Duncan J Macquarrie

List of Publications by Year
in descending order

79 papers	5,028 citations	38 h-index	70 g-index
84 all docs	84 docs citations	84 times ranked	5971 citing authors

87888

88630

#	Article	IF	Citations
1	Green chemistry and the biorefinery: a partnership for a sustainable future. Green Chemistry, 2006, 8, 853.	9.0	285
2	Microwave assisted extraction of sulfated polysaccharides (fucoidan) from Ascophyllum nodosum and its antioxidant activity. Carbohydrate Polymers, 2015, 129, 101-107.	10.2	260
3	Modified silicas for clean technology. Dalton Transactions RSC, 2000, , 101-110.	2.3	254
4	Chitosan-based heterogeneous catalysts for Suzuki and Heck reactions. Green Chemistry, 2004, 6, 53.	9.0	239
5	Palladium nanoparticles on polysaccharide-derived mesoporous materials and their catalytic performance in Câ€“C coupling reactions. Green Chemistry, 2008, 10, 382-387.	9.0	208
6	Direct Microwave-Assisted Hydrothermal Depolymerization of Cellulose. Journal of the American Chemical Society, 2013, 135, 11728-11731.	13.7	198
7	Energy Efficiency in Chemical Reactions:Â A Comparative Study of Different Reaction Techniques. Organic Process Research and Development, 2005, 9, 516-518.	2.7	177
8	Preparation of a novel silica-supported palladium catalyst and its use in the Heck reaction. Green Chemistry, 2000, 2, 53-56.	9.0	156
9	A novel Suzuki reaction system based on a supported palladium catalyst. Green Chemistry, 2001, 3, 23-25.	9.0	153
10	Microwave assisted decomposition of cellulose: A new thermochemical route for biomass exploitation. Bioresource Technology, 2010, 101, 3776-3779.	9.6	151
11	The preparation of high-grade bio-oils through the controlled, low temperature microwave activation of wheat straw. Bioresource Technology, 2009, 100, 6064-6068.	9.6	147
12	Efficient sugar production from sugarcane bagasse by microwave assisted acid and alkali pretreatment. Biomass and Bioenergy, 2016, 93, 269-278.	5.7	115
13	Heterogeneous Catalysis in Liquid Phase Transformations of Importance in the Industrial Preparation of Fine Chemicals. Organic Process Research and Development, 1997, 1, 149-162.	2.7	114
14	Trifluoromethylthiodediazoniation: a simple, efficient route to trifluoromethyl aryl sulfides. Chemical Communications, 2000, , 987-988.	4.1	114
15	Glycerol transformations on polysaccharide derived mesoporous materials. Applied Catalysis B: Environmental, 2008, 82, 157-162.	20.2	108
16	A novel highly active biomaterial supported palladium catalyst. Green Chemistry, 2005, 7, 552.	9.0	106
17	Microwave assisted step-by-step process for the production of fucoidan, alginate sodium, sugars and biochar from Ascophyllum nodosum through a biorefinery concept. Bioresource Technology, 2015, 198, 819-827.	9.6	105
18	Clean, reusable and low cost heterogeneous catalyst for amide synthesis. Chemical Communications, 2009, , 2562.	4.1	102

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19	Synthesis of Unsaturated Polyester Resins from Various Bio-Derived Platform Molecules. International Journal of Molecular Sciences, 2015, 16, 14912-14932.	4.1	98
20	Chemical transformations of succinic acid recovered from fermentation broths by a novel direct vacuum distillation-crystallisation method. Green Chemistry, 2009, 11, 193-200.	9.0	89
21	Microwave-mediated pyrolysis of macro-algae. Green Chemistry, 2011, 13, 2330.	9.0	88
22	Tunable mesoporous materials optimised for aqueous phase esterifications. Green Chemistry, 2007, 9, 992.	9.0	72
23	A Simple and Efficient Route to Active and Dispersed Silica Supported Palladium Nanoparticles. Catalysis Letters, 2008, 124, 204-214.	2.6	72
24	A quantitative comparison between conventional and bio-derived solvents from citrus waste in esterification and amidation kinetic studies. Green Chemistry, 2012, 14, 90-93.	9.0	72
25	Organically modified hexagonal mesoporous silicas (HMS)â€"remarkable effect of preparation solvent on physical and chemical properties. Journal of Materials Chemistry, 2001, 11, 1843-1849.	6.7	68
26	Chitosan Aerogels Exhibiting High Surface Area for Biomedical Application: Preparation, Characterization, and Antibacterial Study. International Journal of Polymeric Materials and Polymeric Biomaterials, 2011, 60, 988-999.	3.4	67
27	Low-temperature microwave-assisted pyrolysis of waste office paper and the application of bio-oil as an Al adhesive. Green Chemistry, 2015, 17, 260-270.	9.0	65
28	The microwave pyrolysis of biomass. Biofuels, Bioproducts and Biorefining, 2012, 6, 549-560.	3.7	62
29	The preparation and use of novel immobilised guanidine catalysts in base-catalysed epoxidation and condensation reactions. Green Chemistry, 2000, 2, 283-288.	9.0	59
30	Microwave-assisted synthesis of oligothiophene semiconductors in aqueous media using silica and chitosan supported Pd catalysts. Green Chemistry, 2008, 10, 517.	9.0	57
31	Mechanistic understanding of salt-assisted autocatalytic hydrolysis of cellulose. Sustainable Energy and Fuels, 2018, 2, 936-940.	4.9	57
32	Novel mesoporous silicaâ€"perfluorosulfonic acid hybrids as strong heterogeneous BrÃ¸nsted catalysts. Chemical Communications, 2005, , 2363.	4.1	55
33	Microwave Assisted Acid Hydrolysis of Brown Seaweed <i>Ascophyllum nodosum</i> for Bioethanol Production and Characterization of Alga Residue. ACS Sustainable Chemistry and Engineering, 2015, 3, 1359-1365.	6.7	54
34	Efficient Method of Lignin Isolation Using Microwave-Assisted Acidolysis and Characterization of the Residual Lignin. ACS Sustainable Chemistry and Engineering, 2017, 5, 3768-3774.	6.7	51
35	Classical cationic polymerization of styrene in a spinning disc reactor using silica-supported BF3 catalyst. Journal of Applied Polymer Science, 2006, 101, 8-19.	2.6	49
36	Microwave-assisted preparation of amides using a stable and reusable mesoporous carbonaceous solid acid. Green Chemistry, 2009, 11, 459.	9.0	46

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37	Microwave assisted chemical pretreatment of Miscanthus under different temperature regimes. Sustainable Chemical Processes, 2015, 3, .	2.3	43
38	Geminal Diol of Dihydrolevoglucosenone as a Switchable Hydrotrope: A Continuum of Green Nanostructured Solvents. ACS Sustainable Chemistry and Engineering, 2019, 7, 7878-7883.	6.7	43
39	Microwave-enhanced formation of glucose from cellulosic waste. Chemical Engineering and Processing: Process Intensification, 2013, 71, 37-42.	3.6	39
40	Synthesis of Biobased Diethyl Terephthalate via Dielsâ€“Alder Addition of Ethylene to 2,5-Furandicarboxylic Acid Diethyl Ester: An Alternative Route to 100% Biobased Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 61	6.7	39
41	Catalytically active self-assembled silica-based nanostructures containing supported nanoparticles. Green Chemistry, 2010, 12, 1995.	9.0	38
42	From waste to wealth using green chemistry. Pure and Applied Chemistry, 2013, 85, 1625-1631.	1.9	38
43	Chemical modification of starch and the application of expanded starch and its esters in hot melt adhesive. RSC Advances, 2014, 4, 41947-41955.	3.6	37
44	Subtle Microwave-Induced Overheating Effects in an Industrial Demethylation Reaction and Their Direct Use in the Development of an Innovative Microwave Reactor. Journal of the American Chemical Society, 2017, 139, 5431-5436.	13.7	36
45	Fast microwave-assisted acidolysis: a new biorefinery approach for the zero-waste utilisation of lignocellulosic biomass to produce high quality lignin and fermentable saccharides. Faraday Discussions, 2017, 202, 351-370.	3.2	35
46	Base catalysts immobilised on silica coated reactor walls for use in continuous flow systems. Green Chemistry, 2004, 6, 193.	9.0	34
47	Microwave assisted acid and alkali pretreatment of <i>Miscanthus </i>biomas<i>s </i>for biorefineries. AIMS Bioengineering, 2015, 2, 449-468.	1.1	31
48	The Derivatization of Bioplatform Molecules by using KF/Alumina Catalysis. ChemSusChem, 2009, 2, 1025-1027.	6.8	25
49	Preparation of Chitosan Based Scaffolds Using Supercritical Carbon Dioxide. Macromolecular Symposia, 2009, 277, 36-42.	0.7	24
50	Starbon/Highâ€Amylose Corn Starchâ€Supported Nâ€Heterocyclic Carbeneâ€“Iron(III) Catalyst for Conversion of Fructose into 5â€Hydroxymethylfurfural. ChemSusChem, 2018, 11, 716-725.	6.8	23
51	Facile and rapid decarboxylation of glutamic acid to Î³-aminobutyric acid via microwave-assisted reaction: Towards valorisation of waste gluten. Journal of Cleaner Production, 2018, 205, 1102-1113.	9.3	21
52	Organically Modified Micelle Templated Silicas in Green Chemistry. Topics in Catalysis, 2009, 52, 1640-1650.	2.8	19
53	Comparative evaluation of microwave-assisted acid, alkaline, and inorganic salt pretreatments of sugarcane bagasse for sugar recovery. Biomass Conversion and Biorefinery, 2020, , 1.	4.6	19
54	Environmentally friendly liquid phase oxidation: enhanced selectivity in the aerial oxidation of alkyl aromatics, epoxidations and the Baeyer-Villiger oxidation using novel silica supported transition metal ions. Journal of Chemical Technology and Biotechnology, 1999, 74, 923-930.	3.2	18

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55	A microwave approach to the selective synthesis of Ï‰-laurolactam. Green Chemistry, 2007, 9, 1109.	9.0	17
56	Sustainable polysaccharide-derived mesoporous carbons (StarbonÂ®) as additives in lithium-ion batteries negative electrodes. Journal of Materials Chemistry A, 2017, 5, 24380-24387.	10.3	17
57	Solventless microwave-assisted chlorodehydroxylation for the conversion of alcohols to alkyl chlorides. Green Chemistry, 2006, 8, 437.	9.0	16
58	Simultaneous Recovery of Organic and Inorganic Content of Paper Deinking Residue through Low-Temperature Microwave-Assisted Pyrolysis. Environmental Science & Technology, 2015, 49, 2398-2404.	10.0	16
59	Influence of Density on Microwave Pyrolysis of Cellulose. ACS Sustainable Chemistry and Engineering, 2018, 6, 2916-2920.	6.7	16
60	Green preparation of tuneable carbonâ€"silica composite materials from wastes. Journal of Materials Chemistry A, 2015, 3, 14148-14156.	10.3	15
61	Mesoporous structured silica â€" An improved catalyst for direct amide synthesis and its application to continuous flow processing. Arkivoc, 2013, 2012, 282-293.	0.5	15
62	Effect of spruce-derived phenolics extracted using microwave enhanced pyrolysis on the oxidative stability of biodiesel. Green Chemistry, 2016, 18, 2762-2774.	9.0	14
63	Optimization of Amidation Reactions Using Predictive Tools for the Replacement of Regulated Solvents with Safer Biobased Alternatives. ACS Sustainable Chemistry and Engineering, 2018, 6, 1550-1554.	6.7	14
64	Structured mesoporous organosilicas from an acetonitrileâ€"water template system. Journal of Materials Chemistry, 2005, 15, 3946.	6.7	13
65	Thermochemical pretreatments of maize stem for sugar recovery: Comparative evaluation of microwave and conventional heating. Industrial Crops and Products, 2021, 160, 113106.	5.2	13
66	Processed Lignin as a Byproduct of the Generation of 5â€(Chloromethyl)furfural from Biomass: A Promising New Mesoporous Material. ChemSusChem, 2015, 8, 4172-4179.	6.8	12
67	Characterization of Alginate from Sargassum duplicatum and the Antioxidant Effect of Alginateâ€"Okra Fruit Extracts Combination for Wound Healing on Diabetic Mice. Applied Sciences (Switzerland), 2020, 10, 6082.	2.5	12
68	Natural Product Recovery from Bilberry (Vaccinium myrtillus L.) Presscake via Microwave Hydrolysis. ACS Sustainable Chemistry and Engineering, 2018, 6, 3676-3685.	6.7	11
69	Green electrode processing using a seaweed-derived mesoporous carbon additive and binder for LiMn₂O₄ and LiNi_{1/3}Mn_{1/3}Co_{1/3}O₂ lithium ion battery electrodes. Sustainable Energy and Fuels, 2019, 3, 450-456.	4.9	11
70	Chemistry on the inside: green chemistry in mesoporous materials. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2000, 358, 419-430.	3.4	10
71	Wound Healing and Antioxidant Evaluations of Alginate from Sargassum ilicifolium and Mangosteen Rind Combination Extracts on Diabetic Mice Model. Applied Sciences (Switzerland), 2021, 11, 4651.	2.5	10
72	Synthesis and application of tuneable carbonâ€"silica composites from the microwave pyrolysis of waste paper for selective recovery of gold from acidic solutions. RSC Advances, 2020, 10, 25228-25238.	3.6	9

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73	Alginic acid-derived mesoporous carbon (StarbonÂ®) as template and reducing agent for the hydrothermal synthesis of mesoporous LiMn₂O₄ grafted with carbonaceous species. Journal of Materials Chemistry A, 2018, 6, 14392-14399.	10.3	8
74	The Autoxidation of Alkenyl Succinimidesâ€"Mimics for Polyisobutenyl Succinimide Dispersants. Industrial & Engineering Chemistry Research, 2019, 58, 19649-19660.	3.7	6
75	Dehydration of Alginic Acid Cryogel by TiCl 4 vapor: Direct Access to Mesoporous TiO 2 @C Nanocomposites and Their Performance in Lithiumâ€Ion Batteries. ChemSusChem, 2019, 12, 2660-2670.	6.8	6
76	Workâ€hardening Photopolymer from Renewable Photoactive 3,3â€™â€(2,5â€Furandiyl)bisacrylic Acid. ChemSusChem, 2020, 13, 4140-4150.	6.8	6
77	Laminaria digitata and Palmaria palmata Seaweeds as Natural Source of Catalysts for the Cycloaddition of CO2 to Epoxides. Molecules, 2019, 24, 269.	3.8	3
78	New Heterogeneous Catalysts Derived from Chitosan for Clean Technology Applications. ACS Symposium Series, 2006, , 170-183.	0.5	1
79	In celebration of the 65th birthday of Professor James Clark. Green Chemistry, 2016, 18, 3469-3470.	9.0	0