Teresa Capell

List of Publications by Year
in descending order

125 papers	8,705 citations	36303 51 h-index	45317 90 g-index
127 all docs	127 docs citations	127 times ranked	7882 citing authors

#	Article	IF	Citations
1	<i>Bacillus thuringiensis</i>: a century of research, development and commercial applications. Plant Biotechnology Journal, 2011, 9, 283-300.	8.3	598
2	Modulation of the polyamine biosynthetic pathway in transgenic rice confers tolerance to drought stress. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 9909-9914.	7.1	532
3	Transgenic multivitamin corn through biofortification of endosperm with three vitamins representing three distinct metabolic pathways. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 7762-7767.	7.1	457
4	Combinatorial genetic transformation generates a library of metabolic phenotypes for the carotenoid pathway in maize. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 18232-18237.	7.1	330
5	Particle bombardment and the genetic enhancement of crops: myths and realities. Molecular Breeding, 2005, 15, 305-327.	2.1	291
6	Recent developments and future prospects in insect pest control in transgenic crops. Trends in Plant Science, 2006, 11, 302-308.	8.8	251
7	Critical evaluation of strategies for mineral fortification of staple food crops. Transgenic Research, 2010, 19, 165-180.	2.4	236
8	Transgenic strategies for the nutritional enhancement of plants. Trends in Plant Science, 2007, 12, 548-555.	8.8	232
9	Progress in plant metabolic engineering. Current Opinion in Biotechnology, 2004, 15, 148-154.	6.6	201
10	When more is better: multigene engineering in plants. Trends in Plant Science, 2010, 15, 48-56.	8.8	187
11	Promoter diversity in multigene transformation. Plant Molecular Biology, 2010, 73, 363-378.	3.9	155
12	Cost-effective production of a vaginal protein microbicide to prevent HIV transmission. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 3727-3732.	7.1	154
13	Travel advice on the road to carotenoids in plants. Plant Science, 2010, 179, 28-48.	3.6	151
14	The regulation of carotenoid pigmentation in flowers. Archives of Biochemistry and Biophysics, 2010, 504, 132-141.	3.0	149
15	Patterns of CRISPR/Cas9 activity in plants, animals and microbes. Plant Biotechnology Journal, 2016, 14, 2203-2216.	8.3	141
16	Rapid high-performance liquid chromatographic method for the quantitation of polyamines as their dansyl derivatives: application to plant and animal tissues. Biomedical Applications, 1995, 666, 329-335.	1.7	135
17	Potential Applications of Plant Biotechnology against SARS-CoV-2. Trends in Plant Science, 2020, 25, 635-643.	8.8	135
18	The contribution of transgenic plants to better health through improved nutrition: opportunities and constraints. Genes and Nutrition, 2013, 8, 29-41.	2.5	122

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19	Characteristics of Genome Editing Mutations in Cereal Crops. Trends in Plant Science, 2017, 22, 38-52.	8.8	122
20	Biosafety and risk assessment framework for selectable marker genes in transgenic crop plants: a case of the science not supporting the politics. Transgenic Research, 2007, 16, 261-280.	2.4	120
21	Nutritionally important carotenoids as consumer products. Phytochemistry Reviews, 2015, 14, 727-743.	6.5	118
22	Engineering Complex Metabolic Pathways in Plants. Annual Review of Plant Biology, 2014, 65, 187-223.	18.7	117
23	Bottlenecks in carotenoid biosynthesis and accumulation in rice endosperm are influenced by the precursorâ€“product balance. Plant Biotechnology Journal, 2016, 14, 195-205.	8.3	113
24	The genetic manipulation of medicinal and aromatic plants. Plant Cell Reports, 2007, 26, 1689-1715.	5.6	112
25	An alternative strategy for sustainable pest resistance in genetically enhanced crops. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 7812-7816.	7.1	110
26	Biofortification of plants with altered antioxidant content and composition: genetic engineering strategies. Plant Biotechnology Journal, 2013, 11, 129-141.	8.3	102
27	Maize plants: An ideal production platform for effective and safe molecular pharming. Plant Science, 2008, 174, 409-419.	3.6	90
28	A golden eraâ€"pro-vitamin A enhancement in diverse crops. In Vitro Cellular and Developmental Biology - Plant, 2011, 47, 205-221.	2.1	90
29	The carotenoid cleavage dioxygenase <scp>CCD</scp>2 catalysing the synthesis of crocetin in spring crocuses and saffron is a plastidial enzyme. New Phytologist, 2016, 209, 650-663.	7.3	88
30	Nutritious crops producing multiple carotenoids â€" a metabolic balancing act. Trends in Plant Science, 2011, 16, 532-540.	8.8	84
31	Biofortification of crops with nutrients: factors affecting utilization and storage. Current Opinion in Biotechnology, 2017, 44, 115-123.	6.6	83
32	Metabolic engineering of ketocarotenoid biosynthesis in higher plants. Archives of Biochemistry and Biophysics, 2009, 483, 182-190.	3.0	80
33	EU-OSTID: A Collection of Transposon Insertional Mutants for Functional Genomics in Rice. Plant Molecular Biology, 2005, 59, 99-110.	3.9	77
34	Phytosiderophores determine thresholds for iron and zinc accumulation in biofortified rice endosperm while inhibiting the accumulation of cadmium. Journal of Experimental Botany, 2017, 68, 4983-4995.	4.8	77
35	Recombinant plant-derived pharmaceutical proteins: current technical and economic bottlenecks. Biotechnology Letters, 2014, 36, 2367-2379.	2.2	74
36	Trace and traceabilityâ€"a call for regulatory harmony. Nature Biotechnology, 2008, 26, 975-978.	17.5	68

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37	Going to ridiculous lengthsâ€"European coexistence regulations for GM crops. Nature Biotechnology, 2010, 28, 133-136.	17.5	68
38	Expression of a Heterologous S-Adenosylmethionine Decarboxylase cDNA in Plants Demonstrates That Changes inS-Adenosyl-l-Methionine Decarboxylase Activity Determine Levels of the Higher Polyamines Spermidine and Spermine. Plant Physiology, 2002, 129, 1744-1754.	4.8	66
39	Spermine facilitates recovery from drought but does not confer drought tolerance in transgenic rice plants expressing Datura stramonium S-adenosylmethionine decarboxylase. Plant Molecular Biology, 2009, 70, 253-264.	3.9	66
40	Combined transcript, proteome, and metabolite analysis of transgenic maize seeds engineered for enhanced carotenoid synthesis reveals pleotropic effects in core metabolism. Journal of Experimental Botany, 2015, 66, 3141-3150.	4.8	65
41	An <i>in vitro</i> system for the rapid functional characterization of genes involved in carotenoid biosynthesis and accumulation. Plant Journal, 2014, 77, 464-475.	5.7	63
42	The expression of heterologous Fe (<scp>III</scp>) phytosiderophore transporter <i>Hv<scp>YS</scp>1</i> in rice increases Fe uptake, translocation and seed loading and excludes heavy metals by selective Fe transport. Plant Biotechnology Journal, 2017, 15, 423-432.	8.3	63
43	The Quest to Understand the Basis and Mechanisms that Control Expression of Introduced Transgenes in Crop Plants. Plant Signaling and Behavior, 2006, 1, 185-195.	2.4	61
44	Nutritionally enhanced crops and food security: scientific achievements versus political expediency. Current Opinion in Biotechnology, 2011, 22, 245-251.	6.6	60
45	Rice endosperm produces an underglycosylated and potent form of the <scp>HIV</scp>â€neutralizing monoclonal antibody 2G12. Plant Biotechnology Journal, 2016, 14, 97-108.	8.3	58
46	Metabolic Engineering of Plant Secondary Products: Which Way Forward?. Current Pharmaceutical Design, 2013, 19, 5622-5639.	1.9	58
47	Paradoxical EU agricultural policies on genetically engineered crops. Trends in Plant Science, 2013, 18, 312-324.	8.8	57
48	Molecular pharming in cereal crops. Phytochemistry Reviews, 2008, 7, 579-592.	6.5	56
49	The humanitarian impact of plant biotechnology: recent breakthroughs vs bottlenecks for adoption. Current Opinion in Plant Biology, 2010, 13, 219-225.	7.1	56
50	Plurality of opinion, scientific discourse and pseudoscience: an in depth analysis of the SÃ©ralini et al. study claiming that Roundupâ„¢ Ready corn or the herbicide Roundupâ„¢ cause cancer in rats. Transgenic Research, 2013, 22, 255-267.	2.4	55
51	Plant Cells as Pharmaceutical Factories. Current Pharmaceutical Design, 2013, 19, 5640-5660.	1.9	55
52	The distribution of carotenoids in hens fed on biofortified maize is influenced by feed composition, absorption, resource allocation and storage. Scientific Reports, 2016, 6, 35346.	3.3	53
53	Cloning and functional characterization of the maize carotenoid isomerase and Î²-carotene hydroxylase genes and their regulation during endosperm maturation. Transgenic Research, 2010, 19, 1053-1068.	2.4	49
54	High-value products from transgenic maize. Biotechnology Advances, 2011, 29, 40-53.	11.7	48

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55	The potential impact of plant biotechnology on the Millennium Development Goals. Plant Cell Reports, 2011, 30, 249-265.	5.6	47
56	Synergistic metabolism in hybrid corn indicates bottlenecks in the carotenoid pathway and leads to the accumulation of extraordinary levels of the nutritionally important carotenoid zeaxanthin. Plant Biotechnology Journal, 2011, 9, 384-393.	8.3	46
57	Genome editing in cereal crops: an overview. Transgenic Research, 2021, 30, 461-498.	2.4	46
58	Transgenic and genome-edited fruits: background, constraints, benefits, and commercial opportunities. Horticulture Research, 2021, 8, 166.	6.3	46
59	Inactivation of rice starch branching enzyme IIb triggers broad and unexpected changes in metabolism by transcriptional reprogramming. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 26503-26512.	7.1	45
60	Metabolic engineering of astaxanthin biosynthesis in maize endosperm and characterization of a prototype high oil hybrid. Transgenic Research, 2016, 25, 477-489.	2.4	44
61	Contributions of the international plant science community to the fight against human infectious diseases â€" part 1: epidemic and pandemic diseases. Plant Biotechnology Journal, 2021, 19, 1901-1920.	8.3	44
62	Knowledge-driven approaches for engineering complex metabolic pathways in plants. Current Opinion in Biotechnology, 2015, 32, 54-60.	6.6	43
63	Simultaneous expression of Arabidopsis Ï•hydroxyphenylpyruvate dioxygenase and MPBQ methyltransferase in transgenic corn kernels triples the tocopherol content. Transgenic Research, 2011, 20, 177-181.	2.4	42
64	Rice endosperm is costâ€effective for the production of recombinant griffithsin with potent activity against HIV. Plant Biotechnology Journal, 2016, 14, 1427-1437.	8.3	40
65	EU legitimizes GM crop exclusion zones. Nature Biotechnology, 2011, 29, 315-317.	17.5	39
66	Transgenic rice grains expressing a heterologous Ï•hydroxyphenylpyruvate dioxygenase shift tocopherol synthesis from the Î³ to the Î± isoform without increasing absolute tocopherol levels. Transgenic Research, 2012, 21, 1093-1097.	2.4	38
67	Engineering metabolic pathways in plants by multigene transformation. International Journal of Developmental Biology, 2013, 57, 565-576.	0.6	38
68	The Arabidopsis ORANGE (AtOR) gene promotes carotenoid accumulation in transgenic corn hybrids derived from parental lines with limited carotenoid pools. Plant Cell Reports, 2017, 36, 933-945.	5.6	38
69	Promoter strength influences polyamine metabolism and morphogenic capacity in transgenic rice tissues expressing the oat adc cDNA constitutively. Transgenic Research, 2000, 9, 33-42.	2.4	36
70	Carotenoidâ€enriched transgenic corn delivers bioavailable carotenoids to poultry and protects them against coccidiosis. Plant Biotechnology Journal, 2016, 14, 160-168.	8.3	36
71	Calling the tunes on transgenic crops: the case for regulatory harmony. Molecular Breeding, 2009, 23, 99-112.	2.1	33
72	Constitutive expression of a barley Fe phytosiderophore transporter increases alkaline soil tolerance and results in iron partitioning between vegetative and storage tissues under stress. Plant Physiology and Biochemistry, 2012, 53, 46-53.	5.8	33

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73	Seeds as a Production System for Molecular Pharming Applications: Status and Prospects. Current Pharmaceutical Design, 2013, 19, 5543-5552.	1.9	32
74	A transgenic rice cell lineage expressing the oat arginine decarboxylase (adc) cDNA constitutively accumulates putrescine in callus and seeds but not in vegetative tissues. Plant Molecular Biology, 2000, 43, 537-544.	3.9	31
75	Building bridges: an integrated strategy for sustainable food production throughout the value chain. Molecular Breeding, 2013, 32, 743-770.	2.1	28
76	Unexpected synergistic HIV neutralization by a triple microbicide produced in rice endosperm. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7854-E7862.	7.1	28
77	A simplified technoâ€economic model for the molecular pharming of antibodies. Biotechnology and Bioengineering, 2019, 116, 2526-2539.	3.3	28
78	Targeted transcriptomic and metabolic profiling reveals temporal bottlenecks in the maize carotenoid pathway that may be addressed by multigene engineering. Plant Journal, 2013, 75, 441-455.	5.7	27
79	Reduction in the endogenous arginine decarboxylase transcript levels in rice leads to depletion of the putrescine and spermidine pools with no concomitant changes in the expression of downstream genes in the polyamine biosynthetic pathway. Planta, 2003, 218, 125-134.	3.2	25
80	Field trials and tribulationsâ€"making sense of the regulations for experimental field trials of transgenic crops in Europe. Plant Biotechnology Journal, 2012, 10, 511-523.	8.3	24
81	Transgenic wheat plants expressing an oat arginine decarboxylase cDNA exhibit increases in polyamine content in vegetative tissue and seeds. Molecular Breeding, 2008, 22, 39-50.	2.1	21
82	Reconstruction of the astaxanthin biosynthesis pathway in rice endosperm reveals a metabolic bottleneck at the level of endogenous Î²-carotene hydroxylase activity. Transgenic Research, 2017, 26, 13-23.	2.4	21
83	A question of balance: achieving appropriate nutrient levels in biofortified staple crops. Nutrition Research Reviews, 2013, 26, 235-245.	4.1	20
84	Cloning and functional analysis of the promoters that upregulate carotenogenic gene expression during flower development in <i>Gentiana lutea</i>. Physiologia Plantarum, 2014, 150, 493-504.	5.2	20
85	Engineered maize as a source of astaxanthin: processing and application as fish feed. Transgenic Research, 2016, 25, 785-793.	2.4	20
86	The Silencing of Carotenoid Î²-Hydroxylases by RNA Interference in Different Maize Genetic Backgrounds Increases the Î²-Carotene Content of the Endosperm. International Journal of Molecular Sciences, 2017, 18, 2515.	4.1	20
87	Can the world afford to ignore biotechnology solutions that address food insecurity?. Plant Molecular Biology, 2013, 83, 5-19.	3.9	19
88	Antisenescence properties of guazatine in osmotically stressed oat leaves. Phytochemistry, 1993, 32, 785-788.	2.9	18
89	Abscisic acid and the herbicide safener cyprosulfamide cooperatively enhance abiotic stress tolerance in rice. Molecular Breeding, 2013, 32, 463-484.	2.1	17
90	A novel carotenoid, 4-keto-Î±-carotene, as an unexpected by-product during genetic engineering of carotenogenesis in rice callus. Phytochemistry, 2014, 98, 85-91.	2.9	17

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91	Fruit crops in the era of genome editing: closing the regulatory gap. Plant Cell Reports, 2021, 40, 915-930.	5.6	17
92	Functional characterization of the Gentiana lutea zeaxanthin epoxidase (GlZEP) promoter in transgenic tomato plants. Transgenic Research, 2012, 21, 1043-1056.	2.4	16
93	Combinatorial Genetic Transformation of Cereals and the Creation of Metabolic Libraries for the Carotenoid Pathway. Methods in Molecular Biology, 2012, 847, 419-435.	0.9	16
94	Ascorbic acid synthesis and metabolism in maize are subject to complex and genotypeâ€dependent feedback regulation during endosperm development. Biotechnology Journal, 2013, 8, 1221-1230.	3.5	16
95	Metabolic Engineering of Crocin Biosynthesis in Nicotiana Species. Frontiers in Plant Science, 2022, 13, 861140.	3.6	16
96	Can Microbicides Turn the Tide Against HIV?. Current Pharmaceutical Design, 2010, 16, 468-485.	1.9	15
97	Mice fed on a diet enriched with genetically engineered multivitamin corn show no subâ€acute toxic effects and no subâ€chronic toxicity. Plant Biotechnology Journal, 2012, 10, 1026-1034.	8.3	15
98	Transcriptional regulation of the rice arginine decarboxylase (Adc1) and S-adenosylmethionine decarboxylase (Samdc) genes by methyl jasmonate. Plant Physiology and Biochemistry, 2010, 48, 553-559.	5.8	14
99	The subcellular localization of two isopentenyl diphosphate isomerases in rice suggests a role for the endoplasmic reticulum in isoprenoid biosynthesis. Plant Cell Reports, 2020, 39, 119-133.	5.6	14
100	Plant biotechnology: the importance of being accurate. Trends in Biotechnology, 2009, 27, 609-612.	9.3	12
101	Molecular characterization of the Arginine decarboxylase gene family in rice. Transgenic Research, 2010, 19, 785-797.	2.4	12
102	A carotenogenic mini-pathway introduced into white corn does not affect development or agronomic performance. Scientific Reports, 2016, 6, 38288.	3.3	12
103	Provitamin A carotenoids from an engineered high-carotenoid maize are bioavailable and zeaxanthin does not compromise Î²-carotene absorption in poultry. Transgenic Research, 2017, 26, 591-601.	2.4	11
104	Dedifferentiation-mediated changes in transposition behavior make the Activator transposon an ideal tool for functional genomics in rice. Molecular Breeding, 2004, 13, 177-191.	2.1	10
105	Strategic patent analysis in plant biotechnology: terpenoid indole alkaloid metabolic engineering as a case study. Plant Biotechnology Journal, 2014, 12, 117-134.	8.3	10
106	Can plant biotechnology help break the HIVâ€"malaria link?. Biotechnology Advances, 2014, 32, 575-582.	11.7	10
107	CRISPR/Cas9-induced monoallelic mutations in the cytosolic AGPase large subunit gene APL2 induce the ectopic expression of APL2 and the corresponding small subunit gene APS2b in rice leaves. Transgenic Research, 2018, 27, 423-439.	2.4	10
108	Freedomâ€toâ€operate analysis of a transgenic multivitamin corn variety. Plant Biotechnology Journal, 2016, 14, 1225-1240.	8.3	9

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109	Identification of lineâ€specific strategies for improving carotenoid production in synthetic maize through dataâ€driven mathematical modeling. Plant Journal, 2016, 87, 455-471.	5.7	9
110	Carotenoids moderate the effectiveness of a Bt gene against the European corn borer, Ostrinia nubilalis. PLoS ONE, 2018, 13, e0199317.	2.5	9
111	The ratio of phytosiderophores nicotianamine to deoxymugenic acid controls metal homeostasis in rice. Planta, 2019, 250, 1339-1354.	3.2	9
112	Transgenic cell lines as a useful tool to study the biochemistry of down-regulation of an endogenous rice gene using a heterologous diamine-oxidase cDNA. Plant Physiology and Biochemistry, 2000, 38, 729-737.	5.8	7
113	Efficient recovery of recombinant proteins from cereal endosperm is affected by interaction with endogenous storage proteins. Biotechnology Journal, 2013, 8, 1203-1212.	3.5	7
114	Development of a novel gene transfer system for Cajanus cajan and expression of a monocot arginine decarboxylase cDNA in transformed cell lines. Plant Physiology and Biochemistry, 2001, 39, 575-582.	5.8	6
115	Transit Peptides From Photosynthesis-Related Proteins Mediate Import of a Marker Protein Into Different Plastid Types and Within Different Species. Frontiers in Plant Science, 2020, 11, 560701.	3.6	6
116	Cloning and Functional Characterization of the Maize (Zea mays L.) Carotenoid Epsilon Hydroxylase Gene. PLoS ONE, 2015, 10, e0128758.	2.5	5
117	The Biosynthesis of Non-Endogenous Apocarotenoids in Transgenic Nicotiana glauca. Metabolites, 2022, 12, 575.	2.9	5
118	Multilevel interactions between native and ectopic isoprenoid pathways affect global metabolism in rice. Transgenic Research, 2022, 31, 249-268.	2.4	4
119	The Coordinated Upregulated Expression of Genes Involved in MEP, Chlorophyll, Carotenoid and Tocopherol Pathways, Mirrored the Corresponding Metabolite Contents in Rice Leaves during De-Etiolation. Plants, 2021, 10, 1456.	3.5	3
120	Transgenic Multivitamin Biofortified Corn: Science, Regulation, and Politics. , 2013, , 335-347.		3
121	Physicochemical characterization of the recombinant lectin scytovirin and microbicidal activity of the SD1 domain produced in rice against HIV-1. Plant Cell Reports, 2022, , 1.	5.6	3
122	Engineered Maize Hybrids with Diverse Carotenoid Profiles and Potential Applications in Animal Feeding. Advances in Experimental Medicine and Biology, 2021, 1261, 95-113.	1.6	2
123	Increasing the vitamin E content of food by in-plant production.. CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources, 0, , 1-10.	1.0	2
124	Development of a facile genetic transformation system for the Spanish elite rice paella genotype Bomba. Transgenic Research, 2022, 31, 325-340.	2.4	1
125	Molecular regulation and biotechnology of carotenoid accumulation in flowers. Journal of Biotechnology, 2008, 136, S239-S240.	3.8	0