Eliane Espuche

List of Publications by Year
in descending order

83 papers	2,599 citations	172386 29 h-index	197736 49 g-index
84 all docs	84 docs citations	84 times ranked	3023 citing authors

#	Article	IF	Citations
1	Tuning Polymer/TiO2 Nanocomposites Morphology by In Situ Non-Hydrolytic Sol-Gel Syntheses in Viscous Polymer Medium: Influence of the Polymer Nature and Oxygen Donor. Polymers, 2022, 14, 2273.	2.0	2
2	Gas barrier properties of polylactide/cellulose nanocrystals nanocomposites. Polymer Testing, 2022, 113, 107683.	2.3	10
3	Investigation of water sorption, gas barrier and antimicrobial properties of polycaprolactone films contain modified graphene. Journal of Materials Science, 2021, 56, 497-512.	1.7	13
4	Influence of thePVOHmolar mass on the morphology and functional properties ofEVOH/PVOHfilms prepared by melt blending. Journal of Polymer Science, 2021, 59, 70-83.	2.0	1
5	Multifunctional Pd-Based Nanocomposites with Designed Structure from In Situ Growth of Pd Nanoparticles and Polyether Block Amide Copolymer. Polymers, 2021, 13, 1477.	2.0	5
6	Non-hydrolytic solâ€“gel synthesis of polypropylene/TiO2 composites by reactive extrusion. Journal of Sol-Gel Science and Technology, 2021, 99, 39.	1.1	5
7	Thermally stable nanoporous cyanate ester resin/linear polyurethane hybrid networks created by nuclear technologies. Polymer, 2021, 228, 123831.	1.8	1
8	Finite Element Analysis of Gas Diffusion in Polymer Nanocomposite Systems Containing Rod-like Nanofillers. Polymers, 2021, 13, 2615.	2.0	3
9	Development of Breathable PebaxÂ®/PEG Films for Optimization of the Shelf-Life of Fresh Agri-Food Products. Membranes, 2021, 11, 692.	1.4	6
10	Influence of the Graphene Filler Nature on the Morphology and Properties of Melt Blended EVOH Based Nanocomposites. Polymers, 2021, 13, 3546.	2.0	3
11	3D numerical analysis of mass diffusion in (nano) composites: the effect of the filler-matrix interphase on barrier properties. Modelling and Simulation in Materials Science and Engineering, 2020, 28, 075003.	0.8	4
12	Numerical analysis of 3D mass diffusion in random (nano) composite systems: Effects of polydispersity and intercalation on barrier properties. Journal of Membrane Science, 2019, 590, 117301.	4.1	6
13	Superabsorbent and Fully Biobased Protein Foams with a Natural Cross-Linker and Cellulose Nanofibers. ACS Omega, 2019, 4, 18257-18267.	1.6	30
14	Morphology, mechanical, and water transport properties of melt blended EVOH/PVOH films. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 838-850.	2.4	5
15	Effect of a postâ€annealing process on microstructure and mechanical properties of highâ€density polyethylene/silica nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 535-546.	2.4	5
16	A Protein-Based Material from a New Approach Using Whole Defatted Larvae, and Its Interaction with Moisture. Polymers, 2019, 11, 287.	2.0	11
17	3D Mass diffusion in ordered nanocomposite systems: Finite element simulation and phenomenological modeling. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 51-61.	2.4	10
18	Enhanced hydrophobicity and reduced water transport properties in alkylalkoxysilane modified Poly(butylene terephthalate) using reactive extrusion. Materials Chemistry and Physics, 2019, 223, 597-606.	2.0	7

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19	Acetalization of poly(vinyl alcohol) by a fatty aldehyde in water medium: Model study, kinetics, and structure analysis. Journal of Polymer Science Part A, 2018, 56, 661-671.	2.5	7
20	Modeling diffusion mass transport in multiphase polymer systems for gas barrier applications: A review. Journal of Polymer Science, Part B: Polymer Physics, 2018, 56, 621-639.	2.4	37
21	Specific properties of in situ ruthenium–catalyzed polyamide 12/polydimethylsiloxane compatibilized blend. Journal of Polymer Science, Part B: Polymer Physics, 2018, 56, 978-988.	2.4	1
22	Impact of 10-undecenal PVA acetalization on the macromolecular organization and the viscosity of aqueous solutions. Surface and bulk properties of the modified PVA films. European Polymer Journal, 2018, 108, 412-419.	2.6	3
23	Nanoporous Cyanate Ester Resins: Structure-Gas Transport Property Relationships. Nanoscale Research Letters, 2017, 12, 305.	3.1	1
24	Ionic conducting membranes based on new sulfonated poly(arylene ether ketone)s for fuel cell applications. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 771-777.	2.4	1
25	1,2,3-Triazolium-based linear ionic polyurethanes. Polymer Chemistry, 2017, 8, 5148-5156.	1.9	14
26	Influence of the film–forming process on the nanostructuration of PebaxÂ®/1–ethyl–3–methylimidazolium triflate ionic liquid: Consequences on the thermal, mechanical, gas, and water transport properties. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 778-788.	2.4	7
27	Diffusion mechanism of byproducts resulting from the peroxide crosslinking of polyethylene. Journal of Applied Polymer Science, 2017, 134, .	1.3	31
28	Block copolyimide membranes for pure- and mixed-gas separation. Separation and Purification Technology, 2017, 173, 183-192.	3.9	53
29	Polymer Nanocomposite Film with Metal Rich Surface Prepared by In Situ Single-Step Formation of Palladium Nanoparticles: An Interesting Way to Combine Specific Functional Properties. Nanomaterials, 2016, 6, 188.	1.9	4
30	Influence of different alkyl–methylimidazolium tetrafluoroborate ionic liquids on the structure of pebax^{Â®} films. Consequences on thermal, mechanical, and water sorption and diffusion properties. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 811-824.	2.4	5
31	Impact of coated calcium carbonate nanofillers and annealing treatments on the microstructure and gas barrier properties of poly(lactide) based nanocomposite films. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 649-658.	2.4	14
32	SiO and SiO C H mono- and multi-layer deposits for improved polymer oxygen and water vapor barrier properties. Journal of Membrane Science, 2016, 500, 245-254.	4.1	29
33	Preparation, characterization and barrier properties of silver/montmorillonite/starch nanocomposite films. Journal of Membrane Science, 2016, 497, 162-171.	4.1	42
34	Polypropylene/layered double hydroxide nanocomposites: Synergistic effect of designed filler modification and compatibilizing agent on the morphology, thermal, and mechanical properties. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 782-794.	2.4	14
35	Development of Innovating Materials for Distributing Mixtures of Hydrogen and Natural Gas. Study of the Barrier Properties and Durability of Polymer Pipes. Oil and Gas Science and Technology, 2015, 70, 305-315.	1.4	41
36	Effects of Block Length and Membrane Processing Conditions on the Morphology and Properties of Perfluorosulfonated Poly(arylene ether sulfone) Multiblock Copolymer Membranes for PEMFC. ACS Applied Materials & Interfaces, 2015, 7, 13808-13820.	4.0	46

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37	Study of the influences of film processing conditions and glycerol amount on the water sorption and gas barrier properties of novel sodium caseinate films. Journal of Membrane Science, 2015, 478, 1-11.	4.1	31
38	Influence of high pressures on CH4, CO2 and H2S solubility in polyethylene: Experimental and molecular simulation approaches for pure gas and gas mixtures. Modelling of the sorption isotherms. Journal of Membrane Science, 2015, 490, 380-388.	4.1	24
39	Influence of different perfluorinated anion based Ionic liquids on the intrinsic properties of NafionÂ®. Journal of Membrane Science, 2015, 495, 445-456.	4.1	16
40	Effect of silver nanoparticles' generation routes on the morphology, oxygen, and water transport properties of starch nanocomposite films. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	9
41	Starch/silver nanocomposite: Effect of thermal treatment temperature on the morphology, oxygen and water transport properties. Carbohydrate Polymers, 2015, 134, 635-645.	5.1	26
42	Influence of montmorillonite and film processing conditions on the morphology of polyamide 6: Effect on ethanol and toluene barrier properties. Journal of Membrane Science, 2014, 450, 487-498.	4.1	14
43	Erasure of the processing effects in polyamide 6 based cast films by the introduction of montmorillonite: Effect on water and oxygen transport properties. Journal of Membrane Science, 2014, 456, 11-20.	4.1	10
44	Green synthesis of colloid silver nanoparticles and resulting biodegradable starch/silver nanocomposites. Carbohydrate Polymers, 2014, 108, 291-298.	5.1	106
45	Influence of hygrothermal aging on the gas and water transport properties of NafionÂ® membranes. Journal of Membrane Science, 2014, 451, 293-304.	4.1	37
46	Hybrid films of polyetherimide containingin situgrown Ag, Pd, and AgPd alloy nanoparticles: Synthesis route, morphology, and gas transport properties. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 1211-1220.	2.4	12
47	Comparative Study of Proton Conducting Ionic Liquid Doped Nafion Membranes Elaborated by Swelling and Casting Methods: Processing Conditions, Morphology, and Functional Properties. Journal of Physical Chemistry C, 2014, 118, 14157-14168.	1.5	31
48	Synthesis and physical properties of new layered silicates based on ionic liquids: improvement of thermal stability, mechanical behaviour and water permeability of PBAT nanocomposites. RSC Advances, 2014, 4, 26452-26461.	1.7	38
49	Polyelectrolyte/fluorinated polymer interpenetrating polymer networks as fuel cell membrane. Journal of Membrane Science, 2013, 429, 168-180.	4.1	15
50	Microstructure and properties of styreneâ€butadiene rubber based nanocomposites prepared from an aminosilane modified synthetic lamellar nanofiller. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1051-1059.	2.4	22
51	Influence of Chemical Structure on Hydration and Gas Transport Mechanisms of Sulfonated Poly(aryl) Tj ETQq1 1 0.784314 rgBT /Ove	1.2	9
52	Influence of film processing conditions on the morphology of polyamide 6: Consequences on water and ethanol sorption properties. Journal of Membrane Science, 2012, 415-416, 670-680.	4.1	31
53	Proton Conducting Ionic Liquid Doped Nafion Membranes: Nano-Structuration, Transport Properties and Water Sorption. Journal of Physical Chemistry C, 2012, 116, 24413-24423.	1.5	53
54	Melt Mixing of a Styrene/Butadiene Copolymer with an Aqueous Slurry of Zirconium Phosphate as a Route for the Preparation of Nanocomposites. Macromolecular Materials and Engineering, 2012, 297, 768-776.	1.7	3

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55	Surface modification of calcium carbonate nanofillers by fluoro- and alkyl-alkoxysilane: Consequences on the morphology, thermal stability and gas barrier properties of polyvinylidene fluoride nanocomposites. European Polymer Journal, 2012, 48, 919-929.	2.6	29
56	Fluorohexane network and sulfonated PEEK based semi-IPNs for fuel cell membranes. Journal of Membrane Science, 2012, 389, 57-66.	4.1	19
57	Effect of an organo-modified montmorillonite on PLA crystallization and gas barrier properties. Applied Clay Science, 2011, 53, 58-65.	2.6	160
58	Polyamide 11/poly(hydroxy amino ether) blends: Influence of the blend composition and morphology on the barrier and mechanical properties. European Polymer Journal, 2011, 47, 1994-2002.	2.6	20
59	Synergism Effect of Montmorillonite and Cellulose Whiskers on the Mechanical and Barrier Properties of Natural Rubber Composites. Macromolecular Materials and Engineering, 2011, 296, 760-769.	1.7	38
60	Nanocomposite membranes of polyetherimide nanostructured with palladium particles: Processing route, morphology and functional properties. Journal of Membrane Science, 2010, 361, 167-175.	4.1	25
61	Effect of a plasticizer on the structure of biodegradable starch/clay nanocomposites: Thermal, waterâ€sorption, and oxygenâ€barrier properties. Journal of Applied Polymer Science, 2009, 112, 2044-2056.	1.3	128
62	Metal nanocomposite films prepared in situ from PVA and silver nitrate. Study of the nanostructuration process and morphology as a function of the in situ routes. Journal of Polymer Science Part A, 2008, 46, 2062-2071.	2.5	42
63	Influence of Î±â€ZrP fillers and process conditions on the morphology and the gas barrier properties of filled polyamide 6 films. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 1734-1746.	2.4	13
64	Influence of the compatibilizer polarity and molar mass on the morphology and the gas barrier properties of polyethylene/clay nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 2593-2604.	2.4	35
65	Water transport properties of polyamide 6 based nanocomposites prepared by melt blending: On the importance of the clay dispersion state on the water transport properties at high water activity. Journal of Membrane Science, 2008, 313, 284-295.	4.1	80
66	Poly(caprolactone)/clay masterbatches prepared in supercritical CO2 as efficient clay delamination promoters in poly(styrene-co-acrylonitrile). Journal of Materials Chemistry, 2008, 18, 4623.	6.7	15
67	Barrier properties of nylon 6-montmorillonite nanocomposite membranes prepared by melt blending: Influence of the clay content and dispersion stateConsequences on modelling. Journal of Membrane Science, 2007, 292, 133-144.	4.1	280
68	Influence of the intercalated cations on the surface energy of montmorillonites: Consequences for the morphology and gas barrier properties of polyethylene/montmorillonites nanocomposites. Journal of Colloid and Interface Science, 2007, 307, 364-376.	5.0	92
69	Structure and morphology of nanocomposite films prepared from polyvinyl alcohol and silver nitrate: Influence of thermal treatment. Journal of Polymer Science Part A, 2007, 45, 2657-2672.	2.5	66
70	Modification of a hydrophilic linear polyurethane by crosslinking with a polydimethylsiloxane. Influence of the crosslink density and of the hydrophobic/hydrophilic balance on the water transport properties. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 48-61.	2.4	20
71	Morphology and gas barrier properties of polyethylene-based nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 431-440.	2.4	104
72	Water transport in polyurethane/polydimethylsiloxane membranes: Influence of the hydrophobic/hydrophilic balance and of the crosslink density. Desalination, 2006, 199, 118-120.	4.0	5

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73	Structure and morphology of membranes prepared from polyvinyl alcohol and silver nitrate: influence of the annealing treatment and of the film thickness. Desalination, 2006, 200, 437-439.	4.0	12
74	Barrier properties of paperâ€“chitosan and paperâ€“chitosanâ€“carnauba wax films. Journal of Applied Polymer Science, 2005, 98, 704-710.	1.3	57
75	Hydration mechanism of polysaccharides: A comparative study. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 48-58.	2.4	50
76	Gas barrier properties of poly(?-caprolactone)/clay nanocomposites: Influence of the morphology and polymer/clay interactions. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 205-214.	2.4	167
77	On the polynaphthalimide synthesisâ€”influence of reaction conditions. Polymer, 2004, 45, 6445-6452.	1.8	16
78	Water transport properties of thermoplastic polyurethane films. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 473-492.	2.4	41
79	The effects of humidity on gas transport properties of sulfonated copolyimides. Journal of Membrane Science, 2004, 232, 115-122.	4.1	39
80	Water vapour transport mechanism in naphthalenic sulfonated polyimides. Journal of Membrane Science, 2003, 223, 127-139.	4.1	38
81	Gas and water transport properties of epoxy-amine networks: Influence of crosslink density. Journal of Applied Polymer Science, 2001, 80, 2058-2066.	1.3	12
82	Influence of crosslink density and chain flexibility on mechanical properties of model epoxy networks. Macromolecular Symposia, 1995, 93, 107-115.	0.4	27
83	New Materials for Hydrogen Distribution Networks: Materials Development & Technico-Economic Benchmark. Defect and Diffusion Forum, 0, 323-325, 407-412.	0.4	3