Nicholas Gathergood

List of Publications by Citations

93 papers	4,654 citations	34 h-index	68 g-index
118 ext. papers	5,076 ext. citations	8.5 avg, IF	5.79 L-index

#	Paper	IF	Citations
93	Biodegradable ionic liquids. *Green Chemistry*, **2005**, 7, 9	10	453
92	Biodegradation studies of ionic liquids. *Chemical Society Reviews*, **2010**, 39, 600-37	58.5	451
91	Biodegradable ionic liquids: Part I. Concept, preliminary targets and evaluation. *Green Chemistry*, **2004**, 6, 166	10	406
90	Biodegradation of ionic liquids--a critical review. *Chemical Society Reviews*, **2015**, 44, 8200-37	58.5	276
89	Biodegradable ionic liquids. *Green Chemistry*, **2006**, 8, 156	10	256
88	Catalytic Asymmetric Direct Mannich Reactions of Carbonyl Compounds with α-Imino Esters. *Angewandte Chemie - International Edition*, **2001**, 40, 2995-7	16.4	198
87	Catalytic, highly enantioselective Friedel-Crafts reactions of aromatic and heteroaromatic compounds to trifluoropyruvate. A simple approach for the formation of optically active aromatic and heteroaromatic hydroxy trifluoromethyl esters. *Journal of Organic Chemistry*, **2001**, 66, 1009-13	4.2	176
86	Catalytic Enantioselective Friedel–Crafts Reactions of Aromatic Compounds with Glyoxylate: A Simple Procedure for the Synthesis of Optically Active Aromatic Mandelic Acid Esters. *Journal of the American Chemical Society*, **2000**, 122, 12517-12522	16.4	162
85	Biodegradable, non-bactericidal oxygen-functionalised imidazolium esters: A step towards 'greener' ionic liquids. *Green Chemistry*, **2009**, 11, 475	10	138
84	Ionic liquid based pretreatment of lignocellulosic biomass for enhanced bioconversion. *Bioresource Technology*, **2020**, 304, 123003	11	136
83	Direct catalytic asymmetric mannich reactions of malonates and beta-keto esters. *Chemistry - A European Journal*, **2003**, 9, 2359-67	4.8	136
82	Catalytic Approach for the Formation of Optically Active Allyl alpha-Amino Acids by Addition of Allylic Metal Compounds to alpha-Imino Esters. *Journal of Organic Chemistry*, **1999**, 64, 4844-4849	4.2	103
81	Antimicrobial toxicity studies of ionic liquids leading to a 'hit' MRSA selective antibacterial imidazolium salt. *Green Chemistry*, **2012**, 14, 1350	10	86
80	Formation of Optically Active Aromatic alpha-Amino Acids by Catalytic Enantioselective Addition of Imines to Aromatic Compounds This work was made possible by a grant from the Danish National Research Foundation. Thanks are provided to Dr. Rita G. Hazell for X-ray analysis. *Angewandte Chemie - International Edition*, **2000**, 39, 4114-4116	16.4	86
79	Catalytic Asymmetric Direct Mannich Reactions of Carbonyl Compounds with α-Imino Esters. *Angewandte Chemie*, **2001**, 113, 3083-3085	3.6	82
78	Food waste: Challenges and opportunities for enhancing the emerging bio-economy. *Journal of Cleaner Production*, **2019**, 221, 10-16	10.3	75
77	Biomass derived ionic liquids: synthesis from natural organic acids, characterization, toxicity, biodegradation and use as solvents for catalytic hydrogenation processes. *Tetrahedron*, **2013**, 69, 6150-6161	2.4	66

76	Direct catalytic asymmetric aldol reactions of pyruvates: scope and mechanism. *Organic and Biomolecular Chemistry*, **2004**, 2, 1077-85	3.9	65
75	Imidazolium and Pyridinium Ionic Liquids from Mandelic Acid Derivatives: Synthesis and Bacteria and Algae Toxicity Evaluation. *ACS Sustainable Chemistry and Engineering*, **2013**, 1, 393-402	8.3	63
74	Synthesis of a series of amino acid derived ionic liquids and tertiary amines: green chemistry metrics including microbial toxicity and preliminary biodegradation data analysis. *Green Chemistry*, **2016**, 18, 4374-4392	10	57
73	Highly recyclable, imidazolium derived ionic liquids of low antimicrobial and antifungal toxicity: A new strategy for acid catalysis. *Green Chemistry*, **2010**, 12, 1157	10	57
72	Catalytic asymmetric homo-aldol reaction of pyruvate□ chiral Lewis acid catalyst that mimics aldolase enzymes. *Chemical Communications*, **2000**, 2211-2212	5.8	57
71	Copper phenanthrene oxidative chemical nucleases. *Inorganic Chemistry*, **2014**, 53, 5392-404	5.1	55
70	Biotechnological Advances for Restoring Degraded Land for Sustainable Development. *Trends in Biotechnology*, **2017**, 35, 847-859	15.1	48
69	Regulating bioactivity of Cu2+ bis-1,10-phenanthroline artificial metallonucleases with sterically functionalized pendant carboxylates. *Journal of Medicinal Chemistry*, **2013**, 56, 8599-615	8.3	47
68	Preparation of the 4-hydroxytryptamine scaffold via palladium-catalyzed cyclization: a practical and versatile synthesis of psilocin. *Organic Letters*, **2003**, 5, 921-3	6.2	47
67	The presence of functional groups key for biodegradation in ionic liquids: effect on gas solubility. *ChemSusChem*, **2010**, 3, 377-85	8.3	46
66	A new generation of aprotic yet Br□sted acidic imidazolium salts: effect of ester/amide groups in the C-2, C-4 and C-5 on antimicrobial toxicity and biodegradation. *Green Chemistry*, **2013**, 15, 2747	10	44
65	A new generation of aprotic yet Br□sted acidic imidazolium salts: low toxicity, high recyclability and greatly improved activity. *Green Chemistry*, **2013**, 15, 2740	10	43
64	Tetrabutylammonium prolinate-based ionic liquids: a combined asymmetric catalysis, antimicrobial toxicity and biodegradation assessment. *RSC Advances*, **2013**, 3, 26241	3.7	43
63	On the way to greener ionic liquids: identification of a fully mineralizable phenylalanine-based ionic liquid. *Green Chemistry*, **2016**, 18, 4361-4373	10	41
62	The catalytic versatility of low toxicity dialkyltriazolium salts: in situ modification facilitates diametrically opposed catalysis modes in one pot. *Chemical Communications*, **2013**, 49, 5316-8	5.8	41
61	Low toxicity functionalised imidazolium salts for task specific ionic liquid electrolytes in dye-sensitised solar cells: a step towards less hazardous energy production. *Green Chemistry*, **2014**, 16, 2252-2265	10	38
60	A new phenanthroline-oxazine ligand: synthesis, coordination chemistry and atypical DNA binding interaction. *Chemical Communications*, **2013**, 49, 2341-3	5.8	34
59	Synthesis, self-assembly, bacterial and fungal toxicity, and preliminary biodegradation studies of a series of L-phenylalanine-derived surface-active ionic liquids. *Green Chemistry*, **2019**, 21, 1777-1794	10	33

58	Biodegradable Ionic Liquids: Selected Synthetic Applications. *Australian Journal of Chemistry*, **2007**, 60, 843	1.2	31
57	Toxicity profiling of 24 l-phenylalanine derived ionic liquids based on pyridinium, imidazolium and cholinium cations and varying alkyl chains using rapid screening Vibrio fischeri bioassay. *Ecotoxicology and Environmental Safety*, **2019**, 172, 556-565	7	28
56	Formation of Optically Active Aromatic Amino Acids by Catalytic Enantioselective Addition of Imines to Aromatic Compounds. *Angewandte Chemie*, **2000**, 112, 4280-4282	3.6	27
55	Selective hydrogenation of trans-cinnamaldehyde and hydrogenolysis-free hydrogenation of benzyl cinnamate in imidazolium ILs. *Green Chemistry*, **2009**, 11, 466-474	10	25
54	Oxidised guanidinohydantoin (Ghox) and spiroiminodihydantoin (Sp) are major products of iron- and copper-mediated 8-oxo-7,8-dihydroguanine and 8-oxo-7,8-dihydro-2'-deoxyguanosine oxidation. *Molecular BioSystems*, **2005**, 1, 373-81		25
53	Determination of psilocin and psilocybin using flow injection analysis with acidic potassium permanganate and tris(2,2'-bipyridyl)ruthenium(II) chemiluminescence detection respectively. *Talanta*, **2005**, 67, 354-9	6.2	25
52	Green profiling of aprotic versus protic ionic liquids: Synthesis and microbial toxicity of analogous structures. *Sustainable Chemistry and Pharmacy*, **2018**, 7, 17-26	3.9	24
51	Synthesis of polypeptide block copolymer hybrids by the combination of N-carboxyanhydride polymerization and RAFT. *Macromolecular Rapid Communications*, **2013**, 34, 1325-9	4.8	24
50	Degradation of Organophosphate Pesticides Using Pyridinium Based Functional Surfactants. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 6962-6973	8.3	23
49	Manganese Dioxide Allylic and Benzylic Oxidation Reactions in Ionic Liquids. *Australian Journal of Chemistry*, **2004**, 57, 125	1.2	22
48	Mandelic acid derived ionic liquids: synthesis, toxicity and biodegradability. *RSC Advances*, **2017**, 7, 2115-2126	3.7	20
47	Effect of structure of polycyclic aromatic substrates on solubilization capacity and size of cationic monomeric and gemini 14-s-14 surfactant aggregates. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2016**, 509, 613-622	5.1	20
46	Production of microbial lipids from optimized waste office paper hydrolysate, lipid profiling and prediction of biodiesel properties. *Renewable Energy*, **2020**, 148, 124-134	8.1	18
45	Synthesis of optically active bicyclic lactone building blocks using catalytic enantioselective glyoxylate-ene reaction. *Chemical Communications*, **1999**, 1869-1870	5.8	17
44	Enantioselective synthesis of optically active carbocyclic sugars. *Journal of Organic Chemistry*, **2001**, 66, 1014-7	4.2	14
43	Expectations for Manuscripts Contributing to the Field of Solvents in ACS Sustainable Chemistry & Engineering. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 14627-14629	8.3	14
42	Physicochemical properties and esterolytic reactivity of oxime functionalized surfactants in pH-responsive mixed micellar system. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2017**, 524, 143-159	5.1	12
41	A new class of prophylactic metallo-antibiotic possessing potent anti-cancer and anti-microbial properties. *Dalton Transactions*, **2019**, 48, 8578-8593	4.3	12

40	Novel bronchodilatory quinazolines and quinoxalines: synthesis and biological evaluation. *European Journal of Medicinal Chemistry*, **2014**, 74, 65-72	6.8	11
39	Designing Safer and Greener Antibiotics. *Antibiotics*, **2013**, 2, 419-38	4.9	10
38	C 3-symmetric opioid scaffolds are pH-responsive DNA condensation agents. *Nucleic Acids Research*, **2017**, 45, 527-540	20.1	9
37	Design rules for environmental biodegradability of phenylalanine alkyl ester linked ionic liquids. *Green Chemistry*, **2020**, 22, 4498-4508	10	8
36	Amphiphilic glycosylated block copolypeptides as macromolecular surfactants in the emulsion polymerization of styrene. *Polymer Chemistry*, **2015**, 6, 4634-4640	4.9	8
35	Microbial biodiesel production from lignocellulosic biomass: New insights and future challenges. *Critical Reviews in Environmental Science and Technology*,1-30	11.1	8
34	Non-Toxic and Ultra-Small Biosilver Nanoclusters Trigger Apoptotic Cell Death in Fluconazole-Resistant via Ras Signaling. *Biomolecules*, **2019**, 9,	5.9	7
33	Tandem ionic liquid antimicrobial toxicity and asymmetric catalysis study: carbonyl-ene reactions with trifluoropyruvate. *Green Chemistry*, **2013**, 15, 2727	10	7
32	Site-Selective and Stereoselective C-H Functionalization of N-Cyclopropylamides via a Directed Remote Metalation Strategy. *Organic Letters*, **2019**, 21, 969-973	6.2	7
31	An Organocatalytic Process for the Hydrolytic Cleavage of Dithianes Mediated by Imidazolium Ions: No Harsh Agents Required. *European Journal of Organic Chemistry*, **2015**, 2015, 188-194	3.2	4
30	An example of green surfactant systems based on inherently biodegradable IL-derived amphiphilic oximes. *Journal of Molecular Liquids*, **2020**, 305, 112857	6	4
29	Biorefinery with Ionic Liquids **2012**, 75-133		4
28	Inter- and intramolecular C-H...pi interactions in morphine bis(1-naphthoate). *Acta Crystallographica Section C: Crystal Structure Communications*, **2003**, 59, o485-7		4
27	Role of Bacterial-Fungal Consortium for Enhancement in the Degradation of Industrial Dyes. *Current Genomics*, **2020**, 21, 283-294	2.6	4
26	Supercritical CO2 as an Environmentally Benign Medium for Biorefinery **2012**, 181-204		3
25	Organosolv Biorefining Platform for Producing Chemicals, Fuels, and Materials from Lignocellulose **2012**, 241-262		3
24	Catalysis of Reactions by Amino Acids **2010**, 281-337		3
23	Efficient DNA Condensation by a C -Symmetric Codeine Scaffold. *ChemPlusChem*, **2019**, 84, 38-42	2.8	3

22	Microwave Technology for Lignocellulosic Biorefinery **2012**, 281-291		2
21	Heterogeneous Catalysts for Biomass Conversion **2012**, 313-348		2
20	Biorefinery with Water **2012**, 135-180		2
19	The Evolution of ACS Sustainable Chemistry & Engineering. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 1-1	8.3	2
18	Introduction of Biomass and Biorefineries **2012**, 1-26		1
17	Dissolution and Application of Cellulose in NaOH/Urea Aqueous Solution **2012**, 205-240		1
16	Synthesis, X-ray Crystal Studies and Metal Picrates Extraction Properties of Lipophilic Benzocrown Ethers. *Australian Journal of Chemistry*, **2010**, 63, 1348	1.2	1
15	Ecotoxicity profiling of a library of 24 l-phenylalanine derived surface-active ionic liquids (SAILs). *Sustainable Chemistry and Pharmacy*, **2021**, 19, 100369	3.9	1
14	Enantioselective Tsuji-Trost Reactions in Low Toxicity Ionic Liquids. *Current Green Chemistry*, **2016**, 3, 181-189	1.3	1
13	Food Supply Chain Waste: Emerging Opportunities **2016**, 667-680		1
12	Scalable Lipase-Catalyzed Synthesis of (R)-4-(Acyloxy)pentanoic Acids from Racemic Γ-Valerolactone. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 1494-1499	8.3	1
11	Expectations for Perspectives in ACS Sustainable Chemistry & Engineering. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 16528-16530	8.3	0
10	Assessment of the Ecotoxicological and Environmental Effects of Biorefineries **2012**, 435-467		
9	Ultrasonics for Enhanced Fluid Biofuel Production **2012**, 375-405		
8	Recent Advances in Green Chemistry **2012**, 27-73		
7	Pyrolysis Oils from Biomass and Their Upgrading **2012**, 263-280		
6	Biorefinery with Microbes **2012**, 293-311		
5	Catalytic Conversion of Glycerol **2012**, 349-373		

List of Publications

4 Advanced Membrane Technology for Products Separation in Biorefinery **2012**, 407-433

3 Design of Safer Chemicals Ionic Liquids **2012**, 137

2 Designing Safer Organocatalysts What Lessons Can Be Learned When the Rebirth of an Old Research Area Coincides with the Advent of Green Chemistry? **2012**, 159

1 7,8-Didehydro-4,5-epoxy-17-methylmorphinan-6-yl naphthalene-1-carboxylate. *Acta Crystallographica Section E: Structure Reports Online*, **2003**, 59, o1918-o1919