

Igor S Ignatyev

List of Publications by Year in descending order

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91
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1,057
citations

471371

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times ranked

847
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis and characterization of hypercoordinated germanium complexes with hydroxyalkylethylenediamines. <i>Journal of Organometallic Chemistry</i> , 2021, 958, 122188.	0.8	4
2	Triethanolammonium salicylate " Protic alkanolammonium ionic liquid. <i>Journal of Molecular Liquids</i> , 2016, 221, 1218-1224.	2.3	33
3	DFT study of the hydrolysis reaction in atranes and ocanes: the influence of transannular bonding. <i>Journal of Molecular Modeling</i> , 2016, 22, 3.	0.8	7
4	Molecular and crystal structures of 2-phenyl-2-hydro-6-methyl-1,3-dioxo-6-aza-2-silacyclooctane. <i>Journal of Molecular Structure</i> , 2015, 1094, 169-173.	1.8	6
5	Synthesis, molecular structure, and vibrational spectra of tetrakis(2-hydroxyethylammonium) chloride and its triethanolamine precursor and metabolite. <i>Russian Journal of General Chemistry</i> , 2014, 84, 1904-1908.	0.3	0
6	Synthesis of phenylsilocene tritium-labeled at the benzene ring. <i>Russian Journal of General Chemistry</i> , 2014, 84, 2125-2129.	0.3	3
7	Vibrational spectra and electronic structure of 1-germatranol, 1,1-quasi-germatrandiole, and 1,1,1-hypogermatrantriole (HO) ₄ Ge(OCH ₂ CH ₂) _n NR ₃ (R = H, Me; n = 1-3). <i>Journal of Structural Chemistry</i> , 2014, 55, 431-437.	0.3	2
8	Radiochemical study of gas-phase reactions of diethylstannyl cations Et ₂ SnT ⁺ with oxygen-containing compounds: II. Reaction of diethylstannyl cations with butanol. <i>Russian Journal of General Chemistry</i> , 2014, 84, 816-821.	0.3	0
9	Radiochemical study of gas-phase reactions of diethylstannilium cations Et ₂ SnT ⁺ with oxygen-containing compounds: I. Interaction of diethylstannilium cations with methyl tert-butyl ether. <i>Russian Journal of General Chemistry</i> , 2013, 83, 938-942.	0.3	1
10	Quantum chemical study of silanediols as metal binding groups for metalloprotease inhibitors. <i>Journal of Molecular Modeling</i> , 2013, 19, 1819-1834.	0.8	6
11	An assessment of DFT methods for predicting the thermochemistry of ion-molecule reactions of group 14 elements (Si, Ge, Sn). <i>Journal of Molecular Modeling</i> , 2013, 19, 5439-5444.	0.8	7
12	Vibrational spectra and electronic structure of germatranols (HO) ₄ Ge(OCH ₂ CH ₂) _n NR ₃ (R = H); <i>Journal of Molecular Modeling</i> , 2013, 19, 5439-5444.	0.8	7
13	Vibrational spectra of silatranes and germatranes XM(OCH ₂ CH ₂) ₃ N (X = F, Cl, H; M = Si, Ge). The problem of the theoretical prediction of condensed phase spectra. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2012, 95, 37-45.	2.0	16
14	Effect of substituents and hydrogen bonding on barrier heights in dehydration reactions of carbon and silicon geminal diols. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 18507.	1.3	9
15	Nucleogenic silylium cations and their analogs. <i>Journal of Organometallic Chemistry</i> , 2011, 696, 1331-1340.	0.8	12
16	Isomerization of silicenium and germanium ions in the systems C ₄ H ₁₁ M ⁺ (M = Si, Ge). <i>Russian Journal of General Chemistry</i> , 2010, 80, 1283-1287.	0.3	2
17	Quantum-chemical study of the stereoelectronic structure of 1-fluorosilatrane, 1,1-difluoroquasisilatrane, 1,1,1-trifluorohyposilatrane, and cations formed thereof. <i>Russian Journal of General Chemistry</i> , 2010, 80, 2274-2282.	0.3	12
18	Theoretical study of the mechanisms of the hydrolysis and condensation reactions of silicon and titanium alkoxides: similarities and differences. <i>Dalton Transactions</i> , 2010, 39, 6967.	1.6	17

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19	Mechanism of the Catalytic Activity of Nucleophiles in the Stepwise Hydrolysis and Condensation Reactions of Tetramethoxysilane. <i>ChemPhysChem</i> , 2009, 10, 940-945.	1.0	7
20	DFT predictions of vibrational spectra of titanium tetramethoxide oligomers and the structure of titanium tetraalkoxides in liquid and solid phases. <i>Vibrational Spectroscopy</i> , 2009, 51, 218-225.	1.2	7
21	Rearrangements of $[C_6H_7Si]^+ Cations$. A Radiochemical and Quantum Chemical Study. <i>Journal of Physical Chemistry A</i> , 2009, 113, 6028-6033.	1.1	3
22	Role of structures with penta- and hexacoordinate silicon in the nucleophile-catalyzed hydrolysis of tetramethoxysilane. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 841-847.	1.3	7
23	Rearrangement and decomposition of $(CH_3)_3M^+$ (M=Si, Ge, Sn) ions: A DFT study. <i>Journal of Organometallic Chemistry</i> , 2008, 693, 2856-2862.	0.8	9
24	Structure and Vibrational Spectra of Ti(IV) Hydroxides and Their Clusters with Expanded Titanium Coordination. DFT Study. <i>Journal of Physical Chemistry A</i> , 2007, 111, 7973-7979.	1.1	19
25	Bonding in germatranyl cation and germatranes. <i>Journal of Organometallic Chemistry</i> , 2007, 692, 5697-5700.	0.8	21
26	Structures and mutual transformations of isomers of germylium ions $(CH_3)_2H_2Ge^+$ and $(CH_3)_2HGe^+$ and their silicon analogs. <i>Russian Journal of General Chemistry</i> , 2007, 77, 575-580.	0.3	8
27	Structure and vibrational spectra of vinyl ether conformers. The comparison of B3LYP and MP2 predictions. <i>Chemical Physics</i> , 2007, 333, 148-156.	0.9	11
28	Vibrational spectra and structure of methoxysilanes and products of their hydrolysis. <i>Vibrational Spectroscopy</i> , 2006, 40, 1-9.	1.2	19
29	Reactions of silylium ions with nucleophiles. <i>Russian Journal of General Chemistry</i> , 2006, 76, 1774-1777.	0.3	2
30	Vibrational spectrum of chlorotrimethylsilane. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2005, 62, 293-301.	2.0	12
31	Vibrational spectrum of methoxytrimethylsilane. <i>Journal of Molecular Structure</i> , 2005, 744-747, 331-338.	1.8	13
32	Theoretical models for the description of the IR frequency shifts of carbon monoxide interacting with silanol groups. <i>Chemical Physics Letters</i> , 2005, 406, 273-278.	1.2	6
33	Structure and vibrational spectra of dimethylsilanediol and methylsilanetriol dimers. <i>Chemical Physics Letters</i> , 2005, 412, 359-364.	1.2	6
34	A Radiochemical Study of Reactions of Diethylsilylium Ions with Trimethyl(tert-butylamino)silane in Gas and Liquid Phases. <i>Russian Journal of General Chemistry</i> , 2005, 75, 69-72.	0.3	2
35	Gas-Phase Reaction of Free Diethylsilylium Ions with Hexamethyldisiloxane. <i>Russian Journal of General Chemistry</i> , 2005, 75, 708-710.	0.3	2
36	Energies of Association of Carbenium and Silylium Cations with Oxygen-Containing Molecules. <i>Russian Journal of General Chemistry</i> , 2005, 75, 711-713.	0.3	1

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37	Proton Migration in Benzene Complexes of Methyl and Silyl Cations. Russian Journal of General Chemistry, 2005, 75, 1221-1224.	0.3	2
38	Effect of the Electronic Structure of Carbenium and Silylium Ions on Their Chemical Behavior. Russian Journal of General Chemistry, 2005, 75, 1225-1229.	0.3	2
39	Interconversion of Silylphenyl and Phenylsilyl Cations in the Reaction with Benzene. Russian Journal of General Chemistry, 2005, 75, 1393-1394.	0.3	3
40	Radiochemical and Quantum-Chemical Study of the Migration of the Cationic Center in the SiC ₆ H ₇ ⁺ Ion. Russian Journal of General Chemistry, 2005, 75, 1395-1398.	0.3	2
41	Radiochemical Study of the Reactions of Diethylsilylium Ions with Hexamethyldisilazane and Isobutylamine in the Gas Phase. Russian Journal of General Chemistry, 2005, 75, 1399-1401.	0.3	1
42	Intramolecular hydrogen bonding in silanediols. Computational and Theoretical Chemistry, 2004, 678, 249-256.	1.5	16
43	Vibrational spectra of trimethylsilanol. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2004, 60, 1169-1178.	2.0	26
44	Hydrogen bonding and structure of silanediol dimers and tetramers. Chemical Physics Letters, 2004, 384, 326-331.	1.2	16
45	Dihydrogen and Methane Elimination from Adducts Formed by the Interaction of Carbenium and Silylium Cations with Nucleophiles. Journal of the American Chemical Society, 2004, 126, 14515-14526.	6.6	15
46	Ion-Molecular Reactions of Diethylsilylium Ions with Alcohols in the Gas Phase. Russian Journal of General Chemistry, 2003, 73, 61-65.	0.3	3
47	Condensation reactions in silanol-water clusters. Chemical Physics Letters, 2003, 368, 616-624.	1.2	13
48	Comment on: "Reactions of Phenyl Cations with Methanol and Methyl Fluoride". Journal of Physical Chemistry A, 2002, 106, 7076-7077.	1.1	3
49	Reply to Comment on "Reactions of Phenyl Cations with Methanol and Methyl Fluoride". Journal of Physical Chemistry A, 2002, 106, 7078-7079.	1.1	1
50	Effect of the Silyl Substitution on Structure and Vibrational Spectra of Hydrogen-Bonded Networks in Dimers, Cyclic Trimers, and Tetramers. Journal of Physical Chemistry A, 2002, 106, 11644-11652.	1.1	21
51	Radiochemical study of the gas phase reaction of nucleogenic diethylsilylium ions with methanol and butanol. Journal of Organometallic Chemistry, 2002, 656, 258-261.	0.8	10
52	Gas-phase reaction of phenyl cation with diethylamine. Journal of Radioanalytical and Nuclear Chemistry, 2002, 253, 435-437.	0.7	2
53	Role of Hexacoordinated Silicon Intermediates in the Hydrolysis and Racemization Reactions of Silyl Halides. Organometallics, 2001, 20, 3113-3121.	1.1	17
54	Stable Hexacoordinated Neutral Complexes between Silyl Halides and Two Water or Two Ammonia Molecules: SiX ₄ Y ₂ (X = H, F, Cl; Y = H ₂ O, NH ₃). Journal of Physical Chemistry A, 2001, 105, 7665-7671.	1.1	27

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55	Reactions of Phenyl Cations with Methanol and Methyl Fluoride. <i>Journal of Physical Chemistry A</i> , 2001, 105, 4535-4540.	1.1	6
56	Triplet states of carbenium and silylium cations. <i>Chemical Physics Letters</i> , 2001, 337, 158-168.	1.2	1
57	Gas-Phase Ion-Molecular Reactions of Free Ethylsilylium Ions with Ethylene. <i>Russian Journal of General Chemistry</i> , 2001, 71, 206-209.	0.3	2
58	Title is missing!. <i>Russian Journal of General Chemistry</i> , 2001, 71, 934-938.	0.3	1
59	Transition states for inversion and retention of configuration channels in the reactions of alkyl and silyl fluorides with a water molecule. <i>Chemical Physics Letters</i> , 2000, 320, 469-474.	1.2	8
60	Competitive ring hydride shifts and tolyl-benzyl rearrangements in tolyl and silatolyl cations. <i>Chemical Physics Letters</i> , 2000, 326, 101-108.	1.2	45
61	Binuclear Homoleptic Nickel Carbonyls: Incorporation of Ni-Ni Single, Double, and Triple Bonds, Ni ₂ (CO) _x (x = 5, 6, 7). <i>Journal of the American Chemical Society</i> , 2000, 122, 1989-1994.	6.6	61
62	Vibrational spectra and structure of X ₃ AlOPX ₃ (X = F, Cl). <i>Journal of Molecular Structure</i> , 1999, 480-481, 667-676.	1.8	2
63	Bromine Halides: The Neutral Molecules BrClF _n (n = 1-5) and Their Anions Structures, Energetics, and Electron Affinities. <i>Journal of the American Chemical Society</i> , 1999, 121, 6904-6910.	6.6	13
64	Mechanism of Rearrangement and Alkene Addition/Elimination Reactions of SiC ₃ H ₉ ⁺ . <i>Organometallics</i> , 1998, 17, 2819-2824.	1.1	9
65	Silacyanogen. <i>Journal of Chemical Physics</i> , 1997, 107, 5776-5779.	1.2	3
66	Mechanism of the C ₂ H ₅ +O ₂ reaction. <i>Journal of Chemical Physics</i> , 1997, 107, 141-155.	1.2	142
67	Effects of Fluorination on Methylene Insertion Reactions. <i>Journal of the American Chemical Society</i> , 1997, 119, 12306-12310.	6.6	15
68	Potential Energy Surface of the Dimethylsilylium Cation and Mechanism of the Isomer Interconversion. <i>Organometallics</i> , 1996, 15, 5674-5677.	1.1	16
69	Vibrational spectra of hexafluorodisiloxane and internal rotation around the SiO bond. An ab initio study. <i>Computational and Theoretical Chemistry</i> , 1995, 343, 69-75.	1.5	4
70	The search for the low-lying states of the silicon carbide cluster cation Si ₂ C ⁺ . <i>Journal of Chemical Physics</i> , 1995, 103, 7025-7029.	1.2	4
71	[7]Circulene: a remarkably floppy polycyclic aromatic C ₂₈ H ₁₄ isomer. <i>The Journal of Physical Chemistry</i> , 1993, 97, 3212-3216.	2.9	39
72	Diazasilene (Si ₂ N ₂): a comparison of coupled cluster methods with experiment and local density functional methods. <i>The Journal of Physical Chemistry</i> , 1992, 96, 7632-7634.	2.9	18

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73	Normal coordinate analysis of the vibrational spectra of stannatranes. <i>Spectrochimica Acta Part A: Molecular Spectroscopy</i> , 1992, 48, 489-493.	0.1	3
74	Theoretical prediction of vibrational spectra. The a priori scaled quantum mechanical (SQM) force field and vibrational spectra of pyrimidine. <i>Spectrochimica Acta Part A: Molecular Spectroscopy</i> , 1992, 48, 111-119.	0.1	52
75	Scaled ab initio force fields of s-cis and skew conformers of methyl vinyl ether. <i>Journal of Molecular Structure</i> , 1991, 246, 279-287.	1.8	8
76	Ab initio study of trimethyloxonium and disilylmethyloxonium cations as intermediates in reactions of CH ₃ cations with ethers and disiloxanes. <i>Computational and Theoretical Chemistry</i> , 1991, 236, 249-257.	1.5	8
77	Molecular structure, force field and vibrational spectra of tetramethoxysilane. <i>Journal of Molecular Structure</i> , 1991, 244, 193-202.	1.8	24
78	Intramolecular coordination of silicon in silyl formates: spectroscopic evidence confirmed by ab initio calculations. <i>Journal of Molecular Structure</i> , 1991, 245, 139-145.	1.8	8
79	Vibrational spectrum and molecular structure of methoxyallene. <i>Spectrochimica Acta Part A: Molecular Spectroscopy</i> , 1990, 46, 1505-1512.	0.1	6
80	The relation of methoxy group CH bond lengths and stretching frequencies to the oxygen lone pair orientation. <i>Journal of Molecular Structure</i> , 1989, 197, 251-257.	1.8	5
81	The ab initio analysis of molecular geometry and force fields in H ₃ XOXH ₃ (X = C, Si) series. <i>Journal of Molecular Structure</i> , 1988, 172, 139-149.	1.8	15
82	Vibrational spectrum and intramolecular coordination of silicon in 1-hydrosilatrane. <i>Bulletin of the Academy of Sciences of the USSR Division of Chemical Science</i> , 1986, 35, 1375-1382.	0.0	2
83	Equilibrium geometry, force field, and electronic structure of the ketene molecule. <i>Journal of Structural Chemistry</i> , 1985, 26, 345-350.	0.3	1
84	Vibrational spectrum, force field, and chemical structure of bis(trimethylsilyl) peroxide. <i>Journal of Structural Chemistry</i> , 1985, 26, 201-207.	0.3	3
85	Varying metric method in the gradient solution of the inverse mechanical problem of molecular vibrations. <i>Journal of Applied Spectroscopy</i> , 1984, 40, 711-716.	0.3	0
86	Vibrational spectra and molecular structure of methyl vinyl ether. <i>Journal of Molecular Structure</i> , 1981, 72, 25-39.	1.8	34
87	Vibrational spectrum, force field, and characteristics of the chemical structure of trimethylsilyl formate. <i>Journal of Applied Spectroscopy</i> , 1979, 30, 209-214.	0.3	0
88	Normal vibrations and force field of hexachlorodisiloxane Cl ₃ SiOSiCl ₃ . <i>Journal of Applied Spectroscopy</i> , 1978, 28, 214-218.	0.3	0
89	Normal coordinates of the hexafluorodisiloxane molecule F ₃ SiOSiF ₃ and the structure of the vibrational bands of its siloxane bridge. <i>Journal of Applied Spectroscopy</i> , 1978, 28, 321-326.	0.3	1
90	Force constants and bond lengths in oxygen compounds of silicon, germanium, and phosphorus. <i>Journal of Structural Chemistry</i> , 1976, 16, 541-544.	0.3	1

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91	The vibrational spectrum and chemical constitution of trimethylsilylvinyl ether, (CH ₃) ₃ SiOCH=CH ₂ . Spectrochimica Acta Part A: Molecular Spectroscopy, 1971, 27, 2291-2308.	0.1	18