Igor A Sedov

List of Publications by Year
in descending order

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68	1,034	430874	501196
papers	citations	18 h-index	28 g-index

70	70	70	721
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	New insights into the solubility of graphene oxide in water and alcohols. Physical Chemistry Chemical Physics, 2017, 19, 17000-17008.	2.8	111
2	Solvophobic effects and relationships between the Gibbs energy and enthalpy for the solvation process. Journal of Physical Organic Chemistry, 2011, 24, 1088-1094.	1.9	43
3	Abraham model correlations for solute transfer into 2-methoxyethanol from water and from the gas phase. Journal of Molecular Liquids, 2015, 209, 738-744.	4.9	40
4	Development of Abraham model correlations for solute transfer into both 2-propoxyethanol and 2-isopropoxyethanol at 298.15 K. Journal of Molecular Liquids, 2015, 212, 833-840.	4.9	39
5	Quantitative Description of the Hydrophobic Effect:Â the Enthalpic Contribution. Journal of Physical Chemistry B, 2006, 110, 9298-9303.	2.6	38
6	Abraham model correlations for describing solute transfer into 2-butoxyethanol from both water and the gas phase at 298K. Journal of Molecular Liquids, 2015, 209, 196-202.	4.9	37
7	Abraham model correlations for solute transfer into 2-ethoxyethanol from water and from the gas phase. Journal of Molecular Liquids, 2015, 208, 63-70.	4.9	37
8	Enthalpies and Gibbs free energies of solvation in ethylene glycol at 298K: Influence of the solvophobic effect. Fluid Phase Equilibria, 2013, 354, 95-101.	2.5	29
9	Abraham Model Expressions for Describing Water-to-Diethylene Glycol and Gas-to-Diethylene Glycol Solute Transfer Processes at 298.15ÂK. Journal of Solution Chemistry, 2017, 46, 331-351.	1.2	29
10	Thermodynamics of solvation and solvophobic effect in formamide. Journal of Chemical Thermodynamics, 2013, 64, 120-125.	2.0	26
11	Solvophobic effects: Qualitative determination and quantitative description. Journal of Structural Chemistry, 2013, 54, 262-270.	1.0	25
12	Abraham model linear free energy relationships for describing the partitioning and solubility behavior of nonelectrolyte organic solutes dissolved in pyridine at 298.15ÂK. Fluid Phase Equilibria, 2017, 431, 66-74.	2.5	24
13	Determination of Abraham Model Correlations for Solute Transfer into Propyl Acetate Based on Experimental Activity Coefficient and Solubility Data. Journal of Solution Chemistry, 2018, 47, 634-653.	1.2	22
14	Abraham model correlations for describing the thermodynamic properties of solute transfer into pentyl acetate based on headspace chromatographic and solubility measurements. Journal of Chemical Thermodynamics, 2018, 124, 133-140.	2.0	22
15	Thermodynamic description of the solvophobic effect in ionic liquids. Fluid Phase Equilibria, 2016, 425, 9-14.	2.5	21
16	Solvation of apolar compounds in protic ionic liquids: the non-synergistic effect of electrostatic interactions and hydrogen bonds. Physical Chemistry Chemical Physics, 2017, 19, 25352-25359.	2.8	20
17	Influence of the Cross-Link Density on the Rate of Crystallization of Poly(Îµ-Caprolactone). Polymers, 2018, 10, 902.	4.5	20
18	Comparative study of the protein denaturing ability of different organic cosolvents. International Journal of Biological Macromolecules, 2020, 160, 880-888.	7.5	20

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19	The hydrophobic effect Gibbs energy. Journal of Molecular Liquids, 2008, 139, 89-97.	4.9	19
20	Hydrogen bonding in neat aliphatic alcohols: The Gibbs free energy of self-association and molar fraction of monomer. Journal of Molecular Liquids, 2012, 167, 47-51.	4.9	19
21	Standard molar Gibbs free energy and enthalpy of solvation of low polar solutes in formamide derivatives at 298 K. Thermochimica Acta, 2016, 623, 9-14.	2.7	19
22	Thermodynamics of solvation in propylene glycol and methyl cellosolve. Journal of Chemical Thermodynamics, 2014, 78, 32-36.	2.0	18
23	Gibbs free energy of hydrogen bonding of aliphatic alcohols with liquid water at 298K. Fluid Phase Equilibria, 2012, 315, 16-20.	2.5	16
24	Evaluation of the binding properties of drugs to albumin from DSC thermograms. International Journal of Pharmaceutics, 2020, 583, 119362.	5.2	16
25	tert-Butyl chloride as a probe of the solvophobic effects. Fluid Phase Equilibria, 2014, 382, 164-168.	2.5	15
26	The Gibbs free energy of cavity formation in a diverse set of solvents. Journal of Chemical Physics, 2020, 153, 134501.	3.0	15
27	Relation between the characteristic molecular volume and hydrophobicity of nonpolar molecules. Journal of Chemical Thermodynamics, 2010, 42, 1126-1130.	2.0	14
28	Determining the Gibbs Energies of Hydrogen-Bonding Interactions of Proton-Accepting Solutes in Aqueous Solutions from Thermodynamic Data at 298 K with Regard to the Hydrophobic Effect. Journal of Chemical & Engineering Data, 2011, 56, 1438-1442.	1.9	14
29	Solvation of hydrocarbons in aqueous-organic mixtures. Journal of Chemical Thermodynamics, 2016, 96, 153-160.	2.0	13
30	Abraham Model Correlations for Triethylene Glycol Solvent Derived from Infinite Dilution Activity Coefficient, Partition Coefficient and Solubility Data Measured at 298.15ÂK. Journal of Solution Chemistry, 2017, 46, 2249-2267.	1.2	13
31	Interaction-induced structural transformation of lysozyme and kappa-carrageenan in binary complexes. Carbohydrate Polymers, 2021, 252, 117181.	10.2	13
32	A method for calculating the Gibbs energy of nonspecific solvation. Russian Journal of Physical Chemistry A, 2008, 82, 704-708.	0.6	12
33	Abraham model correlations for solute transfer into 2-methyl-2-butanol based on measured activity coefficient and solubility data at 298.15â€K. Journal of Molecular Liquids, 2019, 293, 111454.	4.9	12
34	A method to determine the Gibbs energy of specific interactions in solutions. Hydrogen bonding of proton donating solutes in basic solvents. Fluid Phase Equilibria, 2009, 276, 108-115.	2.5	11
35	Solvent Influence on the Dielsâ€Alder Reaction Rates of 9â€(Hydroxymethyl)anthracene and 9,10â€Bis(hydroxymethyl)anthracene with Two Maleimides. International Journal of Chemical Kinetics, 2017, 49, 61-68.	1.6	11
36	C-547, a 6-methyluracil derivative with long-lasting binding and rebinding on acetylcholinesterase: Pharmacokinetic and pharmacodynamic studies. Neuropharmacology, 2018, 131, 304-315.	4.1	11

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37	Fast scanning calorimetry of lysozyme unfolding at scanning rates from 5â€¯K/min to 500,000â€¯K/min. Biochimica Et Biophysica Acta - General Subjects, 2018, 1862, 2024-2030.	2.4	11
38	The Effect of Dimethyl Sulfoxide on the Lysozyme Unfolding Kinetics, Thermodynamics, and Mechanism. Biomolecules, 2019, 9, 547.	4.0	10
39	Binding Constants of Substituted Benzoic Acids with Bovine Serum Albumin. Pharmaceuticals, 2020, 13, 30.	3.8	10
40	Development of Abraham model correlations for enthalpies of solvation of solutes dissolved in N-methylformamide, 2-pyrrolidone and N-methylpyrrolidone. Journal of Molecular Liquids, 2021, 323, 114609.	4.9	10
41	A method for calculating the enthalpy of hydrophobic effect. Russian Journal of Physical Chemistry A, 2006, 80, 659-662.	0.6	9
42	Distinctive thermodynamic properties of soluteâ€“solvent hydrogen bonds in selfâ€associated solvents. Journal of Physical Organic Chemistry, 2012, 25, 1144-1152.	1.9	9
43	Atmospheric and high pressure ene reaction of norbornene with 4-phenyl-3H-1,2,4-triazole-3,5(4H)-dione. Russian Journal of Organic Chemistry, 2015, 51, 387-391.	0.8	8
44	Molecular dynamics study of unfolding of lysozyme in water and its mixtures with dimethyl sulfoxide. Journal of Molecular Graphics and Modelling, 2017, 76, 466-474.	2.4	8
45	Gibbs energy of cooperative hydrogenâ€bonding interactions in aqueous solutions of amines and pyridines. Journal of Physical Organic Chemistry, 2009, 22, 1142-1147.	1.9	7
46	Thermodynamic Functions of Solvation of Hydrocarbons, Noble Gases, and Hard Spheres in Tetrahydrofuranâ€“Water Mixtures. Journal of Physical Chemistry B, 2015, 119, 8773-8780.	2.6	7
47	Calorimetric study of solvation of low polar solutes in propylene glycol and methyl cellosolve at 298 K. Thermochimica Acta, 2014, 589, 247-251.	2.7	6
48	Contrasting the solvation properties of protic ionic liquids with different nanoscale structure. Journal of Molecular Liquids, 2019, 290, 111361.	4.9	6
49	Thermodynamics of cavity formation in different solvents: Enthalpy, entropy, and the solvophobic effects. Journal of Molecular Liquids, 2021, 331, 115738.	4.9	6
50	4â€(Dimethylamino)Pyridinium Azide in Protic Ionic Liquid Media as a Stable Equivalent of Hydrazoic Acid. Advanced Synthesis and Catalysis, 2022, 364, 2403-2415.	4.3	6
51	A procedure for calibration of differential scanning calorimeters. Thermochimica Acta, 2016, 639, 10-13.	2.7	5
52	[2Ï€ + 2Ï€]-Cycloaddition of biadamantylidene to 4-phenyl-3H-1,2,4-triazole-3,5(4H)-dione. Effects of temperature, high pressure, and solvent. Russian Journal of Organic Chemistry, 2017, 53, 1864-1869.	0.8	5
53	Binding Constants of Clinical Drugs and Other Organic Ligands with Human and Mammalian Serum Albumins. Biophysica, 2021, 1, 344-358.	1.4	5
54	Solvation properties of protic ionic liquids 2-methoxyethylammonium nitrate, propylammonium hydrogen sulfate, and butylammonium hydrogen sulfate. Journal of Chemical Thermodynamics, 2022, 170, 106779.	2.0	5

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55	Evaluating the contribution of solvophobic effects to the Gibbs energy of solvation in methanol. Russian Journal of Physical Chemistry A, 2011, 85, 621-626.	0.6	4
56	Thermodynamic functions of solvation of benzene in various binary aqueous-organic solvents. Journal of Molecular Liquids, 2016, 224, 1205-1209.	4.9	4
57	Solvophobic Acceleration of a Dielsâ€“Alder Reaction in True Solutions in Organic Solvents. International Journal of Chemical Kinetics, 2018, 50, 319-324.	1.6	4
58	Kinetics and thermochemistry of the unusual [2Ï€Â+Â2ÏƒÂ+Â2Ïƒ]â€cycloaddition of quadricyclane with some dienophiles. Journal of Physical Organic Chemistry, 2018, 31, e3737.	1.9	4
59	Calorimetric observation of lysozyme degradation at elevated temperature in water and DMSO-water mixtures. Thermochimica Acta, 2021, 695, 178826.	2.7	4
60	Crystal Nucleation and Growth in Cross-Linked Poly(Îµ-caprolactone) (PCL). Polymers, 2021, 13, 3617.	4.5	4
61	Effect of ligands with different affinity on albumin fibril formation. International Journal of Biological Macromolecules, 2022, 204, 709-717.	7.5	4
62	A method for calculating the Gibbs energies of hydrophobic effects and specific interactions of nonelectrolytes in aqueous solutions. Russian Journal of Physical Chemistry A, 2008, 82, 1110-1114.	0.6	2
63	Calculating the Gibbs energy of hydrogen bonding for proton acceptors with a solvent in methanol solutions. Russian Journal of Physical Chemistry A, 2011, 85, 811-815.	0.6	1
64	Binding constants of drug-albumin complexes from DSC measurements. Thermochimica Acta, 2021, 699, 178930.	2.7	1
65	Response to â€œComment on â€˜The Gibbs free energy of cavity formation in a diverse set of solventsâ€™â€•[J. Chem. Phys. 154, 187101 (2021)]. Journal of Chemical Physics, 2021, 154, 187102.	3.0	1
66	Development of Predictive Expressions for Infinite Dilution Activity Coefficients, Molar Solubilities and Partition Coefficients for Solutes Dissolved in 2-Pyrrolidone Based on the Abraham Solvation Parameter Model. Journal of Solution Chemistry, 2022, 51, 975-991.	1.2	1
67	Corrigendum for â€œDevelopment of Abraham Model Correlations for Solute Transfer into Both 2-Propoxyethanol and 2-Isopropoxyethanol at 298.15 Kâ€•[J. Mol. Liq. 2015, 212, 833â€“840]. Journal of Molecular Liquids, 2017, 241, 730.	4.9	0
68	Pressure, temperature, and solvent effects on the rates of reactions of 3,4-dihydro-2H-pyran with tetracyanoethylene and 4-phenyl-1,2,4-triazoline-3,5-dione. Russian Chemical Bulletin, 2019, 68, 351-356.	1.5	0