Attila R Imre

List of Publications by Year
in descending order

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Version: 2024-02-01

115	1,820	218381	329751
papers	citations	26 h-index	37 g-index

120	120	120	1139
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Seasonal Energy Storage with Power-to-Methane Technology. Energies, 2022, 15, 712.	1.6	2
2	A Preliminary Design and Modeling Analysis of Two-Phase Volumetric Expanders for a Novel Reversible Organic Rankine-Based Cycle for Carnot Battery Technology. Applied Sciences (Switzerland), 2022, 12, 3557.	1.3	3
3	Thermodynamic efficiency of subcritical and transcritical power cycles utilizing selected ACZ working fluids. Energy, 2022, 254, 124432.	4.5	5
4	Thermodynamic Efficiency Maximum of Simple Organic Rankine Cycles. Energies, 2021, 14, 307.	1.6	18
5	Alkanes as natural working fluids for organic rankine cycles. AIP Conference Proceedings, 2021, , .	0.3	1
6	Effect of high temperatures on the efficiency of sub-critical CO2 cycle. Pollack Periodica, 2021, 16, 73-79.	0.2	6
7	Seasonal and Multi-Seasonal Energy Storage by Power-to-Methane Technology. Energies, 2021, 14, 3265.	1.6	8
8	Cancellation of Auxetic Properties in F.C.C. Hard Sphere Crystals by Hybrid Layer-Channel Nanoinclusions Filled by Hard Spheres of Another Diameter. Materials, 2021, 14, 3008.	1.3	8
9	Past, Present and Near Future: An Overview of Closed, Running and Planned Biomethanation Facilities in Europe. Energies, 2021, 14, 5591.	1.6	18
10	The efficiency of transcritical CO2 cycle near critical point and with high temperature. MATEC Web of Conferences, 2021, 345, 00005.	0.1	0
11	The effect of recuperator on the efficiency of ORC and TFC with very dry working fluid. MATEC Web of Conferences, 2021, 345, 00012.	0.1	6
12	Thermodynamic efficiency of trilateral flash cycle, organic Rankine cycle and partially evaporated organic Rankine cycle. Energy Conversion and Management, 2021, 249, 114731.	4.4	26
13	Mapping of the Temperatureâ€“Entropy Diagrams of van der Waals Fluids. Energies, 2020, 13, 1519.	1.6	6
14	Cold Energy Utilization in LNG Regasification System Using Organic Rankine Cycle and Trilateral Flash Cycle. Periodica Polytechnica, Mechanical Engineering, 2020, 64, 342-349.	0.8	11
15	A Simple Method of Finding New Dry and Isentropic Working Fluids for Organic Rankine Cycle. Energies, 2019, 12, 480.	1.6	24
16	Physical-chemical Background of the Potential Phase Transitions during Loss of Coolant Accidents in the Supercritical Water Loops of Various Generation IV Nuclear Reactor Types. Periodica Polytechnica: Chemical Engineering, 2019, 63, 333-339.	0.5	0
17	Thermodynamic Selection of the Optimal Working Fluid for Organic Rankine Cycles. Energies, 2019, 12, 2028.	1.6	29
18	Low-Temperature Organic Rankine Cycles Using Natural Working Fluids. , 2019, , .		0

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19	Investigation of Corrosion Resistance of Alloys with Potential Application in Supercritical Water-cooled Nuclear Reactors. Periodica Polytechnica: Chemical Engineering, 2019, 63, 328-332.	0.5	4
20	Various Ways of Adiabatic Expansion in Organic Rankine Cycle (ORC) and in Trilateral Flash Cycle (TFC). Zeitschrift Fur Physikalische Chemie, 2019, 233, 577-594.	1.4	5
21	Auxetic Properties of a f.c.c. Crystal of Hard Spheres with an Array of [001]-Nanochannels Filled by Hard Spheres of Another Diameter (Phys. Status Solidi B 1/2019). Physica Status Solidi (B): Basic Research, 2019, 256, 1970012.	0.7	1
22	Auxetic Properties of a f.c.c. Crystal of Hard Spheres with an Array of [001]â€Nanochannels Filled by Hard Spheres of Another Diameter. Physica Status Solidi (B): Basic Research, 2019, 256, 1800611.	0.7	32
23	Anomalous Properties of Some Fluids â^' with High Relevance in Energy Engineering â^' in Their Pseudo-critical (Widom) Region. Periodica Polytechnica: Chemical Engineering, 2019, 63, 276-285.	0.5	13
24	Tritium internal dose estimation from measurements with liquid scintillators. Applied Radiation and Isotopes, 2018, 137, 18-22.	0.7	4
25	Novel classification of pure working fluids for Organic Rankine Cycle. Energy, 2018, 145, 288-300.	4.5	79
26	Pressure-Volume Work for Metastable Liquid and Solid at Zero Pressure. Entropy, 2018, 20, 338.	1.1	0
27	Prediction of the ORC Working Fluidâ€™s Temperature-Entropy Saturation Boundary Using Redlich-Kwong Equation of State. Entropy, 2018, 20, 93.	1.1	15
28	Relation between the Liquid Spinodal Pressure and the Lateral Pressure Profile at the Liquidâ€“Vapor Interface. Journal of Physical Chemistry C, 2017, 121, 12214-12219.	1.5	7
29	Description of wet-to-dry transition in model ORC working fluids. Applied Thermal Engineering, 2017, 125, 963-971.	3.0	39
30	Supercritical fluids in energy storage and consumption. , 2017, , .		1
31	DESCRIPTION OF THE METASTABLE LIQUID REGION WITH QUINTIC AND QUASI-QUINTIC EQUATION OF STATES. Interfacial Phenomena and Heat Transfer, 2017, 5, 173-185.	0.3	4
32	Fractals and the Korcak-law: a history and a correction. European Physical Journal H, 2016, 41, 69-91.	0.5	15
33	Theoretical study of steam condensation induced water hammer phenomena in horizontal pipelines. Kerntechnik, 2015, 80, 420-423.	0.2	10
34	Adiabatic Processes in the Vaporâ€“Liquid Two-Phase Region. 2. Binary Mixtures. Industrial & Engineering Chemistry Research, 2015, 54, 6559-6568.	1.8	7
35	THE IMPORTANCE OF PROPER SEQUENCING IN ESTIMATING THE LENGTH AND FRACTAL DIMENSION OF TORTUOUS CURVES. Fractals, 2015, 23, 1550041.	1.8	0
36	Description of the area distribution of landmasses by Korcak exponentâ€"the importance of the Arabic and Indian subcontinents in proper classification. Arabian Journal of Geosciences, 2015, 8, 3615-3619.	0.6	3

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37	Anomalous fluid properties of carbon dioxide in the supercritical region: application to geological CO2 storage and related hazards. Environmental Earth Sciences, 2015, 73, 4373-4384.	1.3	48
38	Metamaterials with negative compressibility â€" a novel concept with a long history. Materials Science-Poland, 2014, 32, 126-129.	0.4	13
39	Adiabatic Processes in the Liquidâ€"Vapor Two-Phase Region. 1. Pure Fluids. Industrial & Engineering Chemistry Research, 2014, 53, 13529-13542.	1.8	13
40	Estimation of the Thermodynamic Limit of Overheating for Bulk Water from Interfacial Properties. International Journal of Thermophysics, 2013, 34, 2053-2064.	1.0	15
41	Stability limits of n-nonane calculated from molecular dynamics interface simulations. Journal of Chemical Physics, 2013, 138, 244710.	1.2	6
42	The pseudocritical regions for supercritical water. Nuclear Engineering and Design, 2012, 252, 179-183.	0.8	49
43	The Korcak-exponent: A non-fractal descriptor for landscape patchiness. Ecological Complexity, 2012, 12, 70-74.	1.4	6
44	Spatial Algorithms Applied to Landscape Diversity Estimate from Remote Sensing Data. Developments in Environmental Modelling, 2012, , 391-411.	0.3	1
45	Korcak dimension as a novel indicator of landscape fragmentation and re-forestation. Ecological Indicators, 2011, 11, 1134-1138.	2.6	14
46	Homogeneous bubble nucleation limit of mercury under the normal working conditions of the planned European spallation neutron source. European Physical Journal B, 2011, 79, 107-113.	0.6	1
47	The effect of low-concentration inorganic materials on the behaviour of supercritical water. Nuclear Engineering and Design, 2011, 241, 296-300.	0.8	8
48	Condensed Matters Under Negative Pressure. , 2011, , .		1
49	Experimental and theoretical study of steam condensation induced water hammer phenomena. Nuclear Engineering and Design, 2010, 240, 146-150.	0.8	75
50	Theoretical study of flashing and water hammer in a supercritical water cycle during pressure drop. Nuclear Engineering and Design, 2010, 240, 1569-1574.	0.8	10
51	Estimation of the Explosive Boiling Limit of Metastable Liquids. NATO Science for Peace and Security Series A: Chemistry and Biology, 2010, , 271-278.	0.5	2
52	High-Pressure Melting Curves and Liquidâ€"Liquid Phase Transition. Advanced Science Letters, 2010, 3, 527-530.	0.2	7
53	About the Shape of the Melting Line as a Possible Precursor of a Liquid-Liquid Phase Transition. NATO Science for Peace and Security Series A: Chemistry and Biology, 2010, , 233-236.	0.5	0
54	Explicitly Accounting for Pixel Dimension in Calculating Classical and Fractal Landscape Shape Metrics. Acta Biotheoretica, 2009, 57, 349-360.	0.7	12

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55	Fractal dimension of time-indexed paths. Applied Mathematics and Computation, 2009, 207, 90-94.	1.4	11
56	Estimation of spinodals from the density profile of the vaporâ€“liquid interface. Fluid Phase Equilibria, 2009, 284, 31-37.	1.4	4
57	Miscibility Holes and Continuous Liquidâ^'Liquid Miscibility Curves in Type III and IV Systems. Journal of Chemical & Engineering Data, 2009, 54, 1569-1574.	1.0	2
58	The Relation of Interface Properties and Bulk Phase Stability: Molecular Dynamics Simulations of Carbon Dioxide. Journal of Physical Chemistry B, 2009, 113, 4688-4697.	1.2	28
59	Liquidâ€“vapour spinodal of pure helium 4. Physica B: Condensed Matter, 2008, 403, 3663-3666.	1.3	9
60	Two-phase flow model for energetic proton beam induced pressure waves in mercury target systems in the planned European Spallation Source. European Physical Journal B, 2008, 66, 419-426.	0.6	5
61	Estimation of the liquid-vapor spinodal from interfacial properties obtained from molecular dynamics and lattice Boltzmann simulations. Journal of Chemical Physics, 2008, 128, 114708.	1.2	36
62	Spinodal strength of liquids, solids and glasses. Journal of Physics Condensed Matter, 2008, 20, 244104.	0.7	10
63	Solidâ€“fluid phase transitions under extreme pressures including negative ones. Journal of Non-Crystalline Solids, 2008, 354, 4157-4162.	1.5	8
64	Negative Poissonâ€™s ratio behavior in the planar model of asymmetric trimers at zero temperature. Journal of Non-Crystalline Solids, 2008, 354, 4242-4248.	1.5	32
65	On the pressure evolution of dynamic properties of supercooled liquids. Journal of Physics Condensed Matter, 2008, 20, 244103.	0.7	29
66	On the glass temperature under extreme pressures. Journal of Chemical Physics, 2007, 126, 164504.	1.2	47
67	On the pressure evolution of the melting temperature and the glass transition temperature. Journal of Non-Crystalline Solids, 2007, 353, 3915-3923.	1.5	39
68	Systematic error in the determination of perimeter and area of offâ€lattice digitalized images. International Journal of Remote Sensing, 2007, 28, 5071-5077.	1.3	6
69	Critical behaviour in nitrobenzeneâ€“hexane mixture by approaching the liquidâ€“liquid critical line. Fluid Phase Equilibria, 2007, 255, 11-16.	1.4	8
70	On the existence of negative pressure states. Physica Status Solidi (B): Basic Research, 2007, 244, 893-899.	0.7	29
71	Artificial fractal dimension obtained by using perimeterâ€“area relationship on digitalized images. Applied Mathematics and Computation, 2006, 173, 443-449.	1.4	37
72	Compactness Versus Interior-to-Edge Ratio; Two Approaches for Habitat's Ranking. Acta Biotheoretica, 2006, 54, 21-26.	0.7	2

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73	THE MINKOWSKI-BOULIGAND DIMENSION AND THE INTERIOR-TO-EDGE RATIO OF HABITATS. Fractals, 2006, 14, 49-53.	1.8	11
74	Stability limits in binary fluids mixtures. Journal of Chemical Physics, 2005, 122, 064507.	1.2	27
75	LATTICE BOLTZMANN SIMULATION OF VAPORâ€“LIQUID EQUILIBRIUM ON 3D FINITE LATTICE. International Journal of Modern Physics C, 2004, 15, 459-469.	0.8	9
76	ON THE SYSTEM SIZE OF LATTICE BOLTZMANN SIMULATIONS. International Journal of Modern Physics C, 2004, 15, 1049-1060.	0.8	8
77	The Fractal Dimension as a Measure of the Quality of Habitats. Acta Biotheoretica, 2004, 52, 41-56.	0.7	57
78	Modified Double Lattice Model for Oligoethylene/Oligostyrene Blends. Monatshefte FÃ¼r Chemie, 2004, 135, 493-499.	0.9	0
79	Polymerâ€“polymer miscibility: generalized double lattice model. Polymer, 2004, 45, 8067-8074.	1.8	4
80	Semiempirical Method for the Prediction of the Theta (Lower Critical Solution Temperature) in Polymer Solutions. Industrial & Engineering Chemistry Research, 2004, 43, 237-242.	1.8	14
81	Liquidâ€“liquid phase equilibria in nitrobenzeneâ€“hexane critical mixture under negative pressure. Physical Chemistry Chemical Physics, 2004, 6, 2291-2294.	1.3	27
82	Phase Equilibrium in Complex Liquids under Negative Pressure. , 2004, , 177-189.		0
83	The Effect of Alkane Chain Length on the Liquid?Liquid Critical Temperatures of Oligostyrene/Linear-Alkane Mixtures. Monatshefte FÃ¼r Chemie, 2003, 134, 1529-1539.	0.9	5
84	Binary Liquids under Absolute Negative Pressure. ChemInform, 2003, 34, no.	0.1	0
85	Apparent exponents for the chain length dependence of the volume fraction in critical polymer solutions. Journal of Chemical Physics, 2003, 118, 6110-6119.	1.2	21
86	NEGATIVE PRESSURE TAIL OF A REFLECTED PRESSURE PULSE: COMPARISON OF A LATTICE BOLTZMANN STUDY TO THE EXPERIMENTAL RESULTS. International Journal of Modern Physics C, 2003, 14, 1321-1330.	0.8	3
87	Solubility islands for polymer blendsâ€“ a new option to homogenize incompatible polymers?. Macromolecular Symposia, 2003, 198, 11-18.	0.4	1
88	THE EFFECT OF FINITE LATTICE-SIZE IN LATTICE BOLTZMANN MODEL. International Journal of Modern Physics C, 2002, 13, 649-657.	0.8	6
89	Liquid-liquid phase equilibria in polymer solutions and polymer mixtures. Macromolecular Symposia, 2002, 181, 363-372.	0.4	10
90	The effect of pressure on the liquidâ€“liquid phase equilibrium of two polydisperse polyalkylsiloxane blends. Physical Chemistry Chemical Physics, 2002, 4, 992-1001.	1.3	22

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91	Lattice Boltzmann methods for two-phase flow modeling. Annals of Nuclear Energy, 2002, 29, 1421-1453.	0.9	54
92	Negative Pressure Tail of a Reflected Pressure Pulse: A Lattice Boltzmann Study. , 2002, , 301-306.		2
93	Classical Thermodynamics of States with Negative Absolute Temperature or With Negative Absolute Pressure. , 2002, , 23-31.		0
94	Liquid-Liquid Phase Equilibria in Binary Mixtures Under Negative Pressure. , 2002, , 81-94.		0
95	On the effect of pressure on the phase transition of polymer blends and polymer solutions: Oligostyreneâ€“n-alkane systems. Physical Chemistry Chemical Physics, 2001, 3, 1063-1066.	1.3	24
96	The effect of branching of alkanes on the liquidâ€“liquid equilibrium of oligostyrene/alkane systems. Fluid Phase Equilibria, 2001, 187-188, 363-372.	1.4	13
97	About the ranking of isolated habitats with different shapes: an interior-to-edge ratio study. , 2001, 49, 115-120.		7
98	FRACTAL BEHAVIOR OF TREE-LIKE NICKEL AND COBALT ELECTRODEPOSITS. Fractals, 2000, 08, 349-353.	1.8	13
99	End Group Effects on Liquidâ^'Liquid Demixing of Polystyrene/Oligomethylene Solutions. Polystyrene/Dodecyl Acetate Solubility. Macromolecules, 2000, 33, 5308-5309.	2.2	7
100	Ideas in Theoretical Biology - Comment About the Fractality of the Lung. Acta Biotheoretica, 1999, 47, 79-81.	0.7	7
101	A polymer-solvent system with two homogeneous double critical points: Polystyrene (PS)/(n-heptane +) Tj ETQq1 1 0.784314 rgBT /O	2.4	8
102	Liquidâ€“liquid equilibria in polystyrene solutions: the general pressure dependence. Physical Chemistry Chemical Physics, 1999, 1, 4287-4292.	1.3	27
103	Correlation Radii for Polystyrene (PS) in Poor and Ï‘ Solvents from Dynamic Light and Small Angle Neutron Scattering. New Data for PS/Acetone. Remarks on PS/Acetone, PS/Cyclohexane, and PS/Methylcyclohexane. Macromolecules, 1999, 32, 7312-7318.	2.2	8
104	Comments on the Paper â€œEmpirical Method To Correlate and To Predict the Vaporâ^'Liquid Equilibrium and Liquidâ^'Liquid Equilibrium of Binary Amorphous Polymer Solutionsâ€• Industrial & Engineering Chemistry Research, 1999, 38, 1172-1173.	1.8	2
105	Liquidâ€“liquid equilibria in polymer solutions at negative pressure. Chemical Society Reviews, 1998, 27, 117.	18.7	43
106	Thermodynamics of Negative Pressures in Liquids. Journal of Non-Equilibrium Thermodynamics, 1998, 23, .	2.4	56
107	Continuity of solvent quality in polymer solutions. Poor-solvent to Î˜-solvent continuity in some polystyrene solutions. Journal of Polymer Science, Part B: Polymer Physics, 1997, 35, 1251-1259.	2.4	20
108	Liquidâ€“Liquid Demixing from Solutions of Polystyrene. 1. A Review. 2. Improved Correlation with Solvent Properties. Journal of Physical and Chemical Reference Data, 1996, 25, 637-661.	1.9	67

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109	Demixing in polystyrene/methylcyclohexane solutions. Journal of Polymer Science, Part B: Polymer Physics, 1996, 34, 751-760.	2.4	17
110	Comment on â€˜â€˜Perimeterâ€“maximum-diameter method for measuring the fractal dimension of a fractured surfaceâ€™â€™. Physical Review B, 1995, 51, 16470-16470.	1.1	5
111	Polymer-solvent demixing under tension. Isotope and pressure effects on liquid-liquid transitions, VII. Propionitrileâ€“polystyrene solutions at negative pressure. Journal of Polymer Science, Part B: Polymer Physics, 1994, 32, 2283-2287.	2.4	26
112	Diffusion kinetics at fractal electrodes. Journal of Electroanalytical Chemistry, 1994, 366, 69-73.	1.9	41
113	MORPHOLOGY OF COBALT ELECTRODEPOSITS. Fractals, 1993, 01, 59-66.	1.8	7
114	Problems of measuring the fractal dimension by the slit-island method. Scripta Metallurgica Et Materialia, 1992, 27, 1713-1716.	1.0	14
115	Electrochemical determination of the fractal dimension of fractured surfaces. Acta Metallurgica Et Materialia, 1992, 40, 1819-1826.	1.9	92