

William O S Doherty

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

124 papers	4,529 citations	30 h-index	65 g-index
131 ext. papers	5,150 ext. citations	5.9 avg, IF	5.98 L-index

#	Paper	IF	Citations
124	Value-adding to cellulosic ethanol: Lignin polymers. <i>Industrial Crops and Products</i> , 2011 , 33, 259-276	5.9	658
123	The conversion of lignocellulosics to levulinic acid. <i>Biofuels, Bioproducts and Biorefining</i> , 2011 , 5, 198-214	5.3	455
122	Extraction of lignin from lignocellulose at atmospheric pressure using alkylbenzenesulfonate ionic liquid. <i>Green Chemistry</i> , 2009 , 11, 339	10	355
121	Organosolv pretreatment of plant biomass for enhanced enzymatic saccharification. <i>Green Chemistry</i> , 2016 , 18, 360-381	10	222
120	Chemical and thermal properties of fractionated bagasse soda lignin. <i>Industrial Crops and Products</i> , 2010 , 31, 52-58	5.9	159
119	Congo Red adsorption by ball-milled sugarcane bagasse. <i>Chemical Engineering Journal</i> , 2011 , 178, 122-128	4.7	153
118	Formation, characteristics, and applications of environmentally persistent free radicals in biochars: A review. <i>Bioresource Technology</i> , 2019 , 281, 457-468	11	142
117	Comparative study on adsorption of two cationic dyes by milled sugarcane bagasse. <i>Industrial Crops and Products</i> , 2013 , 42, 41-49	5.9	129
116	Thermal stability and miscibility of poly(hydroxybutyrate) and soda lignin blends. <i>Industrial Crops and Products</i> , 2010 , 32, 656-661	5.9	104
115	Developing lignin-based resin coatings and composites. <i>Industrial Crops and Products</i> , 2008 , 27, 163-167	5.9	98
114	Pretreatment of sugarcane bagasse by acid-catalysed process in aqueous ionic liquid solutions. <i>Bioresource Technology</i> , 2012 , 120, 149-56	11	96
113	The outlook of the production of advanced fuels and chemicals from integrated oil palm biomass biorefinery. <i>Renewable and Sustainable Energy Reviews</i> , 2019 , 109, 386-411	16.2	83
112	Thermophysical properties and rheology of PHB/lignin blends. <i>Industrial Crops and Products</i> , 2013 , 50, 270-275	5.9	74
111	Methanesulfonic acid-catalyzed conversion of glucose and xylose mixtures to levulinic acid and furfural. <i>Industrial Crops and Products</i> , 2014 , 52, 46-57	5.9	72
110	Environmental degradation of lignin/poly(hydroxybutyrate) blends. <i>Polymer Degradation and Stability</i> , 2012 , 97, 1114-1122	4.7	69
109	Characterisation of lignins isolated from sugarcane bagasse pretreated with acidified ethylene glycol and ionic liquids. <i>Biomass and Bioenergy</i> , 2014 , 70, 498-512	5.3	59
108	Preparation and characterisation of composites from starch and sugar cane fibre. <i>Industrial Crops and Products</i> , 2012 , 40, 45-54	5.9	56

107	Structural Characteristics of Bagasse Furfural Residue and Its Lignin Component. An NMR, Py-GC/MS, and FTIR Study. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 4846-4855	8.3	55
106	Laboratory and pilot scale pretreatment of sugarcane bagasse by acidified aqueous glycerol solutions. <i>Bioresource Technology</i> , 2013 , 138, 14-21	11	54
105	Studies on polymers and composites from lignin and fiber derived from sugar cane. <i>Polymers for Advanced Technologies</i> , 2007 , 18, 673-678	3.2	49
104	Pilot-scale cellulosic ethanol production using eucalyptus biomass pre-treated by dilute acid and steam explosion. <i>Biofuels, Bioproducts and Biorefining</i> , 2016 , 10, 346-358	5.3	45
103	Effects of pH on pretreatment of sugarcane bagasse using aqueous imidazolium ionic liquids. <i>Green Chemistry</i> , 2013 , 15, 431-438	10	42
102	A multi-criteria analysis approach for ranking and selection of microorganisms for the production of oils for biodiesel production. <i>Bioresource Technology</i> , 2015 , 190, 264-73	11	36
101	Conversion of Sugar Cane Molasses to 5-Hydroxymethylfurfural Using Molasses and Bagasse-Derived Catalysts. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 4531-4538	8.3	36
100	Pretreatment of sugarcane bagasse by acidified aqueous polyol solutions. <i>Cellulose</i> , 2013 , 20, 3179-3190	5.5	36
99	Inhibition of homogenous formation of calcium carbonate by poly (acrylic acid). The effect of molar mass and end-group functionality. <i>Desalination</i> , 2014 , 338, 93-105	10.3	35
98	Effect of pretreatment on saccharification of sugarcane bagasse by complex and simple enzyme mixtures. <i>Bioresource Technology</i> , 2013 , 148, 105-13	11	35
97	Effects of glycerol on enzymatic hydrolysis and ethanol production using sugarcane bagasse pretreated by acidified glycerol solution. <i>Bioresource Technology</i> , 2015 , 192, 367-73	11	34
96	Glycerol carbonate as green solvent for pretreatment of sugarcane bagasse. <i>Biotechnology for Biofuels</i> , 2013 , 6, 153	7.8	33
95	Inhibition of calcium oxalate monohydrate by poly(acrylic acid)s with different end groups. <i>Journal of Applied Polymer Science</i> , 2004 , 91, 2035-2041	2.9	33
94	Structural Changes of Sugar Cane Bagasse Lignin during Cellulosic Ethanol Production Process. <i>ACS Sustainable Chemistry and Engineering</i> , 2016 , 4, 5483-5494	8.3	28
93	Mechanisms, thermodynamics and kinetics of composite fouling of calcium oxalate and amorphous silica in sugar mill evaporators: A preliminary study. <i>Chemical Engineering Science</i> , 2002 , 57, 1969-1978	4.4	28
92	Lignin Depolymerization to Dicarboxylic Acids with Sodium Percarbonate. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 6253-6260	8.3	27
91	Catalytic Conversion of Organosolv Lignins to Phenolic Monomers in Different Organic Solvents and Effect of Operating Conditions on Yield with Methyl Isobutyl Ketone. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 3010-3018	8.3	27
90	Insights into Bridging Flocculation. <i>Macromolecular Symposia</i> , 2005 , 231, 1-10	0.8	27

89	The effects of silica and sugar on the crystallographic and morphological properties of calcium oxalate. <i>Journal of Crystal Growth</i> , 2004 , 265, 592-603	1.6	26
88	The prospect of microbial oil production and applications from oil palm biomass. <i>Biochemical Engineering Journal</i> , 2019 , 143, 9-23	4.2	26
87	Effect of Calcium and Magnesium Ions on Calcium Oxalate Formation in Sugar Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 642-647	3.9	25
86	The effect of pretreatment on methanesulfonic acid-catalyzed hydrolysis of bagasse to levulinic acid, formic acid, and furfural. <i>RSC Advances</i> , 2016 , 6, 74525-74535	3.7	25
85	Preparation and characterization of composites from starch with sugarcane bagasse nanofibres. <i>Cellulose</i> , 2014 , 21, 2695-2712	5.5	24
84	The combination of plant-expressed cellobiohydrolase and low dosages of cellulases for the hydrolysis of sugar cane bagasse. <i>Biotechnology for Biofuels</i> , 2014 , 7, 131	7.8	24
83	Evaluation of oil production from oil palm empty fruit bunch by oleaginous micro-organisms. <i>Biofuels, Bioproducts and Biorefining</i> , 2016 , 10, 378-392	5.3	23
82	Low temperature pretreatment of sugarcane bagasse at atmospheric pressure using mixtures of ethylene carbonate and ethylene glycol. <i>Green Chemistry</i> , 2013 , 15, 255-264	10	23
81	Improved sugar cane juice clarification by understanding calcium oxide-phosphate-sucrose systems. <i>Journal of Agricultural and Food Chemistry</i> , 2011 , 59, 1829-36	5.7	23
80	The preparation of calcium oxalate dihydrate crystals. <i>Crystal Research and Technology</i> , 1994 , 29, 517-524	4.3	23
79	Supercritical Carbon Dioxide Separation of Carboxylic Acids and Phenolics from Bio-Oil of Lignocellulosic Origin: Understanding Bio-Oil Compositions, Compound Solubilities, and Their Fractionation. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 3129-3144	3.9	22
78	Pretreatment and fermentation of lignocellulosic biomass: reaction mechanisms and process engineering. <i>Reaction Chemistry and Engineering</i> , 2020 , 5, 2017-2047	4.9	22
77	Insights to the clarification of sugar cane juice expressed from sugar cane stalk and trash. <i>Journal of Agricultural and Food Chemistry</i> , 2012 , 60, 2916-23	5.7	20
76	Effect of thermohydraulic conditions on fouling of calcium oxalate and silica. <i>AIChE Journal</i> , 2005 , 51, 641-648	3.6	20
75	Ceramic membrane filtration of factory sugarcane juice: Effect of pretreatment on permeate flux, juice quality and fouling. <i>Journal of Food Engineering</i> , 2019 , 243, 101-113	6	20
74	Influence of the Type of Coarse Lightweight Aggregate on Properties of Semilightweight Self-Consolidating Concrete. <i>Journal of Materials in Civil Engineering</i> , 2012 , 24, 1474-1483	3	19
73	Improved microbial oil production from oil palm empty fruit bunch by <i>Mucor plumbeus</i> . <i>Fuel</i> , 2017 , 194, 180-187	7.1	18
72	High-Performance Plasma-Enabled Biorefining of Microalgae to Value-Added Products. <i>ChemSusChem</i> , 2019 , 12, 4976-4985	8.3	18

71	Composite Fouling of Calcium Oxalate and Amorphous Silica in Sugar Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2003 , 42, 904-910	3.9	18
70	Valorization of native sugarcane bagasse lignin to bio-aromatic esters/monomers via a one pot oxidationHydrogenation process. <i>Green Chemistry</i> , 2019 , 21, 861-873	10	17
69	Effect of poly(acrylic acid) molecular mass and end-group functionality on calcium oxalate crystal morphology and growth. <i>Journal of Applied Polymer Science</i> , 2010 , 115, 2127-2135	2.9	17
68	Flocculation and sedimentation of cane sugar juice particles with cationic homo- and copolymers. <i>Journal of Applied Polymer Science</i> , 2003 , 90, 316-325	2.9	16
67	Heterogeneous Catalytic Conversion of Sugars Into 2,5-Furandicarboxylic Acid. <i>Frontiers in Chemistry</i> , 2020 , 8, 659	5	16
66	Simultaneous Saccharification and Fermentation of Pretreated Eucalyptus grandis Under High Solids Loading. <i>Industrial Biotechnology</i> , 2017 , 13, 131-140	1.3	15
65	Effects of mesostructured silica catalysts on the depolymerization of organosolv lignin fractionated from woody eucalyptus. <i>Bioresource Technology</i> , 2015 , 180, 222-9	11	15
64	Assessing dilute acid pretreatment of different lignocellulosic biomasses for enhanced sugar production. <i>Cellulose</i> , 2016 , 23, 3771-3783	5.5	14
63	Inhibition by Poly(acrylic acid) and Morphological Changes in Calcium Carbonate and Calcium Carbonate/Calcium Sulfate Crystallization on Silica Fibers. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 8793-8803	3.9	14
62	Characterization of sugar juice heat exchanger tube deposit. <i>Surface and Interface Analysis</i> , 2011 , 43, 1231-1239	1.5	14
61	The Effects of Polymeric Additives on the Crystallization of Compounds Found in the Evaporator Scales of Australian Sugar Mills (I), Compositions of the Scale Deposits. <i>Crystal Research and Technology</i> , 1993 , 28, 603-613	1.3	14
60	Sustainable conversion of cellulosic biomass to chemicals under visible-light irradiation. <i>RSC Advances</i> , 2015 , 5, 85242-85247	3.7	13
59	Effects of an alkali-acid purification process on the characteristics of eucalyptus lignin fractionated from a MIBK-based organosolv process. <i>RSC Advances</i> , 2016 , 6, 92638-92647	3.7	13
58	Thermal extrusion of starch film with alcohol. <i>Journal of Food Engineering</i> , 2016 , 170, 92-99	6	12
57	Calcium phosphate flocs and the clarification of sugar cane juice from whole of crop harvesting. <i>Journal of Agricultural and Food Chemistry</i> , 2015 , 63, 1573-81	5.7	12
56	Degradation of hydroxycinnamic acid mixtures in aqueous sucrose solutions by the Fenton process. <i>Journal of Agricultural and Food Chemistry</i> , 2015 , 63, 1582-92	5.7	12
55	The Chemistry of Acid Catalyzed Delignification of Sugarcane Bagasse in the Ionic Liquid Trihexyl Tetradecyl Phosphonium Chloride. <i>Journal of Wood Chemistry and Technology</i> , 2012 , 32, 71-81	2	12
54	Aspects of the kinetics and solubility of silica and calcium oxalate composites in sugar solutions. <i>Journal of Food Engineering</i> , 2013 , 117, 291-298	6	11

53	Deposition of hydroxyapatite and calcium oxalate dihydrate on a heat exchanger tube. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2011 , 6, 921-932	1.3	11
52	Thermal Decomposition of Bagasse: Effect of Different Sugar Cane Cultivars. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 791-798	3.9	11
51	Nutritional and antioxidant properties of non-centrifugal cane sugar derived from membrane clarified juice. <i>LWT - Food Science and Technology</i> , 2020 , 131, 109717	5.4	10
50	Understanding flocculation properties of soil impurities present in the factory sugarcane supply. <i>Journal of Food Engineering</i> , 2016 , 189, 55-63	6	10
49	A low-cost, portable optical sensing system with wireless communication compatible of real-time and remote detection of dissolved ammonia. <i>Photonic Sensors</i> , 2016 , 6, 107-114	2.3	10
48	ATR-FTIR Measurement of Biomass Components in Phosphonium Ionic Liquids. <i>Journal of Wood Chemistry and Technology</i> , 2012 , 32, 175-186	2	10
47	Pressure Filtration of Australian Bagasse Pulp. <i>Transport in Porous Media</i> , 2011 , 86, 737-751	3.1	10
46	Calcium oxalate crystallization in silica and sugar solutions-characterization of crystal phases and habits. <i>Powder Technology</i> , 2005 , 160, 2-6	5.2	10
45	Combined Fenton Oxidation and Chemical Coagulation for the Treatment of Melanoidin/Phenolic Acid Mixtures and Sugar Juice. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 1385-1393	3.9	9
44	Relating Dicarboxylic Acid Yield to Residual Lignin Structural Features. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 11695-11705	8.3	8
43	Effect of pretreatment on the formation of 5-chloromethyl furfural derived from sugarcane bagasse. <i>RSC Advances</i> , 2016 , 6, 5240-5248	3.7	8
42	Assessment of an Intrinsic Optical Fiber Sensor for In Situ Monitoring of Scale-Forming Salts. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 1066-1070	3.9	8
41	Light scattering study on the size and structure of calcium phosphate/hydroxyapatite flocs formed in sugar solutions. <i>Journal of Colloid and Interface Science</i> , 2007 , 306, 66-71	9.3	8
40	Polymeric Additives Effect on Crystallization of Calcium Oxalate Scales. <i>Crystal Research and Technology</i> , 1995 , 30, 791-800	1.3	8
39	Effect of HCOOK/Ethanol on Fe/HUSY, Ni/HUSY, and Ni-Fe/HUSY Catalysts on Lignin Depolymerization to Benzyl Alcohols and Bioaromatics. <i>ACS Omega</i> , 2019 , 4, 16980-16993	3.9	7
38	Extraction and Purification of Renewable Chemicals from Hydrothermal Liquefaction Bio-oil Using Supercritical Carbon Dioxide: A Techno-economic Evaluation. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 5202-5214	3.9	7
37	Optimisation of process parameters for the degradation of caffeic acid in sugar solutions. <i>International Journal of Food Science and Technology</i> , 2012 , 47, 2477-2486	3.8	7
36	Modeling of calcium oxalate and amorphous silica composite fouling. <i>AIChE Journal</i> , 2005 , 51, 1214-1220	9.6	7

35	Gold-Carbon Nanocomposites for Environmental Contaminant Sensing. <i>Micromachines</i> , 2021 , 12, 3-3	7
34	Starch composites with aconitic acid. <i>Carbohydrate Polymers</i> , 2016 , 141, 60-7	10.3 6
33	Flow boiling heat transfer of water and sugar solutions in an annulus. <i>AIChE Journal</i> , 2004 , 50, 1119-1128	6
32	Integration of Salt-Induced Phase Separation with Organosolv Pretreatment for Clean Fractionation of Lignocellulosic Biomass. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 5284-5292	8.3 5
31	Modeling the co-precipitation of silica and calcium oxalate in sugar solutions. <i>Journal of Food Engineering</i> , 2014 , 121, 166-173	6 4
30	The effect of cleaning agents on the structural features of heat exchanger deposits from sugar factories. <i>Journal of Food Engineering</i> , 2018 , 226, 65-72	6 3
29	Compositional and structural changes of sugarcane evaporator deposits after concentrated sodium hydroxide treatment. <i>Journal of Food Engineering</i> , 2017 , 214, 1-9	6 3
28	Co- and Ca-phosphate-based catalysts for the depolymerization of organosolv eucalyptus lignin. <i>RSC Advances</i> , 2015 , 5, 45618-45621	3.7 3
27	Environmentally friendly acetic acid/steam explosion/supercritical carbon dioxide system for the pre-treatment of wheat straw. <i>Environmental Science and Pollution Research</i> , 2021 , 28, 37867-37881	5.1 3
26	A systematic evaluation of biomethane production from sugarcane trash pretreated by different methods. <i>Bioresource Technology</i> , 2021 , 319, 124137	11 3
25	Sugar and value-added products derived from retentate concentrate of sugarcane juice. <i>Journal of Cleaner Production</i> , 2021 , 278, 123915	10.3 3
24	Solvolysis of Sugarcane Bagasse: Strategy To Increase the Yields of Secondary Fuel Precursors. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 17736-17745	3.9 2
23	Fenton oxidation products derived from hydroxycinnamic acids increases phenolic-based compounds and organic acid formation in sugar processing. <i>International Journal of Food Science and Technology</i> , 2018 , 53, 1278-1286	3.8 2
22	Degradation of phenethoxybenzene in sodium hydroxide. <i>RSC Advances</i> , 2016 , 6, 57889-57901	3.7 2
21	Fuels and Chemicals from Lignocellulosic Biomass 2013 , 435-455	2
20	Effect of poly(acrylic acid) end-group functionality on inhibition of calcium oxalate crystal growth. <i>Journal of Applied Polymer Science</i> , 2009 , 116, n/a-n/a	2.9 2
19	Elucidation of Thermal Degradation Model for Low and High Density Polyethylene by Statistical Parameters. <i>ChemistrySelect</i> , 2020 , 5, 14153-14160	1.8 2
18	One step liquefaction of hardwood lignin to oligomers soluble in polymerizable solvents. <i>Industrial Crops and Products</i> , 2021 , 162, 113259	5.9 2

17	Conversion of pilot plant derived 2G ethanol cellulosic stillage to value-added chemicals. <i>Industrial Crops and Products</i> , 2021 , 171, 113839	5.9	2
16	Understanding the pathways for irreversible aggregate clusters formation in concentrated sugarcane juice derived from the membrane clarification process. <i>LWT - Food Science and Technology</i> , 2021 , 151, 112204	5.4	2
15	Conversion of sugarcane carbohydrates into platform chemicals 2016 , 207-236		1
14	The influence of impurities on calcium phosphate floc structure and size in sugar solutions. <i>Journal of Food Engineering</i> , 2016 , 181, 20-27	6	1
13	Analytical Techniques to Characterize Scales and Deposits 2015 , 681-699		1
12	Lignocellulosics as a Renewable Feedstock for Chemical Industry: Chemical Hydrolysis and Pretreatment Processes 2012 , 505-560		1
11	Exploring the potential for biomethane production by the hybrid anaerobic digestion and hydrothermal gasification process: A review. <i>Journal of Cleaner Production</i> , 2022 , 362, 132507	10.3	1
10	Solubility of benzyl alcohol in supercritical carbon dioxide, comparison of literature data and thermodynamic modelling. <i>Chemical Engineering and Processing: Process Intensification</i> , 2020 , 151, 107907	3.7	0
9	Closing the loop: Valorizing pyrolyzed waste tyre residue into functional carbon materials, SiO with exceptionally high silanol groups, and Zn salt.. <i>Waste Management</i> , 2022 , 140, 110-120	8.6	0
8	Hydrothermal liquefaction of sugarcane bagasse to bio-oils: Effect of liquefaction solvents on bio-oil stability. <i>Fuel</i> , 2022 , 312, 122793	7.1	0
7	Transforming Cotton Gin Trash to Engineered Functional Carbon Structures. <i>Advanced Sustainable Systems</i> , 2021 , 5, 2100061	5.9	0
6	Effects of pretreatment methods on biomethane production kinetics and microbial community by solid state anaerobic digestion of sugarcane trash.. <i>Bioresource Technology</i> , 2022 , 352, 127112	11	0
5	Cotton farming sustainability: Formation of trans-isoeugenol/ bio-aromatics, 5-chloromethylfurfural, C13-17 liquid hydrocarbons & fertilizer from cotton gin trash. <i>Journal of Cleaner Production</i> , 2022 , 363, 132404	10.3	0
4	Scale in Sugar Juice Evaporators 2015 , 619-637		
3	Slow settling behaviour of soil nano-particles in water and synthetic sugarcane juice solutions. <i>Journal of Food Engineering</i> , 2020 , 279, 109978	6	
2	Lignocellulosics as a Renewable Feedstock for Chemical Industry: Chemicals from Lignin 2012 , 561-610		
1	Investigation on the effect of the heating surface temperature of 1st evaporator on sucrose loss and the degradation of sugarcane juice constituents. <i>Journal of Food Engineering</i> , 2022 , 329, 111074	6	