Duncan J Macquarrie

List of Publications by Year
in descending order

79 papers	5,028 citations	87888 38 h-index	88630 70 g-index
84 all docs	84 docs citations	84 times ranked	5971 citing authors

#	Article	IF	Citations
1	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
2	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
3	Workâ€hardening Photopolymer from Renewable Photoactive 3,3â€™â€(2,5â€Furandiyl)bisacrylic Acid. ChemSusChem, 2020, 13, 4140-4150.	6.8	6
4	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
5	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
6	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
7	The Autoxidation of Alkenyl Succinimidesâ€"Mimics for Polyisobutenyl Succinimide Dispersants. Industrial & Engineering Chemistry Research, 2019, 58, 19649-19660.	3.7	6
8	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
9	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 ETQq1 1 0.784314 rgBT /Overlock 10	6.7	39
10	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
11	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
12	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
13	Influence of Density on Microwave Pyrolysis of Cellulose. ACS Sustainable Chemistry and Engineering, 2018, 6, 2916-2920.	6.7	16
14	Natural Product Recovery from Bilberry (Vaccinium myrtillus L.) Presscake via Microwave Hydrolysis. ACS Sustainable Chemistry and Engineering, 2018, 6, 3676-3685.	6.7	11
15	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
16	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
17	Mechanistic understanding of salt-assisted autocatalytic hydrolysis of cellulose. Sustainable Energy and Fuels, 2018, 2, 936-940.	4.9	57
18	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

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19	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
20	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
21	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
22	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
23	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
24	In celebration of the 65th birthday of Professor James Clark. Green Chemistry, 2016, 18, 3469-3470.	9.0	0
25	Efficient sugar production from sugarcane bagasse by microwave assisted acid and alkali pretreatment. Biomass and Bioenergy, 2016, 93, 269-278.	5.7	115
26	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
27	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
28	Synthesis of Unsaturated Polyester Resins from Various Bio-Derived Platform Molecules. International Journal of Molecular Sciences, 2015, 16, 14912-14932.	4.1	98
29	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
30	Green preparation of tuneable carbonâ€"silica composite materials from wastes. Journal of Materials Chemistry A, 2015, 3, 14148-14156.	10.3	15
31	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
32	Microwave assisted extraction of sulfated polysaccharides (fucoidan) from Ascophyllum nodosum and its antioxidant activity. Carbohydrate Polymers, 2015, 129, 101-107.	10.2	260
33	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
34	Microwave assisted chemical pretreatment of Miscanthus under different temperature regimes. Sustainable Chemical Processes, 2015, 3, .	2.3	43
35	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
36	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

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37	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
38	Direct Microwave-Assisted Hydrothermal Depolymerization of Cellulose. Journal of the American Chemical Society, 2013, 135, 11728-11731.	13.7	198
39	Microwave-enhanced formation of glucose from cellulosic waste. Chemical Engineering and Processing: Process Intensification, 2013, 71, 37-42.	3.6	39
40	From waste to wealth using green chemistry. Pure and Applied Chemistry, 2013, 85, 1625-1631.	1.9	38
41	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
42	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
43	The microwave pyrolysis of biomass. Biofuels, Bioproducts and Biorefining, 2012, 6, 549-560.	3.7	62
44	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
45	Microwave-mediated pyrolysis of macro-algae. Green Chemistry, 2011, 13, 2330.	9.0	88
46	Microwave assisted decomposition of cellulose: A new thermochemical route for biomass exploitation. Bioresource Technology, 2010, 101, 3776-3779.	9.6	151
47	Catalytically active self-assembled silica-based nanostructures containing supported nanoparticles. Green Chemistry, 2010, 12, 1995.	9.0	38
48	The Derivatization of Bioplatform Molecules by using KF/Alumina Catalysis. ChemSusChem, 2009, 2, 1025-1027.	6.8	25
49	Organically Modified Micelle Templated Silicas in Green Chemistry. Topics in Catalysis, 2009, 52, 1640-1650.	2.8	19
50	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
51	Microwave-assisted preparation of amides using a stable and reusable mesoporous carbonaceous solid acid. Green Chemistry, 2009, 11, 459.	9.0	46
52	Preparation of Chitosan Based Scaffolds Using Supercritical Carbon Dioxide. Macromolecular Symposia, 2009, 277, 36-42.	0.7	24
53	Clean, reusable and low cost heterogeneous catalyst for amide synthesis. Chemical Communications, 2009, , 2562.	4.1	102
54	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

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55	A Simple and Efficient Route to Active and Dispersed Silica Supported Palladium Nanoparticles. Catalysis Letters, 2008, 124, 204-214.	2.6	72
56	Glycerol transformations on polysaccharide derived mesoporous materials. Applied Catalysis B: Environmental, 2008, 82, 157-162.	20.2	108
57	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
58	Microwave-assisted synthesis of oligothiophene semiconductors in aqueous media using silica and chitosan supported Pd catalysts. Green Chemistry, 2008, 10, 517.	9.0	57
59	Tunable mesoporous materials optimised for aqueous phase esterifications. Green Chemistry, 2007, 9, 992.	9.0	72
60	A microwave approach to the selective synthesis of Ï‰-laurolactam. Green Chemistry, 2007, 9, 1109.	9.0	17
61	Solventless microwave-assisted chlorodehydroxylation for the conversion of alcohols to alkyl chlorides. Green Chemistry, 2006, 8, 437.	9.0	16
62	Green chemistry and the biorefinery: a partnership for a sustainable future. Green Chemistry, 2006, 8, 853.	9.0	285
63	New Heterogeneous Catalysts Derived from Chitosan for Clean Technology Applications. ACS Symposium Series, 2006, , 170-183.	0.5	1
64	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
65	Structured mesoporous organosilicas from an acetonitrileâ€“water template system. Journal of Materials Chemistry, 2005, 15, 3946.	6.7	13
66	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
67	A novel highly active biomaterial supported palladium catalyst. Green Chemistry, 2005, 7, 552.	9.0	106
68	Novel mesoporous silicaâ€“perfluorosulfonic acid hybrids as strong heterogeneous BrÃ¸nsted catalysts. Chemical Communications, 2005, , 2363.	4.1	55
69	Base catalysts immobilised on silica coated reactor walls for use in continuous flow systems. Green Chemistry, 2004, 6, 193.	9.0	34
70	Chitosan-based heterogeneous catalysts for Suzuki and Heck reactions. Green Chemistry, 2004, 6, 53.	9.0	239
71	A novel Suzuki reaction system based on a supported palladium catalyst. Green Chemistry, 2001, 3, 23-25.	9.0	153
72	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

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73	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
74	Preparation of a novel silica-supported palladium catalyst and its use in the Heck reaction. Green Chemistry, 2000, 2, 53-56.	9.0	156
75	Modified silicas for clean technology. Dalton Transactions RSC, 2000, , 101-110.	2.3	254
76	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
77	Trifluoromethylthiodediazoniation: a simple, efficient route to trifluoromethyl aryl sulfides. Chemical Communications, 2000, , 987-988.	4.1	114
78	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
79	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