Maria R Coleman

List of Publications by Year
in descending order

55 papers	1,924 citations	236925 25 h-index	254184 43 g-index
56 all docs	56 docs citations	56 times ranked	1859 citing authors

#	Article	IF	Citations
1	Isomeric polyimides based on fluorinated dianhydrides and diamines for gas separation applications. Journal of Membrane Science, 1990, 50, 285-297.	8.2	321
2	Controlled Permeability Polymer Membranes. Annual Review of Materials Research, 1992, 22, 47-89.	5.5	149
3	The transport properties of polyimide isomers containing hexafluoroisopropylidene in the diamine residue. Journal of Polymer Science, Part B: Polymer Physics, 1994, 32, 1915-1926.	2.1	108
4	Effect of Chain Dynamics, Crystallinity, and Free Volume on the Barrier Properties of Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	4.8	101
5	Conditioning of Fluorine-Containing Polyimides. 2. Effect of Conditioning Protocol at 8 Volume Dilation on Gas-Transport Properties. Macromolecules, 1999, 32, 3106-3113.	4.8	77
6	Gas transport properties of polyimideâ€“POSS nanocomposites. Journal of Membrane Science, 2010, 358, 26-32.	8.2	75
7	Properties of Cysteine-Added Soy Protein-Wheat Gluten Films. Journal of Food Science, 1999, 64, 514-518.	3.1	72
8	Zirconium tungstate/polymer nanocomposites: Challenges and opportunities. Physica Status Solidi (B): Basic Research, 2011, 248, 123-129.	1.5	59
9	Synthesis of copolyimides based on room temperature ionic liquid diamines. Journal of Polymer Science Part A, 2010, 48, 4036-4046.	2.3	58
10	Mechanical and Barrier Properties of Rice Bran Films. Journal of Food Science, 1997, 62, 395-398.	3.1	57
11	Synthesis and characterization of transparent alumina reinforced polycarbonate nanocomposite. Polymer, 2010, 51, 2494-2502.	3.8	57
12	Functionalization of polybenzimidizole membranes to impart negative charge and hydrophilicity. Journal of Membrane Science, 2010, 363, 195-203.	8.2	55
13	Highâ€Throughput Continuous Production of Shearâ€Exfoliated 2D Layered Materials using Compressible Flows. Advanced Materials, 2018, 30, e1800200.	21.0	51
14	Synthesis of room temperature ionic liquids based random copolyimides for gas separation applications. European Polymer Journal, 2013, 49, 482-491.	5.4	44
15	Conditioning of Fluorine Containing Polyimides. 1. Effect of Exposure to High Pressure Carbon Dioxide on Permeability. Macromolecules, 1997, 30, 6899-6905.	4.8	42
16	A Novel Approach to Improve the Barrier Properties of PET/Clay Nanocomposites. International Journal of Polymer Science, 2017, 2017, 1-10.	2.7	35
17	Functionalization of carbon nanofibers with diamine and polyimide oligmer. Carbon, 2008, 46, 1115-1125.	10.3	32
18	Functionalization of carbon nanofibers with elastomeric block copolymer using carbodiimide chemistry. Applied Surface Science, 2009, 255, 4806-4813.	6.1	32

#	Article	IF	Citations
19	Effect of Dimethyl Terephthalate and Dimethyl Isophthalate on the Free Volume and Barrier Properties of Poly(ethylene terephthalate) (PET): Amorphous PET. Macromolecules, 2018, 51, 456-467.	4.8	31
20	Modification of commercial water treatment membranes by ion beam irradiation. Desalination, 2002, 146, 259-264.	8.2	30
21	Thermal and mechanical properties of blended polyimide and amineâ€functionalized poly(orthosiloxane) composites. Journal of Applied Polymer Science, 2008, 108, 2691-2699.	2.6	28
22	A hybrid functional nanomaterial: POSS functionalized carbon nanofiber. Nanotechnology, 2009, 20, 325603.	2.6	28
23	Effect of Biaxial Orientation on Microstructure and Properties of Renewable Copolyesters of Poly(ethylene terephthalate) with 2,5-Furandicarboxylic Acid for Packaging Application. ACS Applied Polymer Materials, 2019, 1, 1798-1810.	4.4	28
24	Gas-separation applications of miscible blends of isomeric polyimides. Journal of Applied Polymer Science, 1993, 50, 1059-1064.	2.6	27
25	Atomic force microscopy images of ion-implanted 6FDA-pMDA polyimide films. Journal of Applied Polymer Science, 1997, 66, 459-469.	2.6	27
26	Effect of thermal hysteresis on the gas permeation properties of 6FDA-based polyimides. Journal of Applied Polymer Science, 2004, 91, 1174-1182.	2.6	25
27	Role of enhanced solubility in esterification of 2,5-furandicarboxylic acid with ethylene glycol at reduced temperatures: energy efficient synthesis of poly(ethylene 2,5-furandicarboxylate). Reaction Chemistry and Engineering, 2018, 3, 447-453.	3.7	23
28	Preparation and properties of polyimide nanocomposites with negative thermal expansion nanoparticle filler. Materials Chemistry and Physics, 2012, 137, 448-457.	4.0	22
29	Impact of ion beam irradiation on microstructure and gas permeance of polysulfone asymmetric membranes. Journal of Membrane Science, 2003, 214, 143-156.	8.2	21
30	Poly (4-styrenesulfonic acid): A recoverable and reusable catalyst for acid hydrolysis of polyethylene terephthalate. Polymer, 2021, 222, 123620.	3.8	18
31	Formation of high loading flexible carbon nanofiber network composites. Composites Science and Technology, 2013, 75, 1-6.	7.8	17
32	Modification of poly(ethylene terephthalate) (<scp>PET</scp>) using linoleic acid for oxygen barrier improvement: Impact of processing methods. Journal of Applied Polymer Science, 2017, 134, 45023.	2.6	17
33	Immobilized Metal Affinity Membrane Separation: Characteristics of Two Materials of Differing Preparation Chemistries. Separation Science and Technology, 1999, 34, 2793-2802.	2.5	15
34	Development of Smart Membrane Filters for Microbial Sensing. Separation Science and Technology, 2008, 43, 4056-4074.	2.5	15
35	Ion implant-induced change in polyimide films monitored by variable energy positron annihilation spectroscopy. Journal of Polymer Science, Part B: Polymer Physics, 1998, 36, 2413-2421.	2.1	14
36	Equilibrium swelling behavior of thermally responsive metal affinity hydrogels, Part I: Compositional effects. Polymer, 2008, 49, 3737-3743.	3.8	12

#	Article	IF	Citations
37	Improved polymerization and depolymerization kinetics of poly(ethylene terephthalate) by co-polymerization with 2,5-furandicarboxylic acid. RSC Advances, 2021, 11, 23506-23518.	3.6	12
38	Impact of H+ ion beam irradiation on MatrimidÂ®. II. Evolution in gas transport properties. Journal of Applied Polymer Science, 2007, 103, 1670-1680.	2.6	11
39	Influence of Carbon Nanofiber Content and Surface Treatment on Mechanical Properties of Vinyl Ester. Polymers and Polymer Composites, 2008, 16, 405-414.	1.9	11
40	Gas transport properties in (6FDAâ€RTIL)â€(6FDAâ€MDA) block copolyimides. Journal of Applied Polymer Science, 2016, 133, .	2.6	11
41	Controlling Phase Transition Behavior of Thermally Responsive Metal Affinity Hydrogels:â€‰ A Molecular Design Approach. Macromolecules, 2007, 40, 5850-5857.	4.8	8
42	Impact of processing method and surface functionality on carbon nanofiber dispersion in polyimide matrix and resulting mechanical properties. Polymer Composites, 2014, 35, 1473-1485.	4.6	8
43	Surface Functionalization of Polybenzimidazole Membranes To Increase Hydrophilicity and Charge. ACS Symposium Series, 2011, , 303-321.	0.5	7
44	Impact of Mobile Phase Parameters on Transport Properties of Metal Affinity Hydrogel Membranes. Separation Science and Technology, 2008, 43, 4075-4098.	2.5	5
45	Development of environmentally responsive hydrogels with metal affinity behavior. Journal of Applied Polymer Science, 2007, 105, 1210-1220.	2.6	4
46	Equilibrium swelling behavior of thermally responsive metal affinity hydrogels, Part II: Solution effects. Polymer, 2008, 49, 3744-3750.	3.8	4
47	Aryl sulfonic acid catalysts: Effect of pendant group structure on activity in hydrolysis of polyethylene terephthalate. Journal of Applied Polymer Science, 2022, 139, .	2.6	4
48	Impact of H+ion irradiation on MatrimidÂ®. I. Evolution in chemical structure. Journal of Applied Polymer Science, 2003, 90, 2010-2019.	2.6	3
49	Effect of H+and N+Irradiation on Structure and Permeability of the Polyimide MatrimidÂ®. Separation Science and Technology, 2008, 43, 4030-4055.	2.5	3
50	Surface modification of ZrW₂O₈ and ZrW₂O₇(OH)Â·2H₂O by in situ polymerization: Enhanced filler particles for use in composites. Polymer Composites, 2016, 37, 1359-1368.	4.6	3
51	Combined effect of small molecule antiplasticizers and strain induced crystallization on properties of polyethylene terephthalate. Polymer Crystallization, 2018, 1, e10016.	0.8	3
52	Engineering for Teachers of Migrant Students (ETMS). Environmental Engineering Science, 2006, 23, 472-478.	1.6	1
53	Development and Characterization of Ionic Liquid-Functionalized Nanocomposite Membranes. ACS Symposium Series, 2011, , 61-79.	0.5	1
54	Mitigation of the Color Generated During Mechanical Recycling of PET/MXD6 blends. Polymer Degradation and Stability, 2021, 194, 109748.	5.8	1

#	Article	IF	Citations
55	Ion Beam Modification of MatrimidÂ® Gas Separation Membraneâ€"Evolution in Chemical Structure, Microstructure and Gas Permeation Properties. Materials Research Society Symposia Proceedings, 2002, 752, 1.	0.1	0