Mercedes Ballesteros

List of Publications by Year
in descending order

117 papers	11,076 citations	31902 53 h-index	30010 103 g-index
117 all docs	117 docs citations	117 times ranked	9448 citing authors

#	Article	IF	Citations
1	Biogas from Anaerobic Digestion as an Energy Vector: Current Upgrading Development. Energies, 2021, 14, 2742.	1.6	36
2	Optimisation of Uncatalysed Steam Explosion of Lignocellulosic Biomasses to Obtain Both C6- and C5-Sugars. Waste and Biomass Valorization, 2020, 11, 231-244.	1.8	6
3	Processing of extracted olive oil pomace residue by hydrothermal or dilute acid pretreatment and enzymatic hydrolysis in a biorefinery context. Renewable Energy, 2020, 145, 1235-1245.	4.3	73
4	Determination of the Lignocellulosic Components of Olive Tree Pruning Biomass by Near Infrared Spectroscopy. Energies, 2019, 12, 2497.	1.6	16
5	Insoluble solids at high concentrations repress yeastâ€™s response against stress and increase intracellular ROS levels. Scientific Reports, 2019, 9, 12236.	1.6	20
6	Bioprocessing of rice husk into monosaccharides and the fermentative production of bioethanol and lactate. Cellulose, 2019, 26, 7309-7322.	2.4	16
7	Enzyme hydrolysis of cassava peels: treatment by amylolytic and cellulolytic enzymes. Biocatalysis and Biotransformation, 2019, 37, 77-85.	1.1	14
8	<i>Lactobacillus pentosus</i> CECT 4023 T coâ€utilizes glucose and xylose to produce lactic acid from wheat straw hydrolysate: Anaerobiosis as a key factor. Biotechnology Progress, 2019, 35, e2739.	1.3	23
9	Biogas and Volatile Fatty Acids Production: Temperature as a Determining Factor in the Anaerobic Digestion of Spirulina platensis. Waste and Biomass Valorization, 2019, 10, 2507-2515.	1.8	6
10	Biotechnological advances in lactic acid production by lactic acid bacteria: lignocellulose as novel substrate. Biofuels, Bioproducts and Biorefining, 2018, 12, 290-303.	1.9	124
11	Effect of microalgae storage conditions on methane yields. Environmental Science and Pollution Research, 2018, 25, 14263-14270.	2.7	6
12	Acclimation to extremely high ammonia levels in continuous biomethanation process and the associated microbial community dynamics. Bioresource Technology, 2018, 247, 616-623.	4.8	133
13	Integrated production of second generation ethanol and lactic acid from steam-exploded elephant grass. Bioresource Technology, 2018, 249, 1017-1024.	4.8	31
14	The potential of agricultural banana waste for bioethanol production. Fuel, 2018, 213, 176-185.	3.4	99
15	Study of the Application of Alkaline Extrusion to the Pretreatment of Eucalyptus Biomass as First Step in a Bioethanol Production Process. Energies, 2018, 11, 2961.	1.6	19
16	Volatile fatty acids production from protease pretreated <i>Chlorella</i> biomass via anaerobic digestion. Biotechnology Progress, 2018, 34, 1363-1369.	1.3	19
17	Designing an olive tree pruning biorefinery for the production of bioethanol, xylitol and antioxidants: a techno-economic assessment. Holzforschung, 2018, 73, 15-23.	0.9	25
18	Efficient Anaerobic Digestion of Microalgae Biomass: Proteins as a Key Macromolecule. Molecules, 2018, 23, 1098.	1.7	55

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19	Biochemical methane potential of microalgae biomass using different microbial inocula. Biotechnology for Biofuels, 2018, 11, 184.	6.2	46
20	Starch Biomass for Biofuels, Biomaterials, and Chemicals. , 2018, , 69-94.		8
21	Optimal conditions of acidâ€catalysed steam explosion pretreatment of banana lignocellulosic biomass for fermentable sugar production. Journal of Chemical Technology and Biotechnology, 2017, 92, 2351-2359.	1.6	39
22	Extrusion as a pretreatment for lignocellulosic biomass: Fundamentals and applications. Renewable Energy, 2017, 114, 1427-1441.	4.3	154
23	Valorization of steam-exploded wheat straw through a biorefinery approach: Bioethanol and bio-oil co-production. Fuel, 2017, 199, 403-412.	3.4	58
24	Microbial communities of biomethanization digesters fed with raw and heat pre-treated microalgae biomasses. Chemosphere, 2017, 168, 1013-1021.	4.2	41
25	Ammonia tolerant inocula provide a good base for anaerobic digestion of microalgae in third generation biogas process. Bioresource Technology, 2017, 225, 272-278.	4.8	84
26	The biorefinery concept for the industrial valorization of residues from olive oil industry. , 2017, , 57-78.		17
27	Residual biomass potential in olive tree cultivation and olive oil industry in Spain: valorization proposal in a biorefinery context. Spanish Journal of Agricultural Research, 2017, 15, e0206.	0.3	65
28	Hydrothermal Processing of Microalgae. , 2017, , 483-500.		0
29	A Bacterial Laccase for Enhancing Saccharification and Ethanol Fermentation of Steam-Pretreated Biomass. Fermentation, 2016, 2, 11.	1.4	36
30	Steam Explosion as Lignocellulosic Biomass Pretreatment. , 2016, , 349-368.		47
31	Influence of enzymatic hydrolysis on the biochemical methane potential of<i>Chlorella vulgaris</i>and<i>Scenedesmus</i>sp.. Journal of Chemical Technology and Biotechnology, 2016, 91, 1299-1305.	1.6	41
32	Exploring laccase and mediators behavior during saccharification and fermentation of steamâ€exploded wheat straw for bioethanol production. Journal of Chemical Technology and Biotechnology, 2016, 91, 1816-1825.	1.6	32
33	High-solids content enzymatic hydrolysis of hydrothermally pretreated sugarcane bagasse using a laboratory-made enzyme blend and commercial preparations. Process Biochemistry, 2016, 51, 1561-1567.	1.8	42
34	Impact of temperature and photoperiod on anaerobic biodegradability of microalgae grown in urban wastewater. International Biodeterioration and Biodegradation, 2016, 106, 16-23.	1.9	40
35	Phenols and lignin: Key players in reducing enzymatic hydrolysis yields of steam-pretreated biomass in presence of laccase. Journal of Biotechnology, 2016, 218, 94-101.	1.9	40
36	From piggery wastewater nutrients to biogas: Microalgae biomass revalorization through anaerobic digestion. Renewable Energy, 2016, 96, 1103-1110.	4.3	104

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37	Comparison of Chlorella vulgaris and cyanobacterial biomass: cultivation in urban wastewater and methane production. Bioprocess and Biosystems Engineering, 2016, 39, 703-712.	1.7	26
38	Sugar production from wheat straw biomass by alkaline extrusion and enzymatic hydrolysis. Renewable Energy, 2016, 86, 1060-1068.	4.3	55
39	Enzymatic pretreatment of Chlorella vulgaris for biogas production: Influence of urban wastewater as a sole nutrient source on macromolecular profile and biocatalyst efficiency. Bioresource Technology, 2016, 199, 319-325.	4.8	63
40	Evaluating Lignin-Rich Residues from Biochemical Ethanol Production of Wheat Straw and Olive Tree Pruning by FTIR and 2D-NMR. International Journal of Polymer Science, 2015, 2015, 1-11.	1.2	58
41	Alkaline twin-screw extrusion fractionation of olive-tree pruning biomass. Industrial Crops and Products, 2015, 74, 336-341.	2.5	31
42	Chlorella vulgaris vs cyanobacterial biomasses: Comparison in terms of biomass productivity and biogas yield. Energy Conversion and Management, 2015, 92, 137-142.	4.4	48
43	Algaculture integration in conventional wastewater treatment plants: Anaerobic digestion comparison of primary and secondary sludge with microalgae biomass. Bioresource Technology, 2015, 184, 236-244.	4.8	94
44	Inhibition of cellulose enzymatic hydrolysis by laccaseâ€derived compounds from phenols. Biotechnology Progress, 2015, 31, 700-706.	1.3	28
45	Protease pretreated Chlorella vulgaris biomass bioconversion to methane via semi-continuous anaerobic digestion. Fuel, 2015, 158, 35-41.	3.4	73
46	Optimization of uncatalyzed steam explosion pretreatment of rapeseed straw for biofuel production. Bioresource Technology, 2015, 190, 97-105.	4.8	77
47	Biomethane production using fresh and thermally pretreated Chlorella vulgaris biomass: A comparison of batch and semi-continuous feeding mode. Ecological Engineering, 2015, 84, 273-277.	1.6	31
48	Enzymatic cell disruption of microalgae biomass in biorefinery processes. Biotechnology and Bioengineering, 2015, 112, 1955-1966.	1.7	142
49	Algicidal microorganisms and secreted algicides: New tools to induce microalgal cell disruption. Biotechnology Advances, 2015, 33, 1615-1625.	6.0	119
50	A review of biological delignification and detoxification methods for lignocellulosic bioethanol production. Critical Reviews in Biotechnology, 2015, 35, 342-354.	5.1	151
51	Unraveling the effects of laccase treatment on enzymatic hydrolysis of steam-exploded wheat straw. Bioresource Technology, 2015, 175, 209-215.	4.8	47
52	Effects of Temperature on Steam Explosion Pretreatment of Poplar Hybrids with Different Lignin Contents in Bioethanol Production. International Journal of Green Energy, 2015, 12, 832-842.	2.1	13
53	Ethanol production from glucose and xylose obtained from steam exploded water-extracted olive tree pruning using phosphoric acid as catalyst. Bioresource Technology, 2014, 153, 101-107.	4.8	68
54	Sugar production from barley straw biomass pretreated by combined alkali and enzymatic extrusion. Bioresource Technology, 2014, 158, 262-268.	4.8	47

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55	A new lignocellulosic biomass deconstruction process combining thermo-mechano chemical action and bio-catalytic enzymatic hydrolysis in a twin-screw extruder. Industrial Crops and Products, 2014, 55, 258-266.	2.5	69
56	Effect of high pressure thermal pretreatment on Chlorella vulgaris biomass: Organic matter solubilisation and biochemical methane potential. Fuel, 2014, 117, 674-679.	3.4	109
57	Purification and characterization of a GH43 Î²-xylosidase from Enterobacter sp. identified and cloned from forest soil bacteria. Microbiological Research, 2014, 169, 213-220.	2.5	34
58	Study of process configuration and catalyst concentration in integrated alkaline extrusion of barley straw for bioethanol production. Fuel, 2014, 134, 448-454.	3.4	30
59	Protease cell wall degradation of Chlorella vulgaris: Effect on methane production. Bioresource Technology, 2014, 171, 421-427.	4.8	43
60	Methane production of thermally pretreated Chlorella vulgaris and Scenedesmus sp. biomass at increasing biomass loads. Applied Energy, 2014, 129, 238-242.	5.1	52
61	Autohydrolysis and alkaline pretreatment effect on Chlorella vulgaris and Scenedesmus sp. methane production. Energy, 2014, 78, 48-52.	4.5	63
62	Enhanced methane production of Chlorella vulgaris and Chlamydomonas reinhardtii by hydrolytic enzymes addition. Energy Conversion and Management, 2014, 85, 551-557.	4.4	106
63	Second generation bioethanol from steam exploded Eucalyptus globulus wood. Fuel, 2013, 111, 66-74.	3.4	64
64	Fed-batch SSCF using steam-exploded wheat straw at high dry matter consistencies and a xylose-fermenting Saccharomyces cerevisiae strain: effect of laccase supplementation. Biotechnology for Biofuels, 2013, 6, 160.	6.2	28
65	Ethanol from laccase-detoxified lignocellulose by the thermotolerant yeast Kluyveromyces marxianusâ€"Effects of steam pretreatment conditions, process configurations and substrate loadings. Biochemical Engineering Journal, 2013, 79, 94-103.	1.8	34
66	Improving the fermentation performance of <i>saccharomyces cerevisiae</i> by laccase during ethanol production from steamâ€exploded wheat straw at highâ€substrate loadings. Biotechnology Progress, 2013, 29, 74-82.	1.3	61
67	Enhancing methane production of Chlorella vulgaris via thermochemical pretreatments. Bioresource Technology, 2013, 149, 136-141.	4.8	137
68	Optimization of integrated alkalineâ€“extrusion pretreatment of barley straw for sugar production by enzymatic hydrolysis. Process Biochemistry, 2013, 48, 775-781.	1.8	49
69	Microalgae autoflocculation: an alternative to high-energy consuming harvesting methods. Journal of Applied Phycology, 2013, 25, 991-999.	1.5	128
70	In situ laccase treatment enhances the fermentability of steam-exploded wheat straw in SSCF processes at high dry matter consistencies. Bioresource Technology, 2013, 143, 337-343.	4.8	43
71	Comparing cell viability and ethanol fermentation of the thermotolerant yeast Kluyveromyces marxianus and Saccharomyces cerevisiae on steam-exploded biomass treated with laccase. Bioresource Technology, 2013, 135, 239-245.	4.8	61
72	Progress on Enzymatic Saccharification Technologies for Biofuels Production. , 2013, , 145-169.		11

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73	Production and hydrolytic efficiency ofÂenzymes from <i>Trichoderma reesei</i><scp>RUTC30</scp> using steam pretreated wheat straw as carbon source. Journal of Chemical Technology and Biotechnology, 2013, 88, 1150-1156.	1.6	20
74	Enzymatic hydrolysis from carbohydrates ofâ€‰barley straw pretreated by ionic liquids. Journal of Chemical Technology and Biotechnology, 2013, 88, 937-941.	1.6	20
75	Linking microalgae and cyanobacteria culture conditions and key-enzymes for carbohydrate accumulation. Biotechnology Advances, 2012, 30, 1655-1661.	6.0	159
76	Effect of nutrient addition on preinoculum growth of S. cerevisiae for application in SSF processes. Biomass and Bioenergy, 2012, 45, 168-174.	2.9	18
77	Biological conversion of forage sorghum biomass to ethanol by steam explosion pretreatment and simultaneous hydrolysis and fermentation at high solid content. Biomass Conversion and Biorefinery, 2012, 2, 123-132.	2.9	28
78	Different laccase detoxification strategies for ethanol production from lignocellulosic biomass by the thermotolerant yeast Kluyveromyces marxianus CECT 10875. Bioresource Technology, 2012, 106, 101-109.	4.8	89
79	Pretreatment Technologies for Lignocellulose-to-Bioethanol Conversion. , 2011, , 149-176.		61
80	Cellulase production using different streams of wheat grain- and wheat straw-based ethanol processes. Journal of Industrial Microbiology and Biotechnology, 2011, 38, 791-802.	1.4	14
81	Effect of water extraction on sugars recovery from steam exploded olive tree pruning. Bioresource Technology, 2011, 102, 6611-6616.	4.8	77
82	Different process configurations for bioethanol production from pretreated olive pruning biomass. Journal of Chemical Technology and Biotechnology, 2011, 86, 881-887.	1.6	74
83	Strategies of xylanase supplementation for an efficient saccharification and cofermentation process from pretreated wheat straw. Biotechnology Progress, 2011, 27, 944-950.	1.3	21
84	Effect of endoxylanase and Î±-l-arabinofuranosidase supplementation on the enzymatic hydrolysis of steam exploded wheat straw. Bioresource Technology, 2011, 102, 4552-4558.	4.8	112
85	Second-generation ethanol production from steam exploded barley straw by Kluyveromyces marxianus CECT 10875. Fuel, 2011, 90, 1624-1630.	3.4	88
86	Adaptation of the xylose fermenting yeast Saccharomyces cerevisiae F12 for improving ethanol production in different fed-batch SSF processes. Journal of Industrial Microbiology and Biotechnology, 2010, 37, 1211-1220.	1.4	70
87	Ethanol Production from the Organic Fraction Obtained After Thermal Pretreatment of Municipal Solid Waste. Applied Biochemistry and Biotechnology, 2010, 161, 423-431.	1.4	55
88	Application of a microassay method to study enzymatic hydrolysis of pretreated wheat straw. Journal of Chemical Technology and Biotechnology, 2010, 85, 1291-1297.	1.6	14
89	Pretreatment technologies for an efficient bioethanol production process based on enzymatic hydrolysis: A review. Bioresource Technology, 2010, 101, 4851-4861.	4.8	3,203
90	Enzymatic hydrolysis of lignocellulosic biomass. , 2010, , 159-177.		12

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91	Bioethanol production from wheat straw by the thermotolerant yeast Kluyveromyces marxianus CECT 10875 in a simultaneous saccharification and fermentation fed-batch process. Fuel, 2009, 88, 2142-2147.	3.4	110
92	Effect of different cellulase dosages on cell viability and ethanol production by Kluyveromyces marxianus in SSF processes. Bioresource Technology, 2009, 100, 890-895.	4.8	56
93	Comparison of SHF and SSF processes from steamâ€exploded wheat straw for ethanol production by xyloseâ€fermenting and robust glucoseâ€fermenting <i>Saccharomyces cerevisiae</i> strains. Biotechnology and Bioengineering, 2008, 100, 1122-1131.	1.7	204
94	Evaluation of steam explosion pre-treatment for enzymatic hydrolysis of sunflower stalks. Enzyme and Microbial Technology, 2008, 42, 160-166.	1.6	181
95	Dilute sulfuric acid pretreatment of cardoon for ethanol production. Biochemical Engineering Journal, 2008, 42, 84-91.	1.8	77
96	Production of fuel ethanol from steam-explosion pretreated olive tree pruning. Fuel, 2008, 87, 692-700.	3.4	203
97	Optimizing Liquid Hot Water pretreatment conditions to enhance sugar recovery from wheat straw for fuel-ethanol production. Fuel, 2008, 87, 3640-3647.	3.4	236
98	Fractionation of Cynara cardunculus (cardoon) biomass by dilute-acid pretreatment. Applied Biochemistry and Biotechnology, 2007, 137-140, 239-252.	1.4	14
99	Xylanase contribution to the efficiency of cellulose enzymatic hydrolysis of barley straw. Applied Biochemistry and Biotechnology, 2007, 137-140, 353-365.	1.4	54
100	Effect of Inhibitors Released During Steam-Explosion Pretreatment of Barley Straw on Enzymatic Hydrolysis. Applied Biochemistry and Biotechnology, 2006, 129, 278-288.	1.4	142
101	Ethanol Production From Steam-Explosion Pretreated Wheat Straw. Applied Biochemistry and Biotechnology, 2006, 130, 496-508.	1.4	260
102	Ethanol Production From Pretreated Olive Tree Wood and Sunflower Stalks by an SSF Process. Applied Biochemistry and Biotechnology, 2006, 130, 631-643.	1.4	59
103	Inulin-Containing Biomass for Ethanol Production <i>Carbohydrate Extraction and Ethanol Fermentation</i>. Applied Biochemistry and Biotechnology, 2006, 132, 922-932.	1.4	39
104	Effects of acetic acid, furfural and catechol combinations on ethanol fermentation of Kluyveromyces marxianus. Process Biochemistry, 2006, 41, 1223-1228.	1.8	56
105	Effect of Binary Combinations of Selected Toxic Compounds on Growth and Fermentation of Kluyveromyces marxianus. Biotechnology Progress, 2004, 20, 715-720.	1.3	49
106	Ethanol from lignocellulosic materials by a simultaneous saccharification and fermentation process (SFS) with Kluyveromyces marxianus CECT 10875. Process Biochemistry, 2004, 39, 1843-1848.	1.8	434
107	Effect of Lignocellulosic Degradation Compounds from Steam Explosion Pretreatment on Ethanol Fermentation by Thermotolerant Yeast Kluyveromyces marxianus. Applied Biochemistry and Biotechnology, 2003, 105, 141-154.	1.4	118
108	Hydrothermal Pretreatment Conditions to Enhance Ethanol Production from Poplar Biomass. Applied Biochemistry and Biotechnology, 2003, 105, 87-100.	1.4	152

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109	Changes in various physical/chemical parameters of Pinus pinaster wood after steam explosion pretreatment. Biomass and Bioenergy, 2003, 25, 301-308.	2.9	150
110	Enzymic hydrolysis of steam exploded herbaceous agricultural waste (Brassica carinata) at different particule sizes. Process Biochemistry, 2002, 38, 187-192.	1.8	138
111	Title is missing!. World Journal of Microbiology and Biotechnology, 2002, 18, 559-561.	1.7	67
112	Ethanol Production from Olive Oil Extraction Residue Pretreated with Hot Water. Applied Biochemistry and Biotechnology, 2002, 98-100, 717-732.	1.4	43
113	Simultaneous saccharification and fermentation process for converting the cellulosic fraction of olive oil extraction residue into ethanol.. Grasas Y Aceites, 2002, 53, .	0.3	4
114	Ethanol Production from Lignocellulosic Byproducts of Olive Oil Extraction. Applied Biochemistry and Biotechnology, 2001, 91-93, 237-252.	1.4	56
115	Effect of media supplementation on ethanol production by simultaneous saccharification and fermentation process. Applied Biochemistry and Biotechnology, 1994, 45-46, 283-294.	1.4	11
116	Optimization of the simultaneous saccharification and fermentation process using thermotolerant yeasts. Applied Biochemistry and Biotechnology, 1993, 39-40, 201-211.	1.4	36
117	Selection of thermotolerant yeasts for simultaneous saccharification and fermentation (SSF) of cellulose to ethanol. Applied Biochemistry and Biotechnology, 1991, 28-29, 307-315.	1.4	84