Nicola J Patron

List of Publications by Year
in descending order

70 papers	5,628 citations	136885 32 h-index	106281 65 g-index
83 all docs	83 docs citations	83 times ranked	6873 citing authors

#	Article	IF	Citations
1	Insect pest management in the age of synthetic biology. Plant Biotechnology Journal, 2022, 20, 25-36.	4.1	38
2	Cas9-Mediated Targeted Mutagenesis in Plants. Methods in Molecular Biology, 2022, 2379, 1-26.	0.4	5
3	The wheat <i>Sr22</i>, <i>Sr33</i>, <i>Sr35</i> and <i>Sr45</i> genes confer resistance against stem rust in barley. Plant Biotechnology Journal, 2021, 19, 273-284.	4.1	14
4	A biofoundry workflow for the identification of genetic determinants of microbial growth inhibition. Synthetic Biology, 2021, 6, ysab004.	1.2	6
5	Measurement of Transgene Copy Number in Plants Using Droplet Digital PCR. Bio-protocol, 2021, 11, e4075.	0.2	4
6	Biofoundry-assisted expression and characterization of plant proteins. Synthetic Biology, 2021, 6, ysab029.	1.2	14
7	80 questions for UK biological security. PLoS ONE, 2021, 16, e0241190.	1.1	8
8	Generating and characterizing single- and multigene mutants of the Rubisco small subunit family in Arabidopsis. Journal of Experimental Botany, 2020, 71, 5963-5975.	2.4	16
9	Editorial: Proceedings of ICPSBBB 2018 - 2nd International Conference on Plant Synthetic Biology, Bioengineering and Biotechnology. Frontiers in Plant Science, 2020, 11, 614933.	1.7	0
10	Rational design of minimal synthetic promoters for plants. Nucleic Acids Research, 2020, 48, 11845-11856.	6.5	70
11	Systematic Tools for Reprogramming Plant Gene Expression in a Simple Model, <i>Marchantia polymorpha</i>. ACS Synthetic Biology, 2020, 9, 864-882.	1.9	51
12	Engineering Tobacco for Plant Natural Product Production. , 2020, , 244-262.		8
13	Beyond natural: synthetic expansions of botanical form and function. New Phytologist, 2020, 227, 295-310.	3.5	23
14	Phytobricks: Manual and Automated Assembly of Constructs for Engineering Plants. Methods in Molecular Biology, 2020, 2205, 179-199.	0.4	19
15	Bioengineering horizon scan 2020. ELife, 2020, 9, .	2.8	19
16	Building a global alliance of biofoundries. Nature Communications, 2019, 10, 2040.	5.8	167
17	Cas9â€mediated mutagenesis of potato starchâ€branching enzymes generates a range of tuber starch phenotypes. Plant Biotechnology Journal, 2019, 17, 2259-2271.	4.1	105
18	Comparison of efficiency and specificity of CRISPR-associated (Cas) nucleases in plants: An expanded toolkit for precision genome engineering. PLoS ONE, 2019, 14, e0211598.	1.1	42

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19	Unraveling the subtleties of Î²-(1â†’3)-glucan phosphorylase specificity in the GH94, GH149, and GH161 glycoside hydrolase families. Journal of Biological Chemistry, 2019, 294, 6483-6493.	1.6	16
20	Loop assembly: a simple and open system for recursive fabrication of <scp>DNA</scp> circuits. New Phytologist, 2019, 222, 628-640.	3.5	88
21	DNA assembly standards: Setting the low-level programming code for plant biotechnology. Plant Science, 2018, 273, 33-41.	1.7	22
22	Identification of Euglena gracilis Î²-1,3-glucan phosphorylase and establishment of a new glycoside hydrolase (GH) family GH149. Journal of Biological Chemistry, 2018, 293, 2865-2876.	1.6	31
23	Plant genetic resources for food and agriculture: opportunities and challenges emerging from the science and information technology revolution. New Phytologist, 2018, 217, 1407-1419.	3.5	85
24	Opening options for material transfer. Nature Biotechnology, 2018, 36, 923-927.	9.4	44
25	Plant metabolic engineering in the synthetic biology era: plant chassis selection. Plant Cell Reports, 2018, 37, 1357-1358.	2.8	9
26	Zinc finger nucleaseâ€mediated precision genome editing of an endogenous gene in hexaploid bread wheat (<i>Triticum aestivum</i>) using a <scp>DNA</scp> repair template. Plant Biotechnology Journal, 2018, 16, 2088-2101.	4.1	56
27	Synthetic Botany. Cold Spring Harbor Perspectives in Biology, 2017, 9, a023887.	2.3	39
28	Harnessing plant metabolic diversity. Current Opinion in Chemical Biology, 2017, 40, 24-30.	2.8	56
29	Synthetic Biology and Gene Cloning. , 2017, , 112-117.		0
30	CRISPR-based tools for plant genome engineering. Emerging Topics in Life Sciences, 2017, 1, 135-149.	1.1	15
31	A transatlantic perspective on 20 emerging issues in biological engineering. ELife, 2017, 6, .	2.8	49
32	SMRT Gate: A method for validation of synthetic constructs on Pacific Biosciences sequencing platforms. BioTechniques, 2017, 63, 13-20.	0.8	6
33	DNA Assembly for Plant Biology. Current Protocols in Plant Biology, 2016, 1, 604-616.	2.8	5
34	Bacterial Cells as Engineered Chassis. , 2016, , 120-163.		0
35	Blueprints for green biotech: development and application of standards for plant synthetic biology. Biochemical Society Transactions, 2016, 44, 702-708.	1.6	8
36	Meeting report: GARNet/OpenPlant CRISPR-Cas workshop. Plant Methods, 2016, 12, 6.	1.9	6

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37	Multi-gene engineering in plants with RNA-guided Cas9 nuclease. Current Opinion in Biotechnology, 2016, 37, 69-75.	3.3	32
38	An introduction to synthetic biology in plant systems. New Phytologist, 2015, 208, 20-22.	3.5	3
39	Standards for plant synthetic biology: a common syntax for exchange of <scp>DNA</scp> parts. New Phytologist, 2015, 208, 13-19.	3.5	263
40	Induction of targeted, heritable mutations in barley and Brassica oleracea using RNA-guided Cas9 nuclease. Genome Biology, 2015, 16, 258.	3.8	490
41	Editing plant genomes with CRISPR/Cas9. Current Opinion in Biotechnology, 2015, 32, 76-84.	3.3	456
42	Reduced lignin content and altered lignin composition in the warm season forage grass Paspalum dilatatum by down-regulation of a Cinnamoyl CoA Reductase Gene. Transgenic Research, 2014, 23, 503-517.	1.3	45
43	DNA assembly for plant biology: techniques and tools. Current Opinion in Plant Biology, 2014, 19, 14-19.	3.5	40
44	Agrobacterium-mediated transformation of Lolium rigidum Gaud.. Plant Cell, Tissue and Organ Culture, 2014, 118, 67-75.	1.2	10
45	A Golden Gate Modular Cloning Toolbox for Plants. ACS Synthetic Biology, 2014, 3, 839-843.	1.9	666
46	The Phosphoglucan Phosphatase Like Sex Four2 Dephosphorylates Starch at the C3-Position in <i>Arabidopsis</i> Â Â. Plant Cell, 2011, 23, 4096-4111.	3.1	119
47	Evolutionary ancestry and novel functions of the mammalian glucose transporter (GLUT) family. BMC Evolutionary Biology, 2010, 10, 152.	3.2	41
48	The RAB Family GTPase Rab1A from <i>Plasmodium falciparum</i> Defines a Unique Paralog Shared by Chromalveolates and Rhizaria. Journal of Eukaryotic Microbiology, 2009, 56, 348-356.	0.8	25
49	Sulfate assimilation in eukaryotes: fusions, relocations and lateral transfers. BMC Evolutionary Biology, 2008, 8, 39.	3.2	106
50	Phylogenetic Analysis of Sulfate Assimilation and Cysteine Biosynthesis in Phototrophic Organisms. Advances in Photosynthesis and Respiration, 2008, , 31-58.	1.0	14
51	Transit peptide diversity and divergence: A global analysis of plastid targeting signals. BioEssays, 2007, 29, 1048-1058.	1.2	150
52	Horizontal transfer of a eukaryotic plastid-targeted protein gene to cyanobacteria. BMC Biology, 2007, 5, 26.	1.7	27
53	Origin and distribution of epipolythiodioxopiperazine (ETP) gene clusters in filamentous ascomycetes. BMC Evolutionary Biology, 2007, 7, 174.	3.2	151
54	Multiple Gene Phylogenies Support the Monophyly of Cryptomonad and Haptophyte Host Lineages. Current Biology, 2007, 17, 887-891.	1.8	119

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55	A Tertiary Plastid Uses Genes from Two Endosymbionts. Journal of Molecular Biology, 2006, 357, 1373-1382.	2.0	146
56	EFL GTPase in Cryptomonads and the Distribution of EFL and EF-1Î± in Chromalveolates. Protist, 2006, 157, 435-444.	0.6	26
57	Comparative rates of evolution in endosymbiotic nuclear genomes. BMC Evolutionary Biology, 2006, 6, 46.	3.2	19
58	Macronuclear Genome Sequence of the Ciliate Tetrahymena thermophila, a Model Eukaryote. PLoS Biology, 2006, 4, e286.	2.6	657
59	Phylogenetic history of plastid-targeted proteins in the peridinin-containing dinoflagellate Heterocapsa triquetra. International Journal of Systematic and Evolutionary Microbiology, 2006, 56, 1439-1447.	0.8	33
60	COMMON EVOLUTIONARY ORIGIN OF STARCH BIOSYNTHETIC ENZYMES IN GREEN AND RED ALGAE1. Journal of Phycology, 2005, 41, 1131-1141.	1.0	96
61	Distribution and properties of geographically distinct isolates of sugar beet yellowing viruses. Plant Pathology, 2005, 54, 100-107.	1.2	25
62	A Transcriptional Fusion of Genes Encoding Glyceraldehyde-3-Phosphate Dehydrogenase (GAPDH) and Enolase in Dinoflagellates. Journal of Eukaryotic Microbiology, 2005, 52, 343-348.	0.8	13
63	Molecular evidence for a single common origin of chromalveolate plastids. Journal of Eukaryotic Microbiology, 2005, 52, 7S-27S.	0.8	0
64	Filling in the gaps: EST surveys of under-represented chromalveolates. Journal of Eukaryotic Microbiology, 2005, 52, 7S-27S.	0.8	0
65	A high frequency of overlapping gene expression in compacted eukaryotic genomes. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10936-10941.	3.3	90
66	Complex Protein Targeting to Dinoflagellate Plastids. Journal of Molecular Biology, 2005, 348, 1015-1024.	2.0	143
67	The lys5 Mutations of Barley Reveal the Nature and Importance of Plastidial ADP-Glc Transporters for Starch Synthesis in Cereal Endosperm. Plant Physiology, 2004, 135, 2088-2097.	2.3	119
68	Gene Replacement of Fructose-1,6-Bisphosphate Aldolase Supports the Hypothesis of a Single Photosynthetic Ancestor of Chromalveolates. Eukaryotic Cell, 2004, 3, 1169-1175.	3.4	132
69	A Low-Starch Barley Mutant, RisÃ¸ 16, Lacking the Cytosolic Small Subunit of ADP-Glucose Pyrophosphorylase, Reveals the Importance of the Cytosolic Isoform and the Identity of the Plastidial Small Subunit. Plant Physiology, 2003, 131, 684-696.	2.3	98
70	The Altered Pattern of Amylose Accumulation in the Endosperm of Low-Amylose Barley Cultivars Is Attributable to a Single Mutant Allele of Granule-Bound Starch Synthase I with a Deletion in the 5â€²-Non-Coding Region. Plant Physiology, 2002, 130, 190-198.	2.3	107