

Eric Lemmon

List of Publications by Year in descending order

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70
papers

6,542
citations

109321
35
h-index

91884
69
g-index

71
all docs

71
docs citations

71
times ranked

3870
citing authors

#	ARTICLE	IF	CITATIONS
1	A Reference Equation of State for the Thermodynamic Properties of Nitrogen for Temperatures from 63.151 to 1000 K and Pressures to 2200 MPa. Journal of Physical and Chemical Reference Data, 2000, 29, 1361-1433.	4.2	672
2	Short Fundamental Equations of State for 20 Industrial Fluids. Journal of Chemical & Engineering Data, 2006, 51, 785-850.	1.9	615
3	Viscosity and Thermal Conductivity Equations for Nitrogen, Oxygen, Argon, and Air. International Journal of Thermophysics, 2004, 25, 21-69.	2.1	567
4	Fundamental Equations of State for Parahydrogen, Normal Hydrogen, and Orthohydrogen. Journal of Physical and Chemical Reference Data, 2009, 38, 721-748.	4.2	481
5	A Formulation for the Static Permittivity of Water and Steam at Temperatures from 238 K to 873 K at Pressures up to 1200 MPa, Including Derivatives and Debye-Hückel Coefficients. Journal of Physical and Chemical Reference Data, 1997, 26, 1125-1166.	4.2	415
6	Thermodynamic Properties of Air and Mixtures of Nitrogen, Argon, and Oxygen From 60 to 2000 K at Pressures to 2000 MPa. Journal of Physical and Chemical Reference Data, 2000, 29, 331-385.	4.2	414
7	Thermodynamic Properties of Propane. III. A Reference Equation of State for Temperatures from the Melting Line to 650 K and Pressures up to 1000 MPa. Journal of Chemical & Engineering Data, 2009, 54, 3141-3180.	1.9	285
8	A New Functional Form and New Fitting Techniques for Equations of State with Application to Pentafluoroethane (HFC-125). Journal of Physical and Chemical Reference Data, 2005, 34, 69-108.	4.2	195
9	Thermodynamic Properties of 2,3,3,3-Tetrafluoroprop-1-ene (R1234yf): Vapor Pressure and p - T Measurements and an Equation of State. Journal of Chemical & Engineering Data, 2011, 56, 3254-3264.	1.9	189
10	Correlation for the Second Virial Coefficient of Water. Journal of Physical and Chemical Reference Data, 2004, 33, 369-376.	4.2	153
11	Critical Properties and Vapor Pressure Equation for Alkanes C_nH_{2n+2} : Normal Alkanes With $n \geq 16$ and Isomers for $n=4$ Through $n=9$. Journal of Physical and Chemical Reference Data, 2000, 29, 1-39.	4.2	150
12	Thermodynamic Properties of n-Dodecane. Energy & Fuels, 2004, 18, 960-967.	5.1	134
13	A Generalized Model for the Thermodynamic Properties of Mixtures. International Journal of Thermophysics, 1999, 20, 825-835.	2.1	127
14	Surrogate Mixture Models for the Thermophysical Properties of Aviation Fuel Jet-A. Energy & Fuels, 2010, 24, 3565-3571.	5.1	115
15	A Reference Quality Equation of State for Nitrogen. International Journal of Thermophysics, 1998, 19, 1121-1132.	2.1	112
16	Equations of State for Mixtures of R-32, R-125, R-134a, R-143a, and R-152a. Journal of Physical and Chemical Reference Data, 2004, 33, 593-620.	4.2	107
17	Model for the Thermodynamic Properties of a Biodiesel Fuel. Energy & Fuels, 2009, 23, 3790-3797.	5.1	101
18	Chemically Authentic Surrogate Mixture Model for the Thermophysical Properties of a Coal-Derived Liquid Fuel. Energy & Fuels, 2008, 22, 3249-3257.	5.1	97

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19	Thermodynamic Properties of <i>trans</i> -1-Chloro-3,3,3-trifluoropropene (R1233zd(E)): Vapor Pressure, (<i>p</i> , <i>T</i>) Behavior, and Speed of Sound Measurements, and Equation of State. Journal of Chemical & Engineering Data, 2015, 60, 2477-2489.	1.9	97
20	Equation of State for the Thermodynamic Properties of <i>trans</i> -1,3,3,3-Tetrafluoropropene [R-1234ze(E)]. International Journal of Thermophysics, 2016, 37, 1.	2.1	97
21	Preliminary Surrogate Mixture Models for the Thermophysical Properties of Rocket Propellants RP-1 and RP-2. Energy & Fuels, 2009, 23, 3083-3088.	5.1	92
22	An International Standard Formulation for the Thermodynamic Properties of 1,1,1-Trifluoroethane (HFC-143a) for Temperatures From 161 to 450 K and Pressures to 50 MPa. Journal of Physical and Chemical Reference Data, 2000, 29, 521-552.	4.2	89
23	Experimental densities, vapor pressures, and critical point, and a fundamental equation of state for dimethyl ether. Fluid Phase Equilibria, 2007, 260, 36-48.	2.5	82
24	A Helmholtz energy equation of state for calculating the thermodynamic properties of fluid mixtures. Fluid Phase Equilibria, 1999, 165, 1-21.	2.5	74
25	The NIST REFPROP Database for Highly Accurate Properties of Industrially Important Fluids. Industrial & Engineering Chemistry Research, 2022, 61, 15449-15472.	3.7	65
26	Automatic Fitting of Binary Interaction Parameters for Multi-fluid Helmholtz-Energy-Explicit Mixture Models. Journal of Chemical & Engineering Data, 2016, 61, 3752-3760.	1.9	63
27	ThermoData Engine (TDE): Software Implementation of the Dynamic Data Evaluation Concept. 2. Equations of State on Demand and Dynamic Updates over the Web. Journal of Chemical Information and Modeling, 2007, 47, 1713-1725.	5.4	57
28	Pseudo-Pure Fluid Equations of State for the Refrigerant Blends R-410A, R-404A, R-507A, and R-407C. International Journal of Thermophysics, 2003, 24, 991-1006.	2.1	51
29	Method for Estimating the Dielectric Constant of Natural Gas Mixtures. International Journal of Thermophysics, 2005, 26, 31-46.	2.1	51
30	Thermodynamic Properties of R-227ea, R-365mfc, R-115, and R-131i. Journal of Chemical & Engineering Data, 2015, 60, 3745-3758.	1.9	49
31	Fundamental Equations of State for <i>cis</i> -1,3,3,3-Tetrafluoropropene [R-1234ze(Z)] and 3,3,3-Trifluoropropene (R-1243zf). Journal of Chemical & Engineering Data, 2019, 64, 4679-4691.	1.9	46
32	A Fundamental Equation for Trifluoromethane (R-23). Journal of Physical and Chemical Reference Data, 2003, 32, 1473-1499.	4.2	44
33	A Reference Equation of State for Heavy Water. Journal of Physical and Chemical Reference Data, 2018, 47, .	4.2	44
34	A Fundamental Equation of State for 1,1,1,3,3-Pentafluoropropane (R-245fa). Journal of Physical and Chemical Reference Data, 2015, 44, .	4.2	39
35	Thermodynamic Properties of 1,1,1,2,2,4,5,5,5-Nonafluoro-4-(trifluoromethyl)-3-pentanone: Vapor Pressure, (<i>p</i> , <i>T</i>) Behavior, and Speed of Sound Measurements, and an Equation of State. Journal of Chemical & Engineering Data, 2015, 60, 3646-3659.	1.9	38
36	Correlation for the Vapor Pressure of Heavy Water From the Triple Point to the Critical Point. Journal of Physical and Chemical Reference Data, 2002, 31, 173-181.	4.2	35

#	ARTICLE	IF	CITATIONS
37	EOS-LNG: A Fundamental Equation of State for the Calculation of Thermodynamic Properties of Liquefied Natural Gases. Journal of Physical and Chemical Reference Data, 2019, 48, .	4.2	34
38	Thermodynamic properties for the alternative refrigerants. International Journal of Refrigeration, 1998, 21, 322-338.	3.4	33
39	Current Status of Thermodynamic Properties of Hydrogen. International Journal of Thermophysics, 2007, 28, 758-772.	2.1	33
40	A Helmholtz Energy Equation of State for Sulfur Dioxide. Journal of Chemical & Engineering Data, 2016, 61, 2859-2872.	1.9	27
41	18 Multiparameter equations of state. Experimental Thermodynamics, 2000, 5, 849-881.	0.1	24
42	An equation of state and compressed liquid and supercritical densities for sulfur dioxide. Fluid Phase Equilibria, 2003, 207, 111-130.	2.5	24
43	Speed of Sound Measurements and a Fundamental Equation of State for Cyclopentane. Journal of Chemical & Engineering Data, 2015, 60, 1331-1337.	1.9	24
44	Bubble-Point Measurements of Eight Binary Mixtures for Organic Rankine Cycle Applications. Journal of Chemical & Engineering Data, 2013, 58, 1853-1860.	1.9	21
45	Thermodynamic properties of trifluoroethene (R1123): (p, ρ , T) behavior and fundamental equation of state. International Journal of Refrigeration, 2020, 119, 457-467.	3.4	21
46	Isobaric heat capacities of carbon dioxide and argon between 323 and 423 K and at pressures up to 25 MPa. Journal of Supercritical Fluids, 1995, 8, 228-235.	3.2	20
47	New Equations of State for Binary Hydrogen Mixtures Containing Methane, Nitrogen, Carbon Monoxide, and Carbon Dioxide. Journal of Physical and Chemical Reference Data, 2021, 50, .	4.2	20
48	Determination of the thermodynamic properties of water from the speed of sound. Journal of Chemical Thermodynamics, 2017, 109, 61-70.	2.0	19
49	Equations of State for the Thermodynamic Properties of Binary Mixtures for Helium-4, Neon, and Argon. Journal of Physical and Chemical Reference Data, 2020, 49, .	4.2	18
50	Equation of State for the Thermodynamic Properties of 1,1,2,2,3-Pentafluoropropane (R-245ca). International Journal of Thermophysics, 2016, 37, 1.	2.1	16
51	Consistent Two Parameters for More than 2500 Pure Fluids from Critically Evaluated Experimental Data. Journal of Chemical & Engineering Data, 2018, 63, 2402-2409.	1.9	16
52	Establishing benchmarks for the Second Industrial Fluids Simulation Challenge. Fluid Phase Equilibria, 2005, 236, 15-24.	2.5	15
53	An International Standard Formulation for 2,3,3,3-Tetrafluoroprop-1-ene (R1234yf) Covering Temperatures from the Triple Point Temperature to 410 ÅK and Pressures Up to 100 ÅMPa. International Journal of Thermophysics, 2022, 43, .	2.1	15
54	Thermodynamic Properties of Cryogenic Fluids. The International Cryogenics Monograph Series, 2017, , .	0.1	13

#	ARTICLE	IF	CITATIONS
55	Thermodynamic Properties of Air from 60 to 2000 K at Pressures up to 2000 MPa. International Journal of Thermophysics, 1999, 20, 217-228.	2.1	12
56	An analytical solubility model for nitrogen–methane–ethane ternary mixtures. Icarus, 2018, 299, 175-186.	2.5	11
57	An extended corresponding-states model for predicting thermodynamic properties of N ₂ -Ar-O ₂ mixtures including vapor-liquid equilibrium. International Journal of Thermophysics, 1994, 15, 1289-1298.	2.1	9
58	The selection of international standards for the thermodynamic properties of HFC-134a and HCFC-123. International Journal of Thermophysics, 1995, 16, 781-790.	2.1	9
59	Fundamental Thermodynamic Models for Mixtures Containing Ammonia. Fluid Phase Equilibria, 2020, 511, 112496.	2.5	8
60	A fundamental equation of state for the calculation of thermodynamic properties of chlorine. AIChE Journal, 2021, 67, e17326.	3.6	8
61	Equations of State on Demand: Application for Surrogate Fuel Development. International Journal of Thermophysics, 2011, 32, 596-613.	2.1	7
62	Thermodynamic Properties of Mixtures of R-32, R-125, R-134a, and R-152a. International Journal of Thermophysics, 1999, 20, 1629-1638.	2.1	6
63	The Precise Measurement of Vapor–Liquid Equilibrium Properties of the CO ₂ /Isopentane Binary Mixture, and Fitted Parameters for a Helmholtz Energy Mixture Model. International Journal of Thermophysics, 2017, 38, 1.	2.1	6
64	Speed-of-Sound Measurements and a Fundamental Equation of State for Propylene Glycol. Journal of Physical and Chemical Reference Data, 2021, 50, .	4.2	6
65	Equations of State for the Thermodynamic Properties of Three Hexane Isomers: 3-Methylpentane, 2,2-Dimethylbutane, and 2,3-Dimethylbutane. Journal of Physical and Chemical Reference Data, 2021, 50, .	4.2	6
66	An International Standard Formulation for <i>trans</i> -1-Chloro-3,3,3-trifluoroprop-1-ene [R1233zd(E)] Covering Temperatures from the Triple-Point Temperature to 450 ÅK and Pressures up to 100 MPa. Journal of Physical and Chemical Reference Data, 2022, 51, .	4.2	6
67	A Fundamental Equation of State for Chloroethene for Temperatures from the Triple Point to 430 ÅK and Pressures to 100 ÅMPa. International Journal of Thermophysics, 2022, 43, 1.	2.1	5
68	Algorithms for the calculation of psychrometric properties from multi-fluid Helmholtz-energy-explicit models. International Journal of Refrigeration, 2018, 87, 26-38.	3.4	4
69	Equations of State for the Thermodynamic Properties of <i>n</i> -Perfluorobutane, <i>n</i> -Perfluoropentane, and <i>n</i> -Perfluorohexane. Industrial & Engineering Chemistry Research, 2021, 60, 17207-17227.	3.7	4
70	Thermodynamic Properties of Air at Pressures to 2000MPa.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1998, 7, 1171-1176.	0.0	0