

# Anthony V Bridgwater

## List of Publications by Year in descending order

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110  
papers

21,561  
citations

22099

59  
h-index

24915

109  
g-index

112  
all docs

112  
docs citations

112  
times ranked

12669  
citing authors

#	ARTICLE	IF	CITATIONS
1	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> , 2022, 162, 104710.	2.6	16
2	The mechanism of hydrogen donation by bio-acids over metal supported on nitrogen-doped carbon nanotubes. <i>Molecular Catalysis</i> , 2021, 499, 111289.	1.0	0
3	Poplar wood torrefaction: Kinetics, thermochemistry and implications. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 143, 110962.	8.2	24
4	Mini-Review on Hot Gas Filtration in Biomass Gasification: Focusing on Ceramic Filter Candles. <i>Energy &amp; Fuels</i> , 2021, 35, 11800-11819.	2.5	14
5	A predictive PBM-DEAM model for lignocellulosic biomass pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 157, 105231.	2.6	6
6	CO <sub>2</sub> adsorption on <i>Miscanthus Æ— giganteus</i> (MG) chars prepared in different atmospheres. <i>Journal of CO<sub>2</sub> Utilization</i> , 2021, 52, 101670.	3.3	6
7	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> , 2020, 355, 882-892.	2.2	35
8	Influence of Moisture Contents on the Fast Pyrolysis of Trommel Fines in a Bubbling Fluidized Bed Reactor. <i>Waste and Biomass Valorization</i> , 2020, 11, 3711-3722.	1.8	35
9	Co-pyrolysis of <i>Miscanthus Sacchariflorus</i> and coals: A systematic study on the synergies in thermal decomposition, kinetics and vapour phase products. <i>Fuel</i> , 2020, 262, 116603.	3.4	55
10	Fast Pyrolysis of Hemicelluloses into Short-Chain Acids: An Investigation on Concerted Mechanisms. <i>Energy &amp; Fuels</i> , 2020, 34, 14232-14248.	2.5	7
11	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> , 2020, 5, 1682-1693.	1.9	7
12	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> , 2020, 93, 2006-2016.	2.7	6
13	Steam gasification of <i>Miscanthus</i> derived char: the reaction kinetics and reactivity with correlation to the material composition and microstructure. <i>Energy Conversion and Management</i> , 2020, 219, 113026.	4.4	41
14	Pyrolysis of Solid Biomass: Basics, Processes and Products. , 2019, , 1221-1250.		2
15	A comparative techno-economic assessment of three bio-oil upgrading routes for aviation biofuel production. <i>International Journal of Energy Research</i> , 2019, 43, 7206.	2.2	7
16	Hydrogen donation of bio-acids over transition metal facets: A density functional theory study. <i>Applied Catalysis A: General</i> , 2019, 586, 117218.	2.2	5
17	Fast pyrolysis of date palm ( <i>Phoenix dactylifera</i> ) waste in a bubbling fluidized bed reactor. <i>Renewable Energy</i> , 2019, 143, 719-730.	4.3	61
18	The catalytic cracking of sterically challenging plastic feedstocks over high acid density Al-SBA-15 catalysts. <i>Applied Catalysis A: General</i> , 2019, 570, 218-227.	2.2	59

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19	Reaction chemistry and kinetics of corn stalk pyrolysis without and with Ga/HZSM-5. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 137, 491-500.	2.0	10
20	Local Sensitivity Analysis of Kinetic Models for Cellulose Pyrolysis. <i>Waste and Biomass Valorization</i> , 2019, 10, 975-984.	1.8	5
21	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> , 2019, 44, 20678-20689.	3.8	16
22	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> , 2018, 213, 158-168.	5.1	72
23	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> , 2018, 172, 97-105.	3.7	69
24	Techno-economic and uncertainty analysis of Biomass to Liquid (BTL) systems for transport fuel production. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 88, 160-175.	8.2	130
25	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> , 2018, 187, 390-399.	4.6	64
26	Comparative Study on Catalytic and Non-Catalytic Pyrolysis of Olive Mill Solid Wastes. <i>Waste and Biomass Valorization</i> , 2018, 9, 301-313.	1.8	21
27	Processing thermogravimetric analysis data for isoconversional kinetic analysis of lignocellulosic biomass pyrolysis: Case study of corn stalk. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 82, 2705-2715.	8.2	254
28	Challenges and Opportunities in Fast Pyrolysis of Biomass: Part II. <i>Johnson Matthey Technology Review</i> , 2018, 62, 150-160.	0.5	35
29	Theoretical Analysis of Double Logistic Distributed Activation Energy Model for Thermal Decomposition Kinetics of Solid Fuels. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 7817-7825.	1.8	22
30	CFD and experimental studies on a circulating fluidised bed reactor for biomass gasification. <i>Chemical Engineering and Processing: Process Intensification</i> , 2018, 130, 284-295.	1.8	28
31	Challenges and Opportunities in Fast Pyrolysis of Biomass: Part I. <i>Johnson Matthey Technology Review</i> , 2018, 62, 118-130.	0.5	67
32	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> , 2018, 174, 406-416.	4.4	84
33	Drying Kinetic Analysis of Municipal Solid Waste Using Modified Page Model and Pattern Search Method. <i>Waste and Biomass Valorization</i> , 2017, 8, 301-312.	1.8	12
34	Combined heat and power from the intermediate pyrolysis of biomass materials: performance, economics and environmental impact. <i>Applied Energy</i> , 2017, 191, 639-652.	5.1	71
35	Slice-Selective NMR: A Noninvasive Method for the Analysis of Separated Pyrolysis Fuel Samples. <i>Energy &amp; Fuels</i> , 2017, 31, 4135-4142.	2.5	5
36	Results of the International Energy Agency Round Robin on Fast Pyrolysis Bio-oil Production. <i>Energy &amp; Fuels</i> , 2017, 31, 5111-5119.	2.5	47

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37	Review of physicochemical properties and analytical characterization of lignocellulosic biomass. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 76, 309-322.	8.2	448
38	A kinetic reaction model for biomass pyrolysis processes in Aspen Plus. <i>Applied Energy</i> , 2017, 188, 595-603.	5.1	87
39	Physical pretreatment of biogenic-rich trommel fines for fast pyrolysis. <i>Waste Management</i> , 2017, 70, 81-90.	3.7	9
40	Quantitative Insights into the Fast Pyrolysis of Extracted Cellulose, Hemicelluloses, and Lignin. <i>ChemSusChem</i> , 2017, 10, 3212-3224.	3.6	69
41	Encapsulation of phase change materials using rice-husk-char. <i>Applied Energy</i> , 2016, 182, 274-281.	5.1	49
42	Pyrolysis of Rice Husk and Corn Stalk in Auger Reactor. 1. Characterization of Char and Gas at Various Temperatures. <i>Energy &amp; Fuels</i> , 2016, 30, 10568-10574.	2.5	62
43	Impact of Potassium and Phosphorus in Biomass on the Properties of Fast Pyrolysis Bio-oil. <i>Energy &amp; Fuels</i> , 2016, 30, 8009-8018.	2.5	67
44	Viscosity of Aged Bio-oils from Fast Pyrolysis of Beech Wood and <i>Miscanthus</i> : Shear Rate and Temperature Dependence. <i>Energy &amp; Fuels</i> , 2016, 30, 4999-5004.	2.5	17
45	Using Apparent Activation Energy as a Reactivity Criterion for Biomass Pyrolysis. <i>Energy &amp; Fuels</i> , 2016, 30, 7834-7841.	2.5	73
46	Kinetic study of the pyrolysis of miscanthus and its acid hydrolysis residue by thermogravimetric analysis. <i>Fuel Processing Technology</i> , 2015, 138, 184-193.	3.7	81
47	Biomass fast pyrolysis energy balance of a 1kg/h test rig. <i>International Journal of Thermodynamics</i> , 2015, 18, 267.	0.4	24
48	European biorefineries: Implications for land, trade and employment. <i>Environmental Science and Policy</i> , 2014, 37, 255-265.	2.4	15
49	Fast pyrolysis processing of surfactant washed <i>Miscanthus</i> . <i>Fuel Processing Technology</i> , 2014, 128, 94-103.	3.7	38
50	Upgrading fast pyrolysis liquids: Blends of biodiesel and pyrolysis oil. <i>Fuel</i> , 2013, 109, 417-426.	3.4	49
51	State-of-the-art of fast pyrolysis in IEA bioenergy member countries. <i>Renewable and Sustainable Energy Reviews</i> , 2013, 20, 619-641.	8.2	257
52	A comparative study of straw, perennial grasses and hardwoods in terms of fast pyrolysis products. <i>Fuel</i> , 2013, 108, 216-230.	3.4	182
53	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> , 2012, 26, 7362-7366.	2.5	55
54	Results of the IEA Round Robin on Viscosity and Stability of Fast Pyrolysis Bio-oils. <i>Energy &amp; Fuels</i> , 2012, 26, 3769-3776.	2.5	65

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55	Upgrading biomass fast pyrolysis liquids. <i>Environmental Progress and Sustainable Energy</i> , 2012, 31, 261-268.	1.3	121
56	Sequential pyrolysis of willow SRC at low and high heating rates – Implications for selective pyrolysis. <i>Fuel</i> , 2012, 93, 692-702.	3.4	33
57	Thermochemical characterisation of straws and high yielding perennial grasses. <i>Industrial Crops and Products</i> , 2012, 36, 449-459.	2.5	81
58	Review of fast pyrolysis of biomass and product upgrading. <i>Biomass and Bioenergy</i> , 2012, 38, 68-94.	2.9	3,536
59	Lignin fast pyrolysis: Results from an international collaboration. <i>Journal of Analytical and Applied Pyrolysis</i> , 2010, 88, 53-72.	2.6	343
60	Study on the pyrolytic behaviour of xylan-based hemicellulose using TG-FTIR and Py-GC-FTIR. <i>Journal of Analytical and Applied Pyrolysis</i> , 2010, 87, 199-206.	2.6	445
61	Evaluation of catalytic pyrolysis of cassava rhizome by principal component analysis. <i>Fuel</i> , 2010, 89, 244-253.	3.4	115
62	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> , 2010, 91, 68-79.	3.7	73
63	A systematic study of the kinetics of lignin pyrolysis. <i>Thermochimica Acta</i> , 2010, 498, 61-66.	1.2	290
64	Genotypic and environmentally derived variation in the cell wall composition of <i>Miscanthus</i> in relation to its use as a biomass feedstock. <i>Biomass and Bioenergy</i> , 2010, 34, 652-660.	2.9	103
65	The thermal performance of the polysaccharides extracted from hardwood: Cellulose and hemicellulose. <i>Carbohydrate Polymers</i> , 2010, 82, 39-45.	5.1	253
66	Effect of the Temperature on the Composition of Lignin Pyrolysis Products. <i>Energy &amp; Fuels</i> , 2010, 24, 4470-4475.	2.5	274
67	Pilot-scale combustion of fast pyrolysis bio-oil: Ash deposition and gaseous emissions. <i>Environmental Progress and Sustainable Energy</i> , 2009, 28, 397-403.	1.3	30
68	Measurement of key compositional parameters in two species of energy grass by Fourier transform infrared spectroscopy. <i>Bioresource Technology</i> , 2009, 100, 6428-6433.	4.8	55
69	Kinetic study on thermal decomposition of woods in oxidative environment. <i>Fuel</i> , 2009, 88, 1024-1030.	3.4	248
70	Application of CFD to model fast pyrolysis of biomass. <i>Fuel Processing Technology</i> , 2009, 90, 504-512.	3.7	122
71	CFD modelling of the fast pyrolysis of biomass in fluidised bed reactors. Part B. <i>Chemical Engineering Science</i> , 2009, 64, 1036-1045.	1.9	134
72	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> , 2009, 100, 1252-1261.	4.8	53

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73	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> , 2008, 63, 4218-4227.	1.9	103
74	Fast pyrolysis of cassava rhizome in the presence of catalysts. <i>Journal of Analytical and Applied Pyrolysis</i> , 2008, 81, 72-79.	2.6	277
75	Production of renewable phenolic resins by thermochemical conversion of biomass: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2008, 12, 2092-2116.	8.2	450
76	The effect of lignin and inorganic species in biomass on pyrolysis oil yields, quality and stability. <i>Fuel</i> , 2008, 87, 1230-1240.	3.4	477
77	The production of biofuels and renewable chemicals by fast pyrolysis of biomass. <i>International Journal of Global Energy Issues</i> , 2007, 27, 160.	0.2	92
78	A comparison of fast and slow pyrolysis liquids from mallee. <i>International Journal of Global Energy Issues</i> , 2007, 27, 204.	0.2	53
79	Influence of particle size on the analytical and chemical properties of two energy crops. <i>Fuel</i> , 2007, 86, 60-72.	3.4	192
80	CFB air-blown flash pyrolysis. Part I: Engineering design and cold model performance. <i>Fuel</i> , 2007, 86, 1372-1386.	3.4	37
81	The effect of alkali metals on combustion and pyrolysis of <i>Lolium</i> and <i>Festuca</i> grasses, switchgrass and willow. <i>Fuel</i> , 2007, 86, 1560-1569.	3.4	337
82	Biodegradability of biomass pyrolysis oils: Comparison to conventional petroleum fuels and alternatives fuels in current use. <i>Fuel</i> , 2007, 86, 2679-2686.	3.4	65
83	Prediction of Klason lignin and lignin thermal degradation products by Py-GC/MS in a collection of <i>Lolium</i> and <i>Festuca</i> grasses. <i>Journal of Analytical and Applied Pyrolysis</i> , 2007, 80, 16-23.	2.6	92
84	Opportunities for biomass-derived "bio-oil" in European heat and power markets. <i>Energy Policy</i> , 2006, 34, 2871-2880.	4.2	81
85	Biomass for energy. <i>Journal of the Science of Food and Agriculture</i> , 2006, 86, 1755-1768.	1.7	254
86	Pillared clays as catalysts for hydrocracking of heavy liquid fuels. <i>Applied Catalysis A: General</i> , 2005, 282, 205-214.	2.2	42
87	Overview of Applications of Biomass Fast Pyrolysis Oil. <i>Energy &amp; Fuels</i> , 2004, 18, 590-598.	2.5	2,477
88	THE PRODUCTION OF BIOFUELS BY THE THERMOCHEMICAL PROCESSING OF BIOMASS. Series on Photoconversion of Solar Energy, 2004, , 521-611.	0.2	18
89	Development of emulsions from biomass pyrolysis liquid and diesel and their use in engines"Part 1 : emulsion production. <i>Biomass and Bioenergy</i> , 2003, 25, 85-99.	2.9	239
90	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> , 2003, 25, 101-111.	2.9	186

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91	The influence of feedstock drying on the performance and economics of a biomass gasifierâ€‘engine CHP system. <i>Biomass and Bioenergy</i> , 2002, 22, 271-281.	2.9	81
92	A techno-economic comparison of power production by biomass fast pyrolysis with gasification and combustion. <i>Renewable and Sustainable Energy Reviews</i> , 2002, 6, 181-246.	8.2	482
93	Fast pyrolysis processes for biomass. <i>Renewable and Sustainable Energy Reviews</i> , 2000, 4, 1-73.	8.2	1,452
94	Principles and practice of biomass fast pyrolysis processes for liquids. <i>Journal of Analytical and Applied Pyrolysis</i> , 1999, 51, 3-22.	2.6	644
95	Drying technologies for an integrated gasification bio-energy plant. <i>Renewable and Sustainable Energy Reviews</i> , 1999, 3, 243-289.	8.2	86
96	An overview of fast pyrolysis of biomass. <i>Organic Geochemistry</i> , 1999, 30, 1479-1493.	0.9	1,434
97	Fast pyrolysis of sweet sorghum and sweet sorghum bagasse. <i>Journal of Analytical and Applied Pyrolysis</i> , 1998, 46, 15-29.	2.6	125
98	Production of high grade fuels and chemicals from catalytic pyrolysis of biomass. <i>Catalysis Today</i> , 1996, 29, 285-295.	2.2	326
99	The technical and economic feasibility of biomass gasification for power generation. <i>Fuel</i> , 1995, 74, 631-653.	3.4	851
100	Technoeconomic assessment of biomass to energy. <i>Biomass and Bioenergy</i> , 1995, 9, 205-226.	2.9	80
101	Techno-economic modelling of biomass flash pyrolysis and upgrading systems. <i>Biomass and Bioenergy</i> , 1994, 7, 267-273.	2.9	57
102	Catalysis in thermal biomass conversion. <i>Applied Catalysis A: General</i> , 1994, 116, 5-47.	2.2	404
103	Ablative plate pyrolysis of biomass for liquids. <i>Biomass and Bioenergy</i> , 1994, 7, 147-154.	2.9	79
104	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> , 1994, 7, 155-167.	2.9	33
105	Physical properties of flash pyrolysis liquids. <i>Biomass and Bioenergy</i> , 1994, 7, 169-177.	2.9	48
106	Opportunities for biomass pyrolysis liquids production and upgrading. <i>Energy &amp; Fuels</i> , 1992, 6, 113-120.	2.5	144
107	Assessment of liquefaction and pyrolysis systems. <i>Biomass and Bioenergy</i> , 1992, 2, 279-297.	2.9	43
108	Developments in direct thermochemical liquefaction of biomass: 1983-1990. <i>Energy &amp; Fuels</i> , 1991, 5, 399-410.	2.5	286

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109	Economics of liquid fuels production by coal gasification. Fuel, 1991, 70, 1193-1207.	3.4	13
110	Production costs of liquid fuels from biomass. Fuel, 1991, 70, 1209-1224.	3.4	30