Petr Filip

List of Publications by Year
in descending order

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81	1,182	393982	414034
papers	citations	19 h-index	32 g-index

84	84	84	956
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Improved thermooxidation and sedimentation stability of covalently-coated carbonyl iron particles with cholesteryl groups and their influence on magnetorheology. Journal of Colloid and Interface Science, 2013, 396, 146-151.	5.0	100
2	On the effect of pressure on the shear and elongational viscosities of polymer melts. Polymer Engineering and Science, 2004, 44, 1328-1337.	1.5	93
3	Rheological properties of magnetorheological suspensions based on coreâ€“shell structured polyaniline-coated carbonyl iron particles. Smart Materials and Structures, 2010, 19, 115008.	1.8	93
4	Effect of shear rate on aggregate size and structure in the process of aggregation and at steady state. Powder Technology, 2013, 235, 540-549.	2.1	78
5	A dimorphic magnetorheological fluid with improved oxidation and chemical stability under oscillatory shear. Smart Materials and Structures, 2013, 22, 035011.	1.8	54
6	Plasma-treated carbonyl iron particles as a dispersed phase in magnetorheological fluids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 387, 99-103.	2.3	53
7	Tailoring the magnetic properties and magnetorheological behavior of spinel nanocrystalline cobalt ferrite by varying annealing temperature. Dalton Transactions, 2014, 43, 6919.	1.6	43
8	Cholesteryl-coated carbonyl iron particles with improved anti-corrosion stability and their viscoelastic behaviour under magnetic field. Colloid and Polymer Science, 2014, 292, 2137-2143.	1.0	42
9	Axial Couetteâ€“Poiseuille flow of power-law viscoplastic fluids in concentric annuli. Journal of Petroleum Science and Engineering, 2003, 40, 111-119.	2.1	37
10	Modelling elongational and shear rheology of two LDPE melts. Rheologica Acta, 2009, 48, 691-697.	1.1	37
11	Synthesis and magnetorheological characteristics of ribbonâ€like, polypyrroleâ€coated carbonyl iron suspensions under oscillatory shear. Journal of Applied Polymer Science, 2013, 128, 2977-2982.	1.3	37
12	On the predictive/fitting capabilities of the advanced differential constitutive equations for branched LDPE melts. Journal of Non-Newtonian Fluid Mechanics, 2006, 135, 58-67.	1.0	34
13	THE ROLE OF PARTICLES ANNEALING TEMPERATURE ON MAGNETORHEOLOGICAL EFFECT. Modern Physics Letters B, 2012, 26, 1150013.	1.0	29
14	Characterization of Poly(Ethylene Oxide) Nanofibersâ€”Mutual Relations between Mean Diameter of Electrospun Nanofibers and Solution Characteristics. Processes, 2019, 7, 948.	1.3	28
15	Evaluation of powder loading and flow properties of Al2O3 ceramic injection molding feedstocks treated with stearic acid. Ceramics International, 2019, 45, 20084-20090.	2.3	24
16	Rheological characterization and modeling of linear and branched metallocene polypropylenes prepared by reactive processing. Journal of Non-Newtonian Fluid Mechanics, 2009, 156, 1-6.	1.0	22
17	The storage stability of polyvinylbutyral solutions from an electrospinnability standpoint. Polymer Degradation and Stability, 2014, 105, 134-139.	2.7	22
18	Relation between sensory analysis and rheology of body lotions. International Journal of Cosmetic Science, 2016, 38, 558-566.	1.2	22

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19	Optimization of powder injection molding of feedstock based on aluminum oxide and multicomponent waterâ€soluble polymer binder. Polymer Engineering and Science, 2011, 51, 1376-1382.	1.5	21
20	On the predictive/fitting capabilities of the advanced differential constitutive equations for linear polyethylene melts. Journal of Non-Newtonian Fluid Mechanics, 2008, 150, 56-64.	1.0	20
21	The Influence of Emulsifier on Rheological and Sensory Properties of Cosmetic Lotions. Advances in Materials Science and Engineering, 2013, 2013, 1-7.	1.0	20
22	Explicit pressure drop-flow rate relation for laminar axial flow of power-law fluids in concentric annuli. Journal of Petroleum Science and Engineering, 1996, 16, 203-208.	2.1	17
23	An electrorheological investigation of PVB solutions in connection with their electrospinning qualities. Polymer Testing, 2014, 39, 115-121.	2.3	17
24	The swirling radial jet. Flow, Turbulence and Combustion, 1982, 39, 329-335.	0.2	13
25	HYDRODYNAMICS OF A RADIALLY DISCHARGING IMPELLER STREAM IN AGITATED VESSELS. Chemical Engineering Communications, 1984, 27, 313-326.	1.5	13
26	Predictive/fitting capabilities of differential constitutive models for polymer meltsâ€"reduction of nonlinear parameters in the eXtended Pom-Pom model. Colloid and Polymer Science, 2014, 292, 2753-2763.	1.0	12
27	Electrospinning of a Copolymer PVDF-co-HFP Solved in DMF/Acetone: Explicit Relations among Viscosity, Polymer Concentration, DMF/Acetone Ratio and Mean Nanofiber Diameter. Polymers, 2021, 13, 3418.	2.0	12
28	Phenomenological Modelling of Non-Monotonous Shear Viscosity Functions. Applied Rheology, 2004, 14, 82-88.	3.5	11
29	Empirical Modelling of Nonmonotonous Behaviour of Shear Viscosity. Advances in Materials Science and Engineering, 2013, 2013, 1-4.	1.0	11
30	Magnetorheology of carbonyl iron particles coated with polypyrrole ribbons: The steady shear study. Journal of Physics: Conference Series, 2013, 412, 012016.	0.3	11
31	Quasisimilarity of flow behavior of power-law fluids in concentric annuli. Fluid Dynamics Research, 1994, 14, 63-70.	0.6	10
32	The influence of sonication of poly(ethylene oxide) solutions to the quality of resulting electrospun nanofibrous mats. Polymer Degradation and Stability, 2016, 126, 101-106.	2.7	10
33	Relationship of Annular and Parallel-Plate Poiseuille Flows for Power-Law Fluids. Polymer-Plastics Technology and Engineering, 1995, 34, 947-960.	1.9	9
34	Two Ways to Examine Differential Constitutive Equations: Initiated on Steady or Initiated on Unsteady (LAOS) Shear Characteristics. Polymers, 2017, 9, 205.	2.0	9
35	Antibacterial Filtration Membranes Based on PVDF-co-HFP Nanofibers with the Addition of Medium-Chain 1-Monoacylglycerols. ACS Applied Materials & Interfaces, 2021, 13, 41021-41033.	4.0	9
36	The effect of powder characteristics on pressure sensitivity of powder injection moulding compounds. Powder Technology, 2011, 206, 209-213.	2.1	8

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37	Rheological Model for Describing Viscometric Flows of Melts of Branched Polymers. Journal of Engineering Physics and Thermophysics, 2016, 89, 652-659.	0.2	8
38	Space flow geometry of the radial free, wall and liquid jets with swirl. Flow, Turbulence and Combustion, 1985, 42, 185-196.	0.2	5
39	Generalisation of the method of images for the calculation of inviscid potential flow past several arbitrarily moving parallel circular cylinders. Journal of Engineering Mathematics, 2012, 77, 77-85.	0.6	5
40	An evaluation of the pressure-dependent melt viscosity of polyphenylsulfone. Polymer Engineering and Science, 2014, 54, 711-715.	1.5	5
41	Magnetorheological behaviour and electrospinning of poly(ethylene oxide) suspensions with magnetic nanoparticles. Journal of Intelligent Material Systems and Structures, 2016, 27, 898-903.	1.4	5
42	Continuous rheological description of highly filled polymer melts for material extrusion. Applied Materials Today, 2020, 20, 100754.	2.3	5
43	An Estimate of the Onset of Beadless Character of Electrospun Nanofibers Using Rheological Characterization. Polymers, 2021, 13, 265.	2.0	5
44	Similarity prediction of wall jets on bodies of revolution. Acta Mechanica, 1989, 76, 253-263.	1.1	4
45	Similarity prediction of wall jets past axisymmetric bodies for power-law fluids. Acta Mechanica, 1991, 88, 167-173.	1.1	4
46	Pressure dependent viscosity of Surlyn/montmorillonite nanocomposite. Plastics, Rubber and Composites, 2004, 33, 299-304.	0.9	4
47	Influence of capillary die geometry on wall slip of highly filled powder injection molding compounds. Powder Technology, 2018, 325, 615-619.	2.1	4
48	Magnetorheological characterization and electrospinnability of ultrasound-treated polymer solutions containing magnetic nanoparticles. Colloid and Polymer Science, 2018, 296, 1849-1855.	1.0	4
49	Master flow curves as a tool to modelling ceramic injection molding. Ceramics International, 2019, 45, 7468-7471.	2.3	4
50	A note on the radial wall jet with swirl. Acta Mechanica, 1986, 60, 41-47.	1.1	3
51	Quasisimilarity of helical flow of power-law fluids in concentric annuli. Journal of Petroleum Science and Engineering, 2004, 45, 97-107.	2.1	3
52	Core-shell Structured Polypyrrole-coated Magnetic Carbonyl Iron Microparticles and their Magnetorheology. , 2011, , .		3
53	The role of the Gordonâ€“Schowalter derivative term in the constitutive modelsâ€”improved flexibility of the modified XPP model. Colloid and Polymer Science, 2015, 293, 1227-1236.	1.0	3
54	Flexibility of three differential constitutive models evaluated by large amplitude oscillatory shear and Fourier transform rheology. Polymer, 2016, 104, 171-178.	1.8	3

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55	Dependence of poly(vinyl butyral) electrospun fibres diameter on molecular weight and concentration. Journal of Industrial Textiles, 2022, 51, 1612S-1626S.	1.1	3
56	Evaluation of an onset of electrospun beadless poly(ethylene oxide) nanofibres. Journal of Applied Polymer Science, 2021, 138, 50001.	1.3	3
57	The effect of shear rate on aggregate size distribution and structure at steady state: a comparison between a Taylorâ€“Couette reactor and a mixing tank. Journal of Water Supply: Research and Technology - AQUA, 2013, 62, 288-295.	0.6	2
58	On the relation between sensory attributes and rheological characterization of cosmetic products. AIP Conference Proceedings, 2017, , .	0.3	2
59	Complex Swirling Radial Jets. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 1985, 65, 441-446.	0.9	1
60	On the swirling wall jets on bodies of revolution. International Journal of Engineering Science, 1990, 28, 115-121.	2.7	1
61	Mixture Rules for Critical Shear Values of Extruded Linear PE/Branched PE Blends. Polymer-Plastics Technology and Engineering, 1997, 36, 557-568.	1.9	1
62	Rheological Characterization and Constitutive Modeling of Two LDPE Melts. , 2009, , .		1
63	Probability Distribution Function of the Polymer End-to-End Molecule Vector after Retraction and its Application to Step Deformation. Macromolecular Theory and Simulations, 2010, 19, 190-194.	0.6	1
64	On the Generalised Stretch Function. Macromolecular Theory and Simulations, 2012, 21, 272-278.	0.6	1
65	Nanofibrous web quality in dependence on the preparation of poly(ethylene oxide) aqueous solutions. Journal of the Textile Institute, 2017, 108, 2021-2026.	1.0	1
66	Electrospinning of poly(ethylene oxide) solutions - Quantitative relations between mean nanofibre diameter, concentration, molecular weight, and viscosity. AIP Conference Proceedings, 2019, , .	0.3	1
67	Modeling of nonlinear viscoelastic polymeric materials at their large periodic deformation. Ã‰pÃ‡Å‘anyag: Journal of Silicate Based and Composite Materials, 2019, 71, 2-4.	0.0	1
68	Quasisimilarity of Helical Power-Law Fluid Flow in Concentric Annuli. , 2009, , .		0
69	A Remark to the Tube Theory. , 2009, , .		0
70	On the Approximation of the Generalised Stretch Function. , 2011, , .		0
71	Invariance of Elongational Viscosity Measurements Using SER Universal Testing Platform with Respect to Rectangular Shapes of Polymer Samples. , 2011, , .		0
72	Quality of nanofibrous web in dependence on the preparation of polymer solutions. , 2013, , .		0

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73	On the (ir)reproducibility of measurements of elongational viscosity using an SER universal testing platform. , 2013, , .		0
74	On the comparison of electrorheological measurements with different generation of an electric field. Journal of Physics: Conference Series, 2013, 412, 012010.	0.3	0
75	Applicability of the modified XPP model to a description of flow behaviour of polymeric materials. AIP Conference Proceedings, 2015, , .	0.3	0
76	Comparison of electrorheological characteristics obtained in two geometrical arrangements: Parallel plates and concentric cylinders. AIP Conference Proceedings, 2015, , .	0.3	0
77	Quality of nanofibrous mats in relation to rheological characterization of PVB and PVB/silica solutions. AIP Conference Proceedings, 2017, , .	0.3	0
78	An examination of the differential constitutive models under large amplitude oscillatory shear flow. AIP Conference Proceedings, 2017, , .	0.3	0
79	Wall slip of highly filled powder injection moulding compounds in dependence on capillary die geometry. AIP Conference Proceedings, 2019, , .	0.3	0
80	Approximate functions relating specific viscosity of PEO in DMSO vs. concentration respecting intrinsic viscosity for low concentrations. AIP Conference Proceedings, 2019, , .	0.3	0
81	Processability of High Metal and Ceramic Concentration Compounds. , 2021, , 855-872.		0