Sm Melikova

List of Publications by Year
in descending order

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65 papers	994 citations	430874 18 h-index	477307 29 g-index
65 all docs	65 docs citations	65 times ranked	629 citing authors

#	Article	IF	Citations
1	Unusual spectroscopic properties of CF3H dissolved in liquified Ar, N2, CO, and CO2. Chemical Physics Letters, 2002, 352, 301-310.	2.6	69
2	Proton Transfer Equilibria in Schiff Bases with Steric Repulsion. Journal of Physical Chemistry A, 2004, 108, 2131-2138.	2.5	66
3	A Cryosolution Infrared Study of the Complexes of Fluoroform with Ammonia and Pyridine:Â Evidence for a Câ^'HÂ·Â·Â·N Pseudo Blue-Shifting Hydrogen Bond. Journal of Physical Chemistry A, 2005, 109, 3038-3044.	2.5	63
4	Blue shifted F3CHâ‹¯FCD3 and Cl3CHâ‹¯FCD3 weakly H-bound complexes. Cryospectroscopic and ab initio study. Chemical Physics, 2005, 313, 225-243.	1.9	59
5	Ab Initio Studies of Electron Acceptor-Donor Interactions with Blue- and Red-Shifted Hydrogen Bonds. ChemPhysChem, 2005, 6, 1282-1292.	2.1	59
6	Interpretation of Hydrogen/Deuterium Isotope Effects on NMR Chemical Shifts of [FHF]â^' Ion Based on Calculations of Nuclear Magnetic Shielding Tensor Surface. Zeitschrift Fur Physikalische Chemie, 2003, 217, 1549-1564.	2.8	41
7	Spectroscopic and structural consequences of intramolecular hydrogen bond formation in ortho -dimethylaminomethylphenol. Journal of Molecular Structure, 2001, 559, 127-145.	3.6	40
8	Strong and weak effects caused by non covalent interactions between chloroform and selected electron donor molecules. Physical Chemistry Chemical Physics, 2011, 13, 14223.	2.8	32
9	Cryospectroscopic and ab initio studies of haloformâ€“trimethylamine H-bonded complexes. Physical Chemistry Chemical Physics, 2009, 11, 1551.	2.8	30
10	Comparative studies of blue shifting and red shifting effects in fluoroform and acetylene cryogenic solutions. Journal of Molecular Structure, 2004, 705, 49-61.	3.6	29
11	Gas phase FT-IR spectra and structure of aminoalcohols with intramolecular hydrogen bonds. Vibrational Spectroscopy, 1999, 20, 69-83.	2.2	28
12	FTIR study of the hydrogen bond symmetry in protonated homodimers of pyridine and collidine in solution. Journal of Molecular Structure, 2012, 1018, 39-44.	3.6	27
13	Infrared spectra and relative stability of the F3CH/NH3 H-bonded complex in liquefied Xe. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2005, 61, 1595-1602.	3.9	24
14	Solvent effect on the blue shifted weakly H-bound F3 CHâ€¦FCD3 complex. Journal of Molecular Structure, 2008, 880, 64-68.	3.6	24
15	Dimerization and solvent-assisted proton dislocation in the low-barrier hydrogen bond of a Mannich base: a low-temperature NMR study. Magnetic Resonance in Chemistry, 2001, 39, S81-S90.	1.9	23
16	New look at the Badger-Bauer rule: Correlations of spectroscopic IR and NMR parameters with hydrogen bond energy and geometry. FHF complexes. Journal of Molecular Structure, 2018, 1164, 129-136.	3.6	22
17	Interplay of Ï€-stacking and inter-stacking interactions in two-component crystals of neutral closed-shell aromatic compounds: periodic DFT study. RSC Advances, 2020, 10, 27899-27910.	3.6	20
18	Infrared studies of acetylene dissolved in liquefied Ar, Kr, N2, CO, and CO2. Journal of Molecular Structure, 2002, 614, 305-313.	3.6	18

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19	A cryosolution FTIR and ab initio study of the blue shifting Câ€“HÂ·Â·Â·F hydrogen bonded complexes F2ClCHÂ·FCD3 and Cl2FCHÂ·FCD3. Chemical Physics, 2008, 354, 71-79.	1.9	18
20	Effect of electrical and mechanical anharmonicity on vibrational spectra of H-bonded complexes: phenoltctdot;B (B = acetonitrile, pyridine) systems. Journal of Molecular Structure, 1998, 448, 239-246.	3.6	17
21	Influence of hydrogen bonding on the conformation of ortho -aminomethylphenol. Journal of Molecular Structure, 2000, 523, 223-239.	3.6	15
22	Infrared studies of weak Bâ€¦HCl (B = HCl, CO, Xe, N2) complex formation in solid Kr solutions. Journal of Molecular Structure, 1998, 448, 231-237.	3.6	14
23	Car-Parrinello Molecular Dynamics Study of a Blue-Shifted Intermolecular Weak-Hydrogen-Bond System. ChemPhysChem, 2005, 6, 1719-1724.	2.1	14
24	The model analysis of the effects of electrical and mechanical anharmonicity on vibrational spectra of H-bonded complexes. Journal of Molecular Structure, 2000, 552, 273-282.	3.6	13
25	Towards understanding the spectroscopic features of enflurane. The fundamental and overtone bands of CH stretching vibrations. Chemical Physics Letters, 2014, 604, 68-71.	2.6	13
26	Temperature dependence studies and model calculations of Î½(OH) and Î½(OD) band shapes of salicylaldehyde. Journal of Molecular Structure, 1996, 381, 141-148.	3.6	12
27	Higher-order transitions in the IR spectrum of the weak OCâ‹¯HCl complex dissolved in liquid CO. Chemical Physics Letters, 2000, 325, 425-432.	2.6	12
28	Carâ€“Parrinello Molecular Dynamics Study of the Blue-Shifted F3CHâ‹…â‹…â‹…FCD3 System in Liquid N2. ChemPhysChem, 2006, 7, 1221-1228.	2.1	12
29	The gas phase FTIR studies of chloroform+B and halothane+B (B=TMA, FCD3) mixtures. Journal of Molecular Structure, 2014, 1072, 32-37.	3.6	12
30	Theoretical vibrational study of hydrogen-bonded complexes : a simple anharmonical model. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1992, 89, 607-613.	0.2	12
31	FTIR and Raman spectra of CH(D)FClCF2OCHF derivatives of enflurane. Experimental and ab initio study. Chemical Physics, 2015, 453-454, 26-34.	1.9	11
32	Temperature dependence of the Î½s(OH) band shape of ortho-Mannich bases in gas phase and liquid xenon solution. Vibrational Spectroscopy, 1994, 7, 265-274.	2.2	10
33	Theoretical study of Hal3CH/F2CD2 (Hal=F,Cl) and F3CH/FH heterodimers with blue shifted hydrogen bonds. Chemical Physics, 2006, 327, 193-201.	1.9	10
34	Cooperative effects in blue-shifted hydrogen bonded cluster of from first principles simulations. Chemical Physics, 2009, 361, 129-136.	1.9	10
35	Cryospectroscopic and ab initio anharmonic studies of acetyleneâ€“trimethylamine H-bonded complex. Chemical Physics, 2010, 375, 92-100.	1.9	8
36	Infrared spectroscopy and ab initio study of hydrogen bonded Cl3CDÂ·N(CH3)3 complex in the gas phase. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 136, 95-99.	3.9	8

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37	The solubility of light olefins in liquid nitrogen: Part 2. Cryogenics, 1979, 19, 649-651.	1.7	7
38	Study on the solubility light alkanes in liquid nitrogen. Cryogenics, 1980, 20, 48-51.	1.7	7
39	Vibrational spectra of OCâ‹¯HCl complex in Kr solutions at liquid to solid phase transition. Journal of Molecular Structure, 1999, 511-512, 233-240.	3.6	7
40	Degeneracy Lifting Effect in the FTIR Spectrum of Fluoroform Trapped in a Nitrogen Matrix. An Experimental and Carâ€“Parrinello Molecular Dynamics Study. Journal of Physical Chemistry A, 2016, 120, 3497-3503.	2.5	7
41	FTIR cryospectroscopic and ab initio studies of desfluraneâ€“dimethyl ether Hâ€“bonded complexes. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 184, 163-168.	3.9	7
42	Stretching mode interaction of equal and unequal pairs of SeH^{â^'}and SeD^{â^'}defects in alkali halides. Radiation Effects and Defects in Solids, 1999, 151, 311-315.	1.2	6
43	CHâ‹¯B interactions in acetylene containing solutions: experimental and theoretical DFT studies. Journal of Molecular Structure, 2003, 645, 295-302.	3.6	6
44	The infrared study of fluoroformâ€¯+â€¯methyl fluoride mixtures in argon and nitrogen matrices. Evidence of nonlinear blue-shifting complex formation. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 203, 185-194.	3.9	6
45	Effect of liquid to solid phase transition on rotational and vibrational broadening of vibrational bands of CF3CL in Xe solutions. Vibrational Spectroscopy, 2000, 24, 277-286.	2.2	5
46	Vibrational spectra and conformational analysis of desflurane. A cryosolution and ab initio study. Chemical Physics Letters, 2015, 637, 77-82.	2.6	5
47	Investigation of the IR spectra of weakly hydrogen-bonded complex Cl3CHâ€¦O(CD3)2 in a cryosolution in liquid krypton. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2016, 120, 242-249.	0.6	5
48	Conformational origin of temperature changes in the IR spectrum of isoflurane. A cryosolution and ab initio study. Journal of Molecular Structure, 2017, 1134, 374-380.	3.6	5
49	IR spectra of halothaneâ€“acetone complex in liquefied noble gases (Kr and Xe). Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2017, 123, 30-37.	0.6	5
50	Cryosolution infrared study of hydrogen bonded halothane acetylene complex. Journal of Molecular Structure, 2018, 1160, 434-439.	3.6	3
51	Noncovalent interactions between isoflurane and dimethyl ether. Spectroscopic evidence of trimer formation. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 223, 117363.	3.9	3
52	The analysis of the band structure in Î½₁ of HCN...HF complex. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1994, 91, 163-171.	0.2	3
53	Vibrational spectra of Freons dissolved in liquid argon. Journal of Applied Spectroscopy, 1985, 43, 999-1005.	0.7	2
54	An optical cryostat with a variable layer for examining the spectra of solutions in liquefied gases. Journal of Applied Spectroscopy, 1986, 45, 1000-1001.	0.7	2

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55	Infrared studies of CO2 doped Xe solutions in gas, liquid and solid phases. The fundamental Î½3 band and the Coriolis perturbed Fermi doublet (Î½1+Î½21, Î½1+Î½211). Journal of Molecular Structure, 2001, 596, 179-183.	3.6	2
56	IR spectra of CH3F in liquid and solid noble gas solutions. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2000, 56, 1813-1818.	3.9	1
57	FTIR studies of HCl dissolved in liquid CO: Anharmonic effects in the weak OCâ€¦HCl complex. Journal of Molecular Structure, 2007, 844-845, 64-69.	3.6	1
58	Spectroscopic evidence of reversible micro-crystallization of carbon dioxide dissolved in solid xenon. Chemical Physics Letters, 2013, 583, 54-59.	2.6	1
59	Evidence of noncovalent interactions between sevoflurane and dimethyl ether. FTIR cryospectroscopic and ab initio studies. Journal of Molecular Structure, 2020, 1221, 128852.	3.6	1
60	Spectral Diagnostics of the Dynamics of the Formation of a Homoconjugated Complex [HCN.H.NCH]+. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2020, 128, 467-469.	0.6	1
61	IR cryospectroscopic manifestation of complex formation between methoxyflurane and dimethyl ether in liquid Xe. Chemical Physics Letters, 2020, 742, 137134.	2.6	1
62	Application of the method of cryospectroscopy to the study of the molecular composition of gases. Journal of Applied Spectroscopy, 1992, 56, 224-230.	0.7	0
63	Quantitative analysis of sulfur hexafluoride for molecular impurities using IR absorption spectra of solutions in liquid argon. Journal of Applied Spectroscopy, 1992, 56, 360-364.	0.7	0
64	Shape of the IR bands of CH4: The CH4-Kr system in different phase states. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2000, 88, 169-175.	0.6	0
65	Cryospectroscopic evidence of trimer formation between halothane and trimethylamine, stabilized by hydrogen and halogen bonds. Journal of Molecular Structure, 2021, 1243, 130766.	3.6	0