Bruce S Ault

List of Publications by Year
in descending order

106 papers	1,680 citations	279798 23 h-index	361022 35 g-index
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. Journal of the American Chemical Society, 1978, 100, 2426-2433.	13.7	176
2	Infrared matrix isolation characterization of aminoborane and related compounds. The Journal of Physical Chemistry, 1991, 95, 3502-3506.	2.9	106
3	Matrix-isolation studies of Lewis acid/base interactions: infrared spectra of the 1:1 adduct SiF4.cntdot.NH3. Inorganic Chemistry, 1981, 20, 2817-2822.	4.0	52
4	Matrix isolation studies of reactive intermediate complexes. Reviews of Chemical Intermediates, 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. Journal of the American Chemical Society, 2009, 131, 2853-2863.	13.7	43
6	Matrix Isolation and ab Initio Study of the Hydrogen-Bonded Complex between H2O2 and (CH3)2O. Journal of Physical Chemistry A, 2000, 104, 2033-2037.	2.5	41
7	Matrix Isolation Infrared Spectroscopic and Density Functional Study of the Mechanism of the Oxidation of CH3OH by CrCl2O2. Journal of the American Chemical Society, 1998, 120, 6105-6112.	13.7	40
8	Infrared matrix isolation study of the hydrogen-bonded complexes between formaldehyde and the hydrogen halides and cyanide. The Journal of Physical Chemistry, 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. The Journal of Physical Chemistry, 1990, 94, 1323-1327.	2.9	36
10	Photolysis of (3-Methyl-2H-azirin-2-yl)-phenylmethanone: Direct Detection of a Triplet Vinylnitrene Intermediate. Journal of Organic Chemistry, 2011, 76, 9934-9945.	3.2	32
11	Infrared matrix isolation study of hydrogen bonds involving carbon-hydrogen bonds: alkynes with nitrogen bases. The Journal of Physical Chemistry, 1989, 93, 3997-4000.	2.9	30
12	Matrix Isolation and Density Functional Study of the Reaction of OVCl3 with CH3OH:â€‰ Synthesis and Characterization of Cl2V(O)OCH3. Journal of Physical Chemistry A, 1999, 103, 11474-11480.	2.5	30
13	Infrared Matrix Isolation and Theoretical Study of the Initial Intermediates in the Reaction of Ozone with cis-2-Butene. Journal of Physical Chemistry A, 2010, 114, 2799-2805.	2.5	30
14	Comparison of the Photochemistry of 3-Methyl-2-phenyl-2H-azirine and 2-Methyl-3-phenyl-2H-azirine. Journal of Organic Chemistry, 2014, 79, 653-663.	3.2	30
15	Infrared matrix isolation study of the reaction of diborane with the methylamines. The Journal of Physical Chemistry, 1991, 95, 3507-3511.	2.9	29
16	Matrix Isolation Study of the Thermal and Photochemical Reaction of OVCl3with NH3:Â Spectroscopic and Theoretical Characterization of Cl2V(O)NH2. Journal of Physical Chemistry A, 2001, 105, 4758-4764.	2.5	28
17	Infrared matrix isolation studies of hydrogen bonds involving carbon-hydrogen bonds: alkenes with selected bases. The Journal of Physical Chemistry, 1990, 94, 4851-4855.	2.9	27
18	Matrix Isolation and ab Initio Study of 1:1 Hydrogen-Bonded Complexes of H2O2with Phosphorus and Sulfur Bases. Journal of Physical Chemistry A, 2001, 105, 11365-11370.	2.5	26

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19	Matrix Isolation Study of the Reaction of CrCl2O2 with NH3:â€‰ Synthesis and Characterization of ClCr(O)2NH2. Journal of Physical Chemistry A, 2002, 106, 1419-1424.	2.5	26
20	Matrix isolation study of the reaction of diborane with hydrogen sulfide: spectroscopic characterization of mercaptoborane, H2BSH. 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 H2O2with NH3and N(CH3)3. Journal of Physical Chemistry A, 2001, 105, 6430-6435.	2.5	24
22	Infrared Matrix Isolation and Density Functional Theory Study of Intermediates in the Reactions of OVCl3 and CrCl2O2 with H2O. Journal of Physical Chemistry A, 2002, 106, 4998-5004.	2.5	24
23	Water Complexes and Hydrolysis of Silicon Tetrafluoride in the Gas Phase:Â An ab Initio Study. Journal of Physical Chemistry A, 1999, 103, 8328-8336.	2.5	23
24	Matrix Isolation and ab Initio Study of 1:1 Hydrogen-Bonded Complexes of H2O2 with HF, HCl, and HBr. Journal of Physical Chemistry A, 2002, 106, 6406-6414.	2.5	23
25	Matrix Isolation and Theoretical Study of the Photochemical Reaction of PH3with OVCl3and CrCl2O2. Journal of Physical Chemistry A, 2003, 107, 6500-6505.	2.5	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.	2.5	22
27	Infrared Matrix-Isolation and Theoretical Studies of the Reactions of Ferrocene with Ozone. Journal of Physical Chemistry A, 2015, 119, 2371-2382.	2.5	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.	3.9	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.	3.2	20
31	A search for the HF2 and HClF neutral free radicals isolated in argon matrices. Journal of Chemical Physics, 1978, 68, 4012-4016.	3.0	18
32	Matrix Isolation and Theoretical Study of the Reaction of Ethyne with OVCl3 and CrCl2O2. Journal of Physical Chemistry A, 2004, 108, 5537-5543.	2.5	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.	4.0	17
34	Matrix Isolation and Density Functional Study of the Reaction of OVCl3with CH3SH. Journal of Physical Chemistry A, 2000, 104, 11796-11800.	2.5	17
35	Infrared Matrix Isolation and Theoretical Studies of Reactions of Ozone with Bicyclic Alkenes: Î±-Pinene, Norbornene, and Norbornadiene. Journal of Physical Chemistry A, 2015, 119, 312-322.	2.5	17
36	Argon matrix isolation study of the thermal and photochemical reaction of with. Chemical Physics, 2003, 290, 211-221.	1.9	15

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37	Triplet-sensitized photolysis of alkoxycarbonyl azides in solution and matrices. Journal of Photochemistry and Photobiology A: Chemistry, 2009, 201, 157-167.	3.9	15
38	Charge-Transfer Complexes and Photochemistry of Ozone with Ferrocene and n-Butylferrocene: A UVâ€“vis Matrix-Isolation Study. Journal of Physical Chemistry A, 2015, 119, 10272-10278.	2.5	15
39	Matrix Isolation and Thin Film Spectroscopic Study of the Interaction of Dimethylzinc with Group V and VI Alkyls. The Journal of Physical Chemistry, 1994, 98, 10001-10007.	2.9	14
40	Matrix isolation investigation of the reaction of (CH3)3Al with O2. Journal of Organometallic Chemistry, 1999, 572, 169-175.	1.8	14
41	Matrix isolation investigation of the ozonolysis of propene. Journal of Molecular Structure, 2010, 976, 249-254.	3.6	14
42	Investigation of the Thermal and Photochemical Reactions of Ozone with 2,3-Dimethyl-2-butene. Journal of Physical Chemistry A, 2010, 114, 12667-12674.	2.5	14
43	Matrix isolation study of the reaction of dimethyl sulfoxide with CrCl2O2 and OVCl3. Chemical Physics, 2004, 300, 63-68.	1.9	13
44	Matrix Isolation Investigation of the Interaction of SiH4with NH3and (CH3)3Nâ€. Journal of Physical Chemistry A, 2000, 104, 3481-3486.	2.5	12
45	Matrix isolation study of intermediates in the reaction of CrCl 2 O 2 with CH 3 SH and (CH 3) 2 S. Journal of Molecular Structure, 2002, 609, 149-157.	3.6	12
46	Electronic spectra of intermediate charge transfer complexes of OVCl3 in argon matrices. Chemical Physics Letters, 2005, 401, 89-93.	2.6	12
47	Matrix Isolation Investigation of the Photochemical Reaction of Benzene with CrCl2O2and OVCl3. Journal of Physical Chemistry A, 2005, 109, 4497-4504.	2.5	12
48	Matrix Isolation Study of the Ozonolysis of 1,3- and 1,4-Cyclohexadiene: Identification of Novel Reaction Pathways. Journal of Physical Chemistry A, 2013, 117, 4174-4182.	2.5	12
49	Matrix isolation study of the reaction of diborane with methanol: spectroscopic characterization of methoxyborane, H2B=OCH3. The Journal of Physical Chemistry, 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. Journal of Molecular Structure, 2013, 1031, 138-143.	3.6	11
51	Matrix isolation study of the oxidation of diborane: synthesis of boroxin H3B3O3 and its 18O labeled counterparts. Journal of Molecular Structure, 1987, 159, 297-302.	3.6	10
52	Multiphoton ionization by excimer laser irradiation of cryogenic matrices: Formation of CCl+4 and related cations. Journal of Chemical Physics, 1988, 88, 2845-2846.	3.0	10
53	Matrix Isolation Study of the Reaction of TiCl4 with CH3OH:â€‰ Synthesis and Characterization of Cl3TiOCH3. The Journal of Physical Chemistry, 1996, 100, 15726-15730.	2.9	10
54	Matrix isolation infrared spectroscopic investigation of the coordination chemistry and reactivity of OVF3. Journal of Molecular Structure, 2002, 616, 91-101.	3.6	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.	3.9	10
56	Matrix Isolation Investigation of the Photochemical Reaction of Methyl-Substituted Benzenes with CrCl2O2. Journal of Physical Chemistry A, 2006, 110, 892-900.	2.5	10
57	Singlet Photoreactivity of 3-Methyl-2-phenyl-2H-azirine. Australian Journal of Chemistry, 2017, 70, 413.	0.9	10
58	Wavelength-dependent photochemistry of 2-azidovinylbenzene and 2-phenyl-2H-azirine. Journal of Molecular Structure, 2018, 1172, 94-101.	3.6	10
59	Electronic spectra of intermediate charge transfer complexes of CrO2Cl2 in argon matrices. Journal of Molecular Structure, 2005, 749, 84-88.	3.6	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.	2.5	9
61	Infrared matrix isolation studies of molecular interactions: complexes of trichlorosilane, HSiCl3, with selected bases. Inorganic Chemistry, 1990, 29, 837-842.	4.0	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.	3.6	8
63	Matrix isolation study of the photochemical reaction of cyclohexane, cyclohexene, and cyclopropane with ozone. Journal of Molecular Structure, 2009, 929, 22-31.	3.6	8
64	Matrix isolation study of the thermal and photochemical reaction of ozone with Trimethyl Indium. Chemical Physics, 2012, 392, 192-197.	1.9	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.	3.6	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.	3.6	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.	3.6	7
69	Matrix isolation spectroscopic study of the 1/1 complexes of trimethylgallium with Group VI alkyls. Inorganic Chemistry, 1993, 32, 5246-5250.	4.0	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.	2.5	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.	3.6	6
72	Matrix-Isolation Infrared and Theoretical Study of the Reaction of VCl4with CH3OH. Journal of Physical Chemistry A, 2004, 108, 3373-3379.	2.5	6

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73	Matrix Isolation and Theoretical Study of the Photochemical Reaction of CrCl2O2with Chloroethenes. Journal of Physical Chemistry A, 2005, 109, 947-953.	2.5	6
74	Matrix isolation and theoretical investigation of the photochemical reaction of CrCl2O2 with benzenes substituted with electron withdrawing groups. Chemical Physics, 2007, 334, 18-28.	1.9	6
75	Infrared Matrix Isolation Study of the Thermal and Photochemical Reactions of Ozone with Dimethylcadmium. Journal of Physical Chemistry A, 2012, 116, 1914-1922.	2.5	6
76	Matrix Isolation Study of the 193 nm Excimer Laser Photochemistry of Hexafluorobenzene. Laser Chemistry, 1994, 15, 21-32.	0.5	5
77	Infrared Matrix Isolation and Theoretical Study of the Reactions of MoCl4O and MoCl2O2 with CH3OH:â€‰ Characterization of Cl3Mo(O)OCH3. Journal of Physical Chemistry A, 2003, 107, 2629-2634.	2.5	5
78	Infrared matrix isolation study of the oxidation of H2S by CrCl2O2. Physical Chemistry Chemical Physics, 2006, 8, 856-861.	2.8	5
79	Matrix isolation study of the photochemical reaction of cyclohexane and cyclohexene with CrCl2O2. Journal of Molecular Structure, 2007, 826, 36-47.	3.6	5
80	Investigation of the thermal and photochemical reactions of ozone with styrene in argon and krypton matrices. Journal of Molecular Structure, 2012, 1023, 81-86.	3.6	5
81	Photolysis of 5-Azido-3-Phenylisoxazole at Cryogenic Temperature: Formation and Direct Detection of a Nitrosoalkene. Molecules, 2020, 25, 543.	3.8	5
82	Reactions of Alkylamino- and Dialkylaminotriphenylphosphonium Halides with Halogens and Interhalogen Compounds; Formation of Alkylaminotriphenylphosphonium Polyhalides. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 1983, 38, 103-107.	0.7	4
83	The search for H2BOH: a matrix isolation study. Journal of Molecular Structure, 1994, 319, 139-143.	3.6	4
84	Matrix isolation investigation of the reaction of B2H6 with carbonâ€“carbon multiple bonds. Inorganica Chimica Acta, 1999, 286, 1-6.	2.4	4
85	Matrix Isolation Infrared and Theoretical Study of the Reaction of VCl4 with NH3 and (CH3)3N. Journal of Physical Chemistry A, 2004, 108, 5544-5550.	2.5	4
86	Matrix isolation and computational study of the thermal and photochemical reactions of CrCl2O2 with GeH4, AsH3 and SeH2. Chemical Physics, 2008, 348, 203-208.	1.9	4
87	Matrix Isolation Studies of Novel Intermediates in the Reaction of Trimethylaluminum with Ozone. Journal of Physical Chemistry A, 2017, 121, 7335-7342.	2.5	4
88	Formation and Reactivity of Triplet Vinylnitrenes as a Function of Ring Size. Journal of Organic Chemistry, 2019, 84, 9215-9225.	3.2	4
89	Matrix Isolation Studies of Photochemical and Thermal Reactions of 3- and 5-Membered Cyclic Hydrocarbons with CrCl₂O₂. Journal of Physical Chemistry A, 2008, 112, 5368-5377.	2.5	3
90	Infrared Matrix Isolation Study of the Thermal and Photochemical Reactions of Ozone with Trimethylgallium. Journal of Physical Chemistry A, 2015, 119, 2834-2844.	2.5	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.	3.6	3
92	Infrared Matrix-Isolation and Theoretical Study of the Reactions of Ruthenocene with Ozone. Journal of Physical Chemistry A, 2019, 123, 5768-5780.	2.5	3
93	Matrix isolation study of excimer laser-induced photooxidation processes. Journal of Molecular Structure, 1990, 222, 1-10.	3.6	2
94	Matrix isolation infrared spectroscopic study of the interaction of CH3ReO3 with NH3. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2002, 58, 1499-1503.	3.9	2
95	Matrix Isolation Study of the Reactions of CrO2Cl2with a Series of Silanes. Journal of Physical Chemistry A, 2006, 110, 901-907.	2.5	2
96	Matrix isolation and theoretical study of the photochemical reactions of C2H3Br and 1,2-C2H2Br2 with CrO2Cl2. Chemical Physics, 2006, 326, 349-355.	1.9	2
97	A matrix isolation study of the reactions of OVCl3 with a series of silanes. Journal of Molecular Structure, 2006, 787, 203-208.	3.6	2
98	Matrix isolation investigation of the photochemical reaction of activator-substituted benzenes with CrCl2O2. Journal of Molecular Structure, 2008, 888, 277-290.	3.6	2
99	Matrix isolation investigation of the wavelength-dependent photochemical reaction of ozone with vinyl chloride. Journal of Molecular Structure, 2020, 1212, 128123.	3.6	2
100	Argon matrix isolation study of the interaction of VCl4 with (CH3)2CO. Journal of Molecular Structure, 2005, 733, 89-94.	3.6	1
101	Matrix Isolation and Theoretical Study of the Reaction of Substituted Phosphines with CrCl2O2. Journal of Physical Chemistry A, 2006, 110, 13786-13791.	2.5	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.	3.6	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.	2.3	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.	3.6	0