

# Isabel C Escobar

## List of Publications by Year in descending order

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83  
papers

2,237  
citations

257357

24  
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243529

44  
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85  
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85  
docs citations

85  
times ranked

2251  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanocomposite membranes for water separation and purification: Fabrication, modification, and applications. <i>Separation and Purification Technology</i> , 2019, 213, 465-499.	3.9	346
2	Assimilable organic carbon (AOC) and biodegradable dissolved organic carbon (BDOC):. <i>Water Research</i> , 2001, 35, 4444-4454.	5.3	127
3	Bacterial Growth in Distribution Systems:Â Effect of Assimilable Organic Carbon and Biodegradable Dissolved Organic Carbon. <i>Environmental Science &amp; Technology</i> , 2001, 35, 3442-3447.	4.6	119
4	Investigation of the Use of a Bio-Derived Solvent for Non-Solvent-Induced Phase Separation (NIPS) Fabrication of Polysulfone Membranes. <i>Membranes</i> , 2018, 8, 23.	1.4	101
5	Polymers and Solvents Used in Membrane Fabrication: A Review Focusing on Sustainable Membrane Development. <i>Membranes</i> , 2021, 11, 309.	1.4	92
6	Removal of assimilable organic carbon and biodegradable dissolved organic carbon by reverse osmosis and nanofiltration membranes. <i>Journal of Membrane Science</i> , 2000, 175, 1-17.	4.1	88
7	Effects of water chemistries and properties of membrane on the performance and foulingâ€”a model development study. <i>Journal of Membrane Science</i> , 2004, 238, 33-46.	4.1	87
8	Novel charged and hydrophilized polybenzimidazole (PBI) membranes for forward osmosis. <i>Journal of Membrane Science</i> , 2013, 434, 85-92.	4.1	59
9	Functionalization of polybenzimidazole membranes to impart negative charge and hydrophilicity. <i>Journal of Membrane Science</i> , 2010, 363, 195-203.	4.1	55
10	Rejection Efficiency of Water Quality Parameters by Reverse Osmosis and Nanofiltration Membranes. <i>Environmental Science &amp; Technology</i> , 2003, 37, 4435-4441.	4.6	54
11	Lithium Ion Battery Electrodes Made Using Dimethyl Sulfoxide (DMSO)â€”A Green Solvent. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 11046-11051.	3.2	40
12	Development of copper-charged polypropylene feedspacers for biofouling control. <i>Journal of Membrane Science</i> , 2010, 358, 114-121.	4.1	37
13	N-isopropylacrylamide (NIPAAm) modified cellulose acetate ultrafiltration membranes. <i>Journal of Membrane Science</i> , 2011, 383, 272-279.	4.1	36
14	Characterization of commercial water treatment membranes modified via ion beam irradiation. <i>Desalination</i> , 2006, 188, 203-212.	4.0	34
15	Case Study: Ozonation and distribution system biostability. <i>Journal - American Water Works Association</i> , 2001, 93, 77-89.	0.2	33
16	Eco-friendly solvents and their mixture for the fabrication of polysulfone ultrafiltration membranes: An investigation of doctor blade and slot die casting methods. <i>Journal of Membrane Science</i> , 2020, 614, 118510.	4.1	33
17	Microfiltration and ultrafiltration membrane science and technology. <i>Journal of Applied Polymer Science</i> , 2015, 132, .	1.3	31
18	Modification of commercial water treatment membranes by ion beam irradiation. <i>Desalination</i> , 2002, 146, 259-264.	4.0	30

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19	A new technique to fabricate high-performance biologically inspired membranes for water treatment. Separation and Purification Technology, 2015, 156, 754-765.	3.9	30
20	A green membrane functionalization method to decrease natural organic matter fouling. Journal of Membrane Science, 2010, 360, 155-164.	4.1	29
21	Development of low-biofouling polypropylene feedspacers for reverse osmosis. Journal of Applied Polymer Science, 2009, 114, 3068-3073.	1.3	28
22	Chapter 4 Desalination: Reverse Osmosis and Membrane Distillation. Sustainability Science and Engineering, 2010, , 65-93.	0.6	28
23	Advanced Research and Development of Face Masks and Respirators Pre and Post the Coronavirus Disease 2019 (COVID-19) Pandemic: A Critical Review. Polymers, 2021, 13, 1998.	2.0	28
24	Biomimetic and bioinspired membranes for water purification: A critical review and future directions. Environmental Progress and Sustainable Energy, 2019, 38, e13215.	1.3	27
25	Positively charged nanofiltration membrane synthesis, transport models, and lanthanides separation. Journal of Membrane Science, 2021, 620, 118973.	4.1	27
26	Influence of NF on distribution system biostability. Journal - American Water Works Association, 1999, 91, 76-89.	0.2	23
27	Evolution of a Polysulfone Nanofiltration Membrane following Ion Beam Irradiation. Langmuir, 2008, 24, 5569-5579.	1.6	23
28	Bio-inspired immobilization of casein-coated silver nanoparticles on cellulose acetate membranes for biofouling control. Journal of Environmental Chemical Engineering, 2018, 6, 2480-2491.	3.3	23
29	Effects of dynamic or secondary-layer coagulation on ultrafiltration. Desalination, 2006, 188, 239-249.	4.0	22
30	Polymer evolution of a sulfonated polysulfone membrane as a function of ion beam irradiation fluence. Journal of Membrane Science, 2006, 280, 253-260.	4.1	22
31	Characterisation of ultrafiltration and nanofiltration membranes from rejections of neutral reference solutes using a model of asymmetric pores. Journal of Membrane Science, 2008, 319, 64-75.	4.1	22
32	Ultrafiltration of supercoiled plasmid DNA: Modeling and application. Journal of Membrane Science, 2011, 378, 280-289.	4.1	22
33	Determining the influence of active cells and conditioning layer on early stage biofilm formation using cellulose acetate ultrafiltration membranes. Desalination, 2012, 286, 296-303.	4.0	22
34	Postsynthesis modification of a cellulose acetate ultrafiltration membrane for applications in water and wastewater treatment. Environmental Progress, 2005, 24, 367-382.	0.8	21
35	Comparison of two low-hazard organic solvents as individual and cosolvents for the fabrication of polysulfone membranes. AIChE Journal, 2020, 66, e16790.	1.8	20
36	Biostability characterization in a full-scale hybrid NF/RO treatment system. Journal - American Water Works Association, 2005, 97, 101-110.	0.2	18

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37	Development of a model for membrane filtration of long and flexible macromolecules: Application to predict dextran and linear DNA rejections in ultrafiltration. <i>Journal of Membrane Science</i> , 2009, 336, 61-70.	4.1	18
38	Ozonation, biofiltration and the role of membrane surface charge and hydrophobicity in removal and destruction of algal toxins at basic pH values. <i>Separation and Purification Technology</i> , 2018, 194, 56-63.	3.9	17
39	Desalination using low biofouling nanocomposite membranes: From batch-scale to continuous-scale membrane fabrication. <i>Desalination</i> , 2019, 451, 81-91.	4.0	17
40	Study of the hydrophilic-enhanced ultrafiltration membrane. <i>Environmental Progress</i> , 2008, 27, 210-217.	0.8	16
41	Self-Cleaning Nanocomposite Membranes with Phosphorene-Based Pore Fillers for Water Treatment. <i>Membranes</i> , 2018, 8, 79.	1.4	16
42	Sample storage impact on the assimilable organic carbon (AOC) bioassay. <i>Water Research</i> , 2000, 34, 1680-1686.	5.3	15
43	Development of Smart Membrane Filters for Microbial Sensing. <i>Separation Science and Technology</i> , 2008, 43, 4056-4074.	1.3	15
44	Plasmid DNA recovery from fermentation broths by a combined process of micro- and ultrafiltration: Modeling and application. <i>Journal of Membrane Science</i> , 2012, 415-416, 24-35.	4.1	14
45	A bi-layer electrospun nanofiber membrane for plasmid DNA recovery from fermentation broths. <i>Separation and Purification Technology</i> , 2013, 112, 20-25.	3.9	14
46	Thiol-Affinity Immobilization of Casein-Coated Silver Nanoparticles on Polymeric Membranes for Biofouling Control. <i>Polymers</i> , 2019, 11, 2057.	2.0	14
47	Increasing Salt Rejection of Polybenzimidazole Nanofiltration Membranes via the Addition of Immobilized and Aligned Aquaporins. <i>Processes</i> , 2019, 7, 76.	1.3	13
48	A comparison of silver- and copper-charged polypropylene feed spacers for biofouling control. <i>Journal of Applied Polymer Science</i> , 2013, 128, 1706-1714.	1.3	12
49	An investigation of low biofouling copper-charged membranes for desalination. <i>Desalination</i> , 2014, 338, 17-25.	4.0	12
50	Use of a Temperature Sensitive Surface Gel to Reduce Fouling. <i>Separation Science and Technology</i> , 2009, 44, 3369-3391.	1.3	11
51	Thermally responsive membrane-based microbiological sensing component for early detection of membrane biofouling. <i>Desalination</i> , 2011, 270, 116-123.	4.0	11
52	Effect of solution chemistry on assimilable organic carbon removal by nanofiltration: full and bench scale evaluation. <i>Journal of Water Supply: Research and Technology - AQUA</i> , 2002, 51, 67-76.	0.6	10
53	Ion Beam Irradiation Modifications of a Commercial Polyether Sulfone Water-Treatment Membrane. <i>Environmental Chemistry</i> , 2004, 1, 55.	0.7	10
54	Development of microbial sensing membranes. <i>Desalination</i> , 2009, 248, 99-105.	4.0	10

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55	Chapter 14 Conclusion: A Summary of Challenges still Facing Desalination and Water Reuse. Sustainability Science and Engineering, 2010, 2, 389-397.	0.6	10
56	Application of atomic force microscopy for characterizing membrane biofouling in the micrometer and nanometer scales. Environmental Progress and Sustainable Energy, 2013, 32, 449-457.	1.3	10
57	Modification of microfiltration membranes by hydrogel impregnation for pDNA purification. Journal of Applied Polymer Science, 2015, 132, .	1.3	10
58	Fouling control using temperature responsive N-isopropylacrylamide (NIPAAm) membranes. Environmental Progress and Sustainable Energy, 2016, 35, 416-427.	1.3	10
59	Investigation of PolarClean and Gamma-Valerolactone as Solvents for Polysulfone Membrane Fabrication. ACS Symposium Series, 2018, , 385-403.	0.5	10
60	Nanohybrid Membrane Synthesis with Phosphorene Nanoparticles: A Study of the Addition, Stability and Toxicity. Polymers, 2020, 12, 1555.	2.0	9
61	Dual-Functional Phosphorene Nanocomposite Membranes for the Treatment of Perfluorinated Water: An Investigation of Perfluorooctanoic Acid Removal via Filtration Combined with Ultraviolet Irradiation or Oxygenation. Membranes, 2021, 11, 18.	1.4	9
62	Membranes for Water Treatment Applications – An Overview. ACS Symposium Series, 2011, , 155-170.	0.5	8
63	Plasmid DNA/RNA separation by ultrafiltration: Modeling and application study. Journal of Membrane Science, 2014, 463, 1-10.	4.1	8
64	Does casting method matter in filtration membranes? A comparison in performance between doctor blade and slot-die extruded polymeric membranes. Journal of Applied Polymer Science, 2018, 135, 45563.	1.3	8
65	Evaluation of factors influencing membrane performance. Environmental Progress, 2005, 24, 392-399.	0.8	7
66	Effect of Ion Beam Irradiation on Two Nanofiltration Water Treatment Membranes. Separation Science and Technology, 2008, 43, 4009-4029.	1.3	7
67	Surface Functionalization of Polybenzimidazole Membranes To Increase Hydrophilicity and Charge. ACS Symposium Series, 2011, , 303-321.	0.5	7
68	Membrane developed systems for water and wastewater treatment. Environmental Progress, 2005, 24, 355-357.	0.8	6
69	Analysis of the Development of Membrane Technology for Gas Separation and CO <sub>2</sub> Capture. ACS Symposium Series, 2011, , 7-26.	0.5	6
70	Non-Solvent Induced Phase Separation (NIPS) for Fabricating High Filtration Efficiency (FE) Polymeric Membranes for Face Mask and Air Filtration Applications. Membranes, 2022, 12, 637.	1.4	6
71	Investigation of the Effects of Thickness and Presence of Pore Formers on Tailor-Made Ultrafiltration Polysulfone Membranes. ACS Symposium Series, 2011, , 271-283.	0.5	4
72	Microcystin-LR Removal from Water via Enzymatic Linearization and Ultrafiltration. Toxins, 2022, 14, 231.	1.5	4

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73	Chapter 1 An Overview of the Global Water Situation. Sustainability Science and Engineering, 2010, 2, 3-5.	0.6	3
74	An investigation of polymer dope and heating effects on hollow fiber membranes. Desalination and Water Treatment, 2013, 51, 6970-6977.	1.0	3
75	Membrane functionalization using bisamide-based organic frameworks for molecular weight cutoff reduction. Journal of Applied Polymer Science, 2020, 137, 48327.	1.3	3
76	A Fourier Transform Infrared Spectroscopic Based Biofilm Characterization Technique and Its Use to Show the Effect of Copper-Charged Polypropylene Feed Spacers in Biofouling Control. ACS Symposium Series, 2011, , 225-237.	0.5	2
77	Study of copper-charged membranes for control of fouling due to bacteria and algae organic matter. Journal of Water Reuse and Desalination, 2015, 5, 516-527.	1.2	2
78	Engineering for Teachers of Migrant Students (ETMS). Environmental Engineering Science, 2006, 23, 472-478.	0.8	1
79	Selected water/wastewater membrane-related presentations from the North American Membrane Society 2007 Annual Meeting. Environmental Progress, 2008, 27, 169-172.	0.8	1
80	Foreword: Selected Functionalized/Surface Modified Membrane-Related Presentations from the North American Membrane Society 2007 Annual Meeting. Separation Science and Technology, 2008, 43, 3937-3941.	1.3	0
81	Studying the Effect of Feed Water Characteristics on the Hydrophobicity of Cellulose Acetate Ultrafiltration Membranes and Its Correlation to Membrane Morphology: A Chemical Force Microscopy Approach. ACS Symposium Series, 2011, , 247-256.	0.5	0
82	Novel Charged and Hydrophilized Polybenzimidazole (PBI) Nanofiltration Membranes. Procedia Engineering, 2012, 44, 220.	1.2	0
83	Scale-up of Nanocomposite Membranes Embedded with Silver Nanoparticles: From Laboratory Scale to Production Scale. Materials and Energy, 2021, , 413-440.	2.5	0