Pavlos S Stephanou

List of Publications by Year
in descending order

30 papers	710 citations	586496 16 h-index	620720 26 g-index
33 all docs	33 docs citations	33 times ranked	493 citing authors

#	Article	IF	Citations
1	Individual Contributions of Adsorbed and Free Chains to Microscopic Dynamics of Unentangled poly(ethylene Glycol)/Silica Nanocomposite Melts and the Important Role of End Groups: Theory and Simulation. Macromolecules, 2021, 54, 4470-4487.	2.2	14
2	On the consistent modeling of shear-thickening polymer solutions. Physics of Fluids, 2021, 33, .	1.6	5
3	Elucidating the rheological implications of adding particles in blood. Rheologica Acta, 2021, 60, 603-616.	1.1	2
4	A constitutive hemorheological model addressing the deformability of red blood cells in Ringer solutions. Soft Matter, 2020, 16, 7585-7597.	1.2	6
5	Two-species models for the rheology of associative polymer solutions: Derivation from nonequilibrium thermodynamics. Journal of Rheology, 2020, 64, 1003-1016.	1.3	12
6	A constitutive hemorheological model addressing both the deformability and aggregation of red blood cells. Physics of Fluids, 2020, 32, .	1.6	14
7	Simple, Accurate and User-Friendly Differential Constitutive Model for the Rheology of Entangled Polymer Melts and Solutions from Nonequilibrium Thermodynamics. Materials, 2020, 13, 2867.	1.3	9
8	Assessment of the Tumbling-Snake Model against Linear and Nonlinear Rheological Data of Bidisperse Polymer Blends. Polymers, 2019, 11, 376.	2.0	6
9	A constitutive rheological model for agglomerating blood derived from nonequilibrium thermodynamics. Physics of Fluids, 2018, 30, .	1.6	31
10	The rheology of drilling fluids from a non-equilibrium thermodynamics perspective. Journal of Petroleum Science and Engineering, 2018, 165, 1010-1020.	2.1	19
11	Understanding the rheological behavior of polymer nanocomposites: Non-equilibrium thermodynamics modeling coupled with detailed atomistic non-equilibrium molecular dynamics simulations. Materials Today: Proceedings, 2018, 5, 27589-27598.	0.9	2
12	A nonequilibrium thermodynamics perspective of thixotropy. Journal of Chemical Physics, 2018, 149, 244902.	1.2	17
13	From intermediate anisotropic to isotropic friction at large strain rates to account for viscosity thickening in polymer solutions. Journal of Chemical Physics, 2018, 148, 184903.	1.2	7
14	Tumbling-Snake Model for Polymeric Liquids Subjected to Biaxial Elongational Flows with a Focus on Planar Elongation. Polymers, 2018, 10, 329.	2.0	7
15	Communication: Appearance of undershoots in start-up shear: Experimental findings captured by tumbling-snake dynamics. Journal of Chemical Physics, 2017, 146, 161101.	1.2	30
16	Non-constant link tension coefficient in the tumbling-snake model subjected to simple shear. Journal of Chemical Physics, 2017, 147, 174903.	1.2	13
17	Solution of the complete Curtiss-Bird model for polymeric liquids subjected to simple shear flow. Journal of Chemical Physics, 2016, 144, 124905.	1.2	12
18	Flow-Induced Orientation and Stretching of Entangled Polymers in the Framework of Nonequilibrium Thermodynamics. Macromolecules, 2016, 49, 3161-3173.	2.2	25

#	Article	IF	Citations
19	How the flow affects the phase behaviour and microstructure of polymer nanocomposites. Journal of Chemical Physics, 2015, 142, 064901.	1.2	21
20	Accurate prediction of the linear viscoelastic properties of highly entangled mono and bidisperse polymer melts. Journal of Chemical Physics, 2014, 140, 214903.	1.2	17
21	Continuum Model for the Phase Behavior, Microstructure, and Rheology of Unentangled Polymer Nanocomposite Melts. Macromolecules, 2014, 47, 4493-4513.	2.2	27
22	Quantitative predictions of the linear viscoelastic properties of entangled polyethylene and polybutadiene melts via modified versions of modern tube models on the basis of atomistic simulation data. Journal of Non-Newtonian Fluid Mechanics, 2013, 200, 111-130.	1.0	16
23	Effects of tube persistence length on dynamics of mildly entangled polymers. Journal of Rheology, 2012, 56, 707-723.	1.3	21
24	Projection of atomistic simulation data for the dynamics of entangled polymers onto the tube theory: calculation of the segment survival probability function and comparison with modern tube models. Soft Matter, 2011, 7, 380-395.	1.2	40
25	Toward an Improved Description of Constraint Release and Contour Length Fluctuations in Tube Models for Entangled Polymer Melts Guided by Atomistic Simulations. Macromolecular Theory and Simulations, 2011, 20, 752-768.	0.6	22
26	A mean-field anisotropic diffusion model for unentangled polymeric liquids and semi-dilute solutions: Model development and comparison with experimental and simulation data. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 593-606.	1.0	22
27	Melt Structure and Dynamics of Unentangled Polyethylene Rings: Rouse Theory, Atomistic Molecular Dynamics Simulation, and Comparison with the Linear Analogues. Macromolecules, 2010, 43, 10692-10713.	2.2	110
28	Understanding Dynamics in Binary Mixtures of Entangled cis-1,4-Polybutadiene Melts at the Level of Primitive Path Segments by Mapping Atomistic Simulation Data onto the Tube Model. Macromolecules, 2010, 43, 8239-8250.	2.2	29
29	Quantifying chain reptation in entangled polymer melts: Topological and dynamical mapping of atomistic simulation results onto the tube model. Journal of Chemical Physics, 2010, 132, 124904.	1.2	101
30	A generalized differential constitutive equation for polymer melts based on principles of nonequilibrium thermodynamics. Journal of Rheology, 2009, 53, 309-337.	1.3	46