Andrzej Grzybowski

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

76 papers	1,848 citations	25 h-index	39 g-index
79 ext. papers	2,007 ext. citations	3.6 avg, IF	4.7 L-index

#	Paper	IF	Citations
76	Volumetric and viscosity data of selected oils analyzed in the density scaling regime. *Journal of Molecular Liquids*, **2022**, 353, 118728	6	0
75	Density Scaling Based Detection of Thermodynamic Regions of Complex Intermolecular Interactions Characterizing Supramolecular Structures. *Scientific Reports*, **2020**, 10, 9316	4.9	3
74	Molecular Dynamics and Physical Stability of Ibuprofen in Binary Mixtures with an Acetylated Derivative of Maltose. *Molecular Pharmaceutics*, **2020**, 17, 3087-3105	5.6	2
73	The role of the dipole moment orientations in the crystallization tendency of the van der Waals liquids - molecular dynamics simulations. *Scientific Reports*, **2020**, 10, 283	4.9	6
72	Exploring the connection between the density-scaling exponent and the intermolecular potential for liquids on the basis of computer simulations of quasireal model systems. *Physical Review E*, **2020**, 101, 012613	2.4	6
71	Virial-potential-energy correlation and its relation to density scaling for quasireal model systems. *Physical Review E*, **2020**, 102, 062140	2.4	4
70	The effect of molecular architecture on the physical properties of supercooled liquids studied by MD simulations: Density scaling and its relation to the equation of state. *Journal of Chemical Physics* , **2019**, 150, 014501	3.9	8
69	Breakdown of the Simple Arrhenius Law in the Normal Liquid State. *Journal of Physical Chemistry Letters*, **2018**, 9, 1783-1787	6.4	7
68	Universality of Density Scaling. *Advances in Dielectrics*, **2018**, 77-119	0.6	10
67	Molecular Factors Governing the Liquid and Glassy States Recrystallization of Celecoxib in Binary Mixtures with Excipients of Different Molecular Weights. *Molecular Pharmaceutics*, **2017**, 14, 1154-1168	5.6	22
66	In search of invariants for viscous liquids in the density scaling regime: investigations of dynamic and thermodynamic moduli. *Physical Chemistry Chemical Physics*, **2017**, 19, 18348-18355	3.6	4
65	Activation volume of selected liquid crystals in the density scaling regime. *Scientific Reports*, **2017**, 7, 42174	4.9	6
64	Universal Behavior of Dielectric Responses of Glass Formers: Role of Dipole-Dipole Interactions. *Physical Review Letters*, **2016**, 116, 025702	7.4	57
63	Isobaric Thermal Expansion of Compressed 1,4-Dichlorobutane and 1-Bromo-4-chlorobutane: Transitiometric Results and a Novel Application of the General Density Scaling-Based Equation of State. *Industrial & Engineering Chemistry Research*, **2015**, 54, 6400-6407	3.9	20
62	In search of correlations between the four-point measure of dynamic heterogeneity and other characteristics of glass-forming liquids under high pressure. *Journal of Non-Crystalline Solids*, **2015**, 407, 196-205	3.9	7
61	Thermodynamic consequences of the kinetic nature of the glass transition. *Scientific Reports*, **2015**, 5, 17782	4.9	11
60	Role of entropy in the thermodynamic evolution of the time scale of molecular dynamics near the glass transition. *Physical Review E*, **2015**, 91, 062305	2.4	10

59	Ionic liquids and their bases: Striking differences in the dynamic heterogeneity near the glass transition. *Scientific Reports*, **2015**, 5, 16876	4.9	11
58	Adam-Gibbs model in the density scaling regime and its implications for the configurational entropy scaling. *Scientific Reports*, **2015**, 5, 13998	4.9	11
57	Effects of dynamic heterogeneity and density scaling of molecular dynamics on the relationship among thermodynamic coefficients at the glass transition. *Journal of Chemical Physics*, **2015**, 143, 024502	3.9	3
56	Equation of state in the generalized density scaling regime studied from ambient to ultra-high pressure conditions. *Journal of Chemical Physics*, **2014**, 140, 044502	3.9	15
55	Effect of polymer structure on the molecular dynamics and thermal behavior of poly(allyl acetoacetate) and copolymers. *Polymer*, **2014**, 55, 1040-1047	3.9	8
54	On the scaling behavior of electric conductivity in [C4mim][NTf2]. *Physical Chemistry Chemical Physics*, **2014**, 16, 20444-50	3.6	26
53	Correction to Effect of High Pressure on Crystallization Kinetics of van der Waals Liquid: An Experimental and Theoretical Study. *Crystal Growth and Design*, **2014**, 14, 4226-4226	3.5	1
52	Effect of High Pressure on Crystallization Kinetics of van der Waals Liquid: An Experimental and Theoretical Study. *Crystal Growth and Design*, **2014**, 14, 2097-2104	3.5	35
51	The complex, non-monotonic thermal response of the volumetric space of simple liquids. *Physical Chemistry Chemical Physics*, **2014**, 16, 19900-8	3.6	12
50	General rules prospected for the liquid fragility in various material groups and different thermodynamic conditions. *Journal of Chemical Physics*, **2014**, 141, 134507	3.9	25
49	Toward Better Understanding Crystallization of Supercooled Liquids under Compression: Isochronal Crystallization Kinetics Approach. *Crystal Growth and Design*, **2013**, 13, 4648-4654	3.5	33
48	Effect of temperature and density fluctuations on the spatially heterogeneous dynamics of glass-forming Van der Waals liquids under high pressure. *Physical Review Letters*, **2013**, 111, 125701	7.4	19
47	Spatially Heterogeneous Dynamics in the Density Scaling Regime: Time and Length Scales of Molecular Dynamics near the Glass Transition. *Journal of Physical Chemistry Letters*, **2013**, 4, 4273-8	6.4	11
46	Activation volume in the density scaling regime: Equation of state and its test by using experimental and simulation data. *Physical Review B*, **2013**, 87,	3.3	17
45	Relaxation dynamics and crystallization study of sildenafil in the liquid and glassy states. *Molecular Pharmaceutics*, **2013**, 10, 2270-82	5.6	53
44	Mechanism of mutarotation in supercooled liquid phase: Studies on L-sorbose. *Journal of Chemical Physics*, **2012**, 137, 124504	3.9	13
43	Temperature-Volume Entropic Model for Viscosities and Structural Relaxation Times of Glass Formers. *Journal of Physical Chemistry Letters*, **2012**, 3, 2643-8	6.4	16
42	Enhancement of amorphous celecoxib stability by mixing it with octaacetylmaltose: the molecular dynamics study. *Molecular Pharmaceutics*, **2012**, 9, 894-904	5.6	49

41	Scaling of volumetric data in model systems based on the Lennard-Jones potential. *Physical Review E*, **2012**, 86, 031501	2.4	26
40	Pressure coefficient of the glass transition temperature in the thermodynamic scaling regime. *Physical Review E*, **2012**, 86, 041502	2.4	18
39	Effects of lowering temperature and raising pressure on the spatially heterogeneous dynamics of glass-forming van der Waals liquids. *Physical Review B*, **2012**, 85,	3.3	20
38	Scaling of viscous dynamics in simple liquids: theory, simulation and experiment. *New Journal of Physics*, **2012**, 14, 113035	2.9	99
37	High pressure study of molecular dynamics of protic ionic liquid lidocaine hydrochloride. *Journal of Chemical Physics*, **2012**, 136, 224501	3.9	24
36	Temperature and volume effect on the molecular dynamics of supercooled ibuprofen at ambient and elevated pressure. *Molecular Pharmaceutics*, **2011**, 8, 1975-9	5.6	14
35	Molecular Dynamics of Glass-Forming Systems. *Advances in Dielectrics*, **2011**,	0.6	170
34	The Glass Transition. *Advances in Dielectrics*, **2011**, 1-37	0.6	3
33	Origin of Glass Formation. *Advances in Dielectrics*, **2011**, 39-65	0.6	2
32	Models of Temperature-Pressure Dependence of Structural Relaxation Time. *Advances in Dielectrics*, **2011**, 67-88	0.6	
31	New Physics Gained by the Application of Pressure in the Study of Dynamics of Glass Formers. *Advances in Dielectrics*, **2011**, 89-120	0.6	1
30	Communication: Thermodynamic scaling of the Debye process in primary alcohols. *Journal of Chemical Physics*, **2011**, 134, 041103	3.9	20
29	Density scaling in viscous systems near the glass transition. *Physical Review E*, **2011**, 83, 041505	2.4	47
28	Fragility versus activation volume: insight into molecular dynamics of glass-forming hydrogen-bonded liquids. *Physical Review E*, **2011**, 84, 052501	2.4	9
27	Communication: Relationships between Intermolecular potential, thermodynamics, and dynamic scaling in viscous systems. *Journal of Chemical Physics*, **2010**, 133, 161101	3.9	42
26	Study of molecular dynamics of the pharmaceutically important protic ionic liquid verapamil hydrochloride. II. Test of entropic models. *Journal of Chemical Physics*, **2010**, 132, 094506	3.9	19
25	Molecular dynamics and physical stability of amorphous anti-inflammatory drug: celecoxib. *Journal of Physical Chemistry B*, **2010**, 114, 12792-801	3.4	101
24	Comment on "Density scaling of the diffusion coefficient at various pressures in viscous liquids". *Physical Review E*, **2010**, 82, 013501	2.4	15

23	Density scaling of supercooled simple liquids near the glass transition. *Journal of Physical Chemistry B*, **2010**, 114, 11544-51	3.4	31
22	Dynamic Crossover of Water Relaxation in Aqueous Mixtures: Effect of Pressure. *Journal of Physical Chemistry Letters*, **2010**, 1, 1170-1175	6.4	19
21	A Relationship between Intermolecular Potential, Thermodynamics, and Dynamic Scaling for a Supercooled Ionic Liquid. *Journal of Physical Chemistry Letters*, **2010**, 1, 987-992	6.4	59
20	Study of molecular dynamics of pharmaceutically important protic ionic liquid-verapamil hydrochloride. I. Test of thermodynamic scaling. *Journal of Chemical Physics*, **2009**, 131, 104505	3.9	75
19	A new approach to description of the pressure dependence of viscosity. *Journal of Non-Crystalline Solids*, **2009**, 355, 733-736	3.9	23
18	Consequences of an equation of state in the thermodynamic scaling regime. *Journal of Physical Chemistry B*, **2009**, 113, 7419-22	3.4	33
17	Recent advances in fundamental understanding of glass transition. *Journal of Non-Crystalline Solids*, **2008**, 354, 5085-5088	3.9	19
16	Role of defects in the nonmonotonic behavior of secondary relaxation of polypropylene glycols. *Journal of Chemical Physics*, **2008**, 128, 134904	3.9	9
15	Effect of high pressure on the relaxation dynamics of glass-forming liquids. *Journal of Physics Condensed Matter*, **2007**, 19, 205117	1.8	49
14	Anomalous behavior of secondary dielectric relaxation in polypropylene glycols. *Journal of Physics Condensed Matter*, **2007**, 19, 376105	1.8	15
13	Reply to "Comment on 'Correlations between isobaric and isochoric fragilities and thermodynamical scaling exponent for glass-forming liquids' ". *Physical Review E*, **2007**, 76, 013502	2.4	10
12	Correlations between isobaric and isochoric fragilities and thermodynamical scaling exponent for glass-forming liquids. *Physical Review E*, **2006**, 74, 041503	2.4	27
11	Dielectric secondary relaxations in polypropylene glycols. *Journal of Chemical Physics*, **2006**, 125, 44904	3.9	32
10	Computer simulation of the linear and nonlinear optical susceptibilities of p-nitroaniline in cyclohexane, 1,4-dioxane, and tetrahydrofuran in quadrupolar approximation. II. Local field effects and optical susceptibilitities. *Journal of Physical Chemistry B*, **2006**, 110, 18537-52	3.4	24
9	Computer simulation of the linear and nonlinear optical susceptibilities of p-nitroaniline in cyclohexane, 1,4-dioxane, and tetrahydrofuran in quadrupolar approximation. I. Molecular polarizabilities and hyperpolarizabilities. *Journal of Physical Chemistry A*, **2005**, 109, 10106-20	2.8	32
8	Dielectric relaxation processes in water mixtures of tripropylene glycol. *Journal of Chemical Physics*, **2005**, 123, 204506	3.9	25
7	Test of the dynamic lattice liquid model of glass-forming liquids. *Journal of Molecular Liquids*, **2004**, 109, 137-141	6	3
6	Lekner type method for summing the dipole–dipole interactions in computer simulations of one- and two-dimensionally periodic systems. *Molecular Physics*, **2003**, 101, 1079-1088	1.7	15

5	Computationally efficient method for summing interactions of point dipoles in three dimensions with two-dimensional periodicity. *Chemical Physics Letters*, **2002**, 361, 329-333	2.5	12
4	Coulomb interactions in a computer simulation of a system periodic in two directions. *Molecular Physics*, **2002**, 100, 1017-1023	1.7	34
3	Electrostatic interactions in molecular dynamics simulation of a three-dimensional system with periodicity in one direction. *Molecular Physics*, **2002**, 100, 635-639	1.7	16
2	Electrostatic interactions in computer simulations of a three-dimensional system periodic in two directions: Ewald-type summation. *Journal of Chemical Physics*, **2002**, 117, 8208-8211	3.9	29
1	Ewald summation of electrostatic interactions in molecular dynamics of a three-dimensional system with periodicity in two directions. *Physical Review B*, **2000**, 61, 6706-6712	3.3	83