Jean-Marc Chenal

List of Publications by Year
in descending order

44 papers	1,453 citations	257450 24 h-index	315739 38 g-index
45 all docs	45 docs citations	45 times ranked	1434 citing authors

#	Article	IF	Citations
1	Parameters governing strain induced crystallization in filled natural rubber. Polymer, 2007, 48, 6893-6901.	3.8	153
2	Strain-Induced Crystallization of Natural Rubber and Cross-Link Densities Heterogeneities. Macromolecules, 2014, 47, 5815-5824.	4.8	121
3	Molecular weight between physical entanglements in natural rubber: A critical parameter during strain-induced crystallization. Polymer, 2007, 48, 1042-1046.	3.8	114
4	Amorphous Phase Modulus and Microâ€“Macro Scale Relationship in Polyethylene via <i>in Situ</i> SAXS and WAXS. Macromolecules, 2015, 48, 2149-2160.	4.8	73
5	Characteristic time of strain induced crystallization of crosslinked natural rubber. Polymer, 2012, 53, 2540-2543.	3.8	60
6	<i>In vitro</i> and <i>in vivo</i> evaluation of a polylactic acidâ€bioactive glass composite for bone fixation devices. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 180-191.	3.4	60
7	Small strain behavior of polyethylene: <i>In situ</i> SAXS measurements. Journal of Polymer Science, Part B: Polymer Physics, 2010, 48, 1535-1542.	2.1	54
8	Influence of strain rate and temperature on the onset of strain induced crystallization in natural rubber. European Polymer Journal, 2015, 64, 244-252.	5.4	52
9	Soft Nanostructured Films with an Ultraâ€Low Volume Fraction of Percolating Hard Phase. Macromolecular Rapid Communications, 2013, 34, 1524-1529.	3.9	45
10	In-situ SAXS study of the mesoscale deformation of polyethylene in the pre-yield strain domain: Influence of microstructure and temperature. Polymer, 2014, 55, 1223-1227.	3.8	45
11	About thermo-oxidative ageing at moderate temperature of conventionally vulcanized natural rubber. Polymer Degradation and Stability, 2019, 161, 74-84.	5.8	45
12	Electrical and mechanical percolation in graphene-latex nanocomposites. Polymer, 2014, 55, 5140-5145.	3.8	40
13	Incorporation of plasticizers in sugarcane-based poly(3-hydroxybutyrate)(PHB): Changes in microstructure and properties through ageing and annealing. Industrial Crops and Products, 2015, 72, 166-174.	5.2	38
14	A comparison of the abilities of natural rubber (NR) and synthetic polyisoprene cis-1,4 rubber (IR) to crystallize under strain at high strain rates. Physical Chemistry Chemical Physics, 2016, 18, 3472-3481.	2.8	38
15	Critical stress and thermal activation of crystal plasticity in polyethylene: Influence of crystal microstructure and chain topology. Polymer, 2017, 118, 192-200.	3.8	30
16	Bioactivity modulation of BioglassÂ® powder by thermal treatment. Journal of the European Ceramic Society, 2012, 32, 2765-2775.	5.7	29
17	Single-ion conductor nanocomposite organicâ€“inorganic hybrid membranes for lithium batteries. Journal of Materials Chemistry A, 2014, 2, 12162-12165.	10.3	29
18	Strain induced crystallization and melting of natural rubber during dynamic cycles. Physical Chemistry Chemical Physics, 2015, 17, 15331-15338.	2.8	29

#	ARTICLE	IF	CITATIONS
19	Mechanical properties of nanostructured films with an ultralow volume fraction of hard phase. Polymer, 2017, 109, 187-196.	3.8	29
20	Temperature dependence of strain-induced crystallization in natural rubber: On the presence of different crystallite populations. Polymer, 2015, 60, 115-124.	3.8	28
21	Effect of nanoclay addition on physical, chemical, optical and biological properties of experimental dental resin composites. Dental Materials, 2017, 33, 271-279.	3.5	27
22	Complex dependence on the elastically active chains density of the strain induced crystallization of vulcanized natural rubbers, from low to high strain rate. Polymer, 2016, 97, 158-166.	3.8	26
23	Understanding the mechanical and biodegradation behaviour of poly(hydroxybutyrate)/rubber blends in relation to their morphology. Polymer International, 2012, 61, 434-441.	3.1	25
24	Effect of ageing and annealing on the mechanical behaviour and biodegradability of a poly(3-hydroxybutyrate) and poly(ethylene-<i>co</i> -methyl-acrylate-<i>co</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 537 Td (-glycidyl-	3.1	25
25	Macromolecular Additives to Turn a Thermoplastic Elastomer into a Self-Healing Material. Macromolecules, 2021, 54, 888-895.	4.8	25
26	Physical explanations about the improvement of PolyHydroxyButyrate ductility: Hidden effect of plasticizer on physical ageing. Polymer, 2016, 102, 176-182.	3.8	22
27	Compared abilities of filled and unfilled natural rubbers to crystallize in a large strain rate domain. Composites Science and Technology, 2015, 108, 9-15.	7.8	21
28	Durability of silica aerogels dedicated to superinsulation measured under hygrothermal conditions. Microporous and Mesoporous Materials, 2018, 272, 61-69.	4.4	19
29	Combining bioresorbable polyesters and bioactive glasses: Orthopedic applications of composite implants and bone tissue engineering scaffolds. Applied Materials Today, 2021, 22, 100923.	4.3	18
30	Influence of the rubbery phase on the crystallinity and thermomechanical properties of poly(3â€hydroxybutyrate)/elastomer blends. Polymer International, 2010, 59, 851-858.	3.1	16
31	About the elongation at break of unfilled natural rubber elastomers. Polymer, 2019, 169, 195-206.	3.8	16
32	Crystallization processes at the surface of polylactic acidâ€"bioactive glass composites during immersion in simulated body fluid. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 99B, 412-419.	3.4	15
33	Tailored microstructure and mechanical properties of nanocomposite films made from polyacrylic/LDH hybrid latexes synthesized by RAFT-mediated emulsion polymerization. Polymer Chemistry, 2018, 9, 2590-2600.	3.9	13
34	Elastocaloric properties of thermoplastic polyurethane. Applied Physics Letters, 2020, 117, .	3.3	13
35	Nanostructured silica used in super-insulation materials (SIM), hygrothermal ageing followed by sorption characterizations. Energy and Buildings, 2019, 183, 626-638.	6.7	12
36	Physical modeling of the electromechanical behavior of polar heterogeneous polymers. Journal of Applied Physics, 2012, 112, .	2.5	10

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37	Linear and nonlinear viscoelastic properties of segmented silicone-urea copolymers: Influence of the hard segment structure. Polymer, 2020, 186, 122041.	3.8	10
38	PEOâ€Silsesquioxane Flexible Membranes: Organicâ€Inorganic Solid Electrolytes with Controlled Homogeneity and Nanostructure. ChemistrySelect, 2017, 2, 2088-2093.	1.5	9
39	High-performance polyamides with engineered disorder. Polymer Chemistry, 2021, 12, 6426-6435.	3.9	6
40	Model Composites Based on Poly(lactic acid) and Bioactive Glass Fillers for Bone Regeneration. Polymers, 2021, 13, 2991.	4.5	5
41	Enhanced ductility in high performance polyamides due to strain-induced phase transitions. Polymer, 2022, 238, 124424.	3.8	3
42	Mathematical Modeling of Rubber Elasticity. Journal of Physics: Conference Series, 2018, 1141, 012081.	0.4	2
43	Monte Carlo Study of Rubber Elasticity on the Basis of Finsler Geometry Modeling. Symmetry, 2019, 11, 1124.	2.2	2
44	Coarse-Grained Lattice Modeling and Monte Carlo Simulations of Stress Relaxation in Strain-Induced Crystallization of Rubbers. Polymers, 2020, 12, 1267.	4.5	1