Herta Steinkellner

List of Publications by Year
in descending order

98 papers	7,638 citations	41344 49 h-index	53230 85 g-index
102 all docs	102 docs citations	102 times ranked	4822 citing authors

#	Article	IF	Citations
1	Generation of glycoâ€engineered <i>Nicotiana benthamiana</i> for the production of monoclonal antibodies with a homogeneous humanâ€like <i>N</i>â€glycan structure. Plant Biotechnology Journal, 2008, 6, 392-402.	8.3	458
2	Within-population genetic structure in Quercus robur L. and Quercus petraea (Matt.) Liebl. assessed with isozymes and microsatellites. Molecular Ecology, 1998, 7, 317-328.	3.9	299
3	Pollen dispersal inferred from paternity analysis in a mixed oak stand ofQuercus roburL. andQ. petraea(Matt.) Liebl.. Molecular Ecology, 1999, 8, 831-841.	3.9	286
4	Generation of Arabidopsis thaliana plants with complex N -glycans lacking Î²1,2-linked xylose and core Î±1,3-linked fucose. FEBS Letters, 2004, 561, 132-136.	2.8	281
5	Identification and characterization of (GA/CT)n-microsatellite loci from Quercus petraea. Plant Molecular Biology, 1997, 33, 1093-1096.	3.9	261
6	Microsatellite variability in grapevine cultivars from different European regions and evaluation of assignment testing to assess the geographic origin of cultivars. Theoretical and Applied Genetics, 2000, 100, 498-505.	3.6	249
7	Enhanced potency of a fucose-free monoclonal antibody being developed as an Ebola virus immunoprotectant. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20690-20694.	7.1	210
8	Efficient transformation ofAgrobacteriumspp. by eletroporation. Nucleic Acids Research, 1989, 17, 6747-6747.	14.5	194
9	In Planta Protein Sialylation through Overexpression of the Respective Mammalian Pathway. Journal of Biological Chemistry, 2010, 285, 15923-15930.	3.4	193
10	Characterization of (GA)n Microsatellite Loci from Quercus Robur. Hereditas, 2004, 129, 183-186.	1.4	192
11	Production of a monoclonal antibody in plants with a humanized <i>N</i>â€glycosylation pattern. Plant Biotechnology Journal, 2007, 5, 657-663.	8.3	179
12	Identification of microsatellite sequences in <i>Vitis riparia </i>and their applicability for genotyping of different <i>Vitis</i> species. Genome, 1999, 42, 367-373.	2.0	160
13	A Unique Î²1,3-Galactosyltransferase Is Indispensable for the Biosynthesis of <i>N</i>-Glycans Containing Lewis a Structures in <i>Arabidopsis thaliana</i>. Plant Cell, 2007, 19, 2278-2292.	6.6	157
14	Improved Virus Neutralization by Plant-produced Anti-HIV Antibodies with a Homogeneous Î²1,4-Galactosylated N-Glycan Profile. Journal of Biological Chemistry, 2009, 284, 20479-20485.	3.4	156
15	Regeneration of transgenic plants of Prunus armeniaca containing the coat protein gene of Plum Pox Virus. Plant Cell Reports, 1992, 11, 25-29.	5.6	138
16	Fc-Glycosylation Influences FcÎ³ Receptor Binding and Cell-Mediated Anti-HIV Activity of Monoclonal Antibody 2G12. Journal of Immunology, 2010, 185, 6876-6882.	0.8	138
17	Plant-based Heterologous Expression of Mal d 2, a Thaumatin-like Protein and Allergen of Apple (Malus) Tj ETQq1 1 0.784314 rgBT /Ove 721-730.	4.2	129
18	A genetic linkage map of Quercus robur L. (pedunculate oak) based on RAPD, SCAR, microsatellite, minisatellite, isozyme and 5S rDNA markers. Theoretical and Applied Genetics, 1998, 97, 1090-1103.	3.6	125

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19	N-Glycosylation engineering of plants for the biosynthesis of glycoproteins with bisected and branched complex N-glycans. Glycobiology, 2011, 21, 813-823.	2.5	120
20	The high efficiency, human B cell immortalizing heteromyeloma CB-F7. Journal of Immunological Methods, 1988, 106, 257-265.	1.4	115
21	The use of microsatellites for germplasm management in a Portuguese grapevine collection. Theoretical and Applied Genetics, 1999, 99, 733-739.	3.6	113
22	Molecular cloning and characterization ofArabidopsis thalianaGolgi Î±-mannosidase II, a key enzyme in the formation of complex N-glycans in plants. Plant Journal, 2006, 45, 789-803.	5.7	105
23	A plant-derived human monoclonal antibody induces an anti-carbohydrate immune response in rabbits. Glycobiology, 2007, 18, 235-241.	2.5	105
24	Molecular cloning and functional expression of Î²1,2-xylosyltransferase cDNA from Arabidopsis thaliana 1. FEBS Letters, 2000, 472, 105-108.	2.8	104
25	Enzymatic Properties and Subcellular Localization of Arabidopsis Î²-N-Acetylhexosaminidases. Plant Physiology, 2007, 145, 5-16.	4.8	104
26	N-Glycosylation of Plant-produced Recombinant Proteins. Current Pharmaceutical Design, 2013, 19, 5503-5512.	1.9	101
27	Advanced Plant-Based Glycan Engineering. Frontiers in Bioengineering and Biotechnology, 2018, 6, 81.	4.1	101
28	Controlled glycosylation of plant-produced recombinant proteins. Current Opinion in Biotechnology, 2014, 30, 95-100.	6.6	88
29	Engineering of complex protein sialylation in plants. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9498-9503.	7.1	88
30	Arginine/Lysine Residues in the Cytoplasmic Tail Promote ER Export of Plant Glycosylation Enzymes. Traffic, 2009, 10, 101-115.	2.7	84
31	Molecular cloning and characterization of cDNA coding for Â1,2N-acetylglucosaminyltransferase I (GlcNAc-TI) from Nicotiana tabacum. Glycobiology, 1999, 9, 779-785.	2.5	81
32	Glycoâ€engineering in plants to produce humanâ€like <i>N</i>â€glycan structures. Biotechnology Journal, 2012, 7, 1088-1098.	3.5	81
33	Reconstruction of a grapevine pedigree by microsatellite analysis. Theoretical and Applied Genetics, 1998, 97, 227-231.	3.6	80
34	Engineering of Sialylated Mucin-type O-Glycosylation in Plants. Journal of Biological Chemistry, 2012, 287, 36518-36526.	3.4	77
35	Expression and glycoengineering of functionally active heteromultimeric IgM in plants. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6263-6268.	7.1	77
36	Construction of a Functional CMP-Sialic Acid Biosynthesis Pathway in Arabidopsis. Plant Physiology, 2008, 147, 331-339.	4.8	74

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37	Coat protein mediated resistance to Plum Pox Virus in Nicotiana clevelandii and N. benthamiana. Plant Cell Reports, 1992, 11, 30-33.	5.6	69
38	A PCR membrane spot assay for the detection of plum pox virus RNA in bark of infected trees. Journal of Virological Methods, 1991, 31, 139-145.	2.1	66
39	Generation of Biologically Active Multi-Sialylated Recombinant Human EPOFc in Plants. PLoS ONE, 2013, 8, e54836.	2.5	66
40	Therapeutic treatment of Marburg and Ravn virus infection in nonhuman primates with a human monoclonal antibody. Science Translational Medicine, 2017, 9, .	12.4	64
41	Transient Glyco-Engineering to Produce Recombinant IgA1 with Defined N- and O-Glycans in Plants. Frontiers in Plant Science, 2016, 7, 18.	3.6	63
42	Rapid High Yield Production of Different Glycoforms of Ebola Virus Monoclonal Antibody. PLoS ONE, 2011, 6, e26040.	2.5	61
43	The human antiâ€HIV antibodies 2F5, 2G12, and PG9 differ in their susceptibility to proteolytic degradation: Downâ€regulation of endogenous serine and cysteine proteinase activities could improve antibody production in plantâ€based expression platforms. Biotechnology Journal, 2014, 9, 493-500.	3.5	59
44	Secretion of biologically active glycoforms of bovine follicle stimulating hormone in plants. FEBS Journal, 2001, 268, 4570-4579.	0.2	57
45	Arabidopsis thaliana Î²1,2-xylosyltransferase: an unusual glycosyltransferase with the potential to act at multiple stages of the plant N-glycosylation pathway. Biochemical Journal, 2005, 388, 515-525.	3.7	57
46	IgG-Fc glycoengineering in non-mammalian expression hosts. Archives of Biochemistry and Biophysics, 2012, 526, 167-173.	3.0	56
47	Proteolytic and <i>N</i>-Glycan Processing of Human <i>Î±</i>1-Antitrypsin Expressed in <i>Nicotiana benthamiana</i> Â Â Â Â. Plant Physiology, 2014, 166, 1839-1851.	4.8	55
48	An oligosaccharyltransferase from <i>Leishmania major</i> increases the Nâ€glycan occupancy on recombinant glycoproteins produced in <i>Nicotiana benthamiana</i>. Plant Biotechnology Journal, 2018, 16, 1700-1709.	8.3	54
49	Generation and Analysis of Novel Plant-Derived Antibody-Based Therapeutic Molecules against West Nile Virus. PLoS ONE, 2014, 9, e93541.	2.5	53
50	Plant-produced anti-dengue virus monoclonal antibodies exhibit reduced antibody-dependent enhancement of infection activity. Journal of General Virology, 2016, 97, 3280-3290.	2.9	53
51	The N-terminal 77 amino acids from tobacco N -acetylglucosaminyltransferase I are sufficient to retain a reporter protein in the Golgi apparatus of Nicotiana benthamiana cells. FEBS Letters, 1999, 453, 169-173.	2.8	51
52	Molecular cloning of cDNA encoding N-acetylglucosaminyltransferase II from Arabidopsis thaliana. Glycoconjugate Journal, 1999, 16, 787-791.	2.7	50
53	Production of monoclonal antibodies with a controlled<i>N</i>â€glycosylation pattern in seeds of<i>Arabidopsis thaliana</i>. Plant Biotechnology Journal, 2011, 9, 179-192.	8.3	50
54	Expression of Antibody Fragments with a Controlled<i>N</i>-Glycosylation Pattern and Induction of Endoplasmic Reticulum-Derived Vesicles in Seeds of Arabidopsis Â Â Â. Plant Physiology, 2011, 155, 2036-2048.	4.8	50

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55	Processing of complex N-glycans in IgG Fc-region is affected by core fucosylation. MAbs, 2015, 7, 863-870.	5.2	50
56	Monoclonal antibody therapy for Junin virus infection. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4458-4463.	7.1	50
57	Highly active engineered IgG3 antibodies against SARS-CoV-2. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	48
58	Plant glyco-biotechnology on the way to synthetic biology. Frontiers in Plant Science, 2014, 5, 523.	3.6	47
59	Expression of functionally active sialylated human erythropoietin in plants. Biotechnology Journal, 2013, 8, 371-382.	3.5	46
60	Reduced paucimannosidic <i>N</i>â€glycan formation by suppression of a specific Î²â€hexosaminidase from <i>Nicotiana benthamiana</i>. Plant Biotechnology Journal, 2017, 15, 197-206.	8.3	46
61	<i>In vitro and in vivo</i> efficacy of antiâ€chikungunya virus monoclonal antibodies produced in wildâ€type and glycoengineered <i>Nicotiana benthamiana</i> plants. Plant Biotechnology Journal, 2020, 18, 266-273.	8.3	46
62	Glycan modulation and sulfoengineering of antiâ€“HIV-1 monoclonal antibody PG9 in plants. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12675-12680.	7.1	44
63	Rapid production of the major birch pollen allergen Bet v 1 in Nicotiana benthamiana plants and its immunological in vitro and in vivo characterization. FASEB Journal, 2000, 14, 1279-1288.	0.5	42
64	Rapid production of the major birch pollen allergen Bet v 1 in Nicotiana benthamiana plants and its immunological in vitro and in vivo characterization. FASEB Journal, 2000, 14, 1279-1288.	0.5	40
65	Sequential Depletion and Acquisition of Proteins during Golgi Stack Disassembly and Reformation. Traffic, 2010, 11, 1429-1444.	2.7	40
66	Expression of human butyrylcholinesterase with an engineered glycosylation profile resembling the plasmaâ€derived orthologue. Biotechnology Journal, 2014, 9, 501-510.	3.5	39
67	Increased in vitro neutralizing activity of SARS-CoV-2 IgA1 dimers compared to monomers and IgG. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	37
68	Oligomerization status influences subcellular deposition and glycosylation of recombinant butyrylcholinesterase in <i><scp>N</scp>icotiana benthamiana</i>. Plant Biotechnology Journal, 2014, 12, 832-839.	8.3	34
69	Partial sequence identification of grapevine-leafroll-associated virus-1 and development of a highly sensitive IC-RT-PCR detection method. Journal of Virological Methods, 2000, 86, 101-106.	2.1	32
70	Characterization of plants expressing the human Î²1,4-galactosyltrasferase gene. Plant Physiology and Biochemistry, 2015, 92, 39-47.	5.8	32
71	The Golgi localization of Arabidopsis thaliana beta1,2-xylosyltransferase in plant cells is dependent on its cytoplasmic and transmembrane sequences. Plant Molecular Biology, 2002, 50, 273-281.	3.9	29
72	Production of a tumourâ€targeting antibody with a humanâ€compatible glycosylation profile in <i>N. benthamiana</i> hairy root cultures. Biotechnology Journal, 2016, 11, 1209-1220.	3.5	29

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73	Significant Impact of Single N-Glycan Residues on the Biological Activity of Fc-based Antibody-like Fragments. Journal of Biological Chemistry, 2012, 287, 24313-24319.	3.4	26
74	Rapid Production of Recombinant Allergens in <i>Nicotiana benthamiana</i> and Their Impact on Diagnosis and Therapy. International Archives of Allergy and Immunology, 2001, 124, 48-50.	2.1	24
75	Unaltered complex N-glycan profiles in Nicotiana benthamiana despite drastic reduction of Â1,2-N-acetylglucosaminyltransferase I activity. Glycoconjugate Journal, 2004, 21, 275-282.	2.7	22
76	Plant-based production of highly potent anti-HIV antibodies with engineered posttranslational modifications. Scientific Reports, 2020, 10, 6201.	3.3	22
77	Vacuolar targeting of recombinant antibodies in <i>Nicotiana benthamiana</i>. Plant Biotechnology Journal, 2016, 14, 2265-2275.	8.3	20
78	Microsatellite analysis of maternal half-sib families of Quercus robur, pedunculate oak: detection of seed contaminations and inference of the seed parents from the offspring. Theoretical and Applied Genetics, 1999, 99, 185-191.	3.6	19
79	In Planta Glycan Engineering and Functional Activities of IgE Antibodies. Frontiers in Bioengineering and Biotechnology, 2019, 7, 242.	4.1	19
80	Efficient In Vitro and In Vivo Activity of Glyco-Engineered Plant-Produced Rabies Monoclonal Antibodies E559 and 62-71-3. PLoS ONE, 2016, 11, e0159313.	2.5	19
81	Molecular cloning and heterologous expression of Î²1,2-xylosyltransferase and core Î±1,3-fucosyltransferase from maize. Phytochemistry, 2006, 67, 2215-2224.	2.9	18
82	Promoter Choice Impacts the Efficiency of Plant Glycoâ€Engineering. Biotechnology Journal, 2018, 13, 1700380.	3.5	17
83	Microsatellite analysis of maternal half-sib families of Quercus robur, pedunculate oak: II. inferring the number of pollen donors from the offspring. Theoretical and Applied Genetics, 2000, 100, 858-865.	3.6	16
84	Recombinant plant-derived human IgE glycoproteomics. Journal of Proteomics, 2017, 161, 81-87.	2.4	16
85	Amino-acid sequence comparison of nepovirus coat proteins. Virus Genes, 1992, 6, 197-202.	1.6	15
86	N-Glyco-Engineering in Plants: Update on Strategies and Major Achievements. Methods in Molecular Biology, 2015, 1321, 195-212.	0.9	15
87	In vivo and in vitro activity of an immunoglobulin Fc fragment (Fcab) with engineered Herâ€2/neu binding sites. Biotechnology Journal, 2014, 9, 844-851.	3.5	14
88	AllergoOncology: Expression platform development and functional profiling of an antiâ€HER2 IgE antibody. Allergy: European Journal of Allergy and Clinical Immunology, 2019, 74, 1985-1989.	5.7	14
89	Expression Profiling and Glycan Engineering of IgG Subclass 1â€“4 in Nicotiana benthamiana. Frontiers in Bioengineering and Biotechnology, 2020, 8, 825.	4.1	12
90	Identification of two subtilisinâ€like serine proteases engaged in the degradation of recombinant proteins in <i>NicotianaÂbenthamiana</i>. FEBS Letters, 2021, 595, 379-388.	2.8	12

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91	Glycosylation of plant produced human antibodies. Human Antibodies, 2015, 23, 45-48.	1.5	11
92	Nucleotide sequence of AMV-capsid protein-gene. Nucleic Acids Research, 1990, 18, 7182-7182.	14.5	10
93	Steric Accessibility of the Cleavage Sites Dictates the Proteolytic Vulnerability of the Antiâ€HIVâ€1 Antibodies 2F5, 2G12, and PG9 in Plants. Biotechnology Journal, 2020, 15, e1900308.	3.5	10
94	Early screening for anti-plum pox virus monoclonal antibodies with different epitope specificities by means of gold-labelled immunosorbent electron microscopy. Journal of Virological Methods, 1988, 22, 351-357.	2.1	9
95	Transient Expression of Mammalian Genes in N. benthamiana to Modulate N-Glycosylation. Methods in Molecular Biology, 2016, 1385, 99-113.	0.9	6
96	Detection of Recombinant Viral Coat Protein in Transgenic Plants. Methods in Biotechnology, 1998, , 65-75.	0.2	1
97	Reply to Pandey: Possible functional impact of IgG3 allotype constant region. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	1
98	Stopping the DNA polymerase activity at a specific site with a dideoxyoligonucleotide: selective labelling of single stranded circular DNA. Nucleic Acids Research, 1989, 17, 8384-8384.	14.5	0