## Iain S Donnison

List of Publications by Year in descending order

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	47006	62596
7,134	47	80
citations	h-index	g-index
132	132	7621
docs citations	times ranked	citing authors
	citations 132	7,134 47   citations h-index   132 132

#	Article	IF	CITATIONS
1	Design, instrumentation, and operation of a standard downdraft, laboratory-scale gasification testbed utilising novel seed-propagated hybrid Miscanthus pellets. Applied Energy, 2022, 315, 118864.	10.1	2
2	Linkage mapping evidence for a syntenic QTL associated with flowering time in perennial C 4 rhizomatous grasses Miscanthus and switchgrass. GCB Bioenergy, 2021, 13, 98-111.	5.6	8
3	The Effect of Red & Blue Rich LEDs vs Fluorescent Light on Lollo Rosso Lettuce Morphology and Physiology. Frontiers in Plant Science, 2021, 12, 603411.	3.6	17
4	Mechanical stimulation in wheat triggers age- and dose-dependent alterations in growth, development and grain characteristics. Annals of Botany, 2021, 128, 589-603.	2.9	3
5	Draft genome assembly of the biofuel grass crop Miscanthus sacchariflorus. F1000Research, 2021, 10, 29.	1.6	4
6	Genome biology of the paleotetraploid perennial biomass crop Miscanthus. Nature Communications, 2020, 11, 5442.	12.8	67
7	Morphological and Physiological Traits that Explain Yield Response to Drought Stress in Miscanthus. Agronomy, 2020, 10, 1194.	3.0	18
8	Producing Enhanced Yield and Nutritional Pigmentation in Lollo Rosso Through Manipulating the Irradiance, Duration, and Periodicity of LEDs in the Visible Region of Light. Frontiers in Plant Science, 2020, 11, 598082.	3.6	16
9	Stem growth characteristics of high yielding <i>Miscanthus</i> correlate with yield, development and intraspecific competition within plots. GCB Bioenergy, 2019, 11, 1075-1085.	5.6	3
10	Plants and architecture: the role of biology and biomimetics in materials development for buildings. Intelligent Buildings International, 2019, 11, 178-211.	2.3	15
11	Biomass gasification of hybrid seed Miscanthus in Glasgow's downdraft gasifier testbed system. Energy Procedia, 2019, 158, 1174-1181.	1.8	9
12	Collecting wild Miscanthus germplasm in Asia for crop improvement and conservation in Europe whilst adhering to the guidelines of the United Nations' Convention on Biological Diversity. Annals of Botany, 2019, 124, 591-604.	2.9	13
13	Soil & Water Assessment Tool (SWAT) simulated hydrological impacts of land use change from temperate grassland to energy crops: A case study in western UK. GCB Bioenergy, 2019, 11, 1298-1317.	5.6	5
14	Measured and modelled effect of landâ€use change from temperate grassland to Miscanthus on soil carbon stocks after 12 years. GCB Bioenergy, 2019, 11, 1173-1186.	5.6	13
15	Breeding Strategies to Improve Miscanthus as a Sustainable Source of Biomass for Bioenergy and Biorenewable Products. Agronomy, 2019, 9, 673.	3.0	28
16	Soil N <sub>2</sub> O emissions with different reduced tillage methods during the establishment of <i>Miscanthus</i> in temperate grassland. GCB Bioenergy, 2019, 11, 539-549.	5.6	9
17	Genomic index selection provides a pragmatic framework for setting and refining multi-objective breeding targets in Miscanthus. Annals of Botany, 2019, 124, 521-529.	2.9	10
18	Breeding progress and preparedness for massâ€scale deployment of perennial lignocellulosic biomass crops switchgrass, miscanthus, willow and poplar. GCB Bioenergy, 2019, 11, 118-151.	5.6	116

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19	Evapotranspiration model comparison and an estimate of field scale <i>Miscanthus</i> canopy precipitation interception. GCB Bioenergy, 2018, 10, 353-366.	5.6	7
20	Exploring design principles of biological and living building envelopes: what can we learn from plant cell walls?. Intelligent Buildings International, 2018, 10, 78-102.	2.3	24
21	Consensus, uncertainties and challenges for perennial bioenergy crops and land use. GCB Bioenergy, 2018, 10, 150-164.	5.6	80
22	Soil nitrous oxide flux following landâ€use reversion from Miscanthus and SRC willow to perennial ryegrass. GCB Bioenergy, 2018, 10, 914-929.	5.6	13
23	Can the optimisation of pop-up agriculture in remote communities help feed the world?. Global Food Security, 2018, 18, 35-43.	8.1	26
24	Environmental costs and benefits of growing <i>Miscanthus</i> for bioenergy in the <scp>UK</scp> . GCB Bioenergy, 2017, 9, 489-507.	5.6	183
25	An interyear comparison of <scp>CO</scp> <sub>2</sub> flux and carbon budget at a commercialâ€scale landâ€use transition from semiâ€improved grassland to <i>Miscanthus x giganteus</i> . GCB Bioenergy, 2017, 9, 229-245.	5.6	21
26	Radiation capture and conversion efficiencies of <i>Miscanthus sacchariflorus</i> , <i> M.Âsinensis</i> and their naturally occurring hybrid <i>M</i> .Â×Â <i>giganteus</i> . GCB Bioenergy, 2017, 9, 385-399.	5.6	29
27	Phenomics analysis of drought responses in <i>Miscanthus</i> collected from different geographical locations. GCB Bioenergy, 2017, 9, 78-91.	5.6	39
28	Endophytic bacteria in Miscanthus seed: implications for germination, vertical inheritance of endophytes, plant evolution and breeding. GCB Bioenergy, 2017, 9, 57-77.	5.6	99
29	Partitioning of ecosystem respiration of <scp>CO</scp> <sub>2</sub> released during landâ€use transition from temperate agricultural grassland to <i>Miscanthus</i> × <i>giganteus</i> . GCB Bioenergy, 2017, 9, 710-724.	5.6	4
30	Progress in upscaling <i>Miscanthus</i> biomass production for the European bioâ€economy with seedâ€based hybrids. GCB Bioenergy, 2017, 9, 6-17.	5.6	156
31	Could <i>Miscanthus</i> replace maize as the preferred substrate for anaerobic digestion in the United Kingdom? Future breeding strategies. GCB Bioenergy, 2017, 9, 1122-1139.	5.6	10
32	Predicting future biomass yield in <i>Miscanthus</i> using the carbohydrate metabolic profile as a biomarker. GCB Bioenergy, 2017, 9, 1264-1278.	5.6	17
33	Characterisation of Nature-Based Solutions for the Built Environment. Sustainability, 2017, 9, 149.	3.2	106
34	Co-production of 11α-hydroxyprogesterone and ethanol using recombinant yeast expressing fungal steroid hydroxylases. Biotechnology for Biofuels, 2017, 10, 226.	6.2	14
35	Genetic relationships between spring emergence, canopy phenology, and biomass yield increase the accuracy of genomic prediction in Miscanthus. Journal of Experimental Botany, 2017, 68, 5093-5102.	4.8	13
36	Towards <i>Miscanthus</i> combustion quality improvement: the role of flowering and senescence. GCB Bioenergy, 2017, 9, 891-908.	5.6	25

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37	Review: Improving the Impact of Plant Science on Urban Planning and Design. Buildings, 2016, 6, 48.	3.1	22
38	Progress on Optimizing Miscanthus Biomass Production for the European Bioeconomy: Results of the EU FP7 Project OPTIMISC. Frontiers in Plant Science, 2016, 7, 1620.	3.6	160
39	Diversification and use of bioenergy to maintain future grasslands. Food and Energy Security, 2016, 5, 67-75.	4.3	17
40	Expanding the biomass resource: sustainable oil production via fast pyrolysis of low input high diversity biomass and the potential integration of thermochemical and biological conversion routes. Applied Energy, 2016, 177, 852-862.	10.1	39
41	Red clover (Trifolium pratense L.) draft genome provides a platform for trait improvement. Scientific Reports, 2015, 5, 17394.	3.3	136
42	Non-structural carbohydrate profiles and ratios between soluble sugars and starch serve as indicators of productivity for a bioenergy grass. AoB PLANTS, 2015, 7, plv032-plv032.	2.3	17
43	Seasonal Carbohydrate Dynamics and Climatic Regulation of Senescence in the Perennial Grass, Miscanthus. Bioenergy Research, 2015, 8, 28-41.	3.9	38
44	Research Spotlight: The ELUM project: Ecosystem Land-Use Modeling and Soil Carbon GHG Flux Trial. Biofuels, 2014, 5, 111-116.	2.4	7
45	Co-production of ethanol and squalene using a Saccharomyces cerevisiae ERG1 (squalene epoxidase) mutant and agro-industrial feedstock. Biotechnology for Biofuels, 2014, 7, 133.	6.2	21
46	Energetic conversion of European semi-natural grassland silages through the integrated generation of solid fuel and biogas from biomass: Energy yields and the fate of organic compounds. Bioresource Technology, 2014, 154, 192-200.	9.6	23
47	Genomeâ€wide association studies and prediction of 17 traits related to phenology, biomass and cell wall composition in the energy grass <i>Miscanthus sinensis</i> . New Phytologist, 2014, 201, 1227-1239.	7.3	96
48	Press fluid pre-treatment optimisation of the integrated generation of solid fuel and biogas from biomass (IFBB) process approach. Bioresource Technology, 2014, 169, 537-542.	9.6	6
49	Co-production of bioethanol and probiotic yeast biomass from agricultural feedstock: application of the rural biorefinery concept. AMB Express, 2014, 4, 64.	3.0	12
50	Screening for potential co-products in a Miscanthus sinensis mapping family by liquid chromatography with mass spectrometry detection. Phytochemistry, 2014, 105, 186-196.	2.9	8
51	Contrasting geographic patterns of genetic variation for molecular markers vs. phenotypic traits in the energy grass <i>Miscanthus sinensis </i> . GCB Bioenergy, 2013, 5, 562-571.	5.6	28
52	Accelerating the domestication of a bioenergy crop: identifying and modelling morphological targets for sustainable yield increase in Miscanthus. Journal of Experimental Botany, 2013, 64, 4143-4155.	4.8	66
53	Flowering induction in the bioenergy grass Miscanthus sacchariflorus is a quantitative short-day response, whilst delayed flowering under long days increases biomass accumulation. Journal of Experimental Botany, 2013, 64, 541-552.	4.8	48
54	Bioenergy as a biodiversity management tool and the potential of a mixed species feedstock for bioenergy production in Wales. Bioresource Technology, 2013, 129, 142-149.	9.6	13

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55	Impact of Miscanthus x giganteus senescence times on fast pyrolysis bio-oil quality. Bioresource Technology, 2013, 129, 335-342.	9.6	36
56	Potential sources of high value chemicals from leaves, stems and flowers of Miscanthus sinensis â€~Goliath' and Miscanthus sacchariflorus. Phytochemistry, 2013, 92, 160-167.	2.9	20
57	Characterization of chilling-shock responses in four genotypes of Miscanthus reveals the superior tolerance of M. × giganteus compared with M. sinensis and M. sacchariflorus. Annals of Botany, 2013, 111, 999-1013.	2.9	40
58	Variation in canopy duration in the perennial biofuel crop Miscanthus reveals complex associations with yield. Journal of Experimental Botany, 2013, 64, 2373-2383.	4.8	36
59	Mineral concentrations in solid fuels from European semi-natural grasslands after hydrothermal conditioning and subsequent mechanical dehydration. Bioresource Technology, 2012, 118, 332-342.	9.6	39
60	Scanning Electron Microscopy and Fermentation Studies on Selected Known Maize Starch Mutants Using STARGENâ"¢ Enzyme Blends. Bioenergy Research, 2012, 5, 330-340.	3.9	12
61	Effect of nitrogen fertiliser application on cell wall composition in switchgrass and reed canary grass. Biomass and Bioenergy, 2012, 40, 19-26.	5.7	49
62	Life cycle assessment of the integrated generation of solid fuel and biogas from biomass (IFBB) in comparison to different energy recovery, animal-based and non-refining management systems. Bioresource Technology, 2012, 111, 230-239.	9.6	53
63	New opportunities for the exploitation of energy crops by thermochemical conversion in Northern Europe and the UK. Progress in Energy and Combustion Science, 2012, 38, 138-155.	31.2	114
64	Phenotypic Variation in Senescence in Miscanthus: Towards Optimising Biomass Quality and Quantity. Bioenergy Research, 2012, 5, 95-105.	3.9	63
65	Breeding for Bio-ethanol Production in Lolium perenne L.: Association of Allelic Variation with High Water-Soluble Carbohydrate Content. Bioenergy Research, 2012, 5, 149-157.	3.9	23
66	High Resolution Genetic Mapping by Genome Sequencing Reveals Genome Duplication and Tetraploid Genetic Structure of the Diploid Miscanthus sinensis. PLoS ONE, 2012, 7, e33821.	2.5	103
67	Thermal requirements for seed germination in Miscanthus compared with Switchgrass (Panicum) Tj ETQq1 1 0.78	4314 rgB1 5.6	Överlock 33
68	Characterization of flowering time diversity in Miscanthus species. GCB Bioenergy, 2011, 3, 387-400.	5.6	76
69	Isolation, identification and quantitation of hydroxycinnamic acid conjugates, potential platform chemicals, in the leaves and stems of Miscanthus×giganteus using LC–ESI-MS. Phytochemistry, 2011, 72, 2376-2384.	2.9	65
70	Genotypic variation in cell wall composition in a diverse set of 244 accessions of Miscanthus. Biomass and Bioenergy, 2011, 35, 4740-4747.	5.7	74
71	Seasonal variation in Laminaria digitata and its impact on biochemical conversion routes to biofuels. Bioresource Technology, 2011, 102, 9976-9984.	9.6	194
72	Partial isolation of the genomic region linked with apomixis in Paspalum simplex. Molecular Breeding, 2011, 28, 265-276.	2.1	27

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73	A flexible quantitative methodology for the analysis of gene-flow between conventionally bred maize populations using microsatellite markers. Theoretical and Applied Genetics, 2011, 122, 819-829.	3.6	0
74	Seasonal variation in the chemical composition of the bioenergy feedstock Laminaria digitata for thermochemical conversion. Bioresource Technology, 2011, 102, 226-234.	9.6	204
75	Expression of bacterial levanase in yeast enables simultaneous saccharification and fermentation of grass juice to bioethanol. Bioresource Technology, 2011, 102, 1503-1508.	9.6	13
76	Variation in Miscanthus chemical composition and implications for conversion by pyrolysis and thermo-chemical bio-refining for fuels and chemicals. Bioresource Technology, 2011, 102, 3411-3418.	9.6	142
77	Identification of genes involved in cell wall biogenesis in grasses by differential gene expression profiling of elongating and non-elongating maize internodes. Journal of Experimental Botany, 2011, 62, 3545-3561.	4.8	107
78	Expression, purification and use of the soluble domain of Lactobacillus paracasei β-fructosidase to optimise production of bioethanol from grass fructans. Bioresource Technology, 2010, 101, 4395-4402.	9.6	37
79	Genotypic and environmentally derived variation in the cell wall composition of Miscanthus in relation to its use as a biomass feedstock. Biomass and Bioenergy, 2010, 34, 652-660.	5.7	103
80	Miscanthus as a feedstock for fast-pyrolysis: Does agronomic treatment affect quality?. Bioresource Technology, 2010, 101, 6185-6191.	9.6	89
81	Developing <i>Miscanthus</i> for Bioenergy. RSC Energy and Environment Series, 2010, , 301-321.	0.5	7
82	Designing Biomass Crops with Improved Calorific Content and Attributes for Burning: a UK Perspective. Biotechnology in Agriculture and Forestry, 2010, , 25-55.	0.2	11
83	Fermentation study on Saccharina latissima for bioethanol production considering variable pre-treatments. Journal of Applied Phycology, 2009, 21, 569-574.	2.8	325
84	Identification of coincident QTL for days to heading, spike length and spikelets per spike in Lolium perenne L Euphytica, 2009, 166, 61-70.	1.2	33
85	Identification of genes involved in the floral transition at the shoot apical meristem of Lolium perenne L. by use of suppression subtractive hybridisation. Plant Growth Regulation, 2009, 59, 215-225.	3.4	2
86	Measurement of key compositional parameters in two species of energy grass by Fourier transform infrared spectroscopy. Bioresource Technology, 2009, 100, 6428-6433.	9.6	55
87	Quantification of hydroxycinnamic acids and lignin in perennial forage and energy grasses by Fourier-transform infrared spectroscopy and partial least squares regression. Bioresource Technology, 2009, 100, 1252-1261.	9.6	53
88	Identification of an extensive gene cluster among a family of PPOs in Trifolium pratense L. (red clover) using a large insert BAC library. BMC Plant Biology, 2009, 9, 94.	3.6	31
89	Functional Genomics of Forage and Bioenergy Quality Traits in the Grasses. , 2009, , 111-124.		4
90	Direct fermentation of fodder maize, chicory fructans and perennial ryegrass to hydrogen using mixed microflora. Bioresource Technology, 2008, 99, 8833-8839.	9.6	46

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91	The effect of lignin and inorganic species in biomass on pyrolysis oil yields, quality and stability. Fuel, 2008, 87, 1230-1240.	6.4	477
92	The control of chlorophyll catabolism and the status of yellowing as a biomarker of leaf senescence. Plant Biology, 2008, 10, 4-14.	3.8	96
93	Bioenergy technology—balancing energy output with environmental benefits. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2008, 150, S174-S175.	1.8	2
94	Manipulation of plant architecture for increased biomass in Miscanthus. Comparative Biochemistry and Physiology Part A, Molecular & amp; Integrative Physiology, 2008, 150, S181.	1.8	0
95	Comparative Analyses Between Lolium/Festuca Introgression Lines and Rice Reveal the Major Fraction of Functionally Annotated Gene Models Is Located in Recombination-Poor/Very Recombination-Poor Regions of the Genome. Genetics, 2007, 177, 597-606.	2.9	30
96	Cross-Species Identification of Mendel's I Locus. Science, 2007, 315, 73-73.	12.6	168
97	Influence of particle size on the analytical and chemical properties of two energy crops. Fuel, 2007, 86, 60-72.	6.4	192
98	The effect of alkali metals on combustion and pyrolysis of Lolium and Festuca grasses, switchgrass and willow. Fuel, 2007, 86, 1560-1569.	6.4	337
99	Prediction of Klason lignin and lignin thermal degradation products by Py–GC/MS in a collection of Lolium and Festuca grasses. Journal of Analytical and Applied Pyrolysis, 2007, 80, 16-23.	5.5	92
100	Construction and screening of BAC libraries made from Brachypodium genomic DNA. Nature Protocols, 2007, 2, 1661-1674.	12.0	53
101	Modification of nitrogen remobilization, grain fill and leaf senescence in maize ( Zea mays ) by transposon insertional mutagenesis in a protease gene. New Phytologist, 2007, 173, 481-494.	7.3	42
102	Evolutionary hierarchies of conserved blocks in 5'-noncoding sequences of dicot rbcS genes. BMC Evolutionary Biology, 2007, 7, 51.	3.2	7
103	Introgression mapping in the grasses. Chromosome Research, 2007, 15, 105-113.	2.2	20
104	From crop to model to crop: identifying the genetic basis of the staygreen mutation in the Lolium / Festuca forage and amenity grasses. New Phytologist, 2006, 172, 592-597.	7.3	98
105	Construction of two Lolium perenne BAC libraries and identification of BACs containing candidate genes for disease resistance and forage quality. Molecular Breeding, 2006, 19, 15-23.	2.1	21
106	Molecular cytogenetics and DNA sequence analysis of an apomixis-linked BAC in Paspalum simplex reveal a non pericentromere location and partial microcolinearity with rice. Theoretical and Applied Genetics, 2006, 112, 1179-1191.	3.6	90
107	Alignment of the Genomes of <i>Brachypodium distachyon</i> and Temperate Cereals and Grasses Using Bacterial Artificial Chromosome Landing With Fluorescence <i>in Situ</i> Hybridization. Genetics, 2006, 173, 349-362.	2.9	108
108	Identification of perennial ryegrass (Lolium perenne (L.)) and meadow fescue (Festuca pratensis) Tj ETQq0 0 0 r through comparative mapping and microsynteny. New Phytologist, 2005, 167, 239-247.	gBT /Overlo 7.3	ock 10 Tf 50 6 44

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109	Nitrogen management and senescence in two maize hybrids differing in the persistence of leaf greenness: agronomic, physiological and molecular aspects. New Phytologist, 2005, 167, 483-492.	7.3	67
110	Construction of a Festuca pratensis BAC library for map-based cloning in Festulolium substitution lines. Theoretical and Applied Genetics, 2005, 110, 846-851.	3.6	21
111	Molecular tagging of a senescence gene by introgression mapping of a stayâ€green mutation from Festuca pratensis. New Phytologist, 2005, 165, 801-806.	7.3	31
112	Modification of senescence in ryegrass transformed with IPT under the control of a monocot senescence-enhanced promoter. Plant Cell Reports, 2004, 22, 816-821.	5.6	49
113	Synteny between a major heading-date QTL in perennial ryegrass (Lolium perenne L.) and the Hd3 heading-date locus in rice. Theoretical and Applied Genetics, 2004, 108, 822-828.	3.6	104
114	Leaf senescence is delayed in maize expressing the Agrobacterium IPT gene under the control of a novel maize senescence-enhanced promoter. Plant Biotechnology Journal, 2004, 2, 101-112.	8.3	90
115	What stayâ€green mutants tell us about nitrogen remobilization in leaf senescence. Journal of Experimental Botany, 2002, 53, 801-808.	4.8	90
116	Models of floral pattern in detached flowers of Silene coeli-rosa (L) Godr. (Caryophyllaceae). Botanical Journal of the Linnean Society, 2002, 140, 229-235.	1.6	3
117	Molecular cloning, functional expression and characterisation of RCC reductase involved in chlorophyll catabolism. Plant Journal, 2000, 21, 189-198.	5.7	160
118	Characterisation of a cysteine protease cDNA from Lolium multiflorum leaves and its expression during senescence and cytokinin treatment. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 2000, 1492, 233-236.	2.4	33
119	Chlorophyll breakdown in Chlorella protothecoides: characterization of degreening and cloning of degreening-related genes. Plant Molecular Biology, 2000, 42, 439-450.	3.9	53
120	Chlorophyll catabolism and gene expression in the peel of ripening banana fruits. Physiologia Plantarum, 1999, 107, 32-38.	5.2	50
121	Single pollen typing combined with laserâ€mediated manipulation. Plant Journal, 1999, 20, 371-378.	5.7	50
122	Introgression, tagging and expression of a leaf senescence gene in <i>Festulolium</i> . New Phytologist, 1997, 137, 29-34.	7.3	49
123	Isolation of <i>Y</i> Chromosome-Specific Sequences From <i>Silene latifolia</i> and Mapping of Male Sex-Determining Genes Using Representational Difference Analysis. Genetics, 1996, 144, 1893-1901.	2.9	87
124	Experimental control of floral reversion in isolated shoot apices of the long-day plant Silene coeli-rosa. Physiologia Plantarum, 1994, 92, 329-335.	5.2	0
125	Determination of floral organ type in cultured Silene shoot apices. Physiologia Plantarum, 1993, 89, 315-322.	5.2	0
126	The Genetic Control of Senescence Revealed By Mapping Quantitative Trait Loci. , 0, , 171-201.		1

The Genetic Control of Senescence Revealed By Mapping Quantitative Trait Loci. , 0, , 171-201. 126