Kirsi-Marja Oksman-Caldentey

List of Publications by Year
in descending order

92 papers	7,638 citations	66234 42 h-index	53109 85 g-index
95 all docs	95 docs citations	95 times ranked	8142 citing authors

#	Article	IF	Citations
1	Plant cell factories in the post-genomic era: new ways to produce designer secondary metabolites. Trends in Plant Science, 2004, 9, 433-440.	4.3	431
2	Berry Phenolics: Antimicrobial Properties and Mechanisms of Action Against Severe Human Pathogens. Nutrition and Cancer, 2006, 54, 18-32.	0.9	419
3	Comparison of antioxidant activities of onion and garlic extracts by inhibition of lipid peroxidation and radical scavenging activity. Food Chemistry, 2003, 81, 485-493.	4.2	402
4	In vitro metabolism of anthocyanins by human gut microflora. European Journal of Nutrition, 2005, 44, 133-142.	1.8	390
5	A functional genomics approach toward the understanding of secondary metabolism in plant cells. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 8595-8600.	3.3	378
6	The seco-iridoid pathway from Catharanthus roseus. Nature Communications, 2014, 5, 3606.	5.8	355
7	Gene-to-metabolite networks for terpenoid indole alkaloid biosynthesis in Catharanthus roseus cells. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5614-5619.	3.3	307
8	Engineering tropane biosynthetic pathway in Hyoscyamus niger hairy root cultures. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 6786-6791.	3.3	275
9	Agrobacterium rhizogenes-Mediated Transformation: Root Cultures as a Source of Alkaloids. Planta Medica, 2002, 68, 859-868.	0.7	273
10	Vacuolar transport of nicotine is mediated by a multidrug and toxic compound extrusion (MATE) transporter in <i>Nicotiana tabacum</i>. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 2447-2452.	3.3	255
11	Bioactive berry compounds?novel tools against human pathogens. Applied Microbiology and Biotechnology, 2005, 67, 8-18.	1.7	233
12	Jasmonate signaling involves the abscisic acid receptor PYL4 to regulate metabolic reprogramming in <i>Arabidopsis</i> and tobacco. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5891-5896.	3.3	228
13	Integrating genomics and metabolomics for engineering plant metabolic pathways. Current Opinion in Biotechnology, 2005, 16, 174-179.	3.3	193
14	Blanching and long-term freezing affect various bioactive compounds of vegetables in different ways. Journal of the Science of Food and Agriculture, 2003, 83, 1389-1402.	1.7	181
15	Enhancement of scopolamine production in Hyoscyamus muticus L. hairy root cultures by genetic engineering. Planta, 1999, 208, 545-551.	1.6	161
16	Hairy Root Culturesâ€”A Versatile Tool With Multiple Applications. Frontiers in Plant Science, 2020, 11, 33.	1.7	147
17	Effect of pmt gene overexpression on tropane alkaloid production in transformed root cultures of Datura metel and Hyoscyamus muticus. Journal of Experimental Botany, 2003, 54, 203-211.	2.4	128
18	CathaCyc, a Metabolic Pathway Database Built from Catharanthus roseus RNA-Seq Data. Plant and Cell Physiology, 2013, 54, 673-685.	1.5	116

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19	Plants Utilize Isoprene Emission as a Thermotolerance Mechanism. Plant and Cell Physiology, 2007, 48, 1254-1262.	1.5	109
20	Cellular agriculture â€" industrial biotechnology for food and materials. Current Opinion in Biotechnology, 2020, 61, 128-134.	3.3	108
21	Effects of ellagitanninâ€rich berries on blood lipids, gut microbiota, and urolithin production in human subjects with symptoms of metabolic syndrome. Molecular Nutrition and Food Research, 2013, 57, 2258-2263.	1.5	93
22	Production of tropane alkaloids in diploid and tetraploid plants and in vitro hairy root cultures of Egyptian henbane (Hyoscyamus muticus L.). Plant Cell, Tissue and Organ Culture, 2012, 110, 35-44.	1.2	84
23	Enhanced secretion of tropane alkaloids in Nicotiana tabacum hairy roots expressing heterologous hyoscyamine-6Î²-hydroxylase. Journal of Experimental Botany, 2005, 56, 2611-2618.	2.4	80
24	Unintended effects in genetically modified crops: revealed by metabolomics?. Trends in Biotechnology, 2006, 24, 102-104.	4.9	80
25	Weakening ofSalmonellawith Selected Microbial Metabolites of Berry-Derived Phenolic Compounds and Organic Acids. Journal of Agricultural and Food Chemistry, 2007, 55, 3905-3912.	2.4	76
26	The action of berry phenolics against human intestinal pathogens. BioFactors, 2005, 23, 243-251.	2.6	75
27	Connecting genes to metabolites by a systems biology approach. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 9949-9950.	3.3	73
28	Spontaneous shoot organogenesis and plant regeneration from hairy root cultures of Hyoscyamus muticus. Plant Science, 1991, 78, 129-136.	1.7	67
29	Molecular farming in tobacco hairy roots by triggering the secretion of a pharmaceutical antibody. Biotechnology and Bioengineering, 2014, 111, 336-346.	1.7	67
30	Microbial metabolism of catechin stereoisomers by human faecal microbiota: Comparison of targeted analysis and a non-targeted metabolomics method. Phytochemistry Letters, 2008, 1, 18-22.	0.6	64
31	Transgenic crops for improved pharmaceutical products. Field Crops Research, 1996, 45, 57-69.	2.3	60
32	Somaclonal Variation of Scopolamine Content in Protoplast-Derived Cell Culture Clones ofHyoscyamus muticus. Planta Medica, 1986, 52, 6-12.	0.7	59
33	Secretion of Secondary Metabolites by ATP-Binding Cassette Transporters in Plant Cell Suspension Cultures. Plant Physiology, 2003, 131, 1161-1164.	2.3	58
34	Metabolic Engineering of Plant Secondary Products: Which Way Forward?. Current Pharmaceutical Design, 2013, 19, 5622-5639.	0.9	58
35	Enzyme-Assisted Processing Increases Antimicrobial and Antioxidant Activity of Bilberry. Journal of Agricultural and Food Chemistry, 2008, 56, 681-688.	2.4	56
36	Plant Cells as Pharmaceutical Factories. Current Pharmaceutical Design, 2013, 19, 5640-5660.	0.9	55

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37	Functional characterisation of genes involved in pyridine alkaloid biosynthesis in tobacco. Phytochemistry, 2007, 68, 2773-2785.	1.4	54
38	Simultaneous determination of scopolamine, hyoscyamine and littorine in plants and different hairy root clones of Hyoscyamus muticus by micellar electrokinetic chromatography. Phytochemistry, 2000, 54, 517-523.	1.4	51
39	Exploring the Metabolic Stability of Engineered Hairy Roots after 16 Years Maintenance. Frontiers in Plant Science, 2016, 7, 1486.	1.7	50
40	Determination of the main tropane alkaloids from transformed Hyoscyamus muticus plants by capillary zone electrophoresis. Journal of Pharmaceutical and Biomedical Analysis, 1998, 16, 717-722.	1.4	47
41	The role of single cell protein in cellular agriculture. Current Opinion in Biotechnology, 2022, 75, 102686.	3.3	47
42	Effect of nitrogen and sucrose on the primary and secondary metabolism of transformed root cultures of Hyoscyamus muticus. Plant Cell, Tissue and Organ Culture, 1994, 38, 263-272.	1.2	45
43	Somaclonal Variation in Transformed Roots and Protoplast-Derived Hairy Root Clones ofHyoscyamus muticus. Planta Medica, 1998, 64, 37-41.	0.7	45
44	Glycosylated F4 (K88) Fimbrial Adhesin FaeG Expressed in Barley Endosperm Induces ETEC-neutralizing Antibodies in Mice. Transgenic Research, 2006, 15, 359-373.	1.3	44
45	Drug metabolome of the Simvastatin formed by human intestinal microbiota in vitro. Molecular BioSystems, 2011, 7, 437-446.	2.9	44
46	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.	4.1	44
47	Virulence of different Agrobacterium strains on hairy root formation of Hyoscyamus muticus. Plant Cell Reports, 1995, 14, 236-40.	2.8	43
48	Effect of growth regulators on transformed root cultures of Hyoscyamus muticus. Journal of Plant Physiology, 1998, 153, 475-481.	1.6	43
49	Tropane and Nicotine Alkaloid Biosynthesis-Novel Approaches Towards Biotechnological Production of Plant-Derived Pharmaceuticals. Current Pharmaceutical Biotechnology, 2007, 8, 203-210.	0.9	42
50	Secondary metabolism in root and callus cultures of Hyoscyamus muticus L.: the relationship between morphological organisation and response to methyl jasmonate. Plant Science, 2002, 163, 563-569.	1.7	36
51	Evaluation of tobacco (Nicotiana tabacum L. cv. Petit Havana SR1) hairy roots for the production of geraniol, the first committed step in terpenoid indole alkaloid pathway. Journal of Biotechnology, 2014, 176, 20-28.	1.9	36
52	Effects of Processing on Availability of Total Plant Sterols, Steryl Ferulates and Steryl Glycosides from Wheat and Rye Bran. Journal of Agricultural and Food Chemistry, 2007, 55, 9059-9065.	2.4	35
53	Biotransformation of hyoscyamine into scopolamine in transgenic tobacco cell cultures. Journal of Plant Physiology, 2007, 164, 521-524.	1.6	34
54	Metabolic flux phenotype of tobacco hairy roots engineered for increased geraniol production. Phytochemistry, 2014, 99, 73-85.	1.4	33

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55	Lipid content in 19 brackish and marine microalgae: influence of growth phase, salinity and temperature. Aquatic Ecology, 2013, 47, 415-424.	0.7	32
56	Contributions of the international plant science community to the fight against infectious diseases in humansâ€”part 2: Affordable drugs in edible plants for endemic and reâ€emerging diseases. Plant Biotechnology Journal, 2021, 19, 1921-1936.	4.1	31
57	Heterologous Expression of Vitreoscilla Hemoglobin (VHb) and Cultivation Conditions Affect the Alkaloid Profile of Hyoscyamus muticus Hairy Roots. Biotechnology Progress, 2006, 22, 350-358.	1.3	30
58	In-depth proteome mining of cultured<i>Catharanthus roseus</i>cells identifies candidate proteins involved in the synthesis and transport of secondary metabolites. Proteomics, 2012, 12, 3536-3547.	1.3	30
59	Comparison of plant-based expression platforms for the heterologous production of geraniol. Plant Cell, Tissue and Organ Culture, 2014, 117, 373.	1.2	28
60	Methyljasmonate Elicitation Increases Terpenoid Indole Alkaloid Accumulation in Rhazya stricta Hairy Root Cultures. Plants, 2019, 8, 534.	1.6	28
61	Analysis of tropane alkaloids with thermospray high-performance liquid chromatographyâ€”mass spectrometry. Biomedical Applications, 1991, 562, 737-744.	1.7	27
62	Anatalline and Other Methyl Jasmonate-Inducible Nicotine Alkaloids fromNicotiana tabacumcv. BY-2 Cell Cultures. Planta Medica, 2004, 70, 936-941.	0.7	26
63	Efficient plant regeneration from hairy root-derived protoplasts of Hyoscyamus muticus. Plant Cell Reports, 1995, 14, 738-42.	2.8	24
64	Cloudberry (<i>Rubus chamaemorus</i>) cell culture with bioactive substances: Establishment and mass propagation for industrial use. Engineering in Life Sciences, 2014, 14, 667-675.	2.0	24
65	Abietane-Type Diterpenoid Amides with Highly Potent and Selective Activity against <i>Leishmania donovani</i> and <i>Trypanosoma cruzi</i>. Journal of Natural Products, 2016, 79, 362-368.	1.5	23
66	Chicory Extracts and Sesquiterpene Lactones Show Potent Activity against Bacterial and Fungal Pathogens. Pharmaceuticals, 2021, 14, 941.	1.7	22
67	Expression ofVitreoscillaHemoglobin Enhances Growth ofHyoscyamus muticusHairy Root Cultures. Planta Medica, 2005, 71, 48-53.	0.7	21
68	Disposable Bioreactors for Cultivation of Plant Cell Cultures. , 2014, , 17-46.		21
69	Optimization of Invasion-Specific Effects of Betulin Derivatives on Prostate Cancer Cells through Lead Development. PLoS ONE, 2015, 10, e0126111.	1.1	20
70	Agrobacterium-Mediated Genetic Transformation of the Medicinal Plant Veratrum dahuricum. Plants, 2020, 9, 191.	1.6	19
71	Determination of terpenoid indole alkaloids in hairy roots of <i>Rhazya stricta</i> (Apocynaceae) by GCâ€MS. Phytochemical Analysis, 2015, 26, 331-338.	1.2	18
72	Analysis of Indole Alkaloids from Rhazya stricta Hairy Roots by Ultra-Performance Liquid Chromatography-Mass Spectrometry. Molecules, 2015, 20, 22621-22634.	1.7	18

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73	Genetically engineered hairy root cultures of Hyoscyamus senecionis and H. muticus: ploidy as a promising parameter in the metabolic engineering of tropane alkaloids. Plant Cell Reports, 2017, 36, 1615-1626.	2.8	18
74	Progress and Prospects of Hairy Root Research. , 2018, , 3-19.		18
75	Fermentation and dry fractionation increase bioactivity of cloudberry (Rubus chamaemorus). Food Chemistry, 2016, 197, 950-958.	4.2	17
76	Development ofin vitroTechniques for the Important Medicinal PlantVeratrum californicum. Planta Medica, 2006, 72, 1142-1148.	0.7	16
77	Analysis of the Interface between Primary and Secondary Metabolism in Catharanthus roseus Cell Cultures Using 13C-Stable Isotope Feeding and Coupled Mass Spectrometry. Molecular Plant, 2013, 6, 581-584.	3.9	16
78	Establishment of transgenic Rhazya stricta hairy roots to modulate terpenoid indole alkaloid production. Plant Cell Reports, 2015, 34, 1939-1952.	2.8	16
79	Production of recombinant allergens in plants. Phytochemistry Reviews, 2008, 7, 539-552.	3.1	14
80	Differential patterns of dehydroabietic acid biotransformation by Nicotiana tabacum and Catharanthus roseus cells. Journal of Biotechnology, 2012, 157, 287-294.	1.9	14
81	Metabolic Engineering of the Alkaloid Biosynthesis in Plants: Functional Genomics Approaches. , 2007, , 109-127.		13
82	Bioconversion to Raspberry Ketone is Achieved by Several Non-related Plant Cell Cultures. Frontiers in Plant Science, 2015, 6, 1035.	1.7	12
83	Heterologous expression of Vitreoscilla haemoglobin in barley (Hordeum vulgare). Plant Cell Reports, 2007, 26, 1773-1783.	2.8	11
84	Biotechnology of the medicinal plant Rhazya stricta: a little investigated member of the Apocynaceae family. Biotechnology Letters, 2017, 39, 829-840.	1.1	9
85	Natural Antimicrobials from Cloudberry (<i>Rubus chamaemorus</i>) Seeds by Sanding and Hydrothermal Extraction. ACS Food Science & Technology, 2021, 1, 917-927.	1.3	9
86	Effect of nitrogen and sucrose on the primary and secondary metabolism of transformed root cultures of Hyoscyamus muticus. , 1994, , 263-272.		9
87	Sanguiin H-6 Fractionated from Cloudberry (Rubus chamaemorus) Seeds Can Prevent the Methicillin-Resistant Staphylococcus aureus Biofilm Development during Wound Infection. Antibiotics, 2021, 10, 1481.	1.5	7
88	Interactions between Plant Bioactive Food Ingredients and Intestinal Floraâ€"Effects on Human Health. Bioscience and Microflora, 2004, 23, 67-80.	0.5	6
89	Spontaneous somatic embryogenesis and plant regeneration from root cultures of Peucedanum palustre. Plant Cell Reports, 1993, 12-12, 453-6.	2.8	4
90	Regulation of Secondary Metabolism in Tobacco Cell Cultures. Biotechnology in Agriculture and Forestry, 2004, , 231-249.	0.2	3

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91	Biotransformation of Cyclodextrine-Complexed Semisynthetic Betulin Derivatives by Plant Cells. Planta Medica, 2018, 84, 743-748.	0.7	1
92	Integrating Transcriptional and Metabolic Profiling to Unravel Secondary Metabolite Biosynthesis in Plants. , 2007, , 135-138.		0