

# Dmitrii N Shchepkin

## List of Publications by Year in descending order

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docs citations

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	The Nature of Improper, Blue-Shifting Hydrogen Bonding Verified Experimentally. Journal of the American Chemical Society, 2001, 123, 12290-12293.	13.7	306
2	Evidence by NMR of Temperature-dependent Solvent Electric Field Effects on Proton Transfer and Hydrogen Bond Geometries. Zeitschrift Fur Physikalische Chemie, 1996, 196, 73-84.	2.8	85
3	A Cryosolution Infrared Study of the Complexes of Fluoroform with Ammonia and Pyridine: Evidence for a C <sup>δ+</sup> H <sup>δ-</sup> ⋯N Pseudo Blue-Shifting Hydrogen Bond. Journal of Physical Chemistry A, 2005, 109, 3038-3044.	2.5	63
4	Interpretation of Hydrogen/Deuterium Isotope Effects on NMR Chemical Shifts of [FHF] <sup>+</sup> Ion Based on Calculations of Nuclear Magnetic Shielding Tensor Surface. Zeitschrift Fur Physikalische Chemie, 2003, 217, 1549-1564.	2.8	41
5	The low-frequency vibrations and the origin of hydrogen-bonded band profiles. Journal of Molecular Structure, 1987, 156, 303-314.	3.6	36
6	Manifestation of interaction of the transition dipole moments in IR spectra of low-temperature liquids and solutions in liquefied noble gases. Chemical Physics, 1998, 238, 315-327.	1.9	29
7	Infrared matrix isolation spectra of SF <sub>6</sub> dimers. Chemical Physics Letters, 2002, 357, 181-188.	2.6	20
8	Integral intensities of absorption bands of silicon tetrafluoride in the gas phase and cryogenic solutions: Experiment and calculation. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya) 1998, 23, 10-14.	0.6	10
9	Absorption spectrum of the (CF <sub>4</sub> ) dimer in liquid argon solution. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya) 1998, 23, 15-18.	0.6	18
10	Effect of electrical and mechanical anharmonicity on vibrational spectra of H-bonded complexes: phenol-toluene; B (B = acetonitrile, pyridine) systems. Journal of Molecular Structure, 1998, 448, 239-246.	3.6	17
11	A matrix isolation and theoretical study of SiF <sub>4</sub> dimers spectra. Chemical Physics, 2006, 324, 753-766.	1.9	14
12	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
13	Isotope effects in the vibrational spectrum of the SF <sub>6</sub> molecule. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya) 1998, 23, 19-23.	0.6	13
14	Modeling of band shapes in the low-temperature molecular liquid spectra affected by resonance dipole-dipole interaction. Chemical Physics, 2009, 364, 69-75.	1.9	13
15	Temperature dependence studies and model calculations of $\hat{\nu}_{1/2}(\text{OH})$ and $\hat{\nu}_{1/2}(\text{OD})$ band shapes of salicylaldehyde. Journal of Molecular Structure, 1996, 381, 141-148.	3.6	12
16	Higher-order transitions in the IR spectrum of the weak OC <sup>-</sup> HCl complex dissolved in liquid CO. Chemical Physics Letters, 2000, 325, 425-432.	2.6	12
17	Infrared Spectra and Structures of SiH <sub>4</sub> and GeH <sub>4</sub> Dimers in Low-Temperature Nitrogen Matrixes. Journal of Physical Chemistry A, 2015, 119, 2553-2561.	2.5	12
18	Infrared spectra of CF <sub>3</sub> CCl complexes with various proton acceptors in liquid argon. Journal of Molecular Structure, 1992, 275, 183-202.	3.6	11

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19	Determination of parameters of the dipole moment of the CO <sub>2</sub> molecule. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2000, 88, 648-660.	0.6	11
20	The vibrational spectrum of NF <sub>3</sub> and the manifestation of resonant dipole-dipole interaction in NF <sub>3</sub> solutions in liquid argon. Journal of Chemical Physics, 2004, 121, 1504-1515.	3.0	11
21	Solvent effect on the vibrational spectrum of a hydrogen-bonded complex. Journal of Molecular Structure, 1992, 270, 481-490.	3.6	10
22	Anharmonicity of the X-H bond. Changes on H-bond formation. Journal of Molecular Structure, 1994, 322, 211-216.	3.6	10
23	IR-spectroscopic determination of influence of the thermodynamic conditions on the structural features of liquid CF <sub>4</sub> . Chemical Physics Letters, 2003, 379, 495-502.	2.6	10
24	Resonance dipole-dipole coupling and Fermi resonance in CF <sub>4</sub> dimers. Journal of Molecular Spectroscopy, 2006, 238, 64-71.	1.2	10
25	Infrared spectra of tetrafluorohydrazine solutions in liquefied gases. Journal of Molecular Structure, 1978, 49, 265-273.	3.6	9
26	Solvent induced temperature dependencies of NMR parameters of hydrogen bonded anionic clusters. Journal of Molecular Structure, 2004, 697, 9-15.	3.6	9
27	The vibrational spectrum of the OCS molecule based on the data on spectra of liquid and cryosolutions. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2008, 105, 242-250.	0.6	9
28	NMR study of proton location in strongly hydrogen bonded complexes of pyridine as influenced by solvent polarity. Journal of Molecular Liquids, 1995, 67, 217-234.	4.9	8
29	Effects of pair resonant dipole-dipole interactions on the formation of band profiles in infrared absorption spectra. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2003, 94, 513-527.	0.6	8
30	Influence of Resonance Interactions and Matrix Environment on the Spectra of SF <sub>6</sub> Dimers in Low-Temperature Nitrogen Matrixes. Theory and Experiment. Journal of Physical Chemistry A, 2009, 113, 6334-6341.	2.5	8
31	Effect of resonance dipole-dipole interaction on spectra of adsorbed SF <sub>6</sub> molecules. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 148, 271-279.	3.9	8
32	Origin of Evans holes in the infrared spectra of strongly hydrogen-bonded complexes. Pyridine-acid systems. Journal of Molecular Structure, 1994, 322, 217-221.	3.6	7
33	Vibrational moments of fundamental transitions in low-temperature molecular liquids: Determination from the band shape of vibrations in the overtone spectral range. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2006, 100, 372-381.	0.6	7
34	Infrared Studies of the Symmetry Changes of the <sup>28</sup> SiH <sub>4</sub> Molecule in Low-Temperature Matrixes. Fundamental, Combination, and Overtone Transitions. Journal of Physical Chemistry A, 2017, 121, 5116-5126.	2.5	7
35	Effect of resonance dipole-dipole interaction on the infrared spectra of adsorbed CF <sub>4</sub> . Experimental investigation and theoretical modeling. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 354, 4-10.	3.9	7
36	Stretching mode interaction of equal and unequal pairs of SeH <sup>+</sup> and SeD <sup>+</sup> defects in alkali halides. Radiation Effects and Defects in Solids, 1999, 151, 311-315.	1.2	6

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37	The effect of resonance interactions on the absorption spectra of (SF <sub>6</sub> ) <sub>2</sub> dimers in low-temperature matrices: Calculations and experiment. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq1 1 0.784314 rgBT /Overlock 10 TF	0.6	1
38	Effect of liquid to solid phase transition on rotational and vibrational broadening of vibrational bands of CF <sub>3</sub> Cl in Xe solutions. Vibrational Spectroscopy, 2000, 24, 277-286.	2.2	5
39	Vibrational spectrum of perfluoroethane. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq1 1 0.784314 rgBT /Overlock 10 TF	0.6	5
40	Vibrational spectra of monoisotopic SiH <sub>4</sub> and GeH <sub>4</sub> in low-temperature matrices. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2012, 112, 563-573.	0.6	5
41	Isotope effects in the vibrational spectrum of perfluoroethane. Journal of Molecular Structure, 2013, 1054-1055, 12-17.	3.6	5
42	An IR spectroscopic study of liquid ozone and ozone dissolved in liquid argon. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2013, 114, 216-224.	0.6	5
43	Determination of Strong Absorption Band Profiles of Low-Temperature Liquids from Reflection Spectra: The $\hat{1}/23$ Band of Liquefied Tetrafluoromethane (CF <sub>4</sub> ). Applied Spectroscopy, 2015, 69, 507-512.	2.2	5
44	An estimation of the contribution of $\hat{1}$ electronic states to magnetic shielding asymmetry in HD. Chemical Physics Letters, 2014, 591, 292-295.	2.6	4
45	High-Resolution IR Spectroscopy in Low-Temperature Matrices. Structure of Fundamental Absorption Bands of SiH <sub>4</sub> in Nitrogen and Argon Matrices. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq1 1 0.784314 rgBT /Overlock 10 TF	0.6	3
46	Study of anharmonic effects in the IR spectrum of a solution of CF <sub>3</sub> Br in liquid argon. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2007, 103, 603-613.	0.6	3
47	Study of cluster formation in low-temperature systems. Spectral manifestation of resonance dipole-dipole interactions between nondipole polyatomic molecules. Low Temperature Physics, 2010, 36, 439-447.	0.6	3
48	Structures of vibrational absorption bands of the SiF <sub>4</sub> molecule in a low-temperature nitrogen matrix. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2014, 117, 525-533.	0.6	3
49	Infrared spectra of thin CO <sub>2</sub> crystal at $\hat{7}\hat{a}\hat{c}$ 77 K: the band shape in the $\hat{1}/23$ <sup>13</sup> CO <sub>2</sub> absorption region. Chemical Physics Letters, 2015, 641, 117-122.	2.6	3
50	Vibrational spectra of Freons dissolved in liquid argon. Journal of Applied Spectroscopy, 1985, 43, 999-1005.	0.7	2
51	Fermi resonances in the vibrational spectrum of perfluoroethane. Journal of Molecular Structure, 2015, 1091, 20-24.	3.6	2
52	Isotope shifts in spectra of molecular liquids. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq0 0 0 rgBT /Overlock 10 TF	0.6	2
53	Infrared spectra of thin films of $\hat{1}\hat{\pm}$ -crystalline hexafluoroethane: a manifestation of resonant dipole-dipole interaction in the range of fundamental vibrational modes $\hat{1}/25$ and $\hat{1}/210$ . Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2017, 122, 880-888.	0.6	2
54	Spectroscopic study of nearest-neighbor pairs (dimers) of solute molecules SF <sub>6</sub> in liquefied buffer gas., 2000, , .		1

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55	FTIR studies of HCl dissolved in liquid CO: Anharmonic effects in the weak $\text{OC}\ddot{\text{O}}\text{HCl}$ complex. Journal of Molecular Structure, 2007, 844-845, 64-69.	3.6	1
56	Observation of simultaneous $\hat{1}/21(\text{SF}_6) + \hat{1}/23(\text{NF}_3)$ and $\hat{1}/22(\text{SF}_6) + \hat{1}/23(\text{NF}_3)$ transitions enhanced by the resonance dipole-dipole interaction with the $\hat{1}/21 + \hat{1}/23$ and $\hat{1}/22 + \hat{1}/23$ states of the $\text{SF}_6$ molecule. Optics and Spectroscopy 0.6 (English Translation of Optika i Spektroskopiya), 2010, 108, 533-543.	0.6	1
57	Dimerization constant of $\text{SF}_6$ and $\text{CF}_4$ in cryosolutions. Chemical Physics, 2011, 382, 27-33.	1.9	1
58	Extinction spectra in the fundamental region of hexafluoroethane at different condensed phases. Journal of Molecular Structure, 2019, 1187, 1-7.	3.6	1
59	The energy of the hydrogen bond in complexes of HBr, HCl and HF with organic bases. Theoretical and Experimental Chemistry, 1967, 2, 210-213.	0.8	0
60	Measurement of the emission spectrum of bodies at temperatures of 40?80i;1/2 C. Journal of Applied Spectroscopy, 1973, 18, 387-389.	0.7	0
61	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
62	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
63	Estimation of the contribution of vibronic interaction to the isotope effect on the nuclear magnetic shielding constant of a hydrogen bridge. Russian Journal of General Chemistry, 2006, 76, 1183-1190.	0.8	0
64	Manifestation of resonance dipole-dipole interaction in spectra of low-temperature molecular mixtures of $\text{C}_2\text{F}_6$ in $\text{CF}_4$ and $\text{CF}_4$ in $\text{C}_2\text{F}_6$ . Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2010, 108, 533-543.	0.6	1
65	Spectroscopic studies of ozone in cryosolutions: FT-IR spectra of $^{16}\text{O}_3$ in liquid nitrogen, oxygen, argon and krypton. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 193, 385-392.	3.9	0
66	Reflection-absorption FTIR study of $\text{SF}_6$ thin films in combinational modes region. Journal of Molecular Structure, 2021, 1224, 129051.	3.6	0