

Philippe Cassagnau

List of Publications by Year in descending order

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94
papers

3,474
citations

186265

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144013

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docs citations

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times ranked

3586
citing authors

#	ARTICLE	IF	CITATIONS
1	Melt rheology of organoclay and fumed silica nanocomposites. <i>Polymer</i> , 2008, 49, 2183-2196.	3.8	436
2	Structuration, selective dispersion and compatibilizing effect of (nano)fillers in polymer blends. <i>Progress in Polymer Science</i> , 2014, 39, 1526-1563.	24.7	432
3	Rheology and applications of highly filled polymers: A review of current understanding. <i>Progress in Polymer Science</i> , 2017, 66, 22-53.	24.7	287
4	Polymer nano-foams for insulating applications prepared from CO ₂ foaming. <i>Progress in Polymer Science</i> , 2015, 41, 122-145.	24.7	233
5	Payne effect and shear elasticity of silica-filled polymers in concentrated solutions and in molten state. <i>Polymer</i> , 2003, 44, 2455-2462.	3.8	177
6	Ring-Opening Polymerization of ϵ -Caprolactone Initiated with Titaniumn-Propoxide or Titanium Phenoxide. <i>Macromolecules</i> , 2006, 39, 1338-1346.	4.8	107
7	Linear viscoelasticity and dynamics of suspensions and molten polymers filled with nanoparticles of different aspect ratios. <i>Polymer</i> , 2013, 54, 4762-4775.	3.8	87
8	Viscoelastic properties and morphological characterization of silica/polystyrene nanocomposites synthesized by nitroxide-mediated polymerization. <i>Polymer</i> , 2005, 46, 9965-9973.	3.8	84
9	In situ synthesis of organic-inorganic hybrids or nanocomposites from sol-gel chemistry in molten polymers. <i>Progress in Polymer Science</i> , 2014, 39, 1473-1497.	24.7	67
10	Polypropylene/carbon nanotubes composite materials with enhanced electromagnetic interference shielding performance: Properties and modeling. <i>Composites Part B: Engineering</i> , 2020, 189, 107866.	12.0	65
11	Viscoelasticity of Graphite Oxide-Based Suspensions in PDMS. <i>Macromolecules</i> , 2011, 44, 3893-3900.	4.8	61
12	Viscoelasticity of Brownian Carbon Nanotubes in PDMS Semidilute Regime. <i>Macromolecules</i> , 2009, 42, 1433-1438.	4.8	53
13	Bulk polymerization of ϵ -caprolactone: Rheological predictive laws. <i>Journal of Rheology</i> , 2000, 44, 527-547.	2.6	47
14	Cross-Linking Control of PDMS Rubber at High Temperatures Using TEMPO Nitroxide. <i>Macromolecules</i> , 2009, 42, 8460-8467.	4.8	46
15	Morphology and viscoelasticity of PP/TiO ₂ nanocomposites prepared by <i>in situ</i> sol-gel method. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2010, 48, 1213-1222.	2.1	46
16	Co-continuous morphology and stress relaxation behaviour of unfilled and silica filled PP/EPDM blends. <i>Materials Chemistry and Physics</i> , 2009, 113, 889-898.	4.0	45
17	Viscoelastic Properties of Water Suspensions of Polymer Nanofibers Synthesized via RAFT-Mediated Emulsion Polymerization. <i>Macromolecules</i> , 2012, 45, 5273-5280.	4.8	45
18	Structural characterisation and antibacterial activity of PP/TiO ₂ nanocomposites prepared by an <i>in situ</i> sol-gel method. <i>Materials Chemistry and Physics</i> , 2012, 134, 399-406.	4.0	45

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19	Morphology Development in Novel Composition of Thermoplastic Vulcanizates Based on PA12/PDMS Reactive Blends. <i>Macromolecular Materials and Engineering</i> , 2011, 296, 909-920.	3.6	44
20	Reactive extrusion processing of polypropylene/TiO ₂ nanocomposites by in situ synthesis of the nanofillers: Experiments and modeling. <i>AIChE Journal</i> , 2011, 57, 2174-2184.	3.6	41
21	Crosslinking of ethylene-octene copolymers under dynamic conditions: A new way to access polymeric hyperbranched structure. <i>Polymer Engineering and Science</i> , 2006, 46, 1530-1540.	3.1	38
22	Influence of the crosslink network structure on stress-relaxation behavior: Viscoelastic modeling of the compression set experiment. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2003, 41, 1779-1790.	2.1	37
23	Synthesis and rheology of biodegradable poly(glycolic acid) prepared by melt ring-opening polymerization of glycolide. <i>Journal of Polymer Science Part A</i> , 2009, 47, 1440-1449.	2.3	36
24	Aggregation of Carbon Nanotubes in Semidilute Suspension. <i>Macromolecules</i> , 2010, 43, 1467-1472.	4.8	36
25	Viscoelastic study of oil diffusion in molten PP and EPDM copolymer. <i>Polymer</i> , 2005, 46, 10256-10268.	3.8	33
26	Ring-opening polymerization of decamethylcyclopentasiloxane initiated by a superbase: Kinetics and rheology. <i>Polymer</i> , 2008, 49, 234-240.	3.8	33
27	Influence of the processing conditions on a two-phase reactive blend system: EVA/PP thermoplastic vulcanizate. <i>Polymer Engineering and Science</i> , 2002, 42, 2222-2233.	3.1	32
28	New thermoplastic vulcanizate, composed of polypropylene and ethylene-vinyl acetate copolymer crosslinked by tetrapropoxysilane: evolution of the blend morphology with respect to the crosslinking reaction conversion. <i>Polymer International</i> , 2004, 53, 523-535.	3.1	30
29	Rheology and gelation kinetics of PVC plastisols. <i>Rheologica Acta</i> , 2007, 46, 825-838.	2.4	29
30	Radical grafting of polyethylene onto MWCNTs: A model compound approach. <i>Polymer</i> , 2009, 50, 2535-2543.	3.8	28
31	Rheological modelling of the free-radical crosslinking of PDMS rubber in the presence of TEMPO nitroxide. <i>Polymer</i> , 2010, 51, 3918-3925.	3.8	28
32	The universal usefulness of stearic acid as surface modifier: applications to the polymer formulations and composite processing. <i>Journal of Industrial and Engineering Chemistry</i> , 2021, 96, 1-33.	5.8	28
33	Dynamic behavior of crosslinked amphiphilic block copolymer nanofibers dispersed in liquid poly(ethylene oxide) below and above their glass transition temperature. <i>Soft Matter</i> , 2013, 9, 2197.	2.7	26
34	Generation of nanocellular foams from ABS terpolymers. <i>European Polymer Journal</i> , 2015, 65, 209-220.	5.4	26
35	Catalyzed ring opening of epoxides: Application to bioplasticizers synthesis. <i>Applied Catalysis A: General</i> , 2011, 393, 1-8.	4.3	25
36	Contribution of High-shear Processing to the Compatibilization of (PP/EPR)/PE Ternary Blends. <i>Macromolecular Materials and Engineering</i> , 2014, 299, 674-688.	3.6	25

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37	Study of the Coalescence Mechanisms During Silicone Foaming. <i>Macromolecular Materials and Engineering</i> , 2014, 299, 336-343.	3.6	23
38	Reactive compatibilization of PA12/plasticized starch blends: Towards improved mechanical properties. <i>European Polymer Journal</i> , 2011, 47, 2361-2371.	5.4	21
39	Rheological and electrical properties of EVA copolymer filled with bamboo charcoal. <i>Rheologica Acta</i> , 2013, 52, 75-84.	2.4	21
40	TPV: A New Insight on the Rubber Morphology and Mechanic/Elastic Properties. <i>Polymers</i> , 2020, 12, 2315.	4.5	21
41	Diffusion of the dicumyl peroxide in molten polymer probed by rheology. <i>Rheologica Acta</i> , 2007, 46, 933-943.	2.4	20
42	Viscosity and dynamics of nanorod (carbon nanotubes, cellulose whiskers, stiff polymers and) Tj ETQq0 0 0 rgBT /Oyerlock 10 Tf 50 542	2.4	20
43	Rheological study of mixing in molten polymers: 2-mixing of reactive systems. <i>Polymer</i> , 2004, 45, 8031-8040.	3.8	18
44	New trends in cellular silicone: Innovations and applications. <i>Journal of Cellular Plastics</i> , 2019, 55, 151-200.	2.4	18
45	Rheological study of mixing in molten polymers: 1-mixing of low viscous additives. <i>Polymer</i> , 2004, 45, 8019-8030.	3.8	17
46	Influence of a non-polar medium (alkane and molten polypropylene) on the titanium n-butoxide hydrolysis-condensation reactions. <i>Journal of Sol-Gel Science and Technology</i> , 2011, 57, 86-94.	2.4	17
47	Polypropylene foams under CO2 batch conditions: From formulation and rheological modeling to cell-growth simulation. <i>Polymer</i> , 2021, 218, 123496.	3.8	17
48	Phosphonated Lipids as Primary Plasticizers for PVC with Improved Flame Retardancy. <i>European Journal of Lipid Science and Technology</i> , 2018, 120, 1800062.	1.5	16
49	Morphology in Immiscible Polymer Blends During Solidification of an Amorphous Dispersed Phase under Shearing. <i>Canadian Journal of Chemical Engineering</i> , 2002, 80, 1017-1027.	1.7	15
50	Rheological study of diffusion-controlled crosslinking of poly(ethyleneâ€œoctene) elastomer via peroxide-trapped fumed silica. <i>Materials Chemistry and Physics</i> , 2009, 117, 482-488.	4.0	15
51	Compatibilization of silicone/fluorosilicone blends by dynamic crosslinking and fumed silica addition. <i>Polymer</i> , 2018, 147, 20-29.	3.8	15
52	Application of Machine Learning Tools for the Improvement of Reactive Extrusion Simulation. <i>Macromolecular Materials and Engineering</i> , 2020, 305, 2000375.	3.6	15
53	Effect of nitroxyl-based radicals on the melt radical grafting of maleic anhydride onto polyethylene in presence of a peroxide. <i>European Polymer Journal</i> , 2015, 66, 342-351.	5.4	13
54	Zirconia based feedstocks: Influence of particle surface modification on the rheological properties. <i>Ceramics International</i> , 2017, 43, 16950-16956.	4.8	13

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55	In situ polymerization of L-Lactide in the presence of fumed silica. <i>Materials Chemistry and Physics</i> , 2010, 124, 399-405.	4.0	12
56	Diffusion of liquids in molten polymers: Mutual diffusion coefficient dependence on liquid miscibility and polymer molar mass. <i>Polymer</i> , 2006, 47, 5080-5089.	3.8	11
57	Morphological and rheological properties of zirconia filled polyethylene. <i>Polymer</i> , 2017, 132, 174-179.	3.8	11
58	Experimental and modelling aspects of the reactive extrusion process. <i>Mechanics and Industry</i> , 2019, 20, 803.	1.3	11
59	New polymer/steel solution for automotive applications. <i>International Journal of Adhesion and Adhesives</i> , 2011, 31, 725-734.	2.9	10
60	Free radical polymerization of glycidyl methacrylate in plasticized Poly(vinyl chloride). <i>European Polymer Journal</i> , 2008, 44, 3177-3190.	5.4	8
61	Dynamic crosslinking of silicone elastomer: Radical branching controlled by thermo-oxidation under shearing. <i>European Polymer Journal</i> , 2018, 101, 37-45.	5.4	8
62	Conductive elastomer composites with low percolation threshold based on carbon black and epoxidized natural rubber. <i>Polymer Composites</i> , 2018, 39, 1835-1844.	4.6	8
63	Acyloxyimide derivatives as efficient promoters of polyolefin C-H functionalization: application in the melt grafting of maleic anhydride onto polyethylene. <i>Polymer Chemistry</i> , 2019, 10, 4336-4345.	3.9	8
64	New rheological developments for reactive processing of poly(μ -caprolactone). <i>Comptes Rendus Chimie</i> , 2006, 9, 1351-1362.	0.5	7
65	Modeling of the Complex Mixing Process in Internal Mixers. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 7328-7339.	3.7	7
66	Structural evolution of a constrained epoxy functional polyethylene network crosslinked by a bio-based reactant. <i>European Polymer Journal</i> , 2014, 61, 186-196.	5.4	7
67	Data-Driven Modelling of Polyethylene Recycling under High-Temperature Extrusion. <i>Polymers</i> , 2022, 14, 800.	4.5	7
68	Reaction and Morphology Development Influenced by Diffusion in a Thermoplastic/Thermoset Blend. <i>Macromolecular Symposia</i> , 2006, 233, 59-65.	0.7	6
69	Rheology of physically evolving suspensions. <i>Rheologica Acta</i> , 2009, 48, 135-149.	2.4	6
70	Viscoelasticity and mechanical properties of reactive PVC plastisols. <i>Polymer Engineering and Science</i> , 2009, 49, 1089-1098.	3.1	6
71	Synthesis of Poly(methyl methacrylate)-Grafted Poly(ethylene-co-1-octene) Copolymers by a Grafting from Melt Process. <i>Macromolecular Materials and Engineering</i> , 2012, 297, 702-710.	3.6	6
72	Structuring of non-Brownian ferrite particles in molten polypropylene: Viscoelastic analysis. <i>Journal of Rheology</i> , 2016, 60, 1245-1255.	2.6	6

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73	Elasticity recovery of crosslinked EPDM: influence of the chemistry and nanofillers. <i>Rheologica Acta</i> , 2021, 60, 1-10.	2.4	6
74	Enhanced electromagnetic interference shielding effectiveness of polypropylene/hybrid metallic fillers composite materials by coalescence-driven guided electrical percolation. <i>Polymer</i> , 2022, 246, 124740.	3.8	6
75	Prediction of Zero Shear Viscosity of Poly (Vinyl Chloride) Plastisols. <i>Applied Rheology</i> , 2006, 16, 136-144.	5.2	5
76	Polybutylene terephthalate reactive blending with polymethylhydrosiloxane by ruthenium-catalyzed carbonyl hydrosilylation reaction. <i>Journal of Polymer Science Part A</i> , 2017, 55, 1855-1868.	2.3	5
77	Diffusion of modified vegetable oils in thermoplastic polymers. <i>Materials Chemistry and Physics</i> , 2017, 200, 107-120.	4.0	5
78	An original combined method for electrical conductivity measurement of polymer composites under extensional deformation. <i>Journal of Rheology</i> , 2017, 61, 845-857.	2.6	5
79	Linear and non-linear nature of the flow of polypropylene filled with ferrite particles: from low to concentrated composites. <i>Rheologica Acta</i> , 2017, 56, 635-648.	2.4	5
80	Viscoelastic behaviour of highly filled polypropylene with solid and liquid Tin microparticles: influence of the stearic acid additive. <i>Rheologica Acta</i> , 2021, 60, 661-673.	2.4	5
81	New Polymer Materials for Steel/Polymer/Steel Laminates in Automotive Applications. <i>Macromolecular Materials and Engineering</i> , 2013, 298, 644-652.	3.6	4
82	A model for the electrical conductivity variation of molten polymer filled with carbon nanotubes under extensional deformation. <i>Composites Science and Technology</i> , 2018, 168, 111-117.	7.8	4
83	Extensional rheology and CO ₂ foaming of thermoplastics vulcanizates: Influence of the crosslinking chemistry. <i>Journal of Cellular Plastics</i> , 2022, 58, 569-582.	2.4	4
84	Investigations on interactions between titanium alkoxides and 1,1'-dihydroxy PDMS by a combination of rheology and spectroscopy. <i>European Polymer Journal</i> , 2014, 57, 37-46.	5.4	3
85	Rheology of Carbon Nanoparticle Suspensions and Nanocomposites. , 2015, , 59-75.		3
86	Rheology and crystallization behavior of polypropylene and high-density polyethylene in the presence of a low molar mass polyethylene. <i>Polymer Crystallization</i> , 2019, 2, e10078.	0.8	3
87	Impact of Polymer Binders on the Structure of Highly Filled Zirconia Feedstocks. <i>Polymers</i> , 2020, 12, 2247.	4.5	3
88	Electrical conductivity under shear flow of molten polyethylene filled with carbon nanotubes: Experimental and modeling. <i>Polymer Engineering and Science</i> , 2021, 61, 1129-1138.	3.1	3
89	Innovative polypropylene based blends by in situ polymerization of a polyimide dispersed phase by reactive extrusion. <i>Polymer</i> , 2022, 254, 125022.	3.8	3
90	Specific properties of in situ ruthenium-catalyzed polyamide 12/polydimethylsiloxane compatibilized blend. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2018, 56, 978-988.	2.1	1

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91	Droplet relaxation of molten metals in polypropylene matrix: Measurement of the interfacial tension. Journal of Rheology, 2021, 65, 391-404.	2.6	1
92	Enhancement of EPDM Crosslinked Elastic Properties by Association of Both Covalent and Ionic Networks. Polymers, 2021, 13, 3161.	4.5	1
93	New Reactive Formulations For Polypropylene Foams. Macromolecular Reaction Engineering, 0, , 2200004.	1.5	1
94	Rheological study of elastomeric nanocomposites. , 2020, , 93-111.		0