Jane Eâ€g Lipson

List of Publications by Year
in descending order

45 papers	1,478 citations	279778 23 h-index	315719 38 g-index
46 all docs	46 docs citations	46 times ranked	1505 citing authors

#	Article	IF	Citations
1	Polymer Free Volume and Its Connection to the Glass Transition. Macromolecules, 2016, 49, 3987-4007.	4.8	331
2	A simple approach to polymer mixture miscibility. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 1009-1025.	3.4	73
3	Effect of Interfaces on the Glass Transition of Supported and Freestanding Polymer Thin Films. Macromolecules, 2015, 48, 4132-4141.	4.8	73
4	Local and Average Glass Transitions in Polymer Thin Films. Macromolecules, 2010, 43, 9874-9880.	4.8	60
5	Lattice model of mobility at interfaces: free surfaces, substrates, and bilayers. Soft Matter, 2013, 9, 9403.	2.7	53
6	Modeling the Segmental Relaxation Time Distribution of Miscible Polymer Blends:Â Polyisoprene/Poly(vinylethylene). Macromolecules, 2005, 38, 4919-4928.	4.8	52
7	How Free Volume Does Influence the Dynamics of Glass Forming Liquids. ACS Macro Letters, 2017, 6, 529-534.	4.8	42
8	Delayed Glassification Model for Free-Surface Suppression of <i>T</i>_g in Polymer Glasses. Macromolecules, 2010, 43, 9865-9873.	4.8	40
9	Effect of Deuterium Substitution on the Physical Properties of Polymer Melts and Blends. Macromolecules, 2010, 43, 4287-4293.	4.8	40
10	New Correlations in Polymer Blend Miscibility. Macromolecules, 2012, 45, 1076-1084.	4.8	39
11	Multiple glass transitions and local composition effects on polymer solvent mixtures. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 3528-3545.	2.1	38
12	Free Volume, Cohesive Energy Density, and Internal Pressure as Predictors of Polymer Miscibility. Macromolecules, 2014, 47, 3959-3968.	4.8	38
13	Free Volume in the Melt and How It Correlates with Experimental Glass Transition Temperatures: Results for a Large Set of Polymers. ACS Macro Letters, 2015, 4, 588-592.	4.8	38
14	Explaining the <i>T</i>,<i>V</i>-dependent dynamics of glass forming liquids: The cooperative free volume model tested against new simulation results. Journal of Chemical Physics, 2017, 147, 184503.	3.0	36
15	Lattice model of dynamic heterogeneity and kinetic arrest in glass-forming liquids. Soft Matter, 2013, 9, 3173.	2.7	35
16	How Pure Components Control Polymer Blend Miscibility. Macromolecules, 2012, 45, 8861-8871.	4.8	33
17	Substrate Roughness Speeds Up Segmental Dynamics of Thin Polymer Films. Physical Review Letters, 2020, 124, 027802.	7.8	33
18	Thermodynamic treatment of polymer thin-film glasses. Physical Review E, 2011, 84, 041801.	2.1	32

#	Article	IF	Citations
19	Connecting Pressure-Dependent Dynamics to Dynamics under Confinement: The Cooperative Free Volume Model Applied to Poly(4-chlorostyrene) Bulk and Thin Films. Macromolecules, 2018, 51, 7924-7941.	4.8	32
20	Experimental Test of the Cooperative Free Volume Rate Model under 1D Confinement: The Interplay of Free Volume, Temperature, and Polymer Film Thickness in Driving Segmental Mobility. ACS Macro Letters, 2019, 8, 41-45.	4.8	31
21	Studies on fluids and their mixtures using the Born-Green-Yvon integral equation technique. Macromolecular Theory and Simulations, 1998, 7, 263-282.	1.4	30
22	Origins of Unusual Phase Behavior in Polymer/Ionic Liquid Solutions. Macromolecules, 2013, 46, 5714-5723.	4.8	29
23	Self-Assembly of Lamellar Microphases in Linear Gradient Copolymer Melts. Macromolecules, 2010, 43, 10612-10620.	4.8	28
24	Connecting Theory and Experiment To Understand Miscibility in Polymer and Small Molecule Mixtures. Journal of Chemical & Engineering Data, 2014, 59, 3289-3300.	1.9	22
25	To Understand Film Dynamics Look to the Bulk. Physical Review Letters, 2020, 125, 058002.	7.8	22
26	Correlations between the Effects of Pressure and Molecular Weight on Polymer Blend Miscibility. Macromolecules, 2003, 36, 2977-2984.	4.8	21
27	Simulating Local <i>T</i>_g Reporting Layers in Glassy Thin Films. Macromolecules, 2016, 49, 1822-1833.	4.8	21
28	The cooperative free volume rate model for segmental dynamics: Application to glass-forming liquids and connections with the density scaling approachâ‹†. European Physical Journal E, 2019, 42, 100.	1.6	19
29	Pressure-Dependent Dynamics of Polymer Melts from Arrhenius to Non-Arrhenius: The Cooperative Free Volume Rate Equation Tested against Simulation Data. Macromolecules, 2018, 51, 4896-4909.	4.8	17
30	Polymer Miscibility in Supercritical Carbon Dioxide: Free Volume as a Driving Force. Macromolecules, 2014, 47, 5643-5654.	4.8	14
31	New Routes to the Characterization and Prediction of Polymer Blend Properties. Macromolecules, 2004, 37, 9219-9230.	4.8	13
32	Chain fluids: Contrasts of theoretical and simulation approaches, and comparison with experimental alkane properties. Journal of Chemical Physics, 2009, 131, 074109.	3.0	12
33	The influence of additives on polymer matrix mobility and the glass transition. Soft Matter, 2021, 17, 376-387.	2.7	11
34	Fluid mixtures: Contrasts of theoretical and simulation approaches, and comparison with experimental alkane properties. Journal of Chemical Physics, 2009, 131, 074110.	3.0	9
35	Enhanced diffusion and mobile fronts in a simple lattice model of glass-forming liquids. Soft Matter, 2015, 11, 7792-7801.	2.7	8
36	Global and Local Views of the Glass Transition in Mixtures. Macromolecules, 2020, 53, 7219-7223.	4.8	8

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37	Dynamics across a Free Surface Reflect Interplay between Density and Cooperative Length: Application to Polystyrene. Macromolecules, 2021, 54, 4136-4144.	4.8	8
38	Square-well mixtures: a study of their coexistence using theory and simulation. Molecular Physics, 2007, 105, 1983-1997.	1.7	7
39	A Simple New Way To Account for Free Volume in Glassy Dynamics: Model-Free Estimation of the Close-Packed Volume from PVT Data. Journal of Physical Chemistry B, 2021, 125, 4221-4231.	2.6	7
40	Ball-of-Yarn Conformation of a Linear Gradient Copolymer in a Homopolymer Melt. Macromolecules, 2012, 45, 7607-7620.	4.8	5
41	Thermodynamics of Model PÎ±MSAN/dPMMA Blend: A Combined Study by SANS, Ellipsometry, and Locally Correlated Lattice (LCL) Theory. Macromolecules, 2020, 53, 7084-7095.	4.8	5
42	Different metrics for connecting mobility and glassiness in thin films. Soft Matter, 2019, 15, 1651-1657.	2.7	4
43	The dynamics of freestanding films: predictions for poly(2-chlorostyrene) based on bulk pressure dependence and thoughtful sample averaging. Soft Matter, 2021, 17, 9755-9764.	2.7	4
44	COOPERATIVE FREE VOLUME RATE MODEL APPLIED TO THE PRESSURE-DEPENDENT SEGMENTAL DYNAMICS OF NATURAL RUBBER AND POLYUREA. Rubber Chemistry and Technology, 2019, 92, 612-624.	1.2	3
45	Experimental and Modeling Comparison of the Dynamics of Capped and Freestanding Poly(2-chlorostyrene) Films. ACS Macro Letters, 2022, 11, 91-95.	4.8	2