Andrey V Plyasunov

List of Publications by Year
in descending order

52	1,308	361413 20	361022 35
papers	citations	h-index	g-index

54	54	54	770
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Thermodynamic functions of hydration of hydrocarbons at 298.15 K and 0.1 MPa. Geochimica Et Cosmochimica Acta, 2000, 64, 439-468.	3.9	128
2	Correlation strategy for determining the parameters of the revised Helgeson-Kirkham-Flowers model for aqueous nonelectrolytes. Geochimica Et Cosmochimica Acta, 2001, 65, 3879-3900.	3.9	94
3	Infinite dilution partial molar properties of aqueous solutions of nonelectrolytes. I. Equations for partial molar volumes at infinite dilution and standard thermodynamic functions of hydration of volatile nonelectrolytes over wide ranges of conditions. Geochimica Et Cosmochimica Acta, 2000, 64, 495-512.	3.9	92
4	Prediction of the vaporâ€“liquid distribution constants for volatile nonelectrolytes in water up to its critical temperature. Geochimica Et Cosmochimica Acta, 2003, 67, 4981-5009.	3.9	65
5	The temperature dependence of stability constants for the formation of polynuclear cationic complexes. Geochimica Et Cosmochimica Acta, 1994, 58, 3561-3582.	3.9	62
6	Carbohydrates in thermophile metabolism: calculation of the standard molal thermodynamic properties of aqueous pentoses and hexoses at elevated temperatures and pressures. Geochimica Et Cosmochimica Acta, 2001, 65, 3901-3917.	3.9	56
7	Thermodynamic properties of H4SiO4 in the ideal gas state as evaluated from experimental data. Geochimica Et Cosmochimica Acta, 2011, 75, 3853-3865.	3.9	53
8	Database of Thermodynamic Properties for Aqueous Organic Compounds. International Journal of Thermophysics, 2004, 25, 351-360.	2.1	48
9	Infinite dilution partial molar properties of aqueous solutions of nonelectrolytes. II. equations for the standard thermodynamic functions of hydration of volatile nonelectrolytes over wide ranges of conditions including subcritical temperatures. Geochimica Et Cosmochimica Acta, 2000, 64, 2779-2795.	3.9	47
10	Estimation of the Krichevskii parameter for aqueous nonelectrolytes. Journal of Supercritical Fluids, 2001, 20, 91-103.	3.2	44
11	Group Contribution Values of the Infinite Dilution Thermodynamic Functions of Hydration for Aliphatic Noncyclic Hydrocarbons, Alcohols, and Ketones at 298.15 K and 0.1 MPaâ€. Journal of Chemical & Engineering Data, 2001, 46, 1016-1019.	1.9	42
12	Thermodynamics of Si(OH)4 in the vapor phase of water: Henryâ€™s and vaporâ€“liquid distribution constants, fugacity and cross virial coefficients. Geochimica Et Cosmochimica Acta, 2012, 77, 215-231.	3.9	41
13	On the use of semiempirical electrolyte theories for modeling of solution chemical data. Pure and Applied Chemistry, 1997, 69, 951-958.	1.9	38
14	Group Contribution Values for the Thermodynamic Functions of Hydration of Aliphatic Esters at 298.15 K, 0.1 MPa. Journal of Chemical & Engineering Data, 2004, 49, 1152-1167.	1.9	34
15	Standard state Gibbs energies of hydration of hydrocarbons at elevated temperatures as evaluated from experimental phase equilibria studies. Geochimica Et Cosmochimica Acta, 2000, 64, 2811-2833.	3.9	33
16	Second Cross Virial Coefficients for Interactions Involving Water. Critical Data Compilation. Journal of Chemical & Engineering Data, 2003, 48, 808-821.	1.9	33
17	Group Contribution Values for the Thermodynamic Functions of Hydration at 298.15 K, 0.1 MPa. 3. Aliphatic Monoethers, Diethers, and Polyethers. Journal of Chemical & Engineering Data, 2006, 51, 276-290.	1.9	31
18	Group Contribution Values for the Thermodynamic Functions of Hydration at 298.15 K, 0.1 MPa. 2. Aliphatic Thiols, Alkyl Sulfides, and Polysulfides. Journal of Chemical & Engineering Data, 2005, 50, 246-253.	1.9	26

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19	Values of the Krichevskii Parameter, AKr, of Aqueous Nonelectrolytes Evaluated from Relevant Experimental Data. Journal of Physical and Chemical Reference Data, 2012, 41, 033104.	4.2	25
20	Second Cross Virial Coefficients for Interactions Involving Water. Correlations and Group Contribution Values. Journal of Chemical & Engineering Data, 2003, 48, 1463-1470.	1.9	21
21	Estimation of the Pitzer Equation Parameters for Aqueous Complexes. A Case Study for Uranium at 298.15 K and 1 atm.. Acta Chemica Scandinavica, 1998, 52, 250-260.	0.7	19
22	Corresponding-states correlations for estimating partial molar volumes of nonelectrolytes at infinite dilution in water over extended temperature and pressure ranges. Fluid Phase Equilibria, 2006, 247, 18-31.	2.5	18
23	Correlation and prediction of thermodynamic properties of nonelectrolytes at infinite dilution in water over very wide temperature and pressure ranges (2000K and 10GPa). Geochimica Et Cosmochimica Acta, 2015, 168, 236-260.	3.9	18
24	Thermodynamics of B(OH)3 in the vapor phase of water: Vaporâ€“liquid and Henry's constants, fugacity and second cross virial coefficients. Fluid Phase Equilibria, 2011, 305, 212-218.	2.5	17
25	Application of the Akinfievâ€“Diamond equation of state to neutral hydroxides of metalloids (B(OH)3,) Tj ETQq1 1 0.784314 rgBT /Over steam conditions. Geochimica Et Cosmochimica Acta, 2014, 126, 338-351.	3.9	17
26	Solubility of MoO3 in acid solutions and vapor-liquid distribution of molybdic acid. Fluid Phase Equilibria, 2017, 440, 64-76.	2.5	17
27	Group Contribution Values for the Thermodynamic Functions of Hydration at 298.15 K, 0.1 MPa. 4. Aliphatic Nitriles and Dinitriles. Journal of Chemical & Engineering Data, 2006, 51, 1481-1490.	1.9	16
28	Semiempirical equation of state for the infinite dilution thermodynamic functions of hydration of nonelectrolytes over wide ranges of temperature and pressure. Fluid Phase Equilibria, 2001, 183-184, 133-142.	2.5	15
29	Thermodynamic properties of Si(<scp>OH</scp>)₄(g) based on combined experimental and quantum chemistry data. Journal of the American Ceramic Society, 2018, 101, 4921-4926.	3.8	15
30	Steam solubilities of solid MoO3, ZnO and Cu2O, calculated on a basis of a thermodynamic model. Fluid Phase Equilibria, 2013, 338, 232-244.	2.5	12
31	Solubility of calcium molybdate in aqueous solutions at 573ÂK and thermodynamics of monomer hydrolysis of Mo(VI) at elevated temperatures. Monatshefte FÃ¼r Chemie, 2018, 149, 261-282.	1.8	12
32	Correlation and prediction of thermodynamic properties of dilute solutes in water up to high T and P. I. Simple fluids He, Ne, Ar, Kr, Xe, Rn, H2, N2, O2, CO, CH4. Fluid Phase Equilibria, 2019, 498, 9-22.	2.5	12
33	An equation of state for predicting the thermodynamic properties and vapourâ€“liquid partitioning of aqueous Ge(OH)4 in a wide range of water densities. Fluid Phase Equilibria, 2015, 392, 74-83.	2.5	11
34	Empirical evaluation of the Krichevskii parameter for aqueous solutes. Journal of Molecular Liquids, 2017, 239, 92-95.	4.9	11
35	Temperature Dependence of the Parameter of the SIT Model for Activity Coefficients of 1:1 Electrolytes. Journal of Solution Chemistry, 2013, 42, 1320-1335.	1.2	10
36	Thermodynamic properties of dilute hydrogen in supercritical water. Fluid Phase Equilibria, 2018, 470, 140-148.	2.5	10

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37	Theory-based constraints on variations of infinite dilution partial molar volumes of aqueous solutes at various temperatures and water densities. Fluid Phase Equilibria, 2014, 375, 11-17.	2.5	9
38	Solubility of MoO₃ in Aqueous Acid Chloride-Bearing Solutions at 573 K. Journal of Chemical & Engineering Data, 2018, 63, 1827-1832.	1.9	8
39	Prediction of the Krichevskii parameter for volatile nonelectrolytes in water. Fluid Phase Equilibria, 2004, 222-223, 19-24.	2.5	7
40	Ab initio molecular dynamics study of fluid H2O-CO2 mixture in broad pressure-temperature range. AIP Advances, 2017, 7, .	1.3	6
41	Solubility of MoO₃ in NaClO₄ Solutions at 573 K. Journal of Chemical & Engineering Data, 2017, 62, 3848-3853.	1.9	5
42	Predicting Solubility of Oxides of Metals and Metalloids in Supercritical Water. Industrial & Engineering Chemistry Research, 2020, 59, 970-980.	3.7	5
43	Correlation and prediction of thermodynamic properties of dilute solutes in water up to high T and P. II. Normal fluids CO2, C2H4, C2H6, C3H8, n-C4H10, i-C4H10, functional groups CH3 and CH2. Fluid Phase Equilibria, 2020, 521, 112690.	2.5	4
44	Extrapolation of Enthalpies of Reaction in Electrolyte Systems to Infinite Dilution.. Acta Chemica Scandinavica, 1996, 50, 571-579.	0.7	4
45	The solubility of MoO3 in aqueous solutions of HClO4 at T = 300Â°C and P = 100 bar by experimental data. Doklady Earth Sciences, 2014, 456, 548-549.	0.7	3
46	Correlation and prediction of thermodynamic properties of dilute solutes in water up to high T and P. III. Polar and aromatic solutes H2S, C6H6, C7H8, CH3SH, SO2, HCN, acetone, NH3, CH3NH2, CH3OH, C2H5OH, phenol. Fluid Phase Equilibria, 2021, 529, 112872.	2.5	3
47	Thermodynamic Modeling of the Solubility of Quartz in Water up to High Temperatures and Pressures. ACS Earth and Space Chemistry, 2021, 5, 941-959.	2.7	3
48	Correlation and prediction of thermodynamic properties of dilute solutes in water up to high T and P. IV. Simple fluids He, Ne, Ar, Kr, Xe, Rn, H2, N2, O2, CO, CH4 - Re-parametrization. Fluid Phase Equilibria, 2021, 536, 112982.	2.5	3
49	High-temperature waterâ€“olivine interaction and hydrogen liberationÂ in the subarc mantle. Contributions To Mineralogy and Petrology, 2022, 177, 1.	3.1	3
50	Vapor-liquid distribution and Krichevskii parameters of hydroxides Si(IV), B, Ge(IV), As(III) and Sb(III) in water. Journal of Molecular Liquids, 2021, 342, 117531.	4.9	1
51	Comments on the Remarks of V. P. VasiÄ¾ev on, Plyasunov and Grenthe: Extrapolation of Enthalpies of Reaction in Electrolyte Systems to Infinite Dilution.. Acta Chemica Scandinavica, 1998, 52, 515-516.	0.7	0
52	Thermodynamic Modeling of Solubility of Corundum in Water at Supercritical Conditions. ACS Earth and Space Chemistry, 2022, 6, 656-671.	2.7	0