

Bruce S Ault

List of Publications by Year in descending order

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106
papers

1,680
citations

279798

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docs citations

106
times ranked

812
citing authors

#	ARTICLE	IF	CITATIONS
1	Toward a more complete understanding of the reaction mechanism of methyl vinyl ether with ozone: A matrix isolation study. <i>Journal of Molecular Structure</i> , 2022, 1263, 133165.	3.6	0
2	A comparison of the wavelength-dependent photochemical reactions of ozone with vinyl bromide and fluoride in argon matrices. <i>Journal of Molecular Structure</i> , 2021, 1238, 130445.	3.6	1
3	Photolysis of 5-Azido-3-Phenylisoxazole at Cryogenic Temperature: Formation and Direct Detection of a Nitrosoalkene. <i>Molecules</i> , 2020, 25, 543.	3.8	5
4	Matrix isolation investigation of the wavelength-dependent photochemical reaction of ozone with vinyl chloride. <i>Journal of Molecular Structure</i> , 2020, 1212, 128123.	3.6	2
5	Matrix isolation study of the reaction of O (3P) with 1,3 butadiene: Unexpected formation of ethylketene. <i>Journal of Molecular Structure</i> , 2019, 1176, 47-53.	3.6	7
6	Formation and Reactivity of Triplet Vinylnitrenes as a Function of Ring Size. <i>Journal of Organic Chemistry</i> , 2019, 84, 9215-9225.	3.2	4
7	Infrared Matrix-Isolation and Theoretical Study of the Reactions of Ruthenocene with Ozone. <i>Journal of Physical Chemistry A</i> , 2019, 123, 5768-5780.	2.5	3
8	Wavelength-dependent photochemistry of 2-azidovinylbenzene and 2-phenyl-2H-azirine. <i>Journal of Molecular Structure</i> , 2018, 1172, 94-101.	3.6	10
9	Matrix isolation study of the red light-induced reaction of triethylborane with ozone. <i>Journal of Molecular Structure</i> , 2018, 1172, 74-79.	3.6	3
10	Matrix Isolation Spectroscopic Studies: Thermal and Soft Photochemical Bimolecular Reactions. , 2018, , 667-712.		1
11	Singlet Photoreactivity of 3-Methyl-2-phenyl-2H-azirine. <i>Australian Journal of Chemistry</i> , 2017, 70, 413.	0.9	10
12	Matrix Isolation Studies of Novel Intermediates in the Reaction of Trimethylaluminum with Ozone. <i>Journal of Physical Chemistry A</i> , 2017, 121, 7335-7342.	2.5	4
13	Infrared Matrix Isolation and Theoretical Studies of Reactions of Ozone with Bicyclic Alkenes: β -Pinene, Norbornene, and Norbornadiene. <i>Journal of Physical Chemistry A</i> , 2015, 119, 312-322.	2.5	17
14	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.	2.5	3
15	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.	2.5	15
16	Infrared Matrix-Isolation and Theoretical Studies of the Reactions of Ferrocene with Ozone. <i>Journal of Physical Chemistry A</i> , 2015, 119, 2371-2382.	2.5	22
17	Triplet Sensitized Photolysis of a Vinyl Azide: Direct Detection of a Triplet Vinyl Azide and Nitrene. <i>Journal of Organic Chemistry</i> , 2014, 79, 9325-9334.	3.2	20
18	Comparison of the Photochemistry of 3-Methyl-2-phenyl-2H-azirine and 2-Methyl-3-phenyl-2H-azirine. <i>Journal of Organic Chemistry</i> , 2014, 79, 653-663.	3.2	30

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19	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.	2.5	12
20	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.	3.6	11
21	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.	2.5	6
22	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.	3.6	5
23	Infrared matrix isolation and theoretical study of the initial intermediates in the reaction of ozone with cycloheptene. <i>Journal of Molecular Structure</i> , 2012, 1026, 23-29.	3.6	7
24	Matrix isolation study of the thermal and photochemical reaction of ozone with Trimethyl Indium. <i>Chemical Physics</i> , 2012, 392, 192-197.	1.9	8
25	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.	3.2	32
26	Matrix isolation investigation of the ozonolysis of propene. <i>Journal of Molecular Structure</i> , 2010, 976, 249-254.	3.6	14
27	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.	2.5	30
28	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.	2.5	14
29	Matrix isolation study of the photochemical reaction of cyclohexane, cyclohexene, and cyclopropane with ozone. <i>Journal of Molecular Structure</i> , 2009, 929, 22-31.	3.6	8
30	Triplet-sensitized photolysis of alkoxy carbonyl azides in solution and matrices. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2009, 201, 157-167.	3.9	15
31	Visiting Faculty Mentors as a Component of a NSF-REU Program. <i>Journal of Chemical Education</i> , 2009, 86, 565.	2.3	0
32	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.	13.7	43
33	Matrix isolation and computational study of the thermal and photochemical reactions of CrCl ₂ O ₂ with GeH ₄ , AsH ₃ and SeH ₂ . <i>Chemical Physics</i> , 2008, 348, 203-208.	1.9	4
34	Matrix isolation investigation of the photochemical reaction of activator-substituted benzenes with CrCl ₂ O ₂ . <i>Journal of Molecular Structure</i> , 2008, 888, 277-290.	3.6	2
35	Matrix Isolation Studies of Photochemical and Thermal Reactions of 3- and 5-Membered Cyclic Hydrocarbons with CrCl ₂ O ₂ . <i>Journal of Physical Chemistry A</i> , 2008, 112, 5368-5377.	2.5	3
36	Infrared Matrix Isolation Study of the Thermal and Photochemical Reactions of Ozone with Dimethylzinc. <i>Journal of Physical Chemistry A</i> , 2008, 112, 5613-5620.	2.5	9

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37	Matrix isolation study of the photochemical reaction of cyclohexane and cyclohexene with CrCl ₂ O ₂ . Journal of Molecular Structure, 2007, 826, 36-47.	3.6	5
38	Matrix isolation and theoretical investigation of the photochemical reaction of CrCl ₂ O ₂ with benzenes substituted with electron withdrawing groups. Chemical Physics, 2007, 334, 18-28.	1.9	6
39	Infrared matrix isolation study of the oxidation of H ₂ S by CrCl ₂ O ₂ . Physical Chemistry Chemical Physics, 2006, 8, 856-861.	2.8	5
40	Matrix Isolation and Theoretical Study of the Reaction of Substituted Phosphines with CrCl ₂ O ₂ . Journal of Physical Chemistry A, 2006, 110, 13786-13791.	2.5	1
41	Matrix Isolation Investigation of the Photochemical Reaction of Methyl-Substituted Benzenes with CrCl ₂ O ₂ . Journal of Physical Chemistry A, 2006, 110, 892-900.	2.5	10
42	Matrix Isolation Study of the Reactions of CrO ₂ Cl ₂ with a Series of Silanes. Journal of Physical Chemistry A, 2006, 110, 901-907.	2.5	2
43	Matrix isolation and theoretical study of the photochemical reactions of C ₂ H ₃ Br and 1,2-C ₂ H ₂ Br ₂ with CrO ₂ Cl ₂ . Chemical Physics, 2006, 326, 349-355.	1.9	2
44	A matrix isolation study of the reactions of OVCl ₃ with a series of silanes. Journal of Molecular Structure, 2006, 787, 203-208.	3.6	2
45	Electronic spectra of intermediate charge transfer complexes of CrO ₂ Cl ₂ in argon matrices. Journal of Molecular Structure, 2005, 749, 84-88.	3.6	9
46	Argon matrix isolation study of the interaction of VCl ₄ with (CH ₃) ₂ CO. Journal of Molecular Structure, 2005, 733, 89-94.	3.6	1
47	Matrix isolation and theoretical study of the photochemical reaction of CH ₃ CN with CrO ₂ Cl ₂ and OVCl ₃ . Journal of Molecular Structure, 2005, 740, 125-131.	3.6	7
48	Electronic spectra of intermediate charge transfer complexes of OVCl ₃ in argon matrices. Chemical Physics Letters, 2005, 401, 89-93.	2.6	12
49	Matrix Isolation and Theoretical Study of the Photochemical Reaction of CrCl ₂ O ₂ with Chloroethenes. Journal of Physical Chemistry A, 2005, 109, 947-953.	2.5	6
50	Matrix Isolation Investigation of the Photochemical Reaction of Benzene with CrCl ₂ O ₂ and OVCl ₃ . Journal of Physical Chemistry A, 2005, 109, 4497-4504.	2.5	12
51	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.	3.9	21
52	Matrix isolation study of the reaction of dimethyl sulfoxide with CrCl ₂ O ₂ and OVCl ₃ . Chemical Physics, 2004, 300, 63-68.	1.9	13
53	Matrix Isolation and Theoretical Study of the Reaction of Ethyne with OVCl ₃ and CrCl ₂ O ₂ . Journal of Physical Chemistry A, 2004, 108, 5537-5543.	2.5	18
54	Matrix-Isolation Infrared and Theoretical Study of the Reaction of VCl ₄ with CH ₃ OH. Journal of Physical Chemistry A, 2004, 108, 3373-3379.	2.5	6

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55	Matrix Isolation Infrared and Theoretical Study of the Reaction of VCl_4 with NH_3 and $(\text{CH}_3)_3\text{N}$. <i>Journal of Physical Chemistry A</i> , 2004, 108, 5544-5550.	2.5	4
56	Matrix Isolation Infrared Spectroscopic and Theoretical Study of the Interaction of Water with Dimethyl Methylphosphonate. <i>Journal of Physical Chemistry A</i> , 2004, 108, 10094-10098.	2.5	22
57	Matrix isolation and theoretical study of the reaction of HSiCl_3 and CH_3OH : infrared spectroscopic characterization of $\text{Cl}_2\text{HSiOCH}_3$. <i>Journal of Molecular Structure</i> , 2003, 649, 95-103.	3.6	6
58	Matrix isolation study of the thermal and photochemical reaction of OVCl_3 and CrCl_2O_2 with cycloalkylamines. <i>Journal of Molecular Structure</i> , 2003, 655, 331-338.	3.6	8
59	Argon matrix isolation study of the thermal and photochemical reaction of with. <i>Chemical Physics</i> , 2003, 290, 211-221.	1.9	15
60	Infrared matrix isolation study of the 1:1 molecular complex of OVCl_3 with $(\text{CH}_3)_2\text{O}$. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2003, 59, 1989-1994.	3.9	10
61	Matrix Isolation and Theoretical Study of the Photochemical Reaction of PH_3 with OVCl_3 and CrCl_2O_2 . <i>Journal of Physical Chemistry A</i> , 2003, 107, 6500-6505.	2.5	22
62	Infrared Matrix Isolation and Theoretical Study of the Reactions of MoCl_4O and MoCl_2O_2 with CH_3OH : Characterization of $\text{Cl}_3\text{Mo}(\text{O})\text{OCH}_3$. <i>Journal of Physical Chemistry A</i> , 2003, 107, 2629-2634.	2.5	5
63	Infrared Matrix Isolation and Density Functional Theory Study of Intermediates in the Reactions of OVCl_3 and CrCl_2O_2 with H_2O . <i>Journal of Physical Chemistry A</i> , 2002, 106, 4998-5004.	2.5	24
64	Matrix Isolation Study of the Reaction of CrCl_2O_2 with NH_3 : Synthesis and Characterization of $\text{ClCr}(\text{O})_2\text{NH}_2$. <i>Journal of Physical Chemistry A</i> , 2002, 106, 1419-1424.	2.5	26
65	Matrix Isolation and ab Initio Study of 1:1 Hydrogen-Bonded Complexes of H_2O_2 with HF , HCl , and HBr . <i>Journal of Physical Chemistry A</i> , 2002, 106, 6406-6414.	2.5	23
66	Matrix isolation infrared spectroscopic study of the interaction of CH_3ReO_3 with NH_3 . <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2002, 58, 1499-1503.	3.9	2
67	Matrix isolation study of intermediates in the reaction of CrCl_2O_2 with CH_3SH and $(\text{CH}_3)_2\text{S}$. <i>Journal of Molecular Structure</i> , 2002, 609, 149-157.	3.6	12
68	Matrix isolation infrared spectroscopic investigation of the coordination chemistry and reactivity of OVF_3 . <i>Journal of Molecular Structure</i> , 2002, 616, 91-101.	3.6	10
69	Matrix Isolation and ab Initio Study of 1:1 Hydrogen-Bonded Complexes of H_2O_2 with NH_3 and $\text{N}(\text{CH}_3)_3$. <i>Journal of Physical Chemistry A</i> , 2001, 105, 6430-6435.	2.5	24
70	Matrix Isolation Study of the Thermal and Photochemical Reaction of OVCl_3 with NH_3 : Spectroscopic and Theoretical Characterization of $\text{Cl}_2\text{V}(\text{O})\text{NH}_2$. <i>Journal of Physical Chemistry A</i> , 2001, 105, 4758-4764.	2.5	28
71	Matrix Isolation and ab Initio Study of 1:1 Hydrogen-Bonded Complexes of H_2O_2 with Phosphorus and Sulfur Bases. <i>Journal of Physical Chemistry A</i> , 2001, 105, 11365-11370.	2.5	26
72	Matrix Isolation Investigation of the Interaction of SiH_4 with NH_3 and $(\text{CH}_3)_3\text{N}$. <i>Journal of Physical Chemistry A</i> , 2000, 104, 3481-3486.	2.5	12

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73	Matrix Isolation and ab Initio Study of the Hydrogen-Bonded Complex between H ₂ O ₂ and (CH ₃) ₂ O. <i>Journal of Physical Chemistry A</i> , 2000, 104, 2033-2037.	2.5	41
74	Matrix Isolation and Density Functional Study of the Reaction of OVCl ₃ with CH ₃ SH. <i>Journal of Physical Chemistry A</i> , 2000, 104, 11796-11800.	2.5	17
75	Matrix isolation investigation of the reaction of (CH ₃) ₃ Al with O ₂ . <i>Journal of Organometallic Chemistry</i> , 1999, 572, 169-175.	1.8	14
76	Matrix isolation investigation of the reaction of B ₂ H ₆ with carbon-carbon multiple bonds. <i>Inorganica Chimica Acta</i> , 1999, 286, 1-6.	2.4	4
77	Water Complexes and Hydrolysis of Silicon Tetrafluoride in the Gas Phase: An ab Initio Study. <i>Journal of Physical Chemistry A</i> , 1999, 103, 8328-8336.	2.5	23
78	Matrix Isolation and Density Functional Study of the Reaction of OVCl ₃ with CH ₃ OH: Synthesis and Characterization of Cl ₂ V(O)OCH ₃ . <i>Journal of Physical Chemistry A</i> , 1999, 103, 11474-11480.	2.5	30
79	Matrix Isolation Infrared Spectroscopic and Density Functional Study of the Mechanism of the Oxidation of CH ₃ OH by CrCl ₂ O ₂ . <i>Journal of the American Chemical Society</i> , 1998, 120, 6105-6112.	13.7	40
80	Matrix Isolation Spectroscopic Study of the 1:1 Complexes of TiF ₄ with NH ₃ and (CH ₃) ₃ N. <i>Journal of Physical Chemistry A</i> , 1998, 102, 7245-7249.	2.5	6
81	Matrix Isolation Study of the Reaction of TiCl ₄ with CH ₃ OH: Synthesis and Characterization of Cl ₃ TiOCH ₃ . <i>The Journal of Physical Chemistry</i> , 1996, 100, 15726-15730.	2.9	10
82	Matrix Isolation Study of the 193 nm Excimer Laser Photochemistry of Hexafluorobenzene. <i>Laser Chemistry</i> , 1994, 15, 21-32.	0.5	5
83	The search for H ₂ BOH: a matrix isolation study. <i>Journal of Molecular Structure</i> , 1994, 319, 139-143.	3.6	4
84	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
85	Matrix isolation spectroscopic study of the 1/1 complexes of trimethylgallium with Group VI alkyls. <i>Inorganic Chemistry</i> , 1993, 32, 5246-5250.	4.0	6
86	Matrix isolation study of the reactions of diborane with pyridine, pyrrole, and pyrrolidine: spectroscopic characterization of C ₄ H ₉ N.BH ₃ and pyrrolidinoborane. <i>The Journal of Physical Chemistry</i> , 1993, 97, 11397-11401.	2.9	7
87	Matrix isolation study of the reaction of diborane with hydrogen sulfide: spectroscopic characterization of mercaptoborane, H ₂ BSH. <i>The Journal of Physical Chemistry</i> , 1992, 96, 7913-7916.	2.9	24
88	Matrix isolation study of the reaction of diborane with methanol: spectroscopic characterization of methoxyborane, H ₂ B=OCH ₃ . <i>The Journal of Physical Chemistry</i> , 1992, 96, 4288-4294.	2.9	11
89	Infrared matrix isolation characterization of aminoborane and related compounds. <i>The Journal of Physical Chemistry</i> , 1991, 95, 3502-3506.	2.9	106
90	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

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91	Matrix isolation study of excimer laser-induced photooxidation processes. <i>Journal of Molecular Structure</i> , 1990, 222, 1-10.	3.6	2
92	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
93	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
94	Infrared matrix isolation studies of molecular interactions: complexes of trichlorosilane, HSiCl ₃ , with selected bases. <i>Inorganic Chemistry</i> , 1990, 29, 837-842.	4.0	8
95	Infrared matrix isolation study of hydrogen bonds involving carbon-hydrogen bonds: substituent effects. <i>The Journal of Physical Chemistry</i> , 1989, 93, 5426-5431.	2.9	20
96	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
97	Matrix isolation studies of reactive intermediate complexes. <i>Reviews of Chemical Intermediates</i> , 1988, 9, 233-269.	1.1	45
98	Multiphoton ionization by excimer laser irradiation of cryogenic matrices: Formation of CCl ₄ ⁺ and related cations. <i>Journal of Chemical Physics</i> , 1988, 88, 2845-2846.	3.0	10
99	Matrix isolation study of the oxidation of diborane: synthesis of boroxin H ₃ B ₃ O ₃ and its ¹⁸ O labeled counterparts. <i>Journal of Molecular Structure</i> , 1987, 159, 297-302.	3.6	10
100	Infrared matrix-isolation study of the 1/1 molecular complexes of chlorine monofluoride with oxygen-containing bases. <i>Inorganic Chemistry</i> , 1985, 24, 4251-4254.	4.0	17
101	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
102	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.	0.7	4
103	Matrix Isolation Studies of Alkali Halide Salt Molecules with Lewis Acids and Bases. <i>ACS Symposium Series</i> , 1982, , 327-346.	0.5	0
104	Matrix-isolation studies of Lewis acid/base interactions: infrared spectra of the 1:1 adduct SiF ₄ ·NH ₃ . <i>Inorganic Chemistry</i> , 1981, 20, 2817-2822.	4.0	52
105	Infrared spectra of argon matrix-isolated alkali halide salt/water complexes. <i>Journal of the American Chemical Society</i> , 1978, 100, 2426-2433.	13.7	176
106	A search for the HF ₂ and HClF neutral free radicals isolated in argon matrices. <i>Journal of Chemical Physics</i> , 1978, 68, 4012-4016.	3.0	18