 100, 2426-2433.	6.6	176
2	Infrared matrix isolation characterization of aminoborane and related compounds. <i>The Journal of Physical Chemistry</i> , 1991, 95, 3502-3506.	2.9	106
3	Matrix-isolation studies of Lewis acid/base interactions: infrared spectra of the 1:1 adduct SiF <sub>4</sub> .cndot.NH <sub>3</sub> . <i>Inorganic Chemistry</i> , 1981, 20, 2817-2822.	1.9	52
4	Matrix isolation studies of reactive intermediate complexes. <i>Reviews of Chemical Intermediates</i> , 1988, 9, 233-269.	1.1	45
5	Matrix Isolation Study of the Early Intermediates in the Ozonolysis of Cyclopentene and Cyclopentadiene: Observation of Two Criegee Intermediates. <i>Journal of the American Chemical Society</i> , 2009, 131, 2853-2863.	6.6	43
6	Matrix Isolation and ab Initio Study of the Hydrogen-Bonded Complex between H <sub>2</sub> O <sub>2</sub> and (CH <sub>3</sub> ) <sub>2</sub> O. <i>Journal of Physical Chemistry A</i> , 2000, 104, 2033-2037.	1.1	41
7	Matrix Isolation Infrared Spectroscopic and Density Functional Study of the Mechanism of the Oxidation of CH <sub>3</sub> OH by CrCl <sub>2</sub> O <sub>2</sub> . <i>Journal of the American Chemical Society</i> , 1998, 120, 6105-6112.	6.6	40
8	Infrared matrix isolation study of the hydrogen-bonded complexes between formaldehyde and the hydrogen halides and cyanide. <i>The Journal of Physical Chemistry</i> , 1984, 88, 3600-3604.	2.9	37
9	Infrared matrix isolation study of hydrogen bonds involving carbon-hydrogen bonds: alkynes with bases containing second- and third-row donor atoms. <i>The Journal of Physical Chemistry</i> , 1990, 94, 1323-1327.	2.9	36
10	Photolysis of (3-Methyl-2-azirin-2-yl)-phenylmethanone: Direct Detection of a Triplet Vinylnitrene Intermediate. <i>Journal of Organic Chemistry</i> , 2011, 76, 9934-9945.	1.7	32
11	Infrared matrix isolation study of hydrogen bonds involving carbon-hydrogen bonds: alkynes with nitrogen bases. <i>The Journal of Physical Chemistry</i> , 1989, 93, 3997-4000.	2.9	30
12	Matrix Isolation and Density Functional Study of the Reaction of OVCl <sub>3</sub> with CH <sub>3</sub> OH: Synthesis and Characterization of Cl <sub>2</sub> V(O)OCH <sub>3</sub> . <i>Journal of Physical Chemistry A</i> , 1999, 103, 11474-11480.	1.1	30
13	Infrared Matrix Isolation and Theoretical Study of the Initial Intermediates in the Reaction of Ozone with <i>cis</i> -2-Butene. <i>Journal of Physical Chemistry A</i> , 2010, 114, 2799-2805.	1.1	30
14	Comparison of the Photochemistry of 3-Methyl-2-phenyl-2-azirine and 2-Methyl-3-phenyl-2-azirine. <i>Journal of Organic Chemistry</i> , 2014, 79, 653-663.	1.7	30
15	Infrared matrix isolation study of the reaction of diborane with the methylamines. <i>The Journal of Physical Chemistry</i> , 1991, 95, 3507-3511.	2.9	29
16	Matrix Isolation Study of the Thermal and Photochemical Reaction of OVCl <sub>3</sub> with NH <sub>3</sub> : Spectroscopic and Theoretical Characterization of Cl <sub>2</sub> V(O)NH <sub>2</sub> . <i>Journal of Physical Chemistry A</i> , 2001, 105, 4758-4764.	1.1	28
17	Infrared matrix isolation studies of hydrogen bonds involving carbon-hydrogen bonds: alkenes with selected bases. <i>The Journal of Physical Chemistry</i> , 1990, 94, 4851-4855.	2.9	27
18	Matrix Isolation and ab Initio Study of 1:1 Hydrogen-Bonded Complexes of H <sub>2</sub> O <sub>2</sub> with Phosphorus and Sulfur Bases. <i>Journal of Physical Chemistry A</i> , 2001, 105, 11365-11370.	1.1	26

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19	Matrix Isolation Study of the Reaction of CrCl <sub>2</sub> O <sub>2</sub> with NH <sub>3</sub> : Synthesis and Characterization of ClCr(O)2NH <sub>2</sub> . Journal of Physical Chemistry A, 2002, 106, 1419-1424.	1.1	26
20	Matrix isolation study of the reaction of diborane with hydrogen sulfide: spectroscopic characterization of mercaptoborane, H <sub>2</sub> B <sub>2</sub> SH. The Journal of Physical Chemistry, 1992, 96, 7913-7916.	2.9	24
21	Matrix Isolation and ab Initio Study of 1:1 Hydrogen-Bonded Complexes of H <sub>2</sub> O <sub>2</sub> with NH <sub>3</sub> and N(CH <sub>3</sub> ) <sub>3</sub> . Journal of Physical Chemistry A, 2001, 105, 6430-6435.	1.1	24
22	Infrared Matrix Isolation and Density Functional Theory Study of Intermediates in the Reactions of OVCl <sub>3</sub> and CrCl <sub>2</sub> O <sub>2</sub> with H <sub>2</sub> O. Journal of Physical Chemistry A, 2002, 106, 4998-5004.	1.1	24
23	Water Complexes and Hydrolysis of Silicon Tetrafluoride in the Gas Phase: An ab Initio Study. Journal of Physical Chemistry A, 1999, 103, 8328-8336.	1.1	23
24	Matrix Isolation and ab Initio Study of 1:1 Hydrogen-Bonded Complexes of H <sub>2</sub> O <sub>2</sub> with HF, HCl, and HBr. Journal of Physical Chemistry A, 2002, 106, 6406-6414.	1.1	23
25	Matrix Isolation and Theoretical Study of the Photochemical Reaction of PH <sub>3</sub> with OVCl <sub>3</sub> and CrCl <sub>2</sub> O <sub>2</sub> . Journal of Physical Chemistry A, 2003, 107, 6500-6505.	1.1	22
26	Matrix Isolation Infrared Spectroscopic and Theoretical Study of the Interaction of Water with Dimethyl Methylphosphonate. Journal of Physical Chemistry A, 2004, 108, 10094-10098.	1.1	22
27	Infrared Matrix-Isolation and Theoretical Studies of the Reactions of Ferrocene with Ozone. Journal of Physical Chemistry A, 2015, 119, 2371-2382.	1.1	22
28	The infrared spectra and theoretical calculations of frequencies of fac-tricarbonyl octahedral complexes of manganese(I). Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2004, 60, 2567-2572.	2.0	21
29	Infrared matrix isolation study of hydrogen bonds involving carbon-hydrogen bonds: substituent effects. The Journal of Physical Chemistry, 1989, 93, 5426-5431.	2.9	20
30	Triplet Sensitized Photolysis of a Vinyl Azide: Direct Detection of a Triplet Vinyl Azide and Nitrene. Journal of Organic Chemistry, 2014, 79, 9325-9334.	1.7	20
31	A search for the HF <sub>2</sub> and HClF neutral free radicals isolated in argon matrices. Journal of Chemical Physics, 1978, 68, 4012-4016.	1.2	18
32	Matrix Isolation and Theoretical Study of the Reaction of Ethyne with OVCl <sub>3</sub> and CrCl <sub>2</sub> O <sub>2</sub> . Journal of Physical Chemistry A, 2004, 108, 5537-5543.	1.1	18
33	Infrared matrix-isolation study of the 1/1 molecular complexes of chlorine monofluoride with oxygen-containing bases. Inorganic Chemistry, 1985, 24, 4251-4254.	1.9	17
34	Matrix Isolation and Density Functional Study of the Reaction of OVCl <sub>3</sub> with CH <sub>3</sub> SH. Journal of Physical Chemistry A, 2000, 104, 11796-11800.	1.1	17
35	Infrared Matrix Isolation and Theoretical Studies of Reactions of Ozone with Bicyclic Alkenes: $\beta$ -Pinene, Norbornene, and Norbornadiene. Journal of Physical Chemistry A, 2015, 119, 312-322.	1.1	17
36	Argon matrix isolation study of the thermal and photochemical reaction of with. Chemical Physics, 2003, 290, 211-221.	0.9	15

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37	Triplet-sensitized photolysis of alkoxy carbonyl azides in solution and matrices. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2009, 201, 157-167.	2.0	15
38	Charge-Transfer Complexes and Photochemistry of Ozone with Ferrocene and <i>n</i> -Butylferrocene: A UV-vis Matrix-Isolation Study. <i>Journal of Physical Chemistry A</i> , 2015, 119, 10272-10278.	1.1	15
39	Matrix Isolation and Thin Film Spectroscopic Study of the Interaction of Dimethylzinc with Group V and VI Alkyls. <i>The Journal of Physical Chemistry</i> , 1994, 98, 10001-10007.	2.9	14
40	Matrix isolation investigation of the reaction of (CH <sub>3</sub> ) <sub>3</sub> Al with O <sub>2</sub> . <i>Journal of Organometallic Chemistry</i> , 1999, 572, 169-175.	0.8	14
41	Matrix isolation investigation of the ozonolysis of propene. <i>Journal of Molecular Structure</i> , 2010, 976, 249-254.	1.8	14
42	Investigation of the Thermal and Photochemical Reactions of Ozone with 2,3-Dimethyl-2-butene. <i>Journal of Physical Chemistry A</i> , 2010, 114, 12667-12674.	1.1	14
43	Matrix isolation study of the reaction of dimethyl sulfoxide with CrCl <sub>2</sub> O <sub>2</sub> and OVCl <sub>3</sub> . <i>Chemical Physics</i> , 2004, 300, 63-68.	0.9	13
44	Matrix Isolation Investigation of the Interaction of SiH <sub>4</sub> with NH <sub>3</sub> and (CH <sub>3</sub> ) <sub>3</sub> N. <i>Journal of Physical Chemistry A</i> , 2000, 104, 3481-3486.	1.1	12
45	Matrix isolation study of intermediates in the reaction of CrCl <sub>2</sub> O <sub>2</sub> with CH <sub>3</sub> SH and (CH <sub>3</sub> ) <sub>2</sub> S. <i>Journal of Molecular Structure</i> , 2002, 609, 149-157.	1.8	12
46	Electronic spectra of intermediate charge transfer complexes of OVCl <sub>3</sub> in argon matrices. <i>Chemical Physics Letters</i> , 2005, 401, 89-93.	1.2	12
47	Matrix Isolation Investigation of the Photochemical Reaction of Benzene with CrCl <sub>2</sub> O <sub>2</sub> and OVCl <sub>3</sub> . <i>Journal of Physical Chemistry A</i> , 2005, 109, 4497-4504.	1.1	12
48	Matrix Isolation Study of the Ozonolysis of 1,3- and 1,4-Cyclohexadiene: Identification of Novel Reaction Pathways. <i>Journal of Physical Chemistry A</i> , 2013, 117, 4174-4182.	1.1	12
49	Matrix isolation study of the reaction of diborane with methanol: spectroscopic characterization of methoxyborane, H <sub>2</sub> B=OCH <sub>3</sub> . <i>The Journal of Physical Chemistry</i> , 1992, 96, 4288-4294.	2.9	11
50	Investigation of the mechanism of ozonolysis of (Z)-3-methyl-2-pentene using matrix isolation infrared spectroscopy. <i>Journal of Molecular Structure</i> , 2013, 1031, 138-143.	1.8	11
51	Matrix isolation study of the oxidation of diborane: synthesis of boroxin H <sub>3</sub> B <sub>3</sub> O <sub>3</sub> and its <sup>18</sup> O labeled counterparts. <i>Journal of Molecular Structure</i> , 1987, 159, 297-302.	1.8	10
52	Multiphoton ionization by excimer laser irradiation of cryogenic matrices: Formation of CCl <sub>4</sub> <sup>+</sup> and related cations. <i>Journal of Chemical Physics</i> , 1988, 88, 2845-2846.	1.2	10
53	Matrix Isolation Study of the Reaction of TiCl <sub>4</sub> with CH <sub>3</sub> OH: Synthesis and Characterization of Cl <sub>3</sub> TiOCH <sub>3</sub> . <i>The Journal of Physical Chemistry</i> , 1996, 100, 15726-15730.	2.9	10
54	Matrix isolation infrared spectroscopic investigation of the coordination chemistry and reactivity of OVf <sub>3</sub> . <i>Journal of Molecular Structure</i> , 2002, 616, 91-101.	1.8	10

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55	Infrared matrix isolation study of the 1:1 molecular complex of OVCl 3 with (CH 3 ) 2 O. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2003, 59, 1989-1994.	2.0	10
56	Matrix Isolation Investigation of the Photochemical Reaction of Methyl-Substituted Benzenes with CrCl2O2. Journal of Physical Chemistry A, 2006, 110, 892-900.	1.1	10
57	Singlet Photoreactivity of 3-Methyl-2-phenyl-2H-azirine. Australian Journal of Chemistry, 2017, 70, 413.	0.5	10
58	Wavelength-dependent photochemistry of 2-azidovinylbenzene and 2-phenyl-2H-azirine. Journal of Molecular Structure, 2018, 1172, 94-101.	1.8	10
59	Electronic spectra of intermediate charge transfer complexes of CrO2Cl2 in argon matrices. Journal of Molecular Structure, 2005, 749, 84-88.	1.8	9
60	Infrared Matrix Isolation Study of the Thermal and Photochemical Reactions of Ozone with Dimethylzinc. Journal of Physical Chemistry A, 2008, 112, 5613-5620.	1.1	9
61	Infrared matrix isolation studies of molecular interactions: complexes of trichlorosilane, HSiCl3, with selected bases. Inorganic Chemistry, 1990, 29, 837-842.	1.9	8
62	Matrix isolation study of the thermal and photochemical reaction of OVCl3 and CrCl2O2 with cycloalkylamines. Journal of Molecular Structure, 2003, 655, 331-338.	1.8	8
63	Matrix isolation study of the photochemical reaction of cyclohexane, cyclohexene, and cyclopropane with ozone. Journal of Molecular Structure, 2009, 929, 22-31.	1.8	8
64	Matrix isolation study of the thermal and photochemical reaction of ozone with Trimethyl Indium. Chemical Physics, 2012, 392, 192-197.	0.9	8
65	Matrix isolation study of the reactions of diborane with pyridine, pyrrole, and pyrrolidine: spectroscopic characterization of C4H9N.BH3 and pyrrolidinoborane. The Journal of Physical Chemistry, 1993, 97, 11397-11401.	2.9	7
66	Matrix isolation and theoretical study of the photochemical reaction of CH3CN with CrO2Cl2 and OVCl3. Journal of Molecular Structure, 2005, 740, 125-131.	1.8	7
67	Infrared matrix isolation and theoretical study of the initial intermediates in the reaction of ozone with cycloheptene. Journal of Molecular Structure, 2012, 1026, 23-29.	1.8	7
68	Matrix isolation study of the reaction of O (3P) with 1,3 butadiene: Unexpected formation of ethylketene. Journal of Molecular Structure, 2019, 1176, 47-53.	1.8	7
69	Matrix isolation spectroscopic study of the 1/1 complexes of trimethylgallium with Group VI alkyls. Inorganic Chemistry, 1993, 32, 5246-5250.	1.9	6
70	Matrix Isolation Spectroscopic Study of the 1:1 Complexes of TiF4 with NH3 and (CH3)3N. Journal of Physical Chemistry A, 1998, 102, 7245-7249.	1.1	6
71	Matrix isolation and theoretical study of the reaction of HSiCl3 and CH3OH: infrared spectroscopic characterization of Cl2HSiOCH3. Journal of Molecular Structure, 2003, 649, 95-103.	1.8	6
72	Matrix-Isolation Infrared and Theoretical Study of the Reaction of VCl4 with CH3OH. Journal of Physical Chemistry A, 2004, 108, 3373-3379.	1.1	6

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73	Matrix Isolation and Theoretical Study of the Photochemical Reaction of CrCl <sub>2</sub> O <sub>2</sub> with Chloroethenes. <i>Journal of Physical Chemistry A</i> , 2005, 109, 947-953.	1.1	6
74	Matrix isolation and theoretical investigation of the photochemical reaction of CrCl <sub>2</sub> O <sub>2</sub> with benzenes substituted with electron withdrawing groups. <i>Chemical Physics</i> , 2007, 334, 18-28.	0.9	6
75	Infrared Matrix Isolation Study of the Thermal and Photochemical Reactions of Ozone with Dimethylcadmium. <i>Journal of Physical Chemistry A</i> , 2012, 116, 1914-1922.	1.1	6
76	Matrix Isolation Study of the 193 nm Excimer Laser Photochemistry of Hexafluorobenzene. <i>Laser Chemistry</i> , 1994, 15, 21-32.	0.5	5
77	Infrared Matrix Isolation and Theoretical Study of the Reactions of MoCl <sub>4</sub> O and MoCl <sub>2</sub> O <sub>2</sub> with CH <sub>3</sub> OH: Characterization of Cl <sub>3</sub> Mo(O)OCH <sub>3</sub> . <i>Journal of Physical Chemistry A</i> , 2003, 107, 2629-2634.	1.1	5
78	Infrared matrix isolation study of the oxidation of H <sub>2</sub> S by CrCl <sub>2</sub> O <sub>2</sub> . <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 856-861.	1.3	5
79	Matrix isolation study of the photochemical reaction of cyclohexane and cyclohexene with CrCl <sub>2</sub> O <sub>2</sub> . <i>Journal of Molecular Structure</i> , 2007, 826, 36-47.	1.8	5
80	Investigation of the thermal and photochemical reactions of ozone with styrene in argon and krypton matrices. <i>Journal of Molecular Structure</i> , 2012, 1023, 81-86.	1.8	5
81	Photolysis of 5-Azido-3-Phenylisoxazole at Cryogenic Temperature: Formation and Direct Detection of a Nitrosoalkene. <i>Molecules</i> , 2020, 25, 543.	1.7	5
82	Reactions of Alkylamino- and Dialkylaminotriphenylphosphonium Halides with Halogens and Interhalogen Compounds; Formation of Alkylaminotriphenylphosphonium Polyhalides. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 1983, 38, 103-107.	0.3	4
83	The search for H <sub>2</sub> BOH: a matrix isolation study. <i>Journal of Molecular Structure</i> , 1994, 319, 139-143.	1.8	4
84	Matrix isolation investigation of the reaction of B <sub>2</sub> H <sub>6</sub> with carbon-carbon multiple bonds. <i>Inorganica Chimica Acta</i> , 1999, 286, 1-6.	1.2	4
85	Matrix Isolation Infrared and Theoretical Study of the Reaction of VCl <sub>4</sub> with NH <sub>3</sub> and (CH <sub>3</sub> ) <sub>3</sub> N. <i>Journal of Physical Chemistry A</i> , 2004, 108, 5544-5550.	1.1	4
86	Matrix isolation and computational study of the thermal and photochemical reactions of CrCl <sub>2</sub> O <sub>2</sub> with GeH <sub>4</sub> , AsH <sub>3</sub> and SeH <sub>2</sub> . <i>Chemical Physics</i> , 2008, 348, 203-208.	0.9	4
87	Matrix Isolation Studies of Novel Intermediates in the Reaction of Trimethylaluminum with Ozone. <i>Journal of Physical Chemistry A</i> , 2017, 121, 7335-7342.	1.1	4
88	Formation and Reactivity of Triplet Vinylnitrenes as a Function of Ring Size. <i>Journal of Organic Chemistry</i> , 2019, 84, 9215-9225.	1.7	4
89	Matrix Isolation Studies of Photochemical and Thermal Reactions of 3- and 5-Membered Cyclic Hydrocarbons with CrCl <sub>2</sub> O <sub>2</sub> . <i>Journal of Physical Chemistry A</i> , 2008, 112, 5368-5377.	1.1	3
90	Infrared Matrix Isolation Study of the Thermal and Photochemical Reactions of Ozone with Trimethylgallium. <i>Journal of Physical Chemistry A</i> , 2015, 119, 2834-2844.	1.1	3

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91	Matrix isolation study of the red light-induced reaction of triethylborane with ozone. Journal of Molecular Structure, 2018, 1172, 74-79.	1.8	3
92	Infrared Matrix-Isolation and Theoretical Study of the Reactions of Ruthenocene with Ozone. Journal of Physical Chemistry A, 2019, 123, 5768-5780.	1.1	3
93	Matrix isolation study of excimer laser-induced photooxidation processes. Journal of Molecular Structure, 1990, 222, 1-10.	1.8	2
94	Matrix isolation infrared spectroscopic study of the interaction of CH <sub>3</sub> ReO <sub>3</sub> with NH <sub>3</sub> . Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2002, 58, 1499-1503.	2.0	2
95	Matrix Isolation Study of the Reactions of CrO <sub>2</sub> Cl <sub>2</sub> with a Series of Silanes. Journal of Physical Chemistry A, 2006, 110, 901-907.	1.1	2
96	Matrix isolation and theoretical study of the photochemical reactions of C <sub>2</sub> H <sub>3</sub> Br and 1,2-C <sub>2</sub> H <sub>2</sub> Br <sub>2</sub> with CrO <sub>2</sub> Cl <sub>2</sub> . Chemical Physics, 2006, 326, 349-355.	0.9	2
97	A matrix isolation study of the reactions of OVCl <sub>3</sub> with a series of silanes. Journal of Molecular Structure, 2006, 787, 203-208.	1.8	2
98	Matrix isolation investigation of the photochemical reaction of activator-substituted benzenes with CrCl <sub>2</sub> O <sub>2</sub> . Journal of Molecular Structure, 2008, 888, 277-290.	1.8	2
99	Matrix isolation investigation of the wavelength-dependent photochemical reaction of ozone with vinyl chloride. Journal of Molecular Structure, 2020, 1212, 128123.	1.8	2
100	Argon matrix isolation study of the interaction of VCl <sub>4</sub> with (CH <sub>3</sub> ) <sub>2</sub> CO. Journal of Molecular Structure, 2005, 733, 89-94.	1.8	1
101	Matrix Isolation and Theoretical Study of the Reaction of Substituted Phosphines with CrCl <sub>2</sub> O <sub>2</sub> . Journal of Physical Chemistry A, 2006, 110, 13786-13791.	1.1	1
102	Matrix Isolation Spectroscopic Studies: Thermal and Soft Photochemical Bimolecular Reactions. , 2018, , 667-712.		1
103	A comparison of the wavelength-dependent photochemical reactions of ozone with vinyl bromide and fluoride in argon matrices. Journal of Molecular Structure, 2021, 1238, 130445.	1.8	1
104	Matrix Isolation Studies of Alkali Halide Salt Molecules with Lewis Acids and Bases. ACS Symposium Series, 1982, , 327-346.	0.5	0
105	Visiting Faculty Mentors as a Component of a NSF-REU Program. Journal of Chemical Education, 2009, 86, 565.	1.1	0
106	Toward a more complete understanding of the reaction mechanism of methyl vinyl ether with ozone: A matrix isolation study. Journal of Molecular Structure, 2022, 1263, 133165.	1.8	0