Gilles Ausias

List of Publications by Year
in descending order

71 papers	2,127 citations	201575 27 h-index	243529 44 g-index
72 all docs	72 docs citations	72 times ranked	1726 citing authors

#	Article	IF	Citations
1	Effect of flax fibres individualisation on tensile failure of flax/epoxy unidirectional composite. Composites Part A: Applied Science and Manufacturing, 2013, 51, 62-70.	3.8	167
2	Rheological properties of short fiber filled polypropylene in transient shear flow. Journal of Non-Newtonian Fluid Mechanics, 2004, 123, 19-32.	1.0	111
3	Enhanced dispersion of cellulose nanocrystals in melt-processed polylactide-based nanocomposites. Cellulose, 2015, 22, 483-498.	2.4	110
4	Stress overshoots of organoclay nanocomposites in transient shear flow. Journal of Non-Newtonian Fluid Mechanics, 2007, 141, 167-179.	1.0	108
5	Rheological properties of short fiber model suspensions. Journal of Rheology, 2004, 48, 1023-1048.	1.3	96
6	Modeling fiber interactions in semiconcentrated fiber suspensions. Journal of Rheology, 2009, 53, 49-72.	1.3	84
7	Observation of the structure of a composite polypropylene/flax and damage mechanisms under stress. Industrial Crops and Products, 2013, 43, 225-236.	2.5	79
8	Rheology of short glass fiber reinforced polypropylene. Journal of Rheology, 1992, 36, 525-542.	1.3	73
9	Rheological properties of long glass fiber filled polypropylene. Journal of Non-Newtonian Fluid Mechanics, 2005, 125, 25-34.	1.0	62
10	Shear and extensional properties of short glass fiber reinforced polypropylene. Polymer Composites, 2005, 26, 247-264.	2.3	59
11	Study of the fibre morphology stability in polypropylene-flax composites. Polymer Degradation and Stability, 2013, 98, 1216-1224.	2.7	58
12	Prediction of extrusion load and liquid phase filtration during ram extrusion of high solid volume fraction pastes. Powder Technology, 2013, 249, 258-268.	2.1	57
13	Smoothed particle hydrodynamics (SPH) modeling of fiber orientation in a 3D printing process. Physics of Fluids, 2018, 30, .	1.6	54
14	Modelling of stress and strain amplification effects in filled polymer melts. Journal of Non-Newtonian Fluid Mechanics, 2012, 171-172, 8-16.	1.0	49
15	Direct simulation for concentrated fibre suspensions in transient and steady state shear flows. Journal of Non-Newtonian Fluid Mechanics, 2006, 135, 46-57.	1.0	47
16	Structure, mechanical properties and modelling of polypropylene for different degrees of crystallinity. Polymer, 2012, 53, 5873-5884.	1.8	45
17	Effect of flow history on linear viscoelastic properties and the evolution of the structure of multiwalled carbon nanotube suspensions in an epoxy. Journal of Rheology, 2011, 55, 153-175.	1.3	38
18	Investigation of the rheological properties of short glass fiber-filled polypropylene in extensional flow. Rheologica Acta, 2009, 48, 59-72.	1.1	35

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19	Numerical solution of the Fokkerâ€“Planck equation for fiber suspensions: Application to the Folgarâ€“Tuckerâ€“Lipscomb model. Journal of Non-Newtonian Fluid Mechanics, 2008, 155, 20-29.	1.0	34
20	Flow and Fiber Orientation Calculations in Reinforced Thermoplastic Extruded Tubes. International Polymer Processing, 1994, 9, 51-59.	0.3	30
21	Rheological behavior of fiber-filled polymers under large amplitude oscillatory shear flow. Journal of Non-Newtonian Fluid Mechanics, 2008, 151, 89-100.	1.0	30
22	Design of clay/cement mixtures for extruded building products. Materials and Structures/Materiaux Et Constructions, 2013, 46, 999-1010.	1.3	30
23	A novel pull-out device used to study the influence of pressure during processing of cement-based material reinforced with coir. Construction and Building Materials, 2015, 78, 224-233.	3.2	30
24	Shear-thinning in concentrated rigid fiber suspensions: Aggregation induced by adhesive interactions. Journal of Rheology, 2016, 60, 1279-1300.	1.3	30
25	Solubility and interfacial tension of thermoplastic polyurethane melt in supercritical carbon dioxide and nitrogen. Journal of Supercritical Fluids, 2017, 122, 52-57.	1.6	30
26	Mechanical enhancement of cement-stabilized soil by flax fibre reinforcement and extrusion processing. Materials and Structures/Materiaux Et Constructions, 2016, 49, 1143-1156.	1.3	29
27	COMPARISON OF RHEOLOGICAL PROPERTIES OF FIBER SUSPENSIONS WITH MODEL PREDICTIONS. Journal of Polymer Engineering, 2004, 24, .	0.6	27
28	Micro-mechanical model of TPE made of polypropylene and rubber waste. Polymer, 2007, 48, 3367-3376.	1.8	27
29	On the use of interaction tensors to describe and predict rod interactions in rod suspensions. Rheologica Acta, 2014, 53, 445-456.	1.1	26
30	Numerical simulation and modeling of the die swell for fiber suspension flows. Journal of Non-Newtonian Fluid Mechanics, 2019, 274, 104205.	1.0	26
31	On the multiscale description of dilute suspensions of non-Brownian rigid clusters composed of rods. Journal of Non-Newtonian Fluid Mechanics, 2015, 222, 34-44.	1.0	25
32	Rheological modeling of carbon nanotube suspensions with rodâ€“rod interactions. AICHE Journal, 2014, 60, 1476-1487.	1.8	24
33	The effect of shear-thinning behaviour on rod orientation in filled fluids. Journal of Fluid Mechanics, 2016, 798, 350-370.	1.4	24
34	A rheological constitutive model for semiconcentrated rod suspensions in Bingham fluids. Physics of Fluids, 2017, 29, .	1.6	24
35	Stress and strain amplification in a dilute suspension of spherical particles based on a Birdâ€“Carreau model. Journal of Non-Newtonian Fluid Mechanics, 2015, 221, 95-102.	1.0	23
36	Fiber suspension in 2D nonhomogeneous flow: The effects of flow/fiber coupling for Newtonian and power-law suspending fluids. Journal of Rheology, 2019, 63, 405-418.	1.3	23

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37	A smoothed particle hydrodynamics simulation of fiber-filled composites in a non-isothermal three-dimensional printing process. Physics of Fluids, 2019, 31, .	1.6	22
38	Toward modeling anisotropic yield stress and consistency induced by fiber in fiber-reinforced viscoplastic fluids. Journal of Non-Newtonian Fluid Mechanics, 2015, 220, 69-76.	1.0	19
39	A Second-Gradient Theory of Dilute Suspensions of Flexible Rods in a Newtonian Fluid. Archives of Computational Methods in Engineering, 2015, 22, 511-527.	6.0	18
40	Direct simulation of concentrated fiber suspensions subjected to bending effects. Modelling and Simulation in Materials Science and Engineering, 2015, 23, 055007.	0.8	17
41	Model for thermal degradation of carbon fiber filled poly(ether ether ketone). Polymer Degradation and Stability, 2017, 143, 20-25.	2.7	17
42	Simulation of laser heating distribution for a thermoplastic composite: effects of AFP head parameters. International Journal of Advanced Manufacturing Technology, 2020, 110, 2105-2117.	1.5	16
43	A smoothed particle hydrodynamics study of a non-isothermal and thermally anisotropic fused deposition modeling process for a fiber-filled composite. Physics of Fluids, 2020, 32, .	1.6	16
44	Characterisation and micromechanical modelling of the elasto-viscoplastic behavior of thermoplastic elastomers. Mechanics of Materials, 2014, 71, 114-125.	1.7	15
45	Steady-shear rheological properties for suspensions of axisymmetric particles in second-order fluids. Journal of Non-Newtonian Fluid Mechanics, 2017, 239, 62-72.	1.0	14
46	Apparent yield stress in rigid fibre suspensions: the role of attractive colloidal interactions. Journal of Fluid Mechanics, 2016, 802, 611-633.	1.4	13
47	Rheo-optical response of carbon nanotube suspensions. Journal of Rheology, 2015, 59, 499-524.	1.3	12
48	Optimization of the tube-extrusion die for short-fiber-filled polymers. Composites Science and Technology, 1996, 56, 719-724.	3.8	11
49	Thermoplastic foaming with thermo-expandable microcapsules: Mathematical modeling and numerical simulation for extrusion process. Chemical Engineering Science, 2020, 227, 115852.	1.9	10
50	Automated fibre placement process for a new hybrid material: A numerical tool for predicting an efficient heating law. Composites Part A: Applied Science and Manufacturing, 2021, 144, 106360.	3.8	10
51	Dissipative particle dynamics simulations for fibre suspensions in newtonian and viscoelastic fluids. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 1593-1602.	3.4	9
52	Thermal or electrical bulk properties of rod-filled composites. International Journal of Engineering Science, 2018, 133, 219-230.	2.7	9
53	Modeling interactions in carbon nanotube suspensions: Transient shear flow. Journal of Rheology, 2016, 60, 1069-1083.	1.3	8
54	A model for the stress tensor in dilute suspensions of rigid spheroids in a generalized Newtonian fluid. Journal of Non-Newtonian Fluid Mechanics, 2019, 264, 73-84.	1.0	8

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55	Axisymmetric flow simulations of fiber suspensions as described by 3D probability distribution function. Journal of Non-Newtonian Fluid Mechanics, 2020, 284, 104367.	1.0	8
56	Tensile Characteristics of Coconut Fibers Reinforced Mortar Composites. Advanced Materials Research, 0, 651, 269-273.	0.3	7
57	Rigid fiber motion in slightly non-Newtonian viscoelastic fluids. Physics of Fluids, 2021, 33, .	1.6	7
58	Rheological Modeling of Non-dilute Rod Suspensions. , 2015, , 77-117.		6
59	Effect of Coconut Fibers Addition to early Age Unfired Soil Lime Bricks Strength. Key Engineering Materials, 0, 594-595, 471-476.	0.4	5
60	Effect of Fibers Content on the Tensile Properties of Coconut Fibers Reinforced Cement Mortar Composites. Advanced Materials Research, 0, 742, 92-97.	0.3	5
61	Numerical investigation of dilute suspensions of rigid rods in power-law fluids. Journal of Non-Newtonian Fluid Mechanics, 2020, 280, 104280.	1.0	5
62	Optimization of the Extrusion Process for Glass-Fiber-Reinforced Tubes. Journal of Thermoplastic Composite Materials, 1995, 8, 435-448.	2.6	4
63	Numerical evaluation of a single ellipsoid motion in Newtonian and power-law fluids. AIP Conference Proceedings, 2018, , .	0.3	4
64	Macroscopic modeling of the evolution of fiber orientation during flow. , 2022, , 77-121.		4
65	Investigation of interfacial fracture behavior on injection molded parts. AIP Conference Proceedings, 2016, , .	0.3	2
66	Apport des essais d'indentation pour la modÃ©lisation du comportement mÃ©canique d'un polymÃ¨re semi-cristallin. Materiaux Et Techniques, 2008, 96, 95-103.	0.3	1
67	Comportement rhÃ©ologique dans des Ã©coulements transitoires en cisaillement simple des polymÃ¨res fortement chargÃ©s en fibres courtes. Mecanique Et Industries, 2004, 5, 419-428.	0.2	0
68	Thermo-expandable microcapsule as a blowing agent for producing thermoplastic elastomer vulcanized syntactic foam. AIP Conference Proceedings, 2020, , .	0.3	0
69	Dynamics of gas bubbles in fiber suspensions. International Journal of Multiphase Flow, 2021, 145, 103823.	1.6	0
70	FIBER ORIENTATION IN EXTRUDED TUBES AND INJECTION MOLDED DISK WITH SHORT FIBER REINFORCED THERMOPLASTICS. , 1992, , 835-837.		0
71	Modeling and Numerical Simulation of Laminated Thermoplastic Composites Manufactured by Laser-Assisted Automatic Tape Placement. International Polymer Processing, 2020, 35, 471-480.	0.3	0