Roberto Castro-MuÃ±oz

List of Publications by Year
in descending order

118 papers	5,011 citations	61857 43 h-index	106150 65 g-index
121 all docs	121 docs citations	121 times ranked	2892 citing authors

#	Article	IF	Citations
1	Pervaporation-aided Processes for the Selective Separation of Aromas, Fragrances and Essential (AFE) Solutes from Agro-food Products and Wastes. Food Reviews International, 2023, 39, 1499-1525.	4.3	20
2	New insights of nanomaterials usage toward superhydrophobic membranes for water desalination via membrane distillation: A review. Critical Reviews in Environmental Science and Technology, 2022, 52, 2104-2149.	6.6	51
3	Reviewing the recent developments of using graphene-based nanosized materials in membrane separations. Critical Reviews in Environmental Science and Technology, 2022, 52, 3415-3452.	6.6	17
4	Synthesis and Characterization of a Thin-Film Composite Nanofiltration Membrane Based on Polyamide-Cellulose Acetate: Application for Water Purification. Journal of Polymers and the Environment, 2022, 30, 707-718.	2.4	30
5	Deep eutectic solvents â€“ A new platform in membrane fabrication and membrane-assisted technologies. Journal of Environmental Chemical Engineering, 2022, 10, 106414.	3.3	26
6	Current evidence in high throughput ultrafiltration toward the purification of monoclonal antibodies (mAbs) and biotechnological protein-type molecules. Critical Reviews in Biotechnology, 2022, 42, 827-837.	5.1	8
7	Chitin and derivative chitosan-based structures â€" Preparation strategies aided by deep eutectic solvents: A review. Carbohydrate Polymers, 2022, 275, 118702.	5.1	123
8	Natural sweeteners: Sources, extraction and current uses in foods and food industries. Food Chemistry, 2022, 370, 130991.	4.2	52
9	MXene: A two-dimensional material in selective water separation via pervaporation. Arabian Journal of Chemistry, 2022, 15, 103524.	2.3	19
10	Towards azeotropic MeOH-MTBE separation using pervaporation chitosan-based deep eutectic solvent membranes. Separation and Purification Technology, 2022, 281, 119979.	3.9	69
11	Analyzing the phenolic enriched fractions from Nixtamalization wastewater (Nejayote) fractionated in a three-step membrane process. Current Research in Food Science, 2022, 5, 1-10.	2.7	14
12	Deep eutectic solvent (DES) with silver nanoparticles (Ag-NPs) based assay for analysis of lead (II) in edible oils. Food Chemistry, 2022, 379, 132085.	4.2	30
13	Up-to-date strategies and future trends towards the extraction and purification of Capsaicin: A comprehensive review. Trends in Food Science and Technology, 2022, 123, 161-171.	7.8	20
14	Advanced biomaterials and alternatives tailored as membranes for water treatment and the latest innovative European water remediation projects: A review. Case Studies in Chemical and Environmental Engineering, 2022, 5, 100205.	2.9	13
15	A comprehensive review on current and emerging technologies toward the valorization of bioâ€based wastes and by products from foods. Comprehensive Reviews in Food Science and Food Safety, 2022, 21, 46-105.	5.9	42
16	Pervaporation and membrane distillation technology in biorefinery. , 2022, , 251-280.		0
17	A new relevant membrane application: CO2 direct air capture (DAC). Chemical Engineering Journal, 2022, 446, 137047.	6.6	59
18	Beyond the Exploration of Muicle (Justicia spicigera): Reviewing Its Biological Properties, Bioactive Molecules and Materials Chemistry. Processes, 2022, 10, 1035.	1.3	3

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19	A Review on Current Strategies for Extraction and Purification of Hyaluronic Acid. International Journal of Molecular Sciences, 2022, 23, 6038.	1.8	22
20	Hybrid cross-linked chitosan/protonated-proline:glucose DES membranes with superior pervaporation performance for ethanol dehydration. Journal of Molecular Liquids, 2022, 360, 119499.	2.3	22
21	Cannabinoids: Challenges, opportunities and current techniques towards its extraction and purification for edibles. Food Bioscience, 2022, 49, 101835.	2.0	5
22	Membranesâ€“ future for sustainable gas and liquid separation?. Current Research in Green and Sustainable Chemistry, 2022, 5, 100326.	2.9	7
23	High-performance pervaporation chitosan-based membranes: new insights and perspectives. Reviews in Chemical Engineering, 2021, 37, 959-974.	2.3	30
24	Emerging techniques assisting nixtamalization products and by-products processing: an overview. Critical Reviews in Food Science and Nutrition, 2021, 61, 3407-3420.	5.4	16
25	Membrane separation processes for the extraction and purification of steviol glycosides: an overview. Critical Reviews in Food Science and Nutrition, 2021, 61, 2152-2174.	5.4	43
26	Novel MMM using CO2 selective SSZ-16 and high-performance 6FDA-polyimide for CO2/CH4 separation. Separation and Purification Technology, 2021, 254, 117582.	3.9	64
27	Exploring the Effect of Iron Metal-Organic Framework Particles in Polylactic Acid Membranes for the Azeotropic Separation of Organic/Organic Mixtures by Pervaporation. Membranes, 2021, 11, 65.	1.4	34
28	Edible Films and Coatings as Food-Quality Preservers: An Overview. Foods, 2021, 10, 249.	1.9	168
29	Membrane technologies for the extraction and purification of steviol glycosides. , 2021, , 159-199.		0
30	Pervaporation, Vapour Permeation and Membrane Distillation: From Membrane Fabrication to Application. Membranes, 2021, 11, 162.	1.4	10
31	Pervaporation Zeolite-Based Composite Membranes for Solvent Separations. Molecules, 2021, 26, 1242.	1.7	21
32	6FDA-DAM:DABA Co-Polyimide Mixed Matrix Membranes with GO and ZIF-8 Mixtures for Effective CO2/CH4 Separation. Nanomaterials, 2021, 11, 668.	1.9	24
33	A review on the factors influencing biohydrogen production from lactate: The key to unlocking enhanced dark fermentative processes. Bioresource Technology, 2021, 324, 124595.	4.8	57
34	Trends in Chitosan as a Primary Biopolymer for Functional Films and Coatings Manufacture for Food and Natural Products. Polymers, 2021, 13, 767.	2.0	62
35	Emerging Technologies for Biorefining, Food and Environmental Applications. Processes, 2021, 9, 668.	1.3	1
36	Dextran/chitosan blend film fabrication for bioâ€packaging of mushrooms (Agaricus bisporus). Journal of Food Processing and Preservation, 2021, 45, e15489.	0.9	31

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37	Characterization of PVDF/Graphene Nanocomposite Membranes for Water Desalination with Enhanced Antifungal Activity. Water (Switzerland), 2021, 13, 1279.	1.2	29
38	Ongoing progress on novel nanocomposite membranes for the separation of heavy metals from contaminated water. Chemosphere, 2021, 270, 129421.	4.2	124
39	Recovery of proteinâ€based compounds from meat byâ€products by membraneâ€assisted separations: a review. Journal of Chemical Technology and Biotechnology, 2021, 96, 3025-3042.	1.6	26
40	Deep eutectic solvents based assay for extraction and determination of zinc in fish and eel samples using FAAS. Journal of Molecular Liquids, 2021, 333, 115930.	2.3	50
41	Membrane-Based Harvesting Processes for Microalgae and Their Valuable-Related Molecules: A Review. Membranes, 2021, 11, 585.	1.4	31
42	Deep eutectic solvent based method for analysis of Niclosamide in pharmaceutical and wastewater samples â€“ A green analytical chemistry approach. Journal of Molecular Liquids, 2021, 335, 116142.	2.3	36
43	Latest Insights on Novel Deep Eutectic Solvents (DES) for Sustainable Extraction of Phenolic Compounds from Natural Sources. Molecules, 2021, 26, 5037.	1.7	51
44	Characterization of oligodextran produced by Leuconostoc mesenteroides SF3 and its effect on film-forming properties of chitosan. Materials Today Communications, 2021, 28, 102487.	0.9	12
45	Simultaneous production and extraction of bio-chemicals produced from fermentations via pervaporation. Separation and Purification Technology, 2021, 279, 119653.	3.9	16
46	Capsaicin content in red habanero chilli (Capsicum chinense Jacq.) and its preservation after drying process. Future Foods, 2021, 4, 100070.	2.4	5
47	A review on phase-inversion technique-based polymer microsphere fabrication. Colloids and Interface Science Communications, 2021, 40, 100329.	2.0	35
48	Dark Fermentation Process Response to the Use of Undiluted Tequila Vinasse without Nutrient Supplementation. Sustainability, 2021, 13, 11034.	1.6	4
49	Exploring the potentialities of the Mexican fermented beverage: Pulque. Journal of Ethnic Foods, 2021, 8, .	0.8	5
50	Retention profile on the physicochemical properties of maize cooking by-product using a tight ultrafiltration membrane. Chemical Engineering Communications, 2020, 207, 887-895.	1.5	17
51	Enhanced process integration for the extraction, concentration and purification of di-acylated cyanidin from red cabbage. Separation and Purification Technology, 2020, 238, 116492.	3.9	43
52	Mg-MOF-74/Polyvinyl acetate (PVAc) mixed matrix membranes for CO2 separation. Separation and Purification Technology, 2020, 238, 116411.	3.9	52
53	Membrane technologies assisting plant-based and agro-food by-products processing: A comprehensive review. Trends in Food Science and Technology, 2020, 95, 219-232.	7.8	143
54	Microfiltration-mediated extraction of dextran produced by Leuconostoc mesenteroides SF3. Food and Bioproducts Processing, 2020, 119, 317-328.	1.8	28

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55	Membrane Technologies for the Production of Nonalcoholic Drinks. , 2020, , 141-165.		5
56	Breakthroughs on tailoring pervaporation membranes for water desalination: A review. Water Research, 2020, 187, 116428.	5.3	114
57	Boosting gas separation performance and suppressing the physical aging of polymers of intrinsic microporosity (PIM-1) by nanomaterial blending. Nanoscale, 2020, 12, 23333-23370.	2.8	81
58	Membranes for air and volatile organic compounds treatment. , 2020, , 47-69.		2
59	Long-term preservation of hydrogenogenic biomass by refrigeration: Reactivation characteristics and microbial community structure. Bioresource Technology Reports, 2020, 12, 100587.	1.5	5
60	Effect of Barium Addition on Hydrolytic Enzymatic Activities in Food Waste Degradation under Anaerobic Conditions. Processes, 2020, 8, 1371.	1.3	2
61	Recent advances in pervaporation hollow fiber membranes for dehydration of organics. Chemical Engineering Research and Design, 2020, 164, 68-85.	2.7	32
62	A Review of Zein as a Potential Biopolymer for Tissue Engineering and Nanotechnological Applications. Processes, 2020, 8, 1376.	1.3	55
63	The Role of New Inorganic Materials in Composite Membranes for Water Disinfection. Membranes, 2020, 10, 101.	1.4	39
64	Fractionation of Stevia rebaudiana aqueous extracts via two-step ultrafiltration process: towards rebaudioside a extraction. Food and Bioproducts Processing, 2020, 123, 111-122.	1.8	28
65	Nanofiltration in the food industry. , 2020, , 73-106.		5
66	Current Advances in Biofouling Mitigation in Membranes for Water Treatment: An Overview. Processes, 2020, 8, 182.	1.3	113
67	Membranes for toxic- and heavy-metal removal. , 2020, , 125-149.		6
68	Ultrathin permselective membranes: the latent way for efficient gas separation. RSC Advances, 2020, 10, 12653-12670.	1.7	69
69	Membrane-Based Operations in the Fruit Juice Processing Industry: A Review. Beverages, 2020, 6, 18.	1.3	64
70	Nanofiltration in beverage industry. , 2020, , 525-548.		11
71	The strategy of nanomaterials in polymeric membranes for water treatment: Nanocomposite membranes. Tecnologia Y Ciencias Del Agua, 2020, 11, 410-436.	0.1	7
72	Production, Preparation and Characterization of Microalgae-Based Biopolymer as a Potential Bioactive Film. Coatings, 2020, 10, 120.	1.2	43

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73	SimulaciÃ³n del tiempo de extracciÃ³n en funciÃ³n de la temperatura de proceso y de la microestructura del material vegetal. PÃ„DI BoletÃn CientÃfico De Ciencias BÃ¡sicas E IngenierÃas Del ICBI, 2020, 8, 46-53.	0.0	0
74	Separation, Fractionation and Concentration of High-Added-Value Compounds From Agro-Food By-Products Through Membrane-Based Technologies. , 2019, , 465-476.		4
75	Membrane-based technologies for meeting the recovery of biologically active compounds from foods and their by-products. Critical Reviews in Food Science and Nutrition, 2019, 59, 2927-2948.	5.4	74
76	Mixed matrix membranes (MMMs) for ethanol purification through pervaporation: current state of the art. Reviews in Chemical Engineering, 2019, 35, 565-590.	2.3	63
77	Enhanced CO2 permeability in MatrimidÂ® 5218 mixed matrix membranes for separating binary CO2/CH4 mixtures. Separation and Purification Technology, 2019, 210, 553-562.	3.9	72
78	Chemical and bio-chemical reactions assisted by pervaporation technology. Critical Reviews in Biotechnology, 2019, 39, 884-903.	5.1	37
79	Membrane Technology in Catalytic Carbonylation Reactions. Catalysts, 2019, 9, 614.	1.6	12
80	New Trends in Biopolymer-Based Membranes for Pervaporation. Molecules, 2019, 24, 3584.	1.7	62
81	Membrane Technology for the Recovery of High-Added Value Compounds From Meat Processing Coproducts. , 2019, , 127-143.		7
82	Metabolites recovery from fermentation broths via pressureâ€driven membrane processes. Asia-Pacific Journal of Chemical Engineering, 2019, 14, e2332.	0.8	29
83	Graphene oxide â€“ Filled polyimide membranes in pervaporative separation of azeotropic methanolâ€“MTBE mixtures. Separation and Purification Technology, 2019, 224, 265-272.	3.9	66
84	Unprecedented preparation of porous MatrimidÂ® 5218 membranes. Journal of Membrane Science, 2019, 585, 166-174.	4.1	62
85	Pervaporation-based membrane processes for the production of non-alcoholic beverages. Journal of Food Science and Technology, 2019, 56, 2333-2344.	1.4	34
86	Towards the dehydration of ethanol using pervaporation cross-linked poly(vinyl alcohol)/graphene oxide membranes. Journal of Membrane Science, 2019, 582, 423-434.	4.1	164
87	Effect of the ZIFâ€8 Distribution in Mixedâ€Matrix Membranes Based on MatrimidÂ®â€‰5218â€PEG on CO₂ Separation. Chemical Engineering and Technology, 2019, 42, 744-752.	0.9	43
88	Pervaporation: The emerging technique for extracting aroma compounds from food systems. Journal of Food Engineering, 2019, 253, 27-39.	2.7	75
89	Recovery of Phenolic-Based Compounds From Agro-Food Wastewaters Through Pressure-Driven Membrane Technologies. , 2019, , 195-228.		6
90	Current and Future Applications of Nanofiltration in Food Processing. , 2019, , 305-348.		12

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91	Enhancing the CO₂ Separation Performance of Matrimid 5218 Membranes for CO₂/CH₄ Binary Mixtures. Chemical Engineering and Technology, 2019, 42, 645-654.	0.9	31
92	Economic Framework of Membrane Technologies for Natural Gas Applications. Separation and Purification Reviews, 2019, 48, 298-324.	2.8	57
93	A Review of the Primary By-product (Nejayote) of the Nixtamalization During Maize Processing: Potential Reuses. Waste and Biomass Valorization, 2019, 10, 13-22.	1.8	34
94	Tuning of Nano-Based Materials for Embedding Into Low-Permeability Polyimides for a Featured Gas Separation. Frontiers in Chemistry, 2019, 7, 897.	1.8	59
95	MatrimidÂ®5218 dense membrane for the separation of azeotropic MeOH-MTBE mixtures by pervaporation. Separation and Purification Technology, 2018, 199, 27-36.	3.9	69
96	Processing of Xoconostle fruit (Opuntia joconostle) juice for improving its commercialization using membrane filtration. Journal of Food Processing and Preservation, 2018, 42, e13394.	0.9	35
97	Current Role of Membrane Technology: From the Treatment of Agro-Industrial by-Products up to the Valorization of Valuable Compounds. Waste and Biomass Valorization, 2018, 9, 513-529.	1.8	95
98	MatrimidÂ® 5218 in preparation of membranes for gas separation: Current state-of-the-art. Chemical Engineering Communications, 2018, 205, 161-196.	1.5	93
99	Polymeric Membrane Materials for CO2 Separations. , 2018, , 3-50.		6
100	Membrane-based technologies as an emerging tool for separating high-added-value compounds from natural products. Trends in Food Science and Technology, 2018, 82, 8-20.	7.8	60
101	Chemical Crosslinking of 6FDA-ODA and 6FDA-ODA:DABA for Improved CO2/CH4 Separation. Membranes, 2018, 8, 67.	1.4	29
102	Sorption isotherms and isosteric heat estimation of purple cactus pear (Opuntia stricta) juice embedded in gelatinâ€“maltodextrin matrix. Journal of Food Process Engineering, 2018, 41, e12848.	1.5	7
103	Pervaporation-Assisted Esterification Reactions by Means of Mixed Matrix Membranes. Industrial & Engineering Chemistry Research, 2018, 57, 15998-16011.	1.8	76
104	Nanofiltration and Tight Ultrafiltration Membranes for the Recovery of Polyphenols from Agro-Food By-Products. International Journal of Molecular Sciences, 2018, 19, 351.	1.8	161
105	Progress of Nanocomposite Membranes for Water Treatment. Membranes, 2018, 8, 18.	1.4	178
106	Progress on Incorporating Zeolites in MatrimidÂ®5218 Mixed Matrix Membranes towards Gas Separation. Membranes, 2018, 8, 30.	1.4	57
107	Pressure-driven membrane processes involved in waste management in agro-food industries: A viewpoint. AIMS Energy, 2018, 6, 1025-1031.	1.1	7
108	Mixed Matrix Membranes Based on PIMs for Gas Permeation: Principles, Synthesis, and Current Status. Chemical Engineering Communications, 2017, 204, 295-309.	1.5	59

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109	Water production from food processing wastewaters using integrated membrane systems: A sustainable approach. Tecnologia Y Ciencias Del Agua, 2017, 08, 129-136.	0.1	12
110	Recovery of polyphenols fromÂolive mill wastewaters byÂmembrane operations. , 2016, , 163-187.		17
111	Recovery of high-added-value compounds from food waste by membrane technology. , 2016, , 189-215.		18
112	Phenolic compounds recovered from agro-food by-products using membrane technologies: An overview. Food Chemistry, 2016, 213, 753-762.	4.2	172
113	The Use of Nixtamalization Waste Waters Clarified by Ultrafiltration for Production of a Fraction Rich in Phenolic Compounds. Waste and Biomass Valorization, 2016, 7, 1167-1176.	1.8	46
114	An overview of nejayote, a nixtamalization by product. IngenierÃa AgrÃcola Y Biosistemas, 2016, 8, 41-60.	0.1	8
115	A Two-Step Nanofiltration Process for the Production of Phenolic-Rich Fractions from Artichoke Aqueous Extracts. International Journal of Molecular Sciences, 2015, 16, 8968-8987.	1.8	38
116	Valorization of Nixtamalization wastewaters (Nejayote) by integrated membrane process. Food and Bioproducts Processing, 2015, 95, 7-18.	1.8	77
117	Use of gelatin-maltodextrin composite as an encapsulation support for clarified juice from purple cactus pear (Opuntia stricta). LWT - Food Science and Technology, 2015, 62, 242-248.	2.5	76
118	Characterization of the microfiltration process for the treatment of nixtamalization wastewaters. IngenierÃa AgrÃcola Y Biosistemas, 2015, 7, 23-34.	0.1	10