Paulo de Souza Mendes

List of Publications by Year
in descending order

77 papers	2,198 citations	218381 26 h-index	243296 44 g-index
77 all docs	77 docs citations	77 times ranked	1288 citing authors

#	Article	IF	Citations
1	Modeling the thixotropic behavior of structured fluids. Journal of Non-Newtonian Fluid Mechanics, 2009, 164, 66-75.	1.0	152
2	Thixotropic elasto-viscoplastic model for structured fluids. Soft Matter, 2011, 7, 2471.	1.2	149
3	Binghamâ€™s model in the oil and gas industry. Rheologica Acta, 2017, 56, 259-282.	1.1	123
4	A unified approach to model elasto-viscoplastic thixotropic yield-stress materials and apparent yield-stress fluids. Rheologica Acta, 2013, 52, 673-694.	1.1	121
5	A critical overview of elasto-viscoplastic thixotropic modeling. Journal of Non-Newtonian Fluid Mechanics, 2012, 187-188, 8-15.	1.0	103
6	Rheological Characterization of CarbopolÂ® Dispersions in Water and in Water/Glycerol Solutions. Fluids, 2019, 4, 3.	0.8	87
7	Obstruction of pipelines due to paraffin deposition during the flow of crude oils. International Journal of Heat and Mass Transfer, 1997, 40, 4319-4328.	2.5	76
8	Flow of viscoplastic liquids through axisymmetric expansionsâ€“contractions. Journal of Non-Newtonian Fluid Mechanics, 2007, 142, 207-217.	1.0	71
9	Rheological Characterization of Waxy Crude Oils: Sample Preparation. Energy & Fuels, 2012, 26, 2566-2577.	2.5	64
10	Dimensionless non-Newtonian fluid mechanics. Journal of Non-Newtonian Fluid Mechanics, 2007, 147, 109-116.	1.0	59
11	The naphthalene sublimation technique. Experimental Thermal and Fluid Science, 1991, 4, 510-523.	1.5	57
12	The quasilinear large-amplitude viscoelastic regime and its significance in the rheological characterization of soft matter. Journal of Rheology, 2014, 58, 537-561.	1.3	48
13	Persistence of straining and flow classification. International Journal of Engineering Science, 2005, 43, 79-105.	2.7	43
14	Startup flow of gelled crudes in pipelines. Journal of Non-Newtonian Fluid Mechanics, 2012, 179-180, 23-31.	1.0	43
15	The yield stress tensor. Journal of Non-Newtonian Fluid Mechanics, 2018, 261, 211-219.	1.0	43
16	Time-dependent yield stress materials. Current Opinion in Colloid and Interface Science, 2019, 43, 15-25.	3.4	42
17	Immiscible Liquid-Liquid Displacement in Capillary Tubes. Journal of Fluids Engineering, Transactions of the ASME, 2005, 127, 24-31.	0.8	40
18	Heat transfer to non-Newtonian fluids in laminar flow through rectangular ducts. International Journal of Heat and Fluid Flow, 1996, 17, 613-620.	1.1	39

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19	Numerical approximations for flow of viscoplastic fluids in a lid-driven cavity. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 667-679.	1.0	37
20	Model-based material functions for SAOS and LAOS analyses. Journal of Non-Newtonian Fluid Mechanics, 2015, 215, 19-30.	1.0	33
21	A new constitutive equation and its performance in contraction flows. Journal of Non-Newtonian Fluid Mechanics, 1999, 86, 375-388.	1.0	32
22	Startup flow of yield-stress non-thixotropic and thixotropic materials in a tube. Journal of Petroleum Science and Engineering, 2019, 174, 437-445.	2.1	29
23	Instability of Inelastic Shear-Thinning Liquids in a Couette Flow Between Concentric Cylinders. Journal of Fluids Engineering, Transactions of the ASME, 2004, 126, 385-390.	0.8	28
24	Startup flow of gelled waxy crude oils in pipelines: The role of volume shrinkage. Fuel, 2021, 288, 119726.	3.4	27
25	Gas displacement of viscoplastic liquids in capillary tubes. Journal of Non-Newtonian Fluid Mechanics, 2007, 145, 30-40.	1.0	26
26	On the pressure-driven flow of suspensions: Particle migration in shear sensitive liquids. Journal of Non-Newtonian Fluid Mechanics, 2016, 234, 178-187.	1.0	26
27	Immiscible liquid-liquid displacement flows in a Hele-Shaw cell including shear thinning effects. Physics of Fluids, 2020, 32, .	1.6	26
28	A general transformation procedure for differential viscoelastic models. Journal of Non-Newtonian Fluid Mechanics, 2003, 111, 151-174.	1.0	24
29	Irreversible time-dependent rheological behavior of cement slurries: Constitutive model and experiments. Journal of Rheology, 2019, 63, 247-262.	1.3	24
30	Heat transfer to viscoplastic materials flowing axially through concentric annuli. International Journal of Heat and Fluid Flow, 2003, 24, 762-773.	1.1	23
31	Flow of elasto-viscoplastic liquids through an axisymmetric expansionâ€“contraction. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 386-394.	1.0	23
32	Rheology of Tetrahydrofuran Hydrate Slurries. Energy & Fuels, 2017, 31, 14385-14392.	2.5	23
33	A constitutive model for non-Newtonian materials based onÂthe persistence-of-straining tensor. Meccanica, 2011, 46, 1035-1045.	1.2	22
34	Constructing a thixotropy model from rheological experiments. Journal of Non-Newtonian Fluid Mechanics, 2018, 261, 1-8.	1.0	22
35	Heat transfer to viscoplastic materials flowing laminarly in the entrance region of tubes. International Journal of Heat and Fluid Flow, 1999, 20, 60-67.	1.1	21
36	Considerations on kinematic flow classification criteria. Journal of Non-Newtonian Fluid Mechanics, 2005, 128, 109-115.	1.0	21

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37	Growth Kinetics and Mechanics of Hydrate Films by Interfacial Rheology. Langmuir, 2016, 32, 4203-4209.	1.6	21
38	Flow of elasto-viscoplastic thixotropic liquids past a confined cylinder. Journal of Non-Newtonian Fluid Mechanics, 2013, 193, 80-88.	1.0	20
39	On the pressure-driven flow of suspensions: Particle migration in apparent yield-stress fluids. Journal of Non-Newtonian Fluid Mechanics, 2019, 265, 92-98.	1.0	20
40	Guidelines for the rheological characterization of biodiesel. Fuel, 2015, 140, 446-452.	3.4	19
41	Rheological material functions at yielding. Journal of Rheology, 2020, 64, 615-624.	1.3	19
42	A thermodynamic framework to model thixotropic materials. International Journal of Non-Linear Mechanics, 2013, 55, 48-54.	1.4	17
43	Gas-displacement of non-Newtonian liquids in capillary tubes. International Journal of Heat and Fluid Flow, 2006, 27, 95-104.	1.1	16
44	Flow of yield-stress liquids through an axisymmetric abrupt expansion-contraction. Journal of Non-Newtonian Fluid Mechanics, 2013, 201, 1-9.	1.0	16
45	Plane flow of thixotropic elasto-viscoplastic materials through a 1:4 sudden expansion. Journal of Non-Newtonian Fluid Mechanics, 2015, 220, 162-174.	1.0	16
46	Exchange flows between yield stress materials and Newtonian oils. Journal of Non-Newtonian Fluid Mechanics, 2018, 261, 123-135.	1.0	16
47	Irreversible time dependence of gelled waxy crude oils: Flow experiments and modeling. Journal of Rheology, 2020, 64, 1237-1250.	1.3	16
48	Is the von Mises criterion generally applicable to soft solids?. Soft Matter, 2020, 16, 7576-7584.	1.2	15
49	Flow of elasto-viscoplastic liquids through a planar expansionâ€“contraction. Rheologica Acta, 2014, 53, 31-41.	1.1	13
50	Further remarks on persistence of straining and flow classification. International Journal of Engineering Science, 2007, 45, 504-508.	2.7	12
51	Immiscible liquid-liquid displacement in capillary tubes: viscoelastic effects. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2008, 30, 160-165.	0.8	12
52	Heat transfer coefficients for the laminar fully developed flow of viscoplastic liquids through annuli. International Journal of Heat and Mass Transfer, 2009, 52, 3257-3260.	2.5	12
53	An appraisal of procedures to determine the flow curve of cement slurries. Journal of Petroleum Science and Engineering, 2017, 159, 617-623.	2.1	10
54	A simple method to analyze materials under quasilinear large amplitude oscillatory shear flow (QL-LAOS). Journal of Rheology, 2019, 63, 305-317.	1.3	10

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55	Flow of yield stress materials through annular abrupt expansionâ€“contractions. Physics of Fluids, 2020, 32, .	1.6	10
56	Displacement flows of dilute polymer solutions in capillaries. Journal of Non-Newtonian Fluid Mechanics, 2007, 147, 117-128.	1.0	9
57	Couette flows of a thixotropic yield-stress material: Performance of a novel fluidity-based constitutive model. Journal of Rheology, 2020, 64, 889-898.	1.3	9
58	A Rheological Study of Parameters That Influence the Formation of Cyclopentane Hydrates. Energy & Fuels, 2021, 35, 18467-18477.	2.5	9
59	Predicting the time-dependent irreversible rheological behavior of oil well cement slurries. Journal of Petroleum Science and Engineering, 2019, 178, 805-813.	2.1	8
60	Displacement flow of yield stress materials in annular spaces of variable cross section. Journal of Petroleum Science and Engineering, 2022, 208, 109614.	2.1	7
61	Taylor-Couette Instabilities in Flows of Newtonian and Power-Law Liquids in the Presence of Partial Annulus Obstruction. Journal of Fluids Engineering, Transactions of the ASME, 2006, 128, 42-54.	0.8	6
62	Pressure-driven flows of a thixotropic viscoplastic material: Performance of a novel fluidity-based constitutive model. Physics of Fluids, 2020, 32, .	1.6	6
63	Elastic and viscous effects on flow pattern of elasto-viscoplastic fluids in a cavity. Mechanics Research Communications, 2013, 53, 36-42.	1.0	5
64	Microscopic phenomena inferred from the rheological analysis of an emulsion. Physics of Fluids, 2021, 33, .	1.6	5
65	Performance of an elasto-viscoplastic model in some benchmark problems. Mechanics of Time-Dependent Materials, 2015, 19, 419-438.	2.3	4
66	Gravity-driven azimuthal flow of a layer of thixotropic fluid on the inner surface of a horizontal tube. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 1004-1011.	1.0	3
67	Comments on â€œObjective flow classification parameters and their use in general steady flowsâ€•by P.O. Brunn. Rheologica Acta, 2008, 47, 959-961.	1.1	2
68	Exchange flows of two immiscible Newtonian liquids in a vertical tube: From falling drops to falling slugs. Physics of Fluids, 2017, 29, 067105.	1.6	2
69	Thermodynamics and rheology of droplet aggregation of water-in-crude oil emulsion systems. Chemical Engineering Science, 2021, 245, 116955.	1.9	2
70	Flow instabilities in fluid displacement through enlarged regions in annular ducts. Journal of Non-Newtonian Fluid Mechanics, 2022, 305, 104834.	1.0	2
71	Analysis of the flow between parallel coaxial discs with relative axial motion and rotation. Journal of Non-Newtonian Fluid Mechanics, 2020, 285, 104404.	1.0	1
72	Production method of reference fluids intended for gravitational settlers' efficiency verification tests. Physics of Fluids, 2021, 33, 117105.	1.6	1

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73	Liquid-Liquid Displacement Flows in a Hele-Shaw Cell including Viscoplastic Effects. AIP Conference Proceedings, 2008, , .	0.3	0
74	Wall Slip during the Flow of Carbopol Solutions through a Parallel Plate Channel. AIP Conference Proceedings, 2008, , .	0.3	0
75	Liquid-Liquid Displacement Flows in an Annular Space Including Viscoplastic Effects. AIP Conference Proceedings, 2008, , .	0.3	0
76	Numerical Results of Non-Newtonian Displacement in Non-Rectilinear Oil Wells. , 2010, , .		0
77	Recent developments on yield stress materials. , 2022, 2, 100021.		0