Marianella Hernandez

List of Publications by Year
in descending order

67 papers	3,272 citations	172457 29 h-index	149698 56 g-index
68 all docs	68 docs citations	68 times ranked	3603 citing authors

#	Article	IF	Citations
1	Influence of content and particle size of waste pet bottles on concrete behavior at different w/c ratios. Waste Management, 2009, 29, 2707-2716.	7.4	336
2	Recent Advances in Clay/Polymer Nanocomposites. Advanced Materials, 2011, 23, 5229-5236.	21.0	262
3	Comparison of filler percolation and mechanical properties in graphene and carbon nanotubes filled epoxy nanocomposites. European Polymer Journal, 2013, 49, 1347-1353.	5.4	236
4	Evolution of self-healing elastomers, from extrinsic to combined intrinsic mechanisms: a review. Materials Horizons, 2020, 7, 2882-2902.	12.2	225
5	Overall performance of natural rubber/graphene nanocomposites. Composites Science and Technology, 2012, 73, 40-46.	7.8	195
6	Influence of scrap rubber addition to Portland I concrete composites: Destructive and non-destructive testing. Composite Structures, 2005, 71, 439-446.	5.8	178
7	Turning Vulcanized Natural Rubber into a Self-Healing Polymer: Effect of the Disulfide/Polysulfide Ratio. ACS Sustainable Chemistry and Engineering, 2016, 4, 5776-5784.	6.7	173
8	Functionalised graphene sheets as effective high dielectric constant fillers. Nanoscale Research Letters, 2011, 6, 508.	5.7	107
9	Molecular Dynamics of Natural Rubber/Layered Silicate Nanocomposites As Studied by Dielectric Relaxation Spectroscopy. Macromolecules, 2010, 43, 643-651.	4.8	94
10	Thermo-reversible crosslinked natural rubber: A Diels-Alder route for reuse and self-healing properties in elastomers. Polymer, 2019, 175, 15-24.	3.8	82
11	Towards materials with enhanced electro-mechanical response: CaCu3Ti4O12â€“polydimethylsiloxane composites. Journal of Materials Chemistry, 2012, 22, 24705.	6.7	72
12	Design of Rubber Composites with Autonomous Self-Healing Capability. ACS Omega, 2020, 5, 1902-1910.	3.5	65
13	Intrinsic Self-Healing Epoxies in Polymer Matrix Composites (PMCs) for Aerospace Applications. Polymers, 2021, 13, 201.	4.5	61
14	One Dimensional PMMA Nanofibers from AAO Templates. Evidence of Confinement Effects by Dielectric and Raman Analysis. Macromolecules, 2013, 46, 4995-5002.	4.8	60
15	Sustainable mobility: The route of tires through the circular economy model. Waste Management, 2021, 126, 309-322.	7.4	59
16	Cationic photocured epoxy nanocomposites filled with different carbon fillers. Polymer, 2012, 53, 1831-1838.	3.8	58
17	Role of Vulcanizing Additives on the Segmental Dynamics of Natural Rubber. Macromolecules, 2012, 45, 1070-1075.	4.8	54
18	An effective and sustainable approach for achieving self-healing in nitrile rubber. European Polymer Journal, 2020, 139, 110032.	5.4	52

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19	Influence of the vulcanization system on the dynamics and structure of natural rubber: Comparative study by means of broadband dielectric spectroscopy and solid-state NMR spectroscopy. European Polymer Journal, 2015, 68, 90-103.	5.4	51
20	Monitoring Network and Interfacial Healing Processes by Broadband Dielectric Spectroscopy: A Case Study on Natural Rubber. ACS Applied Materials & Interfaces, 2016, 8, 10647-10656.	8.0	51
21	Nitrile butadiene rubber composites reinforced with reduced graphene oxide and carbon nanotubes show superior mechanical, electrical and icephobic properties. Composites Science and Technology, 2018, 166, 109-114.	7.8	51
22	Effects of Strain-Induced Crystallization on the Segmental Dynamics of Vulcanized Natural Rubber. Macromolecules, 2011, 44, 6574-6580.	4.8	49
23	Routes to Make Natural Rubber Heal: A Review. Polymer Reviews, 2018, 58, 585-609.	10.9	48
24	Giving a Second Opportunity to Tire Waste: An Alternative Path for the Development of Sustainable Self-Healing Styreneâ€"Butadiene Rubber Compounds Overcoming the Magic Triangle of Tires. Polymers, 2019, 11, 2122.	4.5	41
25	Characterization of Self-Healing Polymers: From Macroscopic Healing Tests to the Molecular Mechanism. Advances in Polymer Science, 2015, , 113-142.	0.8	39
26	Understanding the Effect of the Dianhydride Structure on the Properties of Semiaromatic Polyimides Containing a Biobased Fatty Diamine. ACS Sustainable Chemistry and Engineering, 2018, 6, 668-678.	6.7	38
27	Mechanical, thermal and morphological behaviour of the polystyrene/polypropylene (80/20) blend, irradiated with Î³-rays at low doses (0â€"70 kGy). Polymer Degradation and Stability, 2003, 80, 251-261.	5.8	37
28	Design of a new generation of sustainable SBR compounds with good trade-off between mechanical properties and self-healing ability. European Polymer Journal, 2018, 106, 273-283.	5.4	37
29	On the Use of Mechano-Chemically Modified Ground Tire Rubber (GTR) as Recycled and Sustainable Filler in Styrene-Butadiene Rubber (SBR) Composites. Journal of Composites Science, 2021, 5, 68.	3.0	33
30	Effect of graphene content on the restoration of mechanical, electrical and thermal functionalities of a self-healing natural rubber. Smart Materials and Structures, 2017, 26, 085010.	3.5	30
31	Electro-mechanical actuation performance of SEBS/PU blends. Polymer, 2019, 171, 25-33.	3.8	27
32	Response to Comment on â€œTurning Vulcanized Natural Rubber into a Self-Healing Polymer: Effect of the Disulfide/Polysulfide Ratioâ€• ACS Sustainable Chemistry and Engineering, 2017, 5, 11127-11129.	6.7	26
33	Characterization of NBR/bentonite composites: vulcanization kinetics and rheometric and mechanical properties. Polymer Bulletin, 2011, 67, 653-667.	3.3	23
34	Miscibilityâ€"dispersion, interfacial strength and nanoclay mobility relationships in polymer nanocomposites. Soft Matter, 2009, 5, 3481.	2.7	21
35	Curing and Physical Properties of Natural Rubber/Wood Flour Composites. Macromolecular Symposia, 2006, 239, 192-200.	0.7	19
36	Unravelling the effect of healing conditions and vulcanizing additives on the healing performance of rubber networks. Polymer, 2022, 238, 124399.	3.8	19

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37	Analysis of thermogravimetric data of blends of polyolefins with calcium carbonate treated with Lica 12. Polymer Degradation and Stability, 2001, 73, 211-224.	5.8	18
38	Effects of Composition and Dynamic Vulcanization on the Rheological Properties of PP/NBR Blends. Polymer Bulletin, 2003, 50, 205-212.	3.3	18
39	Reinforcement of natural rubber using a novel combination of conventional and in situ generated fillers. Composites Part C: Open Access, 2021, 5, 100133.	3.2	18
40	The Final Frontier of Sustainable Materials: Current Developments in Self-Healing Elastomers. International Journal of Molecular Sciences, 2022, 23, 4757.	4.1	17
41	Comparison of Rheological and Mechanical Behavior of Dynamically and Statically Vulcanized PP/SBS Blends. Polymer Bulletin, 2004, 51, 419-427.	3.3	16
42	Structure and Segmental Dynamics Relationship in Natural Rubber/Layered Silicate Nanocomposites during Uniaxial Deformation. Macromolecules, 2013, 46, 3176-3182.	4.8	16
43	Understanding the Molecular Dynamics of Dual Crosslinked Networks by Dielectric Spectroscopy. Polymers, 2021, 13, 3234.	4.5	16
44	Synergistic icephobic behaviour of swollen nitrile butadiene rubber graphene and/or carbon nanotube composites. Composites Part B: Engineering, 2019, 166, 352-360.	12.0	14
45	Influence of Type of Vulcanization on Rheological and Thermal Properties of PP/NR Blends. Polymer Bulletin, 2006, 56, 285-291.	3.3	12
46	Study of the thermal stability of Nitrile rubber-coconut flour compounds. Polymer Degradation and Stability, 2012, 97, 2202-2211.	5.8	12
47	Measuring self-healing in epoxy matrices: The need for standard conditions. Reactive and Functional Polymers, 2021, 161, 104847.	4.1	12
48	Solving the Dichotomy between Selfâ€Healing and Mechanical Properties in Rubber Composites by Combining Reinforcing and Sustainable Fillers. Macromolecular Materials and Engineering, 2022, 307, .	3.6	12
49	In-situ cure monitoring of epoxy/graphene nanocomposites by several spectroscopic techniques. Polymer Testing, 2019, 80, 106114.	4.8	11
50	Identifying the effect of aromatic oil on the individual component dynamics of Sâ€SBR/BR blends by broadband dielectric spectroscopy. Journal of Polymer Science, Part B: Polymer Physics, 2018, 56, 842-854.	2.1	10
51	Nitrile rubberâ€"bentonite composites: a thermal degradation study. Polymer Bulletin, 2012, 68, 1935-1950.	3.3	8
52	Fracture behavior at low strain rate of dynamically and statically vulcanized polypropylene/styreneâ€"butadieneâ€"styrene block copolymer blends. Polymer Testing, 2008, 27, 881-885.	4.8	7
53	Design of self-healing styrene-butadiene rubber compounds with ground tire rubber-based reinforcing additives by means of DoE methodology. Materials and Design, 2022, 221, 110909.	7.0	7
54	Effects of Particle Size and Size Distribution on the Mechanical Properties of EPDM/Silica Vulcanizates. Advanced Materials Research, 0, 47-50, 113-116.	0.3	6

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55	Reply to Comment on â€œMonitoring Network and Interfacial Healing Processes by Broadband Dielectric Spectroscopy: A Case Study on Natural Rubberâ€ ACS Applied Materials & Interfaces, 2017, 9, 14552-14554.	8.0	6
56	Characterization of blends of PP and SBS vulcanized with gamma irradiation. Nuclear Instruments & Methods in Physics Research B, 2005, 236, 354-358.	1.4	5
57	Setting Relationships between Structure and Devulcanization of Ground Tire Rubber and Their Effect on Self-Healing Elastomers. Polymers, 2022, 14, 11.	4.5	4
58	Electrical Properties of Poly(Monomethyl Itaconate)/Few-Layer Functionalized Graphene Oxide/Lithium Ion Nanocomposites. Polymers, 2020, 12, 2673.	4.5	3
59	Fracture Behavior of Polypropylene /Elastomer Blends. Advanced Materials Research, 0, 47-50, 278-281.	0.3	2
60	Influence of High Temperatures on PETâ€Concrete Properties. Macromolecular Symposia, 2009, 286, 195-202.	0.7	2
61	Curing kinetics of NBR filled with coconut flour. Polymer Composites, 2011, 32, 529-536.	4.6	2
62	HDPEâ€Coconut Flour Composites: Effect of Coupling Agents and Surface Modification. Macromolecular Symposia, 2009, 286, 70-80.	0.7	1
63	Effects of Orientation on the Segmental Dynamics of Natural Rubber. Materials Science Forum, 0, 714, 57-61.	0.3	1
64	Optimisation of Protonâ€Conducting sPEEK Membranes through a Thermal Treatment Method Monitored by Dielectric Spectroscopy. ChemistrySelect, 2018, 3, 2931-2942.	1.5	1
65	INFLUENCE OF ELEVATED TEMPERATURES ON PET-CONCRETE PROPERTIES. AIP Conference Proceedings, 2008, , .	0.4	0
66	STUDIES ON HDPE-COCONUT FLOUR COMPOSITES: EFFECT OF COUPLING AGENTS AND SURFACE MODIFICATION. AIP Conference Proceedings, 2008, , .	0.4	0
67	Order and Dielectric Relaxation During Polymer Crystallization. Advances in Dielectrics, 2020, , 195-220.	1.2	0