

# Manuel Pinelo

## List of Publications by Year in descending order

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109  
papers

5,521  
citations

94269

37  
h-index

85405

71  
g-index

109  
all docs

109  
docs citations

109  
times ranked

6414  
citing authors

#	ARTICLE	IF	CITATIONS
1	A General Overview of Support Materials for Enzyme Immobilization: Characteristics, Properties, Practical Utility. <i>Catalysts</i> , 2018, 8, 92.	1.6	626
2	Upgrading of grape skins: Significance of plant cell-wall structural components and extraction techniques for phenol release. <i>Trends in Food Science and Technology</i> , 2006, 17, 579-590.	7.8	444
3	Effect of Solvent, Temperature, and Solvent-to-Solid Ratio on the Total Phenolic Content and Antiradical Activity of Extracts from Different Components of Grape Pomace. <i>Journal of Agricultural and Food Chemistry</i> , 2005, 53, 2111-2117.	2.4	443
4	Developments in support materials for immobilization of oxidoreductases: A comprehensive review. <i>Advances in Colloid and Interface Science</i> , 2018, 258, 1-20.	7.0	203
5	Interaction among Phenols in Food Fortification: A Negative Synergism on Antioxidant Capacity. <i>Journal of Agricultural and Food Chemistry</i> , 2004, 52, 1177-1180.	2.4	180
6	Membrane technology for purification of enzymatically produced oligosaccharides: Molecular and operational features affecting performance. <i>Separation and Purification Technology</i> , 2009, 70, 1-11.	3.9	167
7	Enzyme Immobilization on Inorganic Surfaces for Membrane Reactor Applications: Mass Transfer Challenges, Enzyme Leakage and Reuse of Materials. <i>Advanced Synthesis and Catalysis</i> , 2018, 360, 2578-2607.	2.1	130
8	Multi-faceted strategy based on enzyme immobilization with reactant adsorption and membrane technology for biocatalytic removal of pollutants: A critical review. <i>Biotechnology Advances</i> , 2019, 37, 107401.	6.0	130
9	Mass transfer during continuous solid-liquid extraction of antioxidants from grape byproducts. <i>Journal of Food Engineering</i> , 2006, 77, 57-63.	2.7	119
10	Juice clarification by protease and pectinase treatments indicates new roles of pectin and protein in cherry juice turbidity. <i>Food and Bioproducts Processing</i> , 2010, 88, 259-265.	1.8	114
11	Cascade catalysis in membranes with enzyme immobilization for multi-enzymatic conversion of CO <sub>2</sub> to methanol. <i>New Biotechnology</i> , 2015, 32, 319-327.	2.4	114
12	Selective release of phenols from apple skin: Mass transfer kinetics during solvent and enzyme-assisted extraction. <i>Separation and Purification Technology</i> , 2008, 63, 620-627.	3.9	104
13	Separation and HPLC-MS Identification of Phenolic Antioxidants from Agricultural Residues: Almond Hulls and Grape Pomace. <i>Journal of Agricultural and Food Chemistry</i> , 2007, 55, 10101-10109.	2.4	98
14	Supercritical fluid and solid-liquid extraction of phenolic antioxidants from grape pomace: a comparative study. <i>European Food Research and Technology</i> , 2007, 226, 199-205.	1.6	94
15	Enzyme recycling in lignocellulosic biorefineries. <i>Biofuels, Bioproducts and Biorefining</i> , 2017, 11, 150-167.	1.9	90
16	Murta Leaves ( <i>Ugni molinae</i> Turcz) as a Source of Antioxidant Polyphenols. <i>Journal of Agricultural and Food Chemistry</i> , 2006, 54, 59-64.	2.4	89
17	Robust biodegradation of naproxen and diclofenac by laccase immobilized using electrospun nanofibers with enhanced stability and reusability. <i>Materials Science and Engineering C</i> , 2019, 103, 109789.	3.8	81
18	Enzymatic conversion of CO <sub>2</sub> to CH <sub>3</sub> OH via reverse dehydrogenase cascade biocatalysis: Quantitative comparison of efficiencies of immobilized enzyme systems. <i>Biochemical Engineering Journal</i> , 2017, 127, 217-228.	1.8	78

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19	Solvent effect on quercetin antioxidant capacity. <i>Food Chemistry</i> , 2004, 88, 201-207.	4.2	72
20	Influence of extraction conditions on phenolic yields from pine bark: assessment of procyanidins polymerization degree by thiolysis. <i>Food Chemistry</i> , 2006, 94, 406-414.	4.2	70
21	Efficient ionic liquid-based platform for multi-enzymatic conversion of carbon dioxide to methanol. <i>Green Chemistry</i> , 2018, 20, 4339-4348.	4.6	68
22	Sustainable bio-succinic acid production: superstructure optimization, techno-economic, and lifecycle assessment. <i>Energy and Environmental Science</i> , 2021, 14, 3542-3558.	15.6	65
23	Processing of <i>Rosa rubiginosa</i> : Extraction of oil and antioxidant substances. <i>Bioresource Technology</i> , 2007, 98, 3506-3512.	4.8	62
24	Lignin from hydrothermally pretreated grass biomass retards enzymatic cellulose degradation by acting as a physical barrier rather than by inducing nonproductive adsorption of enzymes. <i>Biotechnology for Biofuels</i> , 2018, 11, 85.	6.2	61
25	Free and immobilized biocatalysts for removing micropollutants from water and wastewater: Recent progress and challenges. <i>Bioresource Technology</i> , 2022, 344, 126201.	4.8	61
26	Ethanol extraction of <i>Rosa rubiginosa</i> soluble substances: Oil solubility equilibria and kinetic studies. <i>Journal of Food Engineering</i> , 2007, 79, 150-157.	2.7	60
27	Fouling-induced enzyme immobilization for membrane reactors. <i>Bioresource Technology</i> , 2013, 147, 260-268.	4.8	57
28	Plant location and extraction procedure strongly alter the antimicrobial activity of murta extracts. <i>European Food Research and Technology</i> , 2009, 228, 467-475.	1.6	56
29	Functionalization of a Membrane Sublayer Using Reverse Filtration of Enzymes and Dopamine Coating. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 22894-22904.	4.0	54
30	Recovery of volatile fruit juice aroma compounds by membrane technology: Sweeping gas versus vacuum membrane distillation. <i>Innovative Food Science and Emerging Technologies</i> , 2011, 12, 388-397.	2.7	51
31	Energy barriers to anion transport in polyelectrolyte multilayer nanofiltration membranes: Role of intra-pore diffusion. <i>Journal of Membrane Science</i> , 2020, 603, 117921.	4.1	51
32	Separation of phenolic acids from monosaccharides by low-pressure nanofiltration integrated with laccase pre-treatments. <i>Journal of Membrane Science</i> , 2015, 482, 83-91.	4.1	50
33	Enzyme immobilization by fouling in ultrafiltration membranes: Impact of membrane configuration and type on flux behavior and biocatalytic conversion efficacy. <i>Biochemical Engineering Journal</i> , 2014, 83, 79-89.	1.8	49
34	Directing filtration to optimize enzyme immobilization in reactive membranes. <i>Journal of Membrane Science</i> , 2014, 459, 1-11.	4.1	48
35	Filtration behavior of casein glycomacropeptide (CGMP) in an enzymatic membrane reactor: fouling control by membrane selection and threshold flux operation. <i>Journal of Membrane Science</i> , 2014, 469, 127-139.	4.1	44
36	A Simple Method To Separate Red Wine Nonpolymeric and Polymeric Phenols by Solid-Phase Extraction. <i>Journal of Agricultural and Food Chemistry</i> , 2006, 54, 2839-2844.	2.4	41

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37	A thermal treatment to increase the antioxidant capacity of natural phenols: catechin, resveratrol and grape extract cases. <i>European Food Research and Technology</i> , 2005, 221, 284-290.	1.6	39
38	Significance of membrane bioreactor design on the biocatalytic performance of glucose oxidase and catalase: Free vs. immobilized enzyme systems. <i>Biochemical Engineering Journal</i> , 2017, 117, 41-47.	1.8	39
39	High performance separation of xylose and glucose by enzyme assisted nanofiltration. <i>Journal of Membrane Science</i> , 2015, 492, 107-115.	4.1	37
40	From second generation feed-stocks to innovative fermentation and downstream techniques for succinic acid production. <i>Critical Reviews in Environmental Science and Technology</i> , 2020, 50, 1829-1873.	6.6	37
41	Enzyme membrane reactors for production of oligosaccharides: A review on the interdependence between enzyme reaction and membrane separation. <i>Separation and Purification Technology</i> , 2020, 243, 116840.	3.9	35
42	Role of Operating Conditions in a Pilot Scale Investigation of Hollow Fiber Forward Osmosis Membrane Modules. <i>Membranes</i> , 2019, 9, 66.	1.4	34
43	Directing filtration to narrow molecular weight distribution of oligodextran in an enzymatic membrane reactor. <i>Journal of Membrane Science</i> , 2018, 555, 268-279.	4.1	33
44	An integrated membrane system for the biocatalytic production of 3- $\alpha$ -sialyllactose from dairy by-products. <i>Bioresource Technology</i> , 2014, 166, 9-16.	4.8	32
45	Horseradish peroxidase immobilised onto electrospun fibres and its application in decolourisation of dyes from model sea water. <i>Process Biochemistry</i> , 2021, 102, 10-21.	1.8	32
46	Protease-Assisted Clarification of Black Currant Juice: Synergy with Other Clarifying Agents and Effects on the Phenol Content. <i>Journal of Agricultural and Food Chemistry</i> , 2006, 54, 6554-6563.	2.4	31
47	A continuous membrane microbioreactor system for development of integrated pectin modification and separation processes. <i>Chemical Engineering Journal</i> , 2011, 167, 418-426.	6.6	31
48	Production of lipids and docosahexaenoic acid (DHA) by a native <i>Thraustochytrium</i> strain. <i>European Journal of Lipid Science and Technology</i> , 2013, 115, 890-900.	1.0	31
49	Effect of Cellulases, Solvent Type and Particle Size Distribution on the Extraction of Chlorogenic Acid and Other Phenols from Spent Coffee Grounds. <i>American Journal of Food Technology</i> , 2007, 2, 641-651.	0.2	31
50	Kinetics based reaction optimization of enzyme catalyzed reduction of formaldehyde to methanol with synchronous cofactor regeneration. <i>Biotechnology and Bioengineering</i> , 2017, 114, 2762-2770.	1.7	27
51	Alcohol dehydrogenase on inorganic powders: Zeta potential and particle agglomeration as main factors determining activity during immobilization. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 175, 136-142.	2.5	27
52	Development of an Ionic Porphyrin-Based Platform as a Biomimetic Light-Harvesting Agent for High-Performance Photoenzymatic Synthesis of Methanol from CO <sub>2</sub> . <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 11503-11511.	3.2	27
53	The response surface methodology for optimization of tyrosinase immobilization onto electrospun polycaprolactone-chitosan fibers for use in bisphenol A removal. <i>International Journal of Biological Macromolecules</i> , 2020, 165, 2049-2059.	3.6	26
54	Surface properties correlate to the digestibility of hydrothermally pretreated lignocellulosic Poaceae biomass feedstocks. <i>Biotechnology for Biofuels</i> , 2017, 10, 49.	6.2	25

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55	Synergistic action of laccase treatment and membrane filtration during removal of azo dyes in an enzymatic membrane reactor upgraded with electrospun fibers. <i>Journal of Hazardous Materials</i> , 2022, 435, 129071.	6.5	25
56	Nanofiltration for separation and purification of saccharides from biomass. <i>Frontiers of Chemical Science and Engineering</i> , 2021, 15, 837-853.	2.3	24
57	Surface modification of polysulfone membranes applied for a membrane reactor with immobilized alcohol dehydrogenase. <i>Materials Today Communications</i> , 2018, 14, 160-168.	0.9	22
58	Separation of 3- $\alpha$ -sialyllactose and lactose by nanofiltration: A trade-off between charge repulsion and pore swelling induced by high pH. <i>Separation and Purification Technology</i> , 2014, 138, 77-83.	3.9	21
59	Mimicking natural strategies to create multi-environment enzymatic reactors: From natural cell compartments to artificial polyelectrolyte reactors. <i>Biotechnology Advances</i> , 2022, 54, 107798.	6.0	20
60	Controlling the rejection of protein during membrane filtration by adding selected polyelectrolytes. <i>Separation and Purification Technology</i> , 2012, 85, 54-60.	3.9	18
61	Immobilization of alcohol dehydrogenase on ceramic silicon carbide membranes for enzymatic CH <sub>3</sub> OH production. <i>Journal of Chemical Technology and Biotechnology</i> , 2018, 93, 2952-2961.	1.6	18
62	Electrospun biosystems made of nylon 6 and laccase and its application in dyes removal. <i>Environmental Technology and Innovation</i> , 2021, 21, 101332.	3.0	18
63	Tailor-made novel electrospun polystyrene/poly(d,l-lactide-co-glycolide) for oxidoreductases immobilization: Improvement of catalytic properties under extreme reaction conditions. <i>Bioorganic Chemistry</i> , 2021, 114, 105036.	2.0	18
64	A decision-support framework for techno-economic-sustainability assessment of resource recovery alternatives. <i>Journal of Cleaner Production</i> , 2020, 266, 121854.	4.6	18
65	Surface treatments and functionalization of metal-ceramic membranes for improved enzyme immobilization performance. <i>Journal of Chemical Technology and Biotechnology</i> , 2020, 95, 993-1007.	1.6	17
66	Economic and environmental analysis of bio-succinic acid production: From established processes to a new continuous fermentation approach with in-situ electrolytic extraction. <i>Chemical Engineering Research and Design</i> , 2022, 179, 401-414.	2.7	17
67	In Situ Formation of a Biocatalytic Alginate Membrane by Enhanced Concentration Polarization. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 17682-17691.	4.0	16
68	Impact of the fouling mechanism on enzymatic depolymerization of xylan in different configurations of membrane reactors. <i>Separation and Purification Technology</i> , 2017, 178, 154-162.	3.9	16
69	Upgrading of Biomass Monosaccharides by Immobilized Glucose Dehydrogenase and Xylose Dehydrogenase. <i>ChemCatChem</i> , 2018, 10, 5164-5173.	1.8	16
70	Separation of xylose and glucose using an integrated membrane system for enzymatic cofactor regeneration and downstream purification. <i>Journal of Membrane Science</i> , 2017, 523, 327-335.	4.1	15
71	Membrane separation of enzyme-converted biomass compounds: Recovery of xylose and production of gluconic acid as a value-added product. <i>Separation and Purification Technology</i> , 2018, 194, 73-80.	3.9	15
72	Bioconversion of xylose to xylonic acid via co-immobilized dehydrogenases for conjunct cofactor regeneration. <i>Bioorganic Chemistry</i> , 2019, 93, 102747.	2.0	15

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73	Controlled pore collapse to increase solute rejection of modified PES membranes. <i>Journal of Membrane Science</i> , 2020, 595, 117515.	4.1	15
74	Removal of tetracycline in enzymatic membrane reactor: Enzymatic conversion as the predominant mechanism over adsorption and membrane rejection. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 106973.	3.3	15
75	An integrated sustainable biorefinery concept towards achieving zero-waste production. <i>Journal of Cleaner Production</i> , 2022, 336, 130317.	4.6	14
76	Effect of Clarification Techniques and Rat Intestinal Extract Incubation on Phenolic Composition and Antioxidant Activity of Black Currant Juice. <i>Journal of Agricultural and Food Chemistry</i> , 2006, 54, 6564-6571.	2.4	13
77	Experimental and computational evaluation of area selectively immobilized horseradish peroxidase in a microfluidic device. <i>Chemical Engineering Journal</i> , 2018, 332, 16-23.	6.6	13
78	Commercial polysulfone membranes pretreated with ethanol and NaOH: Effects on permeability, selectivity and antifouling properties. <i>Separation and Purification Technology</i> , 2019, 219, 82-89.	3.9	13
79	Simple Preparation of Thiol-ene Particles in Glycerol and Surface Functionalization by Thiol-ene Chemistry (TEC) and Surface Chain Transfer Free Radical Polymerization (SCT-FRP). <i>Macromolecular Rapid Communications</i> , 2018, 39, 1700394.	2.0	12
80	Co-Immobilization of Glucose Dehydrogenase and Xylose Dehydrogenase as a New Approach for Simultaneous Production of Gluconic and Xylonic Acid. <i>Materials</i> , 2019, 12, 3167.	1.3	12
81	Charge exclusion as a strategy to control retention of small proteins in polyelectrolyte-modified ultrafiltration membranes. <i>Separation and Purification Technology</i> , 2020, 247, 116936.	3.9	12
82	Direct separation of acetate and furfural from xylose by nanofiltration of birch pretreated liquor: Effect of process conditions and separation mechanism. <i>Separation and Purification Technology</i> , 2020, 239, 116546.	3.9	12
83	<i>In vitro</i> Activity on Human Gut Bacteria of Murta Leaf Extracts ( <i>Ugni molinae</i> turcz.), a Native Plant from Southern Chile. <i>Journal of Food Science</i> , 2012, 77, M323-9.	1.5	11
84	Mathematical modelling of dextran filtration through hollow fibre membranes. <i>Separation and Purification Technology</i> , 2014, 125, 21-36.	3.9	11
85	Ionic Liquids as Bifunctional Cosolvents Enhanced CO <sub>2</sub> Conversion Catalysed by NADH-Dependent Formate Dehydrogenase. <i>Catalysts</i> , 2018, 8, 304.	1.6	11
86	An enzymatic membrane reactor for oligodextran production: Effects of enzyme immobilization strategies on dextranase activity. <i>Carbohydrate Polymers</i> , 2021, 271, 118430.	5.1	11
87	High-performance removal of acids and furans from wheat straw pretreatment liquid by nanofiltration. <i>Separation Science and Technology</i> , 2017, 52, 1901-1912.	1.3	10
88	Development of a thiol-ene based screening platform for enzyme immobilization demonstrated using horseradish peroxidase. <i>Biotechnology Progress</i> , 2017, 33, 1267-1277.	1.3	9
89	Improved Alkyl Glycoside Synthesis by trans-Glycosylation through Tailored Microenvironments of Immobilized $\alpha$ -Glucosidase. <i>ChemPlusChem</i> , 2020, 85, 137-141.	1.3	9
90	Applicability of NIR spectroscopy to determine oil and other physicochemical parameters in <i>Rosa mosqueta</i> and Chilean hazelnut. <i>European Food Research and Technology</i> , 2006, 222, 443-450.	1.6	8

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91	Statistical modelling of the interplay between solute shape and rejection in porous membranes. Separation and Purification Technology, 2012, 89, 261-269.	3.9	8
92	Separation of succinic acid from fermentation broth: Dielectric exclusion, Donnan effect and diffusion as the most influential mass transfer mechanisms. Separation and Purification Technology, 2022, 281, 119904.	3.9	8
93	Predicting optimal back-shock times in ultrafiltration hollow fibre modules through path-lines. Journal of Membrane Science, 2014, 470, 275-293.	4.1	7
94	Predicting optimal back-shock times in ultrafiltration hollow fiber modules II: Effect of inlet flow and concentration dependent viscosity. Journal of Membrane Science, 2015, 493, 486-495.	4.1	7
95	Mathematical modelling of reaction-separation in an enzymatic membrane reactor during oligodextran production. Journal of Membrane Science, 2021, 623, 119082.	4.1	7
96	Mechanisms controlling retention during ultrafiltration of charged saccharides: Molecular conformation and electrostatic forces. Separation and Purification Technology, 2013, 118, 704-709.	3.9	6
97	Integrated microsphere-packed bed enzymatic membrane reactor for enhanced bioconversion efficiency and stability: A proof-of-concept study. Journal of Membrane Science, 2022, 658, 120732.	4.1	6
98	Monolithic flow reactor for enzymatic oxidations. Journal of Chemical Technology and Biotechnology, 2021, 96, 2488-2495.	1.6	5
99	Laccase immobilization in polyelectrolyte multilayer membranes for 17 $\beta$ -ethynylestradiol removal: Biocatalytic approach for pharmaceuticals degradation. Chemosphere, 2022, 304, 135374.	4.2	5
100	Effect of bubbling nitrogen and pulsed flow on the antiradical activity of grape residues. Journal of Food Engineering, 2006, 73, 269-275.	2.7	4
101	Membrane compaction, internal fouling, and membrane preconditioning as major factors affecting performance of solvent resistant nanofiltration membranes in methanol solutions. Separation and Purification Technology, 2019, 227, 115686.	3.9	4
102	Modelling of oligodextran production via an immobilized enzyme membrane reactor: Bioreaction-separation coupling mechanism. Separation and Purification Technology, 2022, 282, 120024.	3.9	3
103	Engineering Mussel-Inspired Coating on Membranes for Green Enzyme Immobilization and Hyperstable Reuse. Industrial & Engineering Chemistry Research, 2022, 61, 5042-5053.	1.8	3
104	Enzymatic membrane reactor in xylose bioconversion with simultaneous cofactor regeneration. Biorganic Chemistry, 2022, 123, 105781.	2.0	3
105	Variables and Mechanisms Affecting Electro-Membrane Extraction of Bio-Succinic Acid from Fermentation Broth. Membranes, 2022, 12, 542.	1.4	3
106	Ultrafiltration intensification by dynamic operation: Insights from hybrid modeling. Chemical Engineering and Processing: Process Intensification, 2021, 169, 108618.	1.8	2
107	A Laboratory Exercise To Understand the Importance of Enzyme Technology in the Fruit-Processing Industry: Viscosity Decrease and Phenols Release from Apple Mash. Journal of Chemical Education, 2011, 88, 499-502.	1.1	1
108	A Miniature Membrane Reactor for Evaluation of Process Design Options on the Enzymatic Degradation of Pectin. Industrial & Engineering Chemistry Research, 2011, 50, 11252-11258.	1.8	1

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109	Strategies for Controlling the Rejection of Charged Oligosaccharides During Ultrafiltration: Modification of Molecular Shape, Operational Pressure and Membrane Cutoff. <i>Procedia Engineering</i> , 2012, 44, 2026.	1.2	0