

# Anthony V Bridgwater

## List of Publications by Year in Descending Order

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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.

111  
papers

17,979  
citations

51  
h-index

112  
g-index

112  
ext. papers

19,655  
ext. citations

6.6  
avg, IF

7.55  
L-index

#	Paper	IF	Citations
111	Poplar wood torrefaction: Kinetics, thermochemistry and implications. <i>Renewable and Sustainable Energy Reviews</i> , <b>2021</b> , 143, 110962	16.2	5
110	Mini-Review on Hot Gas Filtration in Biomass Gasification: Focusing on Ceramic Filter Candles. <i>Energy &amp; Fuels</i> , <b>2021</b> , 35, 11800-11819	4.1	4
109	The mechanism of hydrogen donation by bio-acids over metal supported on nitrogen-doped carbon nanotubes. <i>Molecular Catalysis</i> , <b>2021</b> , 499, 111289	3.3	
108	A predictive PBM-DEAM model for lignocellulosic biomass pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2021</b> , 157, 105231	6	1
107	CO <sub>2</sub> adsorption on Miscanthus Giganteus (MG) chars prepared in different atmospheres. <i>Journal of CO<sub>2</sub> Utilization</i> , <b>2021</b> , 52, 101670	7.6	1
106	Energy recovery by fast pyrolysis of pre-treated trommel fines derived from a UK-based MSW material recycling facility. <i>Journal of the Energy Institute</i> , <b>2020</b> , 93, 2006-2016	5.7	4
105	Steam gasification of Miscanthus derived char: the reaction kinetics and reactivity with correlation to the material composition and microstructure. <i>Energy Conversion and Management</i> , <b>2020</b> , 219, 113026	10.6	16
104	Co-pyrolysis of Miscanthus Sacchariflorus and coals: A systematic study on the synergies in thermal decomposition, kinetics and vapour phase products. <i>Fuel</i> , <b>2020</b> , 262, 116603	7.1	34
103	Fast Pyrolysis of Hemicelluloses into Short-Chain Acids: An Investigation on Concerted Mechanisms. <i>Energy &amp; Fuels</i> , <b>2020</b> , 34, 14232-14248	4.1	2
102	Kinetic modelling of hydrogen transfer deoxygenation of a prototypical fatty acid over a bimetallic Pd <sub>60</sub> Cu <sub>40</sub> catalyst: an investigation of the surface reaction mechanism and rate limiting step. <i>Reaction Chemistry and Engineering</i> , <b>2020</b> , 5, 1682-1693	4.9	4
101	Monometallic and bimetallic catalysts based on Pd, Cu and Ni for hydrogen transfer deoxygenation of a prototypical fatty acid to diesel range hydrocarbons. <i>Catalysis Today</i> , <b>2020</b> , 355, 882-892	5.3	17
100	Influence of Moisture Contents on the Fast Pyrolysis of Trommel Fines in a Bubbling Fluidized Bed Reactor. <i>Waste and Biomass Valorization</i> , <b>2020</b> , 11, 3711-3722	3.2	13
99	Hydrogen donation of bio-acids over transition metal facets: A density functional theory study. <i>Applied Catalysis A: General</i> , <b>2019</b> , 586, 117218	5.1	3
98	Fast pyrolysis of date palm ( <i>Phoenix dactylifera</i> ) waste in a bubbling fluidized bed reactor. <i>Renewable Energy</i> , <b>2019</b> , 143, 719-730	8.1	28
97	Pyrolysis of Solid Biomass: Basics, Processes and Products <b>2019</b> , 1221-1250		1
96	A comparative techno-economic assessment of three bio-oil upgrading routes for aviation biofuel production. <i>International Journal of Energy Research</i> , <b>2019</b> , 43, 7206	4.5	4
95	In-situ hydrogen generation from 1,2,3,4-tetrahydronaphthalene for catalytic conversion of oleic acid to diesel fuel hydrocarbons: Parametric studies using Response Surface Methodology approach. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 20678-20689	6.7	11

94	The role of catalyst acidity and shape selectivity on products from the catalytic fast pyrolysis of beech wood. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2019</b> , 162, 104710	6	8
93	The catalytic cracking of sterically challenging plastic feedstocks over high acid density Al-SBA-15 catalysts. <i>Applied Catalysis A: General</i> , <b>2019</b> , 570, 218-227	5.1	31
92	Reaction chemistry and kinetics of corn stalk pyrolysis without and with Ga/HZSM-5. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2019</b> , 137, 491-500	4.1	8
91	Local Sensitivity Analysis of Kinetic Models for Cellulose Pyrolysis. <i>Waste and Biomass Valorization</i> , <b>2019</b> , 10, 975-984	3.2	4
90	Slow pyrolysis of organic fraction of municipal solid waste (OFMSW): Characterisation of products and screening of the aqueous liquid product for anaerobic digestion. <i>Applied Energy</i> , <b>2018</b> , 213, 158-168	10.7	58
89	Effect of temperature on product performance of a high ash biomass during fast pyrolysis and its bio-oil storage evaluation. <i>Fuel Processing Technology</i> , <b>2018</b> , 172, 97-105	7.2	49
88	Techno-economic and uncertainty analysis of Biomass to Liquid (BTL) systems for transport fuel production. <i>Renewable and Sustainable Energy Reviews</i> , <b>2018</b> , 88, 160-175	16.2	81
87	Intermediate pyrolysis of organic fraction of municipal solid waste and rheological study of the pyrolysis oil for potential use as bio-bitumen. <i>Journal of Cleaner Production</i> , <b>2018</b> , 187, 390-399	10.3	47
86	Comparative Study on Catalytic and Non-Catalytic Pyrolysis of Olive Mill Solid Wastes. <i>Waste and Biomass Valorization</i> , <b>2018</b> , 9, 301-313	3.2	10
85	Processing thermogravimetric analysis data for isoconversional kinetic analysis of lignocellulosic biomass pyrolysis: Case study of corn stalk. <i>Renewable and Sustainable Energy Reviews</i> , <b>2018</b> , 82, 2705-2715	16.2	155
84	Challenges and Opportunities in Fast Pyrolysis of Biomass: Part I. <i>Johnson Matthey Technology Review</i> , <b>2018</b> , 62, 118-130	2.5	45
83	A techno-economic analysis of energy recovery from organic fraction of municipal solid waste (MSW) by an integrated intermediate pyrolysis and combined heat and power (CHP) plant. <i>Energy Conversion and Management</i> , <b>2018</b> , 174, 406-416	10.6	51
82	Challenges and Opportunities in Fast Pyrolysis of Biomass: Part II. <i>Johnson Matthey Technology Review</i> , <b>2018</b> , 62, 150-160	2.5	24
81	Theoretical Analysis of Double Logistic Distributed Activation Energy Model for Thermal Decomposition Kinetics of Solid Fuels. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2018</b> , 57, 7817-7825	3.9	15
80	CFD and experimental studies on a circulating fluidised bed reactor for biomass gasification. <i>Chemical Engineering and Processing: Process Intensification</i> , <b>2018</b> , 130, 284-295	3.7	22
79	Drying Kinetic Analysis of Municipal Solid Waste Using Modified Page Model and Pattern Search Method. <i>Waste and Biomass Valorization</i> , <b>2017</b> , 8, 301-312	3.2	10
78	Combined heat and power from the intermediate pyrolysis of biomass materials: performance, economics and environmental impact. <i>Applied Energy</i> , <b>2017</b> , 191, 639-652	10.7	52
77	Slice-Selective NMR: A Noninvasive Method for the Analysis of Separated Pyrolysis Fuel Samples. <i>Energy &amp; Fuels</i> , <b>2017</b> , 31, 4135-4142	4.1	4

76	Results of the International Energy Agency Round Robin on Fast Pyrolysis Bio-oil Production. <i>Energy &amp; Fuels</i> , <b>2017</b> , 31, 5111-5119	4.1	40
75	Review of physicochemical properties and analytical characterization of lignocellulosic biomass. <i>Renewable and Sustainable Energy Reviews</i> , <b>2017</b> , 76, 309-322	16.2	280
74	A kinetic reaction model for biomass pyrolysis processes in Aspen Plus. <i>Applied Energy</i> , <b>2017</b> , 188, 595-603.	3.7	50
73	Physical pretreatment of biogenic-rich trommel fines for fast pyrolysis. <i>Waste Management</i> , <b>2017</b> , 70, 81-90	8.6	9
72	Quantitative Insights into the Fast Pyrolysis of Extracted Cellulose, Hemicelluloses, and Lignin. <i>ChemSusChem</i> , <b>2017</b> , 10, 3212-3224	8.3	40
71	Pyrolysis of Rice Husk and Corn Stalk in Auger Reactor. 1. Characterization of Char and Gas at Various Temperatures. <i>Energy &amp; Fuels</i> , <b>2016</b> , 30, 10568-10574	4.1	42
70	Impact of Potassium and Phosphorus in Biomass on the Properties of Fast Pyrolysis Bio-oil. <i>Energy &amp; Fuels</i> , <b>2016</b> , 30, 8009-8018	4.1	49
69	Viscosity of Aged Bio-oils from Fast Pyrolysis of Beech Wood and Miscanthus: Shear Rate and Temperature Dependence. <i>Energy &amp; Fuels</i> , <b>2016</b> , 30, 4999-5004	4.1	16
68	Using Apparent Activation Energy as a Reactivity Criterion for Biomass Pyrolysis. <i>Energy &amp; Fuels</i> , <b>2016</b> , 30, 7834-7841	4.1	50
67	Encapsulation of phase change materials using rice-husk-char. <i>Applied Energy</i> , <b>2016</b> , 182, 274-281	10.7	35
66	Kinetic study of the pyrolysis of miscanthus and its acid hydrolysis residue by thermogravimetric analysis. <i>Fuel Processing Technology</i> , <b>2015</b> , 138, 184-193	7.2	62
65	Biomass fast pyrolysis energy balance of a 1kg/h test rig <b>2015</b> , 18, 267		17
64	European biorefineries: Implications for land, trade and employment. <i>Environmental Science and Policy</i> , <b>2014</b> , 37, 255-265	6.2	12
63	Fast pyrolysis processing of surfactant washed Miscanthus. <i>Fuel Processing Technology</i> , <b>2014</b> , 128, 94-103.	3.2	33
62	Upgrading fast pyrolysis liquids: Blends of biodiesel and pyrolysis oil. <i>Fuel</i> , <b>2013</b> , 109, 417-426	7.1	41
61	State-of-the-art of fast pyrolysis in IEA bioenergy member countries. <i>Renewable and Sustainable Energy Reviews</i> , <b>2013</b> , 20, 619-641	16.2	223
60	A comparative study of straw, perennial grasses and hardwoods in terms of fast pyrolysis products. <i>Fuel</i> , <b>2013</b> , 108, 216-230	7.1	158
59	Thermochemical characterisation of straws and high yielding perennial grasses. <i>Industrial Crops and Products</i> , <b>2012</b> , 36, 449-459	5.9	64

58	Review of fast pyrolysis of biomass and product upgrading. <i>Biomass and Bioenergy</i> , <b>2012</b> , 38, 68-94	5.3	2917
57	Results of the IEA Round Robin on Viscosity and Aging of Fast Pyrolysis Bio-oils: Long-Term Tests and Repeatability. <i>Energy &amp; Fuels</i> , <b>2012</b> , 26, 7362-7366	4.1	49
56	Results of the IEA Round Robin on Viscosity and Stability of Fast Pyrolysis Bio-oils. <i>Energy &amp; Fuels</i> , <b>2012</b> , 26, 3769-3776	4.1	55
55	Upgrading biomass fast pyrolysis liquids. <i>Environmental Progress and Sustainable Energy</i> , <b>2012</b> , 31, 261-268		109
54	Sequential pyrolysis of willow SRC at low and high heating rates – Implications for selective pyrolysis. <i>Fuel</i> , <b>2012</b> , 93, 692-702	7.1	27
53	Upgrading Fast Pyrolysis Liquids <b>2011</b> , 157-199		17
52	Effect of the Temperature on the Composition of Lignin Pyrolysis Products. <i>Energy &amp; Fuels</i> , <b>2010</b> , 24, 4470-4475	4.1	226
51	Lignin fast pyrolysis: Results from an international collaboration. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2010</b> , 88, 53-72	6	309
50	Study on the pyrolytic behaviour of xylan-based hemicellulose using TGA-TIR and Py-GC-TIR. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2010</b> , 87, 199-206	6	371
49	Evaluation of catalytic pyrolysis of cassava rhizome by principal component analysis. <i>Fuel</i> , <b>2010</b> , 89, 244-253		107
48	Computational modelling of the impact of particle size to the heat transfer coefficient between biomass particles and a fluidised bed. <i>Fuel Processing Technology</i> , <b>2010</b> , 91, 68-79	7.2	66
47	A systematic study of the kinetics of lignin pyrolysis. <i>Thermochimica Acta</i> , <b>2010</b> , 498, 61-66	2.9	252
46	Genotypic and environmentally derived variation in the cell wall composition of Miscanthus in relation to its use as a biomass feedstock. <i>Biomass and Bioenergy</i> , <b>2010</b> , 34, 652-660	5.3	83
45	The thermal performance of the polysaccharides extracted from hardwood: Cellulose and hemicellulose. <i>Carbohydrate Polymers</i> , <b>2010</b> , 82, 39-45	10.3	208
44	Pilot-scale combustion of fast-pyrolysis bio-oil: Ash deposition and gaseous emissions. <i>Environmental Progress and Sustainable Energy</i> , <b>2009</b> , 28, 397-403	2.5	27
43	Measurement of key compositional parameters in two species of energy grass by Fourier transform infrared spectroscopy. <i>Bioresource Technology</i> , <b>2009</b> , 100, 6428-33	11	45
42	Kinetic study on thermal decomposition of woods in oxidative environment. <i>Fuel</i> , <b>2009</b> , 88, 1024-1030	7.1	204
41	Application of CFD to model fast pyrolysis of biomass. <i>Fuel Processing Technology</i> , <b>2009</b> , 90, 504-512	7.2	101

40	CFD modelling of the fast pyrolysis of biomass in fluidised bed reactors. Part B. <i>Chemical Engineering Science</i> , <b>2009</b> , 64, 1036-1045	4.4	122
39	Quantification of hydroxycinnamic acids and lignin in perennial forage and energy grasses by Fourier-transform infrared spectroscopy and partial least squares regression. <i>Bioresource Technology</i> , <b>2009</b> , 100, 1252-61	11	48
38	CFD modelling of the fast pyrolysis of biomass in fluidised bed reactors, Part A: Eulerian computation of momentum transport in bubbling fluidised beds. <i>Chemical Engineering Science</i> , <b>2008</b> , 63, 4218-4227	4.4	92
37	Fast pyrolysis of cassava rhizome in the presence of catalysts. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2008</b> , 81, 72-79	6	256
36	Production of renewable phenolic resins by thermochemical conversion of biomass: A review. <i>Renewable and Sustainable Energy Reviews</i> , <b>2008</b> , 12, 2092-2116	16.2	391
35	The effect of lignin and inorganic species in biomass on pyrolysis oil yields, quality and stability. <i>Fuel</i> , <b>2008</b> , 87, 1230-1240	7.1	415
34	Influence of particle size on the analytical and chemical properties of two energy crops. <i>Fuel</i> , <b>2007</b> , 86, 60-72	7.1	173
33	CFB air-blown flash pyrolysis. Part I: Engineering design and cold model performance. <i>Fuel</i> , <b>2007</b> , 86, 1372-1386	7.1	30
32	The effect of alkali metals on combustion and pyrolysis of Lolium and Festuca grasses, switchgrass and willow. <i>Fuel</i> , <b>2007</b> , 86, 1560-1569	7.1	299
31	Biodegradability of biomass pyrolysis oils: Comparison to conventional petroleum fuels and alternatives fuels in current use. <i>Fuel</i> , <b>2007</b> , 86, 2679-2686	7.1	58
30	Prediction of Klason lignin and lignin thermal degradation products by PyGC/MS in a collection of Lolium and Festuca grasses. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2007</b> , 80, 16-23	6	81
29	The production of biofuels and renewable chemicals by fast pyrolysis of biomass. <i>International Journal of Global Energy Issues</i> , <b>2007</b> , 27, 160	0.3	75
28	A comparison of fast and slow pyrolysis liquids from mallee. <i>International Journal of Global Energy Issues</i> , <b>2007</b> , 27, 204	0.3	34
27	Biomass for energy. <i>Journal of the Science of Food and Agriculture</i> , <b>2006</b> , 86, 1755-1768	4.3	195
26	Opportunities for biomass-derived Bio-oil in European heat and power markets. <i>Energy Policy</i> , <b>2006</b> , 34, 2871-2880	7.2	74
25	Pillared clays as catalysts for hydrocracking of heavy liquid fuels. <i>Applied Catalysis A: General</i> , <b>2005</b> , 282, 205-214	5.1	35
24	Overview of Applications of Biomass Fast Pyrolysis Oil. <i>Energy &amp; Fuels</i> , <b>2004</b> , 18, 590-598	4.1	2180
23	THE PRODUCTION OF BIOFUELS BY THE THERMOCHEMICAL PROCESSING OF BIOMASS. <i>Series on Photoconversion of Solar Energy</i> , <b>2004</b> , 521-611		11

22	Development of emulsions from biomass pyrolysis liquid and diesel and their use in engines Part 1 : emulsion production. <i>Biomass and Bioenergy</i> , <b>2003</b> , 25, 85-99	5.3	218
21	Development of emulsions from biomass pyrolysis liquid and diesel and their use in engines Part 2: tests in diesel engines. <i>Biomass and Bioenergy</i> , <b>2003</b> , 25, 101-111	5.3	163
20	The influence of feedstock drying on the performance and economics of a biomass gasifier CHP system. <i>Biomass and Bioenergy</i> , <b>2002</b> , 22, 271-281	5.3	67
19	A techno-economic comparison of power production by biomass fast pyrolysis with gasification and combustion. <i>Renewable and Sustainable Energy Reviews</i> , <b>2002</b> , 6, 181-246	16.2	391
18	Fast pyrolysis processes for biomass. <i>Renewable and Sustainable Energy Reviews</i> , <b>2000</b> , 4, 1-73	16.2	1258
17	Principles and practice of biomass fast pyrolysis processes for liquids. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>1999</b> , 51, 3-22	6	571
16	Drying technologies for an integrated gasification bio-energy plant. <i>Renewable and Sustainable Energy Reviews</i> , <b>1999</b> , 3, 243-289	16.2	70
15	An overview of fast pyrolysis of biomass. <i>Organic Geochemistry</i> , <b>1999</b> , 30, 1479-1493	3.1	1253
14	Fast pyrolysis of sweet sorghum and sweet sorghum bagasse. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>1998</b> , 46, 15-29	6	103
13	Production of high grade fuels and chemicals from catalytic pyrolysis of biomass. <i>Catalysis Today</i> , <b>1996</b> , 29, 285-295	5.3	284
12	Technoeconomic assessment of biomass to energy. <i>Biomass and Bioenergy</i> , <b>1995</b> , 9, 205-226	5.3	70
11	The technical and economic feasibility of biomass gasification for power generation. <i>Fuel</i> , <b>1995</b> , 74, 631-653	6.53	733
10	Techno-economic modelling of biomass flash pyrolysis and upgrading systems. <i>Biomass and Bioenergy</i> , <b>1994</b> , 7, 267-273	5.3	50
9	Catalysis in thermal biomass conversion. <i>Applied Catalysis A: General</i> , <b>1994</b> , 116, 5-47	5.1	349
8	Ablative plate pyrolysis of biomass for liquids. <i>Biomass and Bioenergy</i> , <b>1994</b> , 7, 147-154	5.3	63
7	Effect of reactor configuration on the yields and structures of pine-wood derived pyrolysis liquids: A comparison between ablative and wire-mesh pyrolysis. <i>Biomass and Bioenergy</i> , <b>1994</b> , 7, 155-167	5.3	32
6	Physical properties of flash pyrolysis liquids. <i>Biomass and Bioenergy</i> , <b>1994</b> , 7, 169-177	5.3	44
5	Opportunities for biomass pyrolysis liquids production and upgrading. <i>Energy &amp; Fuels</i> , <b>1992</b> , 6, 113-120	120	127

4	Assessment of liquefaction and pyrolysis systems. <i>Biomass and Bioenergy</i> , <b>1992</b> , 2, 279-297	5.3	35
3	Economics of liquid fuels production by coal gasification. <i>Fuel</i> , <b>1991</b> , 70, 1193-1207	7.1	11
2	Production costs of liquid fuels from biomass. <i>Fuel</i> , <b>1991</b> , 70, 1209-1224	7.1	28
1	Developments in direct thermochemical liquefaction of biomass: 1983-1990. <i>Energy &amp; Fuels</i> , <b>1991</b> , 5, 399-410	4.1	260